ENVIRONMENTAL CHECKLIST FORM

1.	**Project Title:**	3180 Walnut Boulevard 10-Lot Subdivision (County File #CDSD21-09581)
2.	**Lead Agency Name and Address:**	Contra Costa County Department of Conservation and Development 30 Muir Road Martinez, CA 94553
3.	**Contact Person and Phone Number:**	Dominique Vogelpohl (925) 655-2880 Dominique.Vogelpohl@dcd.cccounty.us
4.	**Project Location:**	3180 Walnut Boulevard Walnut Creek, CA 94596 Assessor's Parcel Numbers: 180-240-002
5.	**Project Sponsor's Name and Address:**	Calibr Ventures c/o Andy Byde 1908 Cambridge Place Walnut Creek, CA 94598
6.	**General Plan Designation:**	The project site is located within the Single-Family Residential – Low Density (SL) General Plan Land Use designation.
7.	**Zoning:**	The project site is located within the R-20 Single-Family Residential (R-20) District.

8. **Description of Project:** The applicant is requesting approval of a vesting tentative map for a subdivision which proposes to subdivide the approximately 2.88-acre project site into 10 lots ranging in size from 9,292 to 17,659 square feet due to the use of California Density Bonus Law,Government Code Section 65915, which is explained further under *Density Bonus*. On each new lot, a 2-story, 3 to 5-bedroom single-family residence ranging in footprint size of approximately 2,442 to 2,913 square feet, is expected to be constructed (Exhibit 5, Exhibit 6). The proposed project would include a new private street to allow access to the site. Implementation of the project could include more than 15,000 cubic yards of grading. The project also includes exception requests to County Code Section 96-10 that requires utilities to be undergrounded, and Section 914-12.002 that requires detention basins to be at least 15 acre-feet of storage volume.

Density Bonus

The Density Bonus Law (found in California Government Code Sections 65915–65918) requires cities and counties to provide incentives or other concessions to housing developments to produce housing for very low income, lower income, moderate income, or senior housing to facilitate the development of affordable housing. A density bonus is provided to housing development projects that comply with at least one of the following criteria:

- At least 5 percent of the housing units are restricted to very low income residents.
- At least 10 percent of the housing units are restricted to lower income residents.

- At least 10 percent of the housing units in a for-sale common interest development are restricted to moderate income residents.

Density Bonus requests are processed pursuant to Section 65915 et seq. of the California Government Code and Title 8, Division 822, Chapter 822-2 (Residential Density Bonus) of the Ordinance Code.

The proposed project would restrict the home on Lot 4 for moderate income residents, meeting the requirement that at least 10 percent of the housing units be restricted to moderate income residents. As a result, the proposed project is eligible for a density bonus pursuant to the Residential Density Bonus Ordinance of the Ordinance Code. The calculations detailed below support the proposed project's eligibility under the Density Bonus Law.

Density Bonus Calculations

- Project site: 2.46 net acres (proposed right-of-way and road area is deducted)
- Gross site: 2.88 acres
- Base project: (2.88 acres) * (2.9 du/acre) = 8.35 du, fractional unit rounded to nine base units
- Target Unit(s): provide moderate income deed restricted on Lot 4
- Percent of Base Units: (1 moderate income unit)/(9 base units) = 12 percent of base units moderate income deed restricted
- Density Bonus Result: 12 percent moderate income deed restricted unit(s) qualifies for 7 percent density bonus
- Density Bonus Calculation: (9 d/u) * (0.07) = 0.63 d/u, fractional unit rounded to 1 d/u

Because the proposed project complies with the Density Bonus Law under California Government Code Section 65915, the applicant seeks approval of a concession to utilize gross acreage for the density calculation. A concession or incentive is defined as a reduction in site development standards or a modification of zoning code or architectural design requirements, such as a reduction in setback or minimum square footage requirements; or approval of mixed-use zoning; or other regulatory incentives or concessions that result in identifiable and actual cost reductions.

The table below includes a breakdown of the lot sizes and size of each proposed home. Because the proposed project complies with the Density Bonus Law under California Government Code Section 65915, the applicant seeks approval to waivers from R-20 development standards. The applicant proposes the following development standards listed below.

Project Summary and Alternative Development Standards

Lot #	Lot Area (20,000 square feet minimum)	Footprint Area in square feet	Depth (120 feet minimum)	Average Width (120 feet minimum)	Front yard Setback (25 feet minimum)	Side Yard Setback (15 feet, 35 feet aggregate, minimum)	Retaining Walls (structure setbacks in feet)
Lot 1	9,645	2,483	145.3	66.4	20	15 feet aggregate, (no yard less than 5 feet)	0
Lot 2	10,889	2,533	168.6	64.6	20	15 feet aggregate, (no yard less than 5 feet)	0
Lot 3	11,731	2,913	174.1	67.4	20	15 feet aggregate, (no yard less than 5 feet)	0
Lot 4*	10,764	2,533	150.6	71.5	1 foot to shunt turn around; 20 feet from street	15 feet aggregate, (no yard less than 5 feet)	0
Lot 5	13,270	2,533	132	100.5	20 feet to face of garage; 10 feet to living area	15 feet aggregate, (no yard less than 5 feet)	0
Lot 6	17,659	2,483	127.2	138.8	20	15 feet aggregate, (no yard less than 5 feet)	0
Lot 7	9,292	2,533	130.9	71	20	15 feet aggregate, (no yard less than 5 feet)	0

Lot #	Lot Area (20,000 square feet minimum)	Footprint Area in square feet	Depth (120 feet minimum)	Average Width (120 feet minimum)	Front yard Setback (25 feet minimum)	Side Yard Setback (15 feet, 35 feet aggregate, minimum)	Retaining Walls (structure setbacks in feet)
Lot 8	9,555	2,913	134.5	71	20	15 feet aggregate, (no yard less than 5 feet)	0
Lot 9	9,819	2,442	138.2	71	20	15 feet aggregate, (no yard less than 5 feet)	0
Lot 10	15,797	2,533	141.3	111.8	20	15 feet aggregate, (no yard less than 5 feet)	0
Notes: * Designated as an affordable unit.							

Site Access and Parking

Regional access to the site is provided via I-680, by way of Ygnacio Valley Road. Local access to the project site would be provided via Walnut Boulevard and a new private street. The new private street would be approximately 28 feet wide, with an 8-foot parking lane on one side and 5-foot side walk along the southeast section of the proposed road way, as required by Contra Costa County Fire Protection District (CCCFPD) standards. The proposed project would include an emergency vehicle access turnaround within Lot 4. In addition to street parking, each home would include garage space for 3 to 5 cars.

Roadway and Frontage Improvements

The proposed project would include approximately 0.16 acres of public road way dedication along Walnut Boulevard. Other frontage improvements would consist of approximately 927 square feet of sidewalk improvements.

Trees

The site currently contains 74 trees protected under the Contra Costa Tree Protection and Preservation Ordinance. In total, 31 of the 74 existing trees would be retained and would be protected during construction.

Landscaping

The proposed project would include approximately 71,948 square feet of on-site landscaping.

Lighting

Exterior lighting would be limited to lighting on the exterior of the proposed homes and would meet Ordinance Code requirements.

Utilities

The proposed project would utilize existing utility connections from the following providers:

- Electricity and Natural Gas: Pacific Gas and Electric Company (PG&E)
- Potable Water: East Bay Municipal Utility District (EBMUD)
- Wastewater: Central Contra Costa County Sanitary District (Central San)
- Solid Waste: Republic Services

Stormwater

A single landscaped bioretention basin facility would be located within the proposed project, consistent with C.3 stormwater requirements, located on Lot 10. Stormwater generated from the site would be cleaned and retained by the bioretention basins and then placed into a stormwater system. Cleaned and retained stormwater would be released into an existing 30-inch storm drain line within Walnut Boulevard.

Water

The proposed project would connect into an existing EBMUD domestic water line within Walnut Boulevard.

Wastewater

The proposed project would connect into an existing Central San 8-inch sewer line within Walnut Boulevard.

Phasing and Construction

For the purposes of this environmental analysis, the proposed project is assumed to be constructed in two phases beginning in the first quarter of 2023. Demolition of the existing single-family residence would occur within the first month of construction, followed by site

preparation and grading activities. The proposed project is expected to be operational in the first quarter of 2024.

9. **Surrounding Land Uses and Setting:** The project site is located in unincorporated Contra Costa County (County), California (Exhibit 1). As shown in Exhibit 2, the site is surrounded by the City of Walnut Creek, with the City of Lafayette to the west, the cities of Pleasant Hill and Concord to the north, unincorporated County to the south and Mount Diablo State Park to the east. The project site is located at 3180 Walnut Boulevard at the corner of Walnut Boulevard and View Lane (Exhibit 2).

   The approximately 2.88-acre project site corresponds to Accessor's Parcel Number (APN) 180-240-002. The project site is located within a residential area, and is surrounded by single-family homes. Walnut Heights Elementary School is located approximately 800 feet to the northeast. Interstate 680 (I-680) is located approximately 0.89 mile southwest of the site.

   The project site contains an existing vacant single-family residence with a detached garage, which would be demolished prior to project construction. The site was historically cultivated with an orchard since at least 1946. Orchard remnants, including mature and aging pecan, almond, and walnut trees, are distributed across the site. The site also contains native oaks, with the highest density of native oaks found along the south property line. A drainage swale parallels the entire north property line, terminating in a drainage inlet at the northwest corner of the site. The project site slopes down generally from northeast to southwest, ranging in elevation from approximately 232 feet above sea level (ASL) to approximately 192 feet ASL.

10. **Other Public Agencies Whose Approval is Required** (e.g., permits, financing approval, or participation agreement.)

    Contra Costa County Public Works Department, Contra Costa County Fire District, Contra Costa County Local Area Formation District (LAFCO), East Bay Municipal Utility District, and Central Contra Costa Sanitary District.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    Notice of the proposed project was sent to Native American tribes, as applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1. and Government Code Section 65352.3. A Tribal Consultation List from the Native American Heritage Commission, dated June 21, 2022, was used to identify tribes traditionally and culturally affiliated with the project area. No requests for consultation were received.

ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
$\mu g/m^3$	micrograms per cubic meter
ACM	asbestos-containing material
ADU	accessory dwelling unit
ARB	California Air Resources Board
ASL	Above Sea Level
ASTM	American Society for Testing and Materials
AUHSD	Acalanes Union High School District
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
BRA	Biological Resources Analysis
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CBC	California Building Standards Code
CCCFPD	Contra Costa County Fire Protection District
CCCWP	Contra Costa Clean Water Program
CCTA	Contra Costa Transportation Authority
CDD	Community Development Division
CDF	California Department of Finance
CDFW	California Department of Fish and Wildlife
Central San	Central Contra Costa County Sanitary District
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability
CESA	Act California Environmental Species Act
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWMP	Comprehensive Wastewater Management Plan
CWP	Contra Costa County Watershed Program
DBH	diameter at breast height
DPR	California Department of Parks and Recreation

DTSC	Department of Toxic Substances Control
du/acre	dwelling unit per acre
EBMUD	East Bay Municipal Utility District
EBP	East Bay Plain
EBRPD	East Bay Regional Park District
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FMMP	Farmland Mapping and Monitoring Program
GANDA	Garcia and Associates
GSA	Groundwater Sustainability Agency
HAZNET	Hazardous Waste Information System
ITE	Institute of Transportation Engineers
LBP	lead-based paint
LRA	Local Responsibility Area
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
mph	miles per hour
MRP	Municipal Regional Permit
MS4	Municipal Separate Storm Sewer System
NESHAP	National Emission Standard for Hazardous Air Pollutants
NFHL	National Flood Hazard Layer
NPDES	National Pollutant Discharge Elimination System
PG&E	Pacific Gas and Electric Company
PI	Plasticity Index
Qa	Holocene alluvium
R-20	Single-Family Residential
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SL	Single-Family Residential-Low
SRA	State Responsibility Area
SSMP	Sewer System Management Plan
State Water Board	California State Water Resources Control Board
SWF/LF	solid waste facility/landfill
SWPPP	Storm Water Pollution Prevention Plan
TCR	Tribal Cultural Resource

Tor	Pliocene to late Miocene Orinda formation
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOC	volatile organic compounds
WCSD	Walnut Creek School District
WSCP	Water Shortage Contingency Plan

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 with Mitigation Incorporated" as indicated by the checklist on the following pages.		
☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities/Services Systems	☐ Wildfire	☐ Mandatory Findings of Significance

Environmental 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.

06/21/2023

Dominique Vogelpohl, Project Planner
Contra Costa County
Department of Conservation & Development

Date

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
1. Aesthetics *Except as provided in Public Resources Code Section 21099, would the project:*				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Environmental Evaluation

Setting

The project site is located in unincorporated Contra Costa County, California and is surrounded by the City of Walnut Creek, with the City of Lafayette to the west, the cities of Pleasant Hill and Concord to the north, unincorporated County to the south and Mount Diablo State Park to the east. Shell Ridge Open Space lies approximately 0.19 mile to the northeast.

Diablo Foothills Regional Park, managed and maintained by the East Bay Regional Park District (EBRPD), is approximately 2.12 miles east of the project site, between Shell Ridge Open Space and Mount Diablo State Park. The 1,060-acre regional park offers hiking, biking, equestrian trails and panoramic views of the San Francisco Bay Regional. Diablo Hills Regional Park is bounded by two notable landforms: the Castle Rocks of Mount Diablo and the “camel back” ridges that form Shell Ridge. These ridges connect the park to Mount Diablo State Park to the east and Shell Ridge Open Space to the west. Mount Diablo State Park and Shell Ridge Open Space together account for 22,500 acres of open space, one of the largest open space areas of the East Bay Area. Diablo Foothills Regional Park also contains the 15-acre Castle Rock Regional Recreation Area.[1]

Mount Diablo State Park, managed and maintained by the California Department of Parks and Recreation (DPR), lies approximately 2.78 miles to the east of the project site. The more than 20,000-acre park offers hiking, biking, and equestrian trials as well as camping facilities. Mount Diablo’s summit has an elevation of 3,849 feet and offers views of the Farallon Islands to the west, the Sierra

[1] East Bay Regional Park District (EBRPD). 2022. Park Map. https://www.ebparks.org/sites/default/files/diablo_foothills_map.pdf. Accessed June 6, 2023.

Nevada to the east, Mount Loma Prieta to the south, and Lassen Peak nearly 200 miles to the north.[2] Mount Diablo is the most prominent topographical feature in the County.

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program. Existing law provides Caltrans with full possession and control of all State highways. The intent of the State Scenic Highway Program is to protect any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality by regulating land use and development along scenic highways.[3] The proposed project is not located within a State Scenic Highway corridor. The project site is located approximately 0.90 mile northeast of I-680 and approximately 1.63 miles east of I-24, both of which are officially designated State Scenic Highway.[4] The General Plan defines scenic routes as those roads, streets, or freeways which traverse a scenic corridor of relatively high visual or cultural value. One such scenic route is North Gate Road, located approximately 2.66 miles east of the project site.[5]

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less than significant impact. No scenic resources, as defined by the General Plan, are located on the project site. As discussed above, there are several scenic resources in within 3 miles of the project site, many of which offer panoramic views of the San Francisco Bay Area. A significant impact would occur if development of the proposed project would have a substantial adverse effect on a scenic vista. The nearest scenic corridor identified by the General Plan is North Gate Road, approximately 2.66 miles to the east of the project site.[6]

Figure 9-1 of the Open Space Element of the County General Plan identifies major scenic ridges and scenic waterways in the County.[7] According to this map, there are no designated scenic vista points in the area of the project site and therefore the project would not displace or obstruct views from a scenic vista. Furthermore, existing views of, and from the project site, would not be affected by the project because the proposed residential development would be built primarily at lower-lying elevations consistent with the existing surrounding residential neighborhood.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?

No impact. As discussed above, the proposed project is not located within a State Scenic Highway. I-680, south of the I-24 junction, is a designated State Scenic Highway and is located approximately 0.90 mile southwest of the project site. The next nearest designated State Scenic Highway is I-24, approximately 1.63 miles west of the project site. Because of topography and intervening

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[2] California Department of Parks and Recreation (DPR). 2018. Mount Diablo State Park. Website: parks.ca.gov/pages/517/files/MountDiabloFinalWebLayout2018.pdf. Accessed June 6, 2023.

[3] California Department of Transportation (Caltrans). 2022. Scenic Highways. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed June 6, 2023.

[4] California Department of Transportation (Caltrans). 2019. State Scenic Highway Interactive Map. Website: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed October 18, 2022.

[5] Contra Costa County. 2005. Contra Costa County General Plan. Transportation and Circulation Element, Figure 5-4 Scenic Routes Plan.

[6] Contra Costa County. 2005. Contra Costa County General Plan. Transportation and Circulation Element, Figure 5-4 Scenic Routes Plan.

[7] Contra Costa County. 2005. Contra Costa County General Plan. Open Space Element, Figure 9-1 Scenic Ridges and Waterways.

development, the site is not visible from these locations, thus precluding the potential for the project to substantially damage scenic resources within a State Scenic Highway. As such, no impact would occur.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than significant impact. Degradation of visual character or quality requires substantial changes to the existing appearance of a site by constructing elements that are poorly designed or that would conflict with the existing surroundings. As previously discussed, both Diablo Foothills Regional Park and Mount Diablo State Park provide panoramic views of the surrounding areas. Existing development, such as existing homes and vegetation, obstruct or partially obstruct existing views from the project site to the foothills and ridgelines of Mount Diablo to the east. Additionally, the proposed project is not near a scenic corridor as identified by the General Plan.

The proposed project would change the visual character of the site through the demolition of the existing single-family residence and the construction of 10 new single-family homes, as well as a new private roadway. However, the project site is located in a residentially developed area, with single-family homes surrounding the project site to the north, south, west, and east. Therefore, the proposed project would be compatible with the character of existing development in the immediate vicinity.

The project site is located in an urbanized area and is surrounded by existing roads and residential development. The project site is designated as SL and zoned as R-20. Though the proposed project proposes alternate development standards from the R-20 zone, the proposed waivers of the existing development standards are allowed under the State Density Bonus Law, without a rezone or general plan amendment. The alternative development standards include front yard setbacks, side yard setbacks, and lot areas that would be smaller than the minimums outlined in the Ordinance Code. Furthermore, the proposed project would consist of the construction of single-family homes and therefore would be consistent with the nature and character of existing development in the vicinity and site's designation of SL and zoning of R-20. Thus, the proposed project would have a less than significant impact on the existing visual character of the site and its surroundings as well as applicable zoning regulations.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than significant impact with mitigation incorporated. Minimal glare would be introduced in the area. The change in ambient nighttime light levels on the project site, and the extent to which project lighting would spill off the project site and affect adjacent light-sensitive areas, would determine whether the project could adversely affect nighttime views in the area. The new sources of light associated with the proposed new 10 homes would illuminate the surrounding properties and Grayson Creek; thus, the project lighting could create a potentially significant adverse environmental impact due to substantial new light. Consequently, the applicant is required to implement the following mitigation measures to reduce impacts on nighttime views.

Potential impact. The change in ambient nighttime light levels on the project site, and the extent to which project lighting would spill off the project site and affect adjacent light-sensitive areas, would determine whether the project could adversely affect nighttime views in the area. Project lighting could create a potentially significant adverse environmental impact due to substantial new light and glare on neighboring properties.

Mitigation Measures

MM AES-1 Prior to issuance of a building permit, a Lighting Plan shall be submitted for review and approval by the CDD. At a minimum, the plan shall include the following measures:

a. All outdoor lighting, including façade, yard, security, and streetlights, shall be oriented down, onto the project site or road.
b. Back shields or functionally similar design elements shall be installed on every lighting pole to reduce lighting from spilling off site, and to ensure that lighting remains within the project site.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Agriculture and Forestry 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:*				
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 nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Evaluation

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 Department 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 (CAL FIRE) 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 (ARB).

Setting

According to the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) California Important Farmland Finder, the project site is designated as Urban and Built-Up Land.[8] There are no designated agricultural lands or forested areas within the immediate project area.

Would the project:

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 nonagricultural use?

No impact. As stated above, the project site is designated as Urban and Built-Up Land. The project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert such land to nonagricultural use and no impacts would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?

No impact. The project site is zoned as R-20 by the Zoning map, which is a Single-Family Residential designation. The site and surrounding area are not encumbered by a Williamson Act Contract. As such, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act Contract and no impacts would occur.

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))?

No impact. As stated previously, the project site is zoned as R-20 by the Zoning map, which is a Single-Family Residential designation. The project site is not zoned as forest land or timberland. Therefore, the proposed project would not conflict with existing zoning or cause rezoning of forest land or timberland and no impacts would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. According to the California Public Resources Code, "forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.[9] The project site is zoned as R-20 and not zoned for forest use. This condition precludes the possibility of a conflict with a forest zoning designation. While there are existing trees on-site consisting of almond, valley oak, Monterey pine, coast redwood *(Sequoia sempervirens)*, holly oak *(Quercus ilex)*, California black walnut *(Juglans hindsii)*, English walnut *(Juglans regia)*, Siberian elm *(Ulmus pumila)*, olive *(Olea europea)*, plum *(Prunus sp.)*, pecan *(Carya illinoinensis)*, English hawthorn *(Crataegus laevigatum)*, Peruvian pepper *(Schinus molle)*, apricot, persimmon *(Diospyros sp.)*, and privet *(Ligustrum lucidum)* species,[10]

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[8] Traverso Tree Service. 2021. Arborist Report for 3180 Walnut Boulevard.
[9] Thomson Reuters Westlaw. 2019. California Code, Public Resources Code 12220.
[10] Traverso Tree Service. 2021. Arborist Report for 3180 Walnut Boulevard.

the tree species do not constitute forest resources. The project site does not contain nor is adjacent to any forest land. As such, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. No impacts would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?

No impact. As discussed throughout this section, the proposed project would not result in impacts to mapped farmland or forest land. The proposed project would not result in any other changes that could result in the conversion of farmland to non-agriculture uses or the conversion of forest land to non-forest uses because neither agricultural nor forest land exist on the project site or in its vicinity. Therefore, no impact would occur.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Air Quality *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.* *Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Evaluation

Setting

This section evaluates the potential effects on air quality that may result from implementation of the proposed project. This analysis is based on an *Air Quality, Greenhouse Gases, and Energy Supporting Information* Report completed by FirstCarbon Solutions for the proposed project in October 2022.

Air pollutants relevant to the CEQA checklist questions for Air Quality are briefly described below.

- Ozone is a gas that is formed when reactive organic gases (ROG) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are conducive to its formation. Health effects can include, but not be limited to irritated respiratory system, reduced lung function, and aggravated chronic lung diseases.
- ROG, or volatile organic compounds (VOCs), are defined as any compound of carbon—excluding carbon monoxide (CO), carbon dioxide (CO_2), carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROG and VOCs, the two terms are often used interchangeably.
- Nitrogen dioxide (NO_2) forms quickly from NO_X emissions. Health effects from NO_2 can include the following: potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contribution to atmospheric discoloration; increased visits to hospital for respiratory illnesses.

- CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines—unlike ozone—and motor vehicles operating at slow speeds are a primary source of CO in the Sonoma County region, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Potential health effects from CO depends on exposure and can include slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.
- Respirable Particulate Matter (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$) consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. Health effects from short-term exposure (hours/days) can include the following: irrigation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. Health effects from long-term exposure can include the following: reduced lung function; chronic bronchitis; changes in lung morphology; or death.
- Toxic Air Contaminants (TACs) refer to a diverse group of air pollutants that can affect human health, but have not had ambient air quality standards established for them. Diesel particulate matter (DPM) is a toxic air contaminant that is emitted from construction equipment and diesel fueled vehicles and trucks. Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. The proposed project is located in unincorporated Contra Costa County. It is under the jurisdiction of the San Francisco Bay Area Air Basin (Air Basin), where the Bay Area Air Quality Management District (BAAQMD) regulates air quality. The United States Environmental Protection Agency (EPA) is responsible for identifying nonattainment and attainment areas for each criteria pollutant within the Air Basin. The Air Basin is designated nonattainment for State standards for 1-hour and 8-hour ozone, 24-hour respirable particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), annual PM_{10}, and annual fine particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$).[11]

[11] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act. Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~/media/files/planning-and research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed June 6, 2023.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant with mitigation incorporated. The BAAQMD has adopted several air quality policies and plans to address regional air quality standards, the most recent of which is the 2017 Clean Air Plan. The 2017 Clean Air Plan was adopted in April of 2017 and serves as the regional Air Quality Plan (AQP) for the Air Basin for attaining National Ambient Air Quality Standards (NAAQS). The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate. The 2017 Clean Air Plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants and greenhouse gas (GHG) emissions. The EPA has established NAAQS for six of some of the most common air pollutants—carbon monoxide, lead, ground level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants. GHGs are gaseous compounds in the atmosphere that are capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, GHGs are responsible for the greenhouse effect, which ultimately leads to global warming. The 2017 Clean Air Plan also accounts for projections of population growth provided by the Association of Bay Area Governments (ABAG) and Vehicle Miles Traveled (VMT) provided by the Metropolitan Transportation Commission (MTC) and identifies strategies to bring regional emissions into compliance with federal and State air quality standards. A project would be judged to conflict with or obstruct implementation of the 2017 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process.

The BAAQMD does not provide a numerical threshold of significance for project-level consistency analysis with AQPs. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- Criterion 1: Does the project support the primary goals of the AQP?
- Criterion 2: Does the project include applicable control measures from the AQP?
- Criterion 3: Does the project disrupt or hinder the implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan, the current AQP to date, are to:

- Attain air quality standards.
- Reduce population exposure to unhealthy air and protect public health in the Bay Area.
- Reduce GHG emissions and protect the climate.

A measure for determining whether the project supports the primary goals of the AQP is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. This measure is determined by evaluating whether the proposed project was reasonably accounted for the in the AQP.

The County's General Plan was updated in January 2005,[12] which was prior to the BAAQMD's adoption of the latest 2017 AQP. The project site is designated as Single-Family Residential-Low (SL) by the General Plan Land Use Element and is zoned as R-20 according to the Contra Costa County Zoning Map.

The General Plan states the SL land use designation allows 1.0 to 2.9 single-family units per net acre; based on the site acreage of 2.88 gross acres, a maximum of 9 base units would be allowed.[13] As described in Section 1.4.1–Density Bonus, the State Density Bonus Law requires cities and counties to grant a density bonus and other incentives or concessions to housing development projects in which any of the following are provided:

- At least 5 percent of the housing units are restricted to very low income residents.
- At least 10 percent of the housing units are restricted to lower income residents.
- At least 10 percent of the housing units in a for-sale common interest development are restricted to moderate income residents.

The proposed project would restrict the home on Lot 4 for moderate income residents, ensuring that at least 10 percent of the proposed housing units would be restricted to moderate income residents. As a result, consistent with State Government Code Section 65915(f)(4), the proposed project would be permitted a 7 percent increase in the allowed residential unit density, allowing for an additional unit on the project site.[14]

As the BAAQMD's latest AQP utilizes growth projections from Plan Bay Area 2040, which relies on growth projections and land use patterns from local general plans and was adopted after the adoption of the City's General Plan, development of the project site has been reasonably accounted for in the BAAQMD's latest AQP.

Furthermore, as discussed in Impact 2.3(b), implementation of the proposed project would not exceed the BAAQMD operational or construction thresholds for criteria pollutants on an average daily or annual basis. Therefore, the proposed project would be consistent with the first criterion.

Criterion 2

The 2017 Clean Air Plan contains control measures to reduce air pollutants and GHGs at the local, regional, and global levels. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2017 Clean Air Plan contains many control measures designed to protect the climate and promote mixed use, compact development to reduce vehicle emissions and exposure to pollutants from stationary mobile sources. The 2017 Clean Air Plan also includes an account of the implementation status of control measures identified in the prior 2010 Clean Air Plan.

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[12] Contra Costa County. 2005. Department of Conservation and Development. General Plan 2020. Website: https://www.contracosta.ca.gov/4732/General-Plan. Accessed June 6, 2023.

[13] Contra Costa County. 2005. Land use Element (reprint 2010). Website: https://www.contracosta.ca.gov/DocumentCenter/View/30913/Ch3-Land-Use-Element?bidId=. Accessed June 6, 2023.

[14] 9 (d/u) X (0.07) = 0.63 d/u; fractional unit rounded to 1 d/u

The table below lists the Clean Air Plan policies relevant to the proposed project and evaluates the consistency with the policies. As shown below, the proposed project would be consistent with applicable measures.

Project Consistency with Applicable Clean Air Plan Control Measures

Control Measure	Project Consistency
Buildings Control Measures	
BL1: Green Buildings	**Consistent.** The proposed project would not conflict with implementation of this measure. The proposed project would comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
BL4: Urban Heat Island Mitigation	**Consistent.** The proposed project would include a landscaped and irrigated bioretention basin area, which would serve to reduce stormwater runoff. The proposed project has also been designed to maximize the existing trees on-site which would also reduce the urban heat island effect.
Energy Control Measures	
EN1: Decarbonize Electricity Generation	**Consistent.** The project applicant would, at a minimum, be required to conform to the energy efficiency requirements of the California Building Standards Code, also known as Title 24. For example, the proposed project would install rooftop solar photovoltaic systems (PV) capable of generating renewable electricity as well as low-flow plumbing fixtures and irrigation heads compliant with Title 24 Standards. Furthermore, the proposed project would include high-efficiency indoor and outdoor lighting. These project design features would decrease electricity demand compared to standard building construction.
EN2: Decrease Electricity Demand	
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	**Consistent.** Stormwater generated from the site would be cleaned and retained by the bioretention basin and then discharged into the stormwater system. The basin would be landscaped to provide an attractive feature visible within the project and from Walnut Boulevard. The project has been designed to maximize the existing trees on-site. In total, 29 of the 74 existing trees would be retained and would be protected during construction.
WA3: Green Waste Diversion	**Consistent.** The waste service provider for the proposed project would be required to meet the Assembly Bill 341 (AB 341) and Senate Bills 939 (SB 939) and SB 1374 requirements that require waste service providers to divert green waste. In addition, AB 1383 went into effect on January 1, 2022, which

Control Measure	Project Consistency
	aims to reduce organic waste disposal by 75 percent by 2025 and to secure 20 percent of surplus edible food for the food insecure by 2025. Republic Services provides green waste service for Contra Costa County and would provide all new residents with green waste bins. All vegetation refuse generated during operation of the proposed project would be disposed of off-site.
WA4: Recycling and Waste Reduction	**Consistent.** The waste service provider for the proposed project would be required to meet the AB 341, SB 939 and SB 1374 requirements that require recyclable waste to be recycled and remove 75 percent from the landfill waste stream by 2020. The proposed would connect into an existing Contra Costa Sanitary District (Central San) 8" sewer line within Walnut Boulevard.
Stationary Control Measures	
SS36: Particulate Matter from Trackout	**Consistent with mitigation.** BAAQMD's recommended mitigation measures for construction fugitive dust control would be incorporated into Mitigation Measure (MM) AIR-1 and implemented to reduce fugitive dust and trackout during project construction. In addition, mud and dirt that may be tracked out onto the nearby public roads during construction activities shall be removed promptly by the contractor based on BAAQMD's requirements. Therefore, the proposed project would be consistent with this measure after implementation of MM AIR-1.
SS37: Particulate Matter from Asphalt Operations	**Consistent.** Asphalt used during the construction of the proposed project would be subject to BAAQMD Regulation 8, Rule 15-Emulsified and Liquid Asphalts. Although this rule does not directly apply to the proposed project, it does limit the reactive organic gas (ROG) content of asphalt available for use during construction through regulating the sale and use of asphalt. By using asphalt from facilities that meet BAAQMD regulations, the proposed project would be consistent with this Clean Air Plan measure.

Control Measure	Project Consistency
Transportation Control Measures	
TR9: Bicycle and Pedestrian Access and Facilities	**Consistent.** The proposed project would incorporate a 5-foot sidewalk along the southeast section of the new proposed roadway off and along the righthand side of Walnut Boulevard. Sidewalk currently exists along the majority of Walnut Boulevard. Walnut Boulevard currently supports Class III Bicycle facilities on each frontage of the roadway. One Bay Area Rapid Transit (BART) bus stop (Walnut Boulevard and Fraser Drive) serving Bus Line 602 is 400 feet east of the project site. Therefore, the proposed project would incorporate bicycle and pedestrian access in the project design and would be in close proximity to public transit. The proposed project would not conflict with the BAAQMD's efforts to encourage the uses of bicycle and pedestrian facilities as well as transit services.
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed June 6, 2023.	

In summary, the proposed project would not conflict with any applicable measures under the 2017 Clean Air Plan after the implementation of Mitigation Measure (MM) AIR-1; therefore, the proposed project would be consistent with Criterion 2 after incorporation of mitigation.

Criterion 3

The proposed project would constitute the development and operation of 10 single-family homes. The proposed project would be consistent with applicable control measures such as supporting transit, pedestrian, or bicycle facilities. In addition, the proposed project would comply with energy efficiency standards contained in the California Building Code and maintaining landscaping across the project site. Considering this information, the proposed project would not disrupt or hinder implementation of any AQP control measures. Therefore, the proposed project is consistent with Criterion 3.

Summary

As addressed above, the proposed project would be consistent with all three criteria after the incorporation of MM AIR-1 and the proposed project would not conflict with the 2017 Clean Air Plan. Therefore, impacts associated with conflicting with or obstructing implementation of the 2017 Clean Air Plan would be less than significant with mitigation.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

Less than significant with mitigation incorporated. This impact is related to the cumulative effect of a project's regional criteria pollutant emissions. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants is a result of past and present development within the Air Basin, and this

regional impact is a cumulative impact. Therefore, new development projects (such as the proposed project) within the Air Basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size by itself to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when evaluated in combination with past, present, and future development projects.

Potential localized and regional impacts would result in exceedances of State or federal standards for nitrogen oxide (NO_X), particulate matter (PM_{10} and $PM_{2.5}$), or carbon monoxide (CO). NO_X emissions are of concern because of potential health impacts from exposure to NO_X emissions during construction and operation and as a precursor in the formation of airborne ozone. PM_{10} and $PM_{2.5}$ are of particular concern during construction because of the potential to emit exhaust emissions from the operation of off-road construction equipment and fugitive dust during earth-disturbing activities (construction fugitive dust). CO emissions are of particular concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion.

ROG emissions are also important because of their participation in the formation of ground level ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the project's incremental effects would be cumulatively considerable. Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the project would result in regional emissions that exceed the BAAQMD regional thresholds of significance for construction and operations on a project level. The thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on the project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. Construction and operational emissions are discussed separately below.

Construction Emissions

Construction Fugitive Dust

As previously mentioned, fugitive dust (PM_{10} and $PM_{2.5}$) would be generated during earthmoving activities but would largely remain localized near the project site.

The BAAQMD does not recommend a numerical threshold for fugitive dust particulate matter emissions. Instead, the BAAQMD bases the determination of significance for fugitive dust on considering the control measures to be implemented. If all appropriate emissions control measures are implemented as recommended by the BAAQMD, then fugitive dust emissions during construction are not considered significant. These measures may include, but are not limited to,

watering or seeding disturbed areas, covering stockpiles of dirt or aggregate, or other soil stabilization practices.

In addition, the BAAQMD recommends that a series of mitigation measures be implemented for all construction projects, which includes various dust control measures, such as watering disturbed areas daily and reducing vehicle speeds on unpaved roads. As such, the construction mitigation measures recommended by the BAAQMD are included herein as MM AIR-1 to ensure that adequate dust control measures are implemented at the project site. With the incorporation of MM AIR-1, short-term construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation would be less than significant for fugitive dust.

Construction Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

CalEEMod, Version 2020.4.0, was used to estimate the proposed project's construction emissions. CalEEMod provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the BAAQMD for estimating project emissions. Estimated construction emissions are compared with the applicable thresholds of significance established by the BAAQMD to assess ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ construction emissions to determine significance for this criterion.

For purposes of this analysis, construction of the proposed project is expected to start in the first quarter of 2023 and conclude in the first quarter of 2024. If the construction schedule is moved to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements that would affect future construction equipment. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by CEQA Guidelines, and provides a conservative analysis of expected emissions.

As shown in the table below, the proposed project would be constructed in 269 net workdays. For a more detailed description of the construction parameters used in estimating air pollutant emissions modeling.[15]

Preliminary Construction Schedule

Construction Activity	Start Date	End Date	Working Days per Week	Total Number of Working Days
Demolition	3/1/2023	3/28/2023	5	20
Site Preparation	3/29/2023	3/31/2023	5	3
Grading	4/1/2023	4/10/2023	5	6
Building Construction	4/11/2023	2/12/2024	5	220
Paving	2/13/2024	2/26/2024	5	10
Architectural Coating	2/27/2024	3/11/2024	5	10

[15] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

Construction Activity	Start Date	End Date	Working Days per Week	Total Number of Working Days
Source: CalEEMod Output Files, FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.				

The calculations of pollutant emissions from the construction equipment account for the type of equipment, horsepower, and load factors of the equipment, along with the duration of use.[16] The table below presents the average daily construction emissions compared with the BAAQMD's significance thresholds.

Construction Emissions

Construction Activity	Air Pollutants[1] (tons/year)			
	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Demolition	0.02	0.15	0.01	0.01
Site Preparation	0.00	0.02	0.00	0.00
Grading	0.00	0.04	0.00	0.00
Building Construction 2023	0.17	1.36	0.06	0.06
Building Construction 2024	0.03	0.21	0.01	0.01
Paving	0.01	0.04	0.00	0.00
Architectural Coating	0.05	0.01	0.00	0.00
Total Emissions (tons)	**0.28**	**1.83**	**0.08**	**0.08**
Daily Average				
Total Emissions (lbs)	562.76	3,660.40	157.40	150.20
Average Daily Emissions (lbs/day)[2]	2.09	13.61	0.59	0.56
Significance Threshold (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Totals may not add up due to rounding. Calculations use unrounded totals.
[2] Calculated by dividing the total lbs of emissions by the total number of nonoverlapping working days of construction (269 workdays).
lbs = pounds
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
Source: CalEEMod Output, FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

[16] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

As shown in Table *Construction Emissions*, the construction emissions from all construction activities are below the recommended thresholds of significance. Therefore, project construction would have less than significant impact related to emissions of ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$. As previously discussed, the proposed project would implement MM AIR-1 for dust control to reduce potential impacts related to fugitive dust emissions during project construction. Therefore, project construction would have a less than significant impact with mitigation.

Operational Emissions

Operational Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

Operational emissions would include area, energy, and mobile sources. Area sources include emissions from architectural coatings, consumer products, and landscape equipment, while energy sources include emissions from the combustion of natural gas for water and space heating. The proposed project would be designed all-electric; however, natural gas use is included in CalEEMod model as a default option and provides a conservative estimate of emissions. Mobile sources include exhaust and road dust emissions from the vehicles that would travel to and from the project site. Pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Project operations were analyzed starting in 2024, the first calendar year of potential operation. The major sources for proposed operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ include motor vehicle traffic, landscaping, and the occasional repainting of buildings.

The average daily and annual emissions are presented in the table below. Operational emissions of the respective pollutants were calculated using CalEEMod, Version 2020.4.0.[17]

Operational Emissions (Unmitigated)

Emissions Source	Criteria Pollutants			
	ROG	NO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Annual Emissions Summary (tons/year)				
Area	0.18	<0.01	0.01	0.01
Energy	0.00	0.02	<0.01	<0.01
Mobile (Motor Vehicles)	0.04	0.04	0.08	0.02
Total Project Emissions	**0.22**	**0.06**	**0.09**	**0.04**
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**
Average Daily Emissions Summary (lbs/day)				
Project Emissions (lbs/year)	450	128	189	72
Average Daily Project Emissions (lbs/day)[1]	**1.23**	**0.35**	**0.52**	**0.20**
Thresholds of Significance	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

[17] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

Emissions Source	Criteria Pollutants			
	ROG	NO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)

Notes:
NO_X = nitrogen oxide
PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
ROG = reactive organic gases
[1] For average daily emissions, the proposed project is assumed to operate 365 days per year. Therefore, the annual tonnage of emissions is multiplied by 2,000 pounds per ton to identify total pounds of emissions and divided by 365 days per year to identify average daily emissions.
Source: CalEEMod Output, FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

As shown in Table *Operational Emissions*, the proposed project would not exceed the BAAQMD's thresholds of significance during operation, indicating that ongoing project operations would not be considered to have the potential to generate a significant quantity of air pollutants. Therefore, long-term operational impacts associated with criteria pollutant emissions generated by the proposed project would be less than significant.

Operational Carbon Monoxide Hotspot

The CO emissions from traffic generated by the proposed project could be a concern at the local level. Congested intersections can result in the potential for high, localized concentrations of CO, known as a CO hotspot.

The BAAQMD recommends a screening analysis to determine whether a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is necessary. The proposed project would result in a less than significant impact to air quality for local CO if all the following screening criteria are met:

1. The project is consistent with an applicable Congestion Management Program established by the County Congestion Management Agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; and
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Consistency With an Applicable Congestion Management Program

Per the County of Contra Costa Transportation Analysis Guidelines,[18] projects of 20 residential units or less would be expected to have less than significant VMT impacts. As a result, since the proposed project would develop 10 residential units, the proposed project would be below the screening

[18] Contra Costa County Conservation and Development Department. Public Works Department 2020. Contra Costa County Transportation Analysis Guidelines. VMT Screening Criteria 2020.

threshold. Therefore, the proposed project would be consistent with the County guidelines and the applicable congestion management agency.

Increase Traffic Volumes at Affected Intersections to More Than 44,000 Vehicles Per Hour

As described previously, the proposed project would not exceed the County Transportation Analysis Guidelines threshold and as such, no transportation impact analysis was required for the proposed project, and the project would be expected to result in less than significant impacts related to VMT. Thus, the proposed project's anticipated trip generation would not be expected to result in a significant increase in traffic volumes on nearby intersections. Therefore, the addition of proposed project traffic volumes would not result in nearby intersections experiencing traffic volumes of 44,000 or more vehicles per hour.

Increase Traffic Volumes at Affected Intersections Where Vertical and/or Horizontal Mixing Is Substantially Limited

CO hotspots can still occur when a transportation facility's design or orientation prevents the adequate dispersion of CO emissions from vehicles, resulting in the accumulation of local CO concentrations. The design or orientation of a transportation facility that may prevent the dispersion of CO emissions include tunnels, parking garages, bridge underpasses, natural or urban canyons, below-grade roadways, or other features where vertical or horizontal atmospheric mixing is substantially limited. However, adjacent roadways that would receive new vehicle trips generated by the proposed project do not include transportation facilities where vertical or horizontal atmospheric mixing is substantially limited. Walnut Boulevard would receive vehicle trips generated by the proposed project and is an open surface roadway with none of the design features discussed above that could prevent atmospheric mixing.

In summary, the proposed project is consistent with the local Congestion Management Program. Therefore, based on the above criteria, the proposed project would not exceed the CO screening criteria and would have a less than significant impact related to CO.

Summary

Impacts related to a cumulatively considerable net increase of any criteria pollutant would be less than significant. With the incorporation of MM AIR-1, short-term construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation would be less than significant with mitigation for fugitive dust. Emissions from all construction and operational activities are below the recommended thresholds of significance. Therefore, the proposed project would have less than significant impact related to cumulative emissions of ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$. In addition, the proposed project would have a less than significant impact related to CO. Therefore, this impact is less than significant with incorporation of MM AIR-1.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact with mitigation incorporated. The BAAQMD defines a sensitive receptor as the following: "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas." As specified by the BAAQMD,

health risk and hazard impacts should be analyzed for sensitive receptors within a 1,000-foot radius of the project site.[19] The closest existing sensitive receptors in each direction include the following:

- Single-family residences immediately adjacent to the project site's north, east, south, and west property boundary.

The following four criteria were applied to determine the significance of project emissions to sensitive receptors. The proposed project is considered to have a potentially significant impact if:

- **Criterion 1:** Construction of the project would result in an exceedance of the health risk significance thresholds.
- **Criterion 2:** The cumulative health impact would result in an exceedance of the cumulative health risk significance thresholds.
- **Criterion 3:** Operation of the project would result in an exceedance of the health risk significance thresholds.
- **Criterion 4:** A CO hotspot assessment demonstrates that the project would result in the development of a CO hotspot that could cause an exceedance of the CO ambient air quality standards.

Criterion 1: Project Construction Toxic Air Pollutants

An assessment was made of the potential health impacts to surrounding sensitive receptors resulting from TAC emissions during construction. A summary of the assessment is provided below.[20]

DPM has been identified by the California Air Resources Board (ARB) as a carcinogenic substance. Major sources of DPM include off-road construction equipment and heavy-duty delivery truck and worker activities. For purposes of this analysis, DPM is represented as exhaust emissions of $PM_{2.5}$.

Estimation of Construction DPM Emissions

Construction DPM emissions (represented as emission of exhaust $PM_{2.5}$) were estimated using CalEEMod, Version 2020.4.0, as described under the discussion for Impact 2.3(b). As presented in Table *Preliminary Construction Schedule*, the proposed project's construction is anticipated to occur from the first quarter of 2023 through the first quarter of 2024. Construction emissions were calculated for each construction activity, as displayed in Table *Construction Emissions*. On-site and off-site emissions generated during project construction were modeled with a working schedule of 8 hours per day, 5 days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365 day-per-year averaging period.[21]

Based on the analysis presented in this section, emissions were estimated for unmitigated project construction and a mitigated scenario that included cleaner construction equipment. Equipment

[19] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed June 6, 2023.

[20] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

[21] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

tiers refer to a generation of emission standards established by the EPA and ARB that apply to diesel engines in off-road equipment. The "tier" of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the greater the tier it is likely to have. Excluding engines greater than 750 horsepower, Tier 1 engines were manufactured generally between 1996 and 2003. Tier 2 engines were manufactured between 2001 and 2007. Tier 3 engines were manufactured between 2006 and 2011. Tier 4 engines are the newest and some incorporate hybrid electric technology.

The table below summarizes the emission rates of unmitigated and mitigated DPM during construction of the proposed project, as analyzed for construction of the entire project.

Project DPM Construction Emissions

Scenario	On-site DPM—Area (tons/year)	Off-site DPM—Road Segments (tons/year)[1]	Total Local DPM Emissions (tons/year)
Unmitigated Project Construction DPM	0.07447	0.00063	0.0751
Mitigated Project Construction DPM	0.00463	0.00063	0.00526

Notes:
DPM = diesel particulate matter
[1] In AERMOD and HARP2 model, the off-site emissions are adjusted to represent construction vehicle travel routes from within approximately 1,000 feet of the project site. Off-site emissions shown here do not reflect the 1,000-foot adjustment.
Source: CalEEMod Output and Construction Health Risk Assessment Calculations, FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

Estimation of Cancer Risks and Hazards

The BAAQMD has developed a set of guidelines for estimating cancer risks that provide adjustment factors that emphasize the increased sensitivities and susceptibility of young children to exposures to TACs.[22,23] These adjustment factors include age-sensitivity weighting factors, age-specific daily breathing rates, and age-specific time-at-home factors. As previously discussed, the Maximally Impacted Sensitive Receptor (MIR) would be at a single-family residence immediately adjacent to the project site to the west. The following equations are drawn from the California Office of Environmental Health Hazard Assessment (OEHHA) HRA guidelines and were adjusted with values identified for adjustment in the BAAQMD guidelines.

$$\text{Cancer Risk} = \text{CPF} \times \text{DOSE}_{\text{AIR}} \times \text{ASP} \times \text{ED/AT} \times \text{FAH} \qquad \text{(EQ-1)}$$

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified

[22] Bay Area Air Quality Management District (BAAQMD). 2016. BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines. December. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en. Accessed June 6, 2023.

[23] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol. December. Website: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed June 6, 2023.

exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

CPF = Inhalation Cancer Potency Factor (1.1 for DPM)
ASP = Age Sensitivity Factor (see table below)
ED = Exposure Duration (duration of construction activity)
AT = Averaging Time for lifetime cancer risk (70 years expressed in days)
FAH = Fraction of time At Home (see table below)

$$DOSE_{AIR} = C_{AIR} \times DBR \times A \times EF \qquad \text{(EQ-2)}$$

Where:

C_{AIR} = TAC concentration from air dispersion model (µg/m^3)
DBR = Daily Breathing Rate (see table below)
A = Inhalation Absorption factor (1)
EF = Exposure Frequency (see table below)

The BAAQMD- and OEHHB-recommended values for the various cancer risk parameters, shown in EQ-1 and EQ-2, are provided in the table below.

Exposure Assumptions for Cancer Risk Calculations

Receptor Type	Duration During Construction (Years)	Fraction of Time at Home (FAH)	Exposure Frequency (EF) (Days/Year)	Age Sensitivity Factors (ASF)	Daily Breathing Rate (DBR) (L/kg-day)
Residences[1]					
Third Trimester	0.25	1	350	10	361
0 to <2 Years	1.1	1	350	10	1,090

Notes:
(L/kg-day) = liters per kilogram body weight per day.
[1] The daily breathing rates for residential receptors assume the 95th percentile breathing rates for all individuals. BAAQMD assumes residential receptors exposure occurs 24 hours per day for 350 days per year.
All sensitive receptors were modeled as residential receptors, which presents a conservative estimate of health impacts for nonresidential sensitive receptor land uses.
Sources:
Bay Area Air Quality Management District (BAAQMD). 2016. BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines. December.
Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. February.
FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

Estimation of Non-Cancer Chronic Hazards

TACs can also cause chronic (long-term) effects related to non-cancer illnesses such as reproductive effects or birth defects, or adverse environmental effects. Non-cancer health risks are conveyed in terms of the hazard index (HI), a ratio of the predicted concentration of the facility's reported TAC

emissions to a concentration considered acceptable to public health professionals. A significant risk is defined as an HI of 1 or greater. An HI of less than 1 indicates that no significant health risks are expected from the facility's TAC emissions. The relationship for the non-cancer hazards of TACs is given by the following equation:

$$HI = C_{ann}/REL$$

Where:

HI = Hazard Index: an expression of the potential for chronic non-cancer health risks
C_{ann} = Annual average TAC concentration ($\mu g/m^3$)
REL = Reference Exposure Level: the DPM concentration at which no adverse health effects are anticipated

Annual concentrations of DPM as predicted by the air dispersion model are used to estimate chronic non-cancer hazards. The OEHHA has defined a REL for DPM of 5 $\mu g/m^3$.

Estimation of Health Risks and Hazards from Project Construction

To assess impacts to off-site sensitive receptors, receptor locations within the American Meteorological Society/EPA Regulatory Model (AERMOD) were placed at locations of existing residences and schools located in the vicinity of the project boundary. As previously discussed, project construction is anticipated to start in the first quarter of 2023 and conclude in the first quarter of 2024. The following AERMOD modeling parameters were utilized to identify the DPM concentration at identified receptors.

Sensitive receptors (e.g., schools, daycare facilities, hospitals, care facilities, residences) within approximately 1,000 feet of the project boundary were represented in the model with discrete Cartesian receptors at a flagpole height of ground level for conservative estimate. For schools and parks, a boundary of discrete receptors was placed around the perimeter of that land use to identify potential impacts at the closest point to the project site. The sensitive receptors to the project site represented in the air dispersion modeling include the following:

- Receptor types identified within approximately 1,000 feet of the project boundary included residential, school, and park receptors.
  - The closest sensitive receptors are single-family residences immediately adjacent to the project site boundary to the north, east, south, and west.
  - Walnut Heights Elementary School is approximately 700 feet east of the project site.
  - A public park is approximately 600 feet southwest of the project site

Emissions were characterized in the model using area and line volume sources to represent different activities. The following describes the emission sources as represented in AERMOD:

- On-site construction activities are represented with one polygon area source across the entire project site.
- Off-site construction hauling and vendor truck operation for project construction were represented with line volume sources on Walnut Boulevard. Off-site emissions were adjusted

to account for off-site emissions that would occur within 1,000 feet of the project site (see Off-Site $PM_{2.5}$ Exhaust Adjustment Sheet[24]).

Other AERMOD inputs are described below:

- AERMOD's default regulatory dispersion option was selected. One-hour and annual average options were chosen for pollutant $PM_{2.5}$ (DPM was represented as exhaust $PM_{2.5}$).
- The Urban dispersion coefficient was used as greater than 50 percent of the surrounding three kilometers is developed. For Urban Groups option under Source Pathway, Walnut Creek City and population of 69,695 was used. For Variable Emissions option under Source Pathway, variable factor 4.2 was applied for 8 hours a day on weekdays (all other hours and weekends had variable factor of zero) to reflect that annual emissions are adjusted on weekdays for conservative estimate.
- Meteorological data from the Livermore Municipal Airport Air Monitoring Station was used for lower atmospheric meteorological data. This station was selected as it resembles physical site characteristics and elevation generally representative of the project site. The Oakland Airport Air Monitoring Station provides preprocessed meteorological data for upper atmospheric conditions in the region. Both monitoring stations cover the years 2012-2017. The model used all years of available meteorological data.

To facilitate a standard calculation platform, ARB has developed the Hotspots Analysis and Reporting Program (HARP2) software to identify the health risks associated with various TACs.[25] In this analysis, HARP2 was utilized to estimate the health risks associated with DPM generated during construction activities. Since the project construction lasts 13 months, exposure duration was set to be 1.1 years.

The MIR during project construction were found at a residence immediately adjacent to the project site to the west. The table below presents a summary of the proposed project's construction cancer risk, chronic non-cancer hazard, and annual $PM_{2.5}$ concentration impacts at each MIR. For informational purposes, the table below also presents risks and hazards associated with the maximum impacted school, daycare, and community center. As discussed in Impact 2.3(b), MM AIR-1 would be required to reduce fugitive dust emissions during construction. It should be noted that inclusion of MM AIR-1 only reduces $PM_{2.5}$ fugitive dust and not $PM_{2.5}$ exhaust.

Estimated Health Risks and Hazards During Project Construction–Unmitigated

Impact Scenario	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[4]	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Residential MIR (Off-Site)[1]	**76.7**	0.079	**0.395**
Park MIR[2]	5.7	<0.01	0.029
School MIR[3]	3.3	<0.01	0.017
BAAQMD Thresholds of Significance	**10**	**1**	**0.3**

[24] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

[25] California Air Resources Board (ARB). HARP Air Dispersion Modeling and Risk Tool. Website: https://ww2.arb.ca.gov/resources/documents/harp-air-dispersion-modeling-and-risk-tool. Accessed June 6, 2023.

Exceeds Individual Source Threshold?	Yes	No	Yes

Notes:
MIR = Maximally Impacted Sensitive Receptor
[1] The Off-Site Residential MIR represents a residence immediately to the west of the project site (located at 37°53'43.7"N 122°02'34.6"W).
[2] The Park MIR represents the Lar Rieu Park which is approximately 600 feet southwest of the project site.
[3] The School MIR represents Walnut Heights Elementary School which is approximately 700 feet east of the project site
[4] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL of 5 $\mu g/m^3$.
Source: FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

As shown in the table below, $PM_{2.5}$ exhaust emissions generated during unmitigated project construction would result in an incremental cancer risk of approximately 77 individuals per one million for the single-family home immediately to the west of the project site, which exceeds the BAAQMD's significance threshold of 10 individuals per one million. Therefore, the proposed project would be required to implement MM AIR-2, which would require the use of Tier 4 Final engines for all construction equipment equal to or greater than 25 horsepower. With the implementation of MM AIR-2, project construction would result in an approximately 94 percent reduction in on-site $PM_{2.5}$ exhaust emissions. As shown in Table *Project DPM Construction Emissions*, the implementation of MM AIR-2 would ensure that construction DPM emissions would not exceed BAAQMD cancer risk nor annual $PM_{2.5}$ concentration. As such, this impact would be less than significant with implementation of MM AIR-2.

Estimated Health Risks and Hazards During Project Construction—Mitigated

Impact Scenario	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[4]	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Residential MIR (Off-Site)[1]	4.8	0.005	0.0246
Park MIR[2]	0.7	<0.01	0.0038
School MIR[3]	0.2	<0.01	0.0011
BAAQMD Thresholds of Significance	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
MIR = Maximally Impacted Sensitive Receptor
[1] The Off-Site Residential MIR represents a residence immediately to the west of the project site (located at 37°53'43.7"N 122°02'34.6"W).
[2] The Park MIR represents the Lar Rieu Park which is approximately 600 feet southwest of the project site.
[3] The School MIR represents Walnut Heights Elementary School which is approximately 700 feet east of the project site
[4] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL of 5 $\mu g/m^3$.
Source: FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

The mitigated construction emissions would not cause any exceedance of BAAQMD health risk threshold after incorporating MM AIR-2. Therefore, project construction would not result in

significant health impacts to nearby sensitive receptors with incorporation of the identified mitigation.

Criterion 2: Cumulative Health Risk Assessment

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. For a project-level analysis, BAAQMD provides several tools for use in screening potential sources of TACs. The BAAQMD-provided tools used to assess the potential cumulative impacts from TACs are described below:

- **Health Risks for Local Roadways.** The BAAQMD pre-calculated concentrations and the associated potential cancer risks and PM2.5 concentration increases for each county within their jurisdiction for roadways that carry at least 30,000 average daily trips. For Community Air Risk Evaluation (CARE) Program areas, the BAAQMD also includes local roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. The latest available screening tool is in the form of a Geographic Information System (GIS) raster file. The proposed project is located in an 8 Hour Ozone Exceedance CARE area,[26] which means 8-hour ozone levels in this area exceeded the federal standard (75 ppb) three or more times during three recent summers (2011-2013). To ensure a conservative estimate, traffic volume on Walnut Boulevard was obtained from the Walnut Boulevard Traffic Calming Study published in 2019.[27] Daily traffic volume of 4,000 was assumed based on this information, and the cancer risk and PM2.5 concentrations were adjusted with BAAQMD's Roadway Screening Calculator; those results are included in Table *Exposure Assumptions for Cancer Risk Calculations*.
- **Freeway Screening Analysis Tool.** The BAAQMD prepared a GIS tool that contains pre-estimated cancer risk and PM2.5 concentration increases for highways within the Bay Area. The nearest freeways to the proposed project include I-680, approximately 1 mile west of the project site. However, the raster file provides data at all points in the Air Basin.
- **Stationary Source Risk and Hazard Screening Tools.** The BAAQMD prepared a GIS tool with the location of permitted sources and provides a health risk calculator that estimates and refines screen-level cancer risk, a non-cancer health hazard index, and PM2.5 concentrations using emissions data from BAAQMD's permitting database.[28] For each emissions source, the BAAQMD provides conservative estimates of cancer risk and PM2.5 concentrations. Based on information from the GIS tool, there are no BAAQMD-permitted stationary sources within 1,000 feet of the project site.
- **Rail Screening Tools.** The BAAQMD prepared GIS tools that contain estimated cancer risks and PM2.5 concentrations from railroad operations at any point within the Air Basin. No existing railways are within 1,000 feet of the project site. Similar to the other BAAQMD-prepared raster files, the rail tool provides data at all points in the Air Basin.

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[26] Bay Area Air Quality Management District (BAAQMD). 2014. Community Air Risk Evaluation Program. Website: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program. Accessed June 6, 2023.

[27] FEHR & PEERS. 2019. Draft Technical Memorandum, Walnut Boulevard Traffic Calming Study.

[28] Bay Area Air Quality Management District (BAAQMD). Permitted Stationary Sources Risk and Hazards. Permitted Stationary Sources Risk and Hazards. Website: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed June 6, 2023.

Cumulative Health Risk Assessment at the Maximum Impacted Sensitive Receptor

A cumulative Health Risk Assessment was performed that examined the cumulative impacts of the proposed project's construction emissions and sources of TAC emissions within 1,000 feet of the project site.

The cumulative health risk results, including health risks from the nearby roadway sources, are summarized during project construction in the table below. Cumulative health risk results shown therein are representative of the health risks to the MIR identified in the construction HRA that would experience the highest concentration of pollutants.

Summary of the Cumulative Health Impacts at the MIR during Construction

Source/Impact Scenario	Source Type	Distance from MIR1 (feet)	Cancer Risk (per million)	Chronic HI	PM2.5 Concentration (mg/m^3)
Project MIR					
Project Construction (Unmitigated)	Diesel Construction Equipment	22	76.7	0.079	0.395
Project Construction (Mitigated)	Diesel Construction Equipment	22	4.8	0.005	0.025
Roadways					
Walnut Boulevard		113	1.58	ND	0.03
Air Basin Major Roadways		—	1.4	ND	0.026
Rail					
Air Basin Railways		—	0.3	ND	<0.001
Freeways					
Air Basin Freeways/Highways		—	13.0	ND	0.237
Cumulative Health Risks					
Cumulative Maximum with Project DPM Emissions (Unmitigated)			**93.0**	**0.079**	**0.688**
Cumulative Maximum with Project DPM Emissions (Mitigated)			**21.1**	**0.005**	**0.318**
BAAQMD's Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceeded in Any Scenario?			**No**	**No**	**No**

Notes:
HI = Hazard Index
MIR = Maximally Impacted Sensitive Receptor
ND = no data available
µg/m^3 = micrograms per cubic meter
[1] The MIR above represents the greatest impacted MIR, which is the residence immediately to the west of the project site (located at 37°53'43.7"N 122°02'34.6"W).
Source: FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

As noted in the table above, the cumulative impacts from the project construction and existing sources of TACs would be less than the BAAQMD's cumulative thresholds of significance. Thus, the cumulative health risk impacts from project construction would be less than significant.

Criterion 3: Operational Emissions

The proposed project would result in the development and operation of 10 single-family homes. As previously discussed under Impact 3.2(b), the proposed project would not result in a potential CO hotspot. The proposed project would result in a less than significant VMT impact because it would be below the threshold of 20 residential units established by County guidelines.

Because the proposed project would not exceed Transportation Analysis Guidelines set by the County, the proposed project would not generate significant daily passenger vehicle trips and thus, the proposed project would not generate a significant amount of DPM emissions during operation. However, gasoline-fueled vehicles would still emit relatively small amounts of gasoline TACs such as benzene, isopentane, and toluene during project operation. Nonetheless, the potential cancer risks associated with non-diesel TACs emitted from gasoline vehicles in the San Francisco Bay Air Basin are substantially less than the potential cancer risks associated with DPM emissions, [29] and are therefore not included in this analysis. Furthermore, these emissions would be dispersed throughout the local roadway network and would not solely be generated at the project site. Therefore, the proposed project would not result in significant health impacts to nearby sensitive receptors during operation.

Criterion 4: Carbon Monoxide Hotspot Assessment

As discussed in Impact 2.3(b), the proposed project would not generate sufficient vehicle traffic volumes during project operation to substantiate creating a CO hotspot. Therefore, this impact would be less than significant with regard to exposing sensitive receptors to substantial concentrations of CO emissions. As such, the proposed project would result in less than significant impacts related to exposing sensitive receptors to substantial pollutant concentrations.

Summary

As described above, the proposed project would not expose sensitive receptors at nearby residences, schools, daycares, or community centers to substantial pollutant concentrations during either construction (with mitigation incorporated) or operations. Therefore, this impact would be less than significant with mitigation incorporated.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact. As stated in the BAAQMD 2017 Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard. The ability to detect odors varies considerably among the populations and is subjective. The BAAQMD does not have a recommended odor threshold for construction activities. However, the BAAQMD recommends operational screening criteria that are based on the distance between receptors and types of sources known to generate odors. For projects within the screening distances, the BAAQMD has the following threshold for project operations:

[29] California Air Resources Board (ARB). 2008. Health Risk Assessment for the Union Pacific Railroad Oakland Railyard. Website: https://ww2.arb.ca.gov/sites/default/files/classic//railyard/hra/up_oak_hra.pdf?_ga=2.229617876.913681903.1594937953-503090677.1594937953. Accessed June 6, 2023.

An odor source with five or more confirmed complaints per year averaged over 3 years is considered to have a significant impact on receptors within the screening distance shown in Table 3-3 [of the BAAQMD's guidance].

Two circumstances have the potential to cause odor impacts:

1. A source of odors is proposed to be located near existing or planned sensitive receptors, or
2. A sensitive receptor land use is proposed near an existing or planned source of odor.

Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in the table below, would not likely result in a significant odor impact.

Odor Screening Distances

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. April 19. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed October 28, 2022.	

Project Construction

Diesel exhaust and ROGs would be emitted during construction of the proposed project, which are objectionable to some; however, emissions would disperse rapidly from the project site and would be short-term and intermittent in duration and frequency. Therefore, project construction would not generate objectionable odors affecting a substantial number of people. As such, construction odor impacts would be less than significant.

Project Operation

Land uses typically associated with odors include wastewater treatment facilities, waste disposal facilities, agricultural operations, or other operations listed in Table *Estimated Health Risks and Hazards During Project Construction – Unmitigated*. Using GoogleMaps, a chemical manufacturing company (Malaco International, 1910 Olympic Blvd, Walnut Creek, CA 94596) was identified within 2 miles and several coffee roasting shops were identified within the 1-mile screening distances.

Public records retrieved from the BAAQMD[30] show that no odor complaints were received for the chemical manufacturing company or any coffee roasting shops within the 2017 to 2022 timeframe. Public records only identified one unconfirmed odor complaint within a 1-mile radius of the project site between 2017 and 2022. As a result, no confirmed odor complaints were filed for sources near the proposed project site. Therefore, the proposed project as a receptor during operation would not experience peculiar odor impacts from sources of odors.

The proposed project would construct 10 new single-family homes, whose operations could lead to odors from associated residential laundry cleaning, vehicle exhaust, outdoor cooking, and waste disposal. However, such odors generated by project operation would be intermittent and are not expected to be noticeable at distances that would expose a large number of receptors and are not expected to last for prolong periods of time. Therefore, minor sources of odors expected from project operation would not pose an objectionable odor impact to existing and future receptors.

Summary

The proposed project, as a source, would not generate any peculiar emissions or odors that would adversely affect a substantial number of people. In addition, the proposed project would not place sensitive receptors near substantial existing or planned sources of odors based on BAAQMD guidance. This impact would be less than significant.

Mitigation Measures

MM AIR-1 The following Bay Area Air Quality Management District, Basic Construction Mitigation Measures shall be implemented during project construction and shall be included on all construction plans:

a. All exposed non-paved surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and access roads) shall be watered at least two times per day and/or non-toxic soil stabilizers shall be applied to exposed non-paved surfaces.
b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered and/or shall maintain at least 2 feet of freeboard.
c. All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
d. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

[30] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes, as required by the California Airborne Toxics Control Measure (ACTM) Title 13, Section 2485 of California Code of Regulations. Clear signage regarding idling restrictions shall be provided for construction workers at all access points.
g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
h. The prime construction contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. The County and the construction contractor shall take corrective action within 48 hours of receipt of the complaint. The Bay Area Air Quality Management District (BAAQMD) phone number shall also be visible to ensure compliance with applicable regulations.

MM AIR-2 The following Mitigation Measure shall be implemented during project construction and shall be included on all construction plans:

a. All off-road equipment equal to or greater than 25 horsepower shall meet either United States Environmental Protection Agency (EPA) or California Air Resources Board (ARB) Tier 4 Final off-road emission standards during all construction activities.
b. The project applicant shall submit a construction management plan to the Director of Planning, Building and Code Enforcement or the Director's designee for review and approval, prior to issuance of any grading and building permits. The construction management plan shall demonstrate that the off-road equipment used on-site to construct the proposed project would comply with Tier 4 Final off-road emission standards. Off-road equipment descriptions and information included in the construction management plan may include but are not limited to equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number 47T47T.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Biological Resources *Would the project:*				
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 Wildlife or United States Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
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 wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
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?	☐	☐	☐	☒

Environmental Evaluation

Setting

This section evaluates the potential effects on biological resources that may result from implementation of the proposed project. This analysis is based on a *Biological Resource Analysis* (BRA) Report completed by Olberding Environmental, Inc (Olberding) for the proposed project in July 2021, the BRA subsequently updated in January 2023. Additional supporting reference materials include a *Pre-Construction Special-Status Plant Survey Report* prepared by Olberding in May 2022 and an *Arborist Report* prepared by Traverso Tree on January 10, 2023.

Would the project:

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 Wildlife or United States Fish and Wildlife Service?

Less than significant with mitigation incorporated. For the purpose of this analysis, special-status species refers to all species formally listed as threatened and/or endangered under the following:

- Federal Endangered Species Act or the California Endangered Species Act (CESA);
- California Species of Special Concern, designated as Fully Protected by the California Department of Fish and Wildlife (CDFW) and given a California Native Plant Society (CNPS) rank[31] or designated as special-status by city, county, or other reginal planning documents:
  - **Rank 1A**: Plants presumed extirpated in California and either rare or extinct elsewhere
  - **Rank 1B**: Plants rare, threatened, or endangered in California and elsewhere
  - **Rank 2A**: Plants presumed extirpated in California but common elsewhere
  - **Rank 2B**: Plants rare, threatened, or endangered in California but more common elsewhere
  - **Rank 3**: Plants about which more information is needed
  - **Rank 4**: Watch List: Plants of limited distribution

Federal and State listed threatened and/or endangered species are legally protected under FESA/CESA. The designated special-status species listed by the CNPS have no direct legal protection but require an analysis of significance of potential impacts under CEQA Guidelines. Special-status plant and wildlife species typically occur in undeveloped areas. Although it is less likely, it is also possible for them to occur within developed areas.

Olberding conducted a special-status plant and wildlife species database search using the California Natural Diversity Database (CNDDB) and the CNPS Inventory of Rare and Endangered Plants of California within the Walnut Creek quadrangle and eight surrounding quadrangles.[32] Olberding also conducted a reconnaissance-level survey of the project site on July 12, 2021 and a follow up rare plant survey of the project site in April 5, 2022 to determine the potential presence or absence of special-status species listed in the California Natural Diversity Database (CNNDB) and CNPS database and for other potential sensitive species or habitats.[33]

According to the BRA, there are five habitat types present on-site (see Figure 10 of the BRA): developed (0.11 acre), non-native annual grassland (1.31 acres), ephemeral drainage (0.17 acre), mixed woodland (1.01 acres), and riparian (0.05 acre). Much of the project site consists of non-native annual grassland; vegetation observed within this area included wild oat (*Avena fatua*), Italian

[31] All plants appearing on the CNPS List 1 or 2 are considered to meet the CEQA Guidelines Section 15830 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA.

[32] Olberding Environmental, Inc. 2021. Biological Resources Assessment Report. 3180 Walnut Boulevard Contra Costa County, California.

[33] Ibid.

rye grass (*Festuca perennis*), ripgut brome (*Bromus 4 diandrus*), soft chess (*Bromus hordeaceus*), and hare barley (*Hordeum murinum ssp. leporinum*).[34]

Special-status Plant Species

A plant's potential to occur on the project site was based on presence of suitable habitats, soil types, and occurrences recorded by the CNPS Inventory of Rare and Endangered Plants of California CNDDB. Olberding identified 26 special-status plant species have been recorded within a 5-mile radius of the project site (Figure 6 of the BRA).[35] Twenty-two of the 26 special-status plant species recorded within the 5-mile radius were identified as having no potential to occur on the project site due to the absence of suitable habitat (e.g., salt marsh, coastal dunes, serpentine soils, vernal pool, etc.), soil composition, and previous development/disturbance and are therefore excluded from further analysis.[36] According to the BRA, the remaining four special-status plant species were determined to have a low potential to occur, Congdon's tarplant (*Centromadia parryi ssp. Congdonii*), Diablo helianthella (*Helianthella castanea*), Mount Diablo fairy-lantern (*Calochortus pulchellus*), and bent-flowered fiddleneck (*Amsinckia lunaris*). Marginal habitat exists within the grassland portion of the project site, though a large portion of the grassland had been recently disked at the time of Olberding's field survey. Given the potential for these plants to occur, Olberding conducted a focused rare plant survey of the project site in April 2022, during the blooming period for three of these species (Diablo helianthella, Mount Diablo fairy-lantern, and bent-flowered fiddleneck), and none of these species were observed; thus, they are presumed absent[37]. Although the April 2022 survey was conducted outside of the blooming period for Congdon's tarplant (June–November), remnant plants would have been observed if this species was present. Moreover, the July 2021 reconnaissance survey was conducted during the blooming period for this species, and it was not observed. Thus, Congdon's tarplant is also presumed absent from the project site. Attachment 2, Table 2 of the BRA includes a species-specific discussion of all special-status plants with the potential to occur within or in the immediate vicinity of the project site, based on a review of the surrounding quadrangles.

No special-status or rare plants occur within the project site based on multiple field surveys conducted by Olberding. Therefore, the proposed project would have no impact on special-status or rare plants and no mitigation would be required.

Special-status Wildlife Species

The potential for wildlife to occur on the project site was based on the presence of suitable habitats and occurrences recorded by the CNDDB and United States Fish and Wildlife Service (USFWS) within the Walnut Creek and eight surrounding quadrangles. Forty-one special-status wildlife species have been recorded with the potential to occur within the greater vicinity of the project site based on the literature review.[38] Thirty of the 41 special-status wildlife species were determined either not likely to occur or to have no potential to occur due to absence of suitable habitat and/or site-specific

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[34] Olberding Environmental, Inc. 2021. Biological Resources Assessment Report. 3180 Walnut Boulevard Contra Costa County, California.

[35] Ibid.

[36] Ibid.

[37] Olberding Environmental, Inc. 2021. Biological Resources Assessment Report. 3180 Walnut Boulevard Contra Costa County, California.

[38] Olberding Environmental, Inc. 2021. Biological Resources Assessment Report. 3180 Walnut Boulevard Contra Costa County, California.

habitat conditions and are therefore excluded from further analysis. See Attachment 2, Table 2 of the BRA, which includes a species-specific discussion of all 41 special-status wildlife species.

Eleven special-status wildlife species were determined to have potential to occur on the project site: red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*) hoary bat (*Lasiurus cinereus*), western red bat (*Lasiurus frantzii*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), Yuma myotis (*Myotis yumanensis*), and Alameda whipsnake (*Masticophis lateralis euryxanthus*).[39] These species are addressed in more detail below.

Nesting birds: red-shouldered hawk, red-tailed hawk, Cooper's hawk, white-tailed kite, and American kestrel

The trees and shrubs present throughout the project site and riparian vegetation adjacent to the ephemeral drainage provide nesting habitat for bird species protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code. These species include red-shouldered hawk, red-tailed hawk, Cooper's hawk, white-tailed kite, American kestrel, and common songbirds (passerine birds). Construction activities could disturb nesting and breeding birds in trees and shrubs within and around the project site. Potential impacts on special-status and migratory birds that could result from construction and operation of the proposed project include destruction of eggs or occupied nests, mortality of young, and abandonment of nests with eggs or young birds prior to fledging. If MBTA and/or Fish and Game Code protected species' nests are present, impacts to these species would be significant. MM BIO-1 would require pre-construction surveys and modification of construction activities to avoid disturbance of any active nests, including active nests of special-status bird species, if present, which would reduce impacts to migratory and nesting birds and raptors protected under the MBTA and Fish and Game Code (including special-status species) to less than significant levels. Prior to issuance of a building or grading permit, the CDD shall determine if project construction-related activities will take place during the nesting season, and if so, the avian pre-construction survey shall be reviewed and approved by the CDD.

Roosting bats: hoary bat, western red bat, pallid bat, Townsend's big-eared bat, and Yuma myotis

The project site contains existing structures and trees that could provide suitable bat-roosting habitat. Potential direct and indirect impacts could occur to roosting bats due to removal of potential roosting habitat during project construction. These activities could potentially subject bats to risk of death or injury, and they are likely to avoid using the area until such construction activities have dissipated or ceased. Relocation, in turn, could cause hunger or stress among individual bats by displacing them into adjacent territories belonging to other individuals; impacts to these species would be significant. MM BIO-2 would require a roosting bat survey to be conducted prior to the start of project construction to reduce potential impacts to roosting bats to less than significant levels.

Alameda whipsnake

The Alameda whipsnake is one of two subspecies of the California whipsnake. It is distinguished from the chaparral whipsnake (*M. l. lateralis*) by the broad orange striping on its sides. Adults reach approximately three to five feet in length and show a sooty black to dark brown back, cream colored undersides and pinkish tail. This species is typically found in chaparral, northern coastal sage scrub, and coastal sage habitats; however, annual grasslands, oak woodlands, and oak savanna serve as

[39] Ibid.

habitat during the breeding season. Egg-laying occurs near scrub habitat on ungrazed grasslands with scattered shrub cover. The known distribution for Alameda whipsnake includes Sobrante Ridge, Oakland Hills, Mount Diablo, the Black Hills, and Wauhab Ridge.[40]

CNDDB listed 20 occurrences of Alameda whipsnake within 5 miles of the project site. The exact locations of these collections were not recorded in the CNDDB due to the sensitivity of this species. Refer to Attachment 1 Figure 5 of the BRA to see approximate range of listed occurrences. The project site does not overlap with USFWS designated critical habitat (unit: 3) (See Attachment 1 Figure 7 of the BRA). USFWS designated critical habitat for Alameda whipsnake is located approximately 2 miles east within the Shell Ridge Open Space.

The project site contains grassland habitat but lacks scrub or rock outcrop cover which the Alameda whipsnake characteristically prefers. However, the southwestern boundary of the Shell Ridge Open Space is located approximately 0.3 mile northeast of the project site. Alameda whipsnake could utilize the project site for dispersal as it moves to and from more suitable habitat. For these reasons, Alameda whipsnake has a low potential to occur on the project site in a dispersal capacity only.[41]

Project implementation could result in disturbance or loss of this species if present during grading and construction. Implementation of MM BIO-3, which requires a pre-construction survey and conducting an Environmental Awareness training would help to identify and avoid dispersing individuals, minimizing the impacts of project-related activities on the Alameda whipsnake to less than significant. Prior to issuance of a building or grading permit, the reptile pre-construction survey shall be reviewed and approved by the CDD.
In conclusion, project implementation would require grading within suitable habitat for special-status species, as well as the removal of trees and structures that provide suitable habitat for passerine birds and raptors, and roosting bats. Implementation of the recommendations detailed in the BRA, and demonstrated as MM BIO-1 through MM BIO-3 respectively below, would reduce impacts to special-status species to less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Less than significant with mitigation incorporated. The CDFW maintains a list of natural communities that classifies vegetation types found within the State of California and ranks them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities.[42] Riparian habitats are typically considered sensitive natural communities and are addressed in the environmental review process. The project site contains one sensitive natural community, riparian habitat. This natural community is discussed below.

The BRA identified 0.05 acre of riparian habitat adjacent to an ephemeral drainage, which runs along the northern boundary of the project site. Dominate tree species observed included valley oak

[40] Olberding Environmental, Inc. 2021. Biological Resources Assessment Report. 3180 Walnut Boulevard Contra Costa County, California.
[41] Ibid.
[42] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed January 11, 2023.

(*Quercus lobata*) and black walnut (*Juglans hindsii*). Understory species observed include wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus)*, and soft chess (*Bromus hordeaceus*).[43]

Project construction would avoid direct impacts to on-site sensitive natural communities. While the proposed project would avoid direct impacts to sensitive natural communities, project construction has the potential for indirect (temporary) adverse impacts to on-site aquatic features. Potential temporary indirect impacts include pollutant loading, increased erosion and sedimentation, and debris dispersal. Implementation of MM BIO-4 would reduce potential indirect adverse impacts to on-site sensitive natural communities to less than significant levels by avoiding work in riparian habitat and on-site aquatic features, implementing erosion control measures, and the prevention of substances toxic to fish and wildlife from leaching into riparian habitat or sensitive natural communities. Prior to issuance of a grading or building permit, the riparian corridor and ephemeral drainage will be fenced off to make sure no work takes place in this area, unless evidence is provided to the CDD that the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and/or United States Army Corp of Engineers (USACE) reviewed and approved work within these areas.

c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than significant with mitigation incorporated. While the project site does not contain seasonal wetlands, 0.17 acre of ephemeral drainage and it associated riparian habitat runs from the northeast to northwest corner of the project site. According to the BRA, this drainage and its associated riparian habitat may be considered jurisdictional by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or the CDFW.[44] As discussed in the checklist question above, project design would avoid direct impacts to the ephemeral drainage, and its associated riparian habitat. Moreover, implementation of MM BIO-4 would reduce potential indirect adverse impacts these on-site aquatic features to a less than significant level through erosion control measures and preventing substances toxic to fish and wildlife from leaching into these features.

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 wildlife nursery sites?

Less than significant impact. As discussed above, the BRA identified areas of ephemeral drainage which flow from the northeast corner to the northwest corner of the project site flanked by riparian corridors at the eastern and western ends. The ephemeral drainage empties into a partially buried concrete culvert at the northwestern boundary of the project site. The proposed project would not disturb any portion of the ephemeral drainage or riparian habitat. Furthermore, the project site is in an urbanized area and is surrounded by single-family residences which further constrain wildlife movement. For these reasons, the proposed project is not expected to have any significant impact on wildlife corridors or to impede the use of nursery sites, therefore project-related impacts would be less than significant.

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[43] Olberding Environmental, Inc. 2021. Biological Resources Assessment Report. 3180 Walnut Boulevard Contra Costa County, California.

[44] Ibid.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant impact with mitigation incorporated. Tree removal in the County is regulated under Contra Costa County Code Chapter 816-6, Tree Protection and Preservation Ordinance. According to the Arborist Report prepared for the proposed project, the project site contains 74 trees, 14 of which are protected trees. Based on the proposed project's grading plan, the Arborist Report recommends the preservation of 31 trees and the removal of 43 trees.[45] Of the 43 trees to be removed, four are protected under the County's Tree Protection and Preservation Ordinance.[46] If not properly protected, the trees proposed for preservation could also be subject to injury or inadequate maintenance during construction, which represents a potentially significant impact. The response of individual trees would depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods.

As the construction of the proposed project requires the removal of trees subject to the Contra Costa County Tree Protection and Preservation Ordinance, the applicant would be required to prepare and implement a tree replacement plan. In addition, remaining trees that are proposed for preservation on the project site would be preserved through the implementation of the tree preservations guidelines identified and outlined in the Arborist Report.

As a part of approval for development, the applicant would be required to demonstrate and implement consistency with the County's tree ordinance, including tree removal permits and protection of preserved trees. Implementation of MM BIO-5, which requires the project applicant to implement a tree replacement plan, and MM BIO-6 requiring the project applicant to implement tree preservation guidelines during construction, impacts related to consistency with local policies or ordinances that protect biological resources would be less than significant.

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?

No Impact. The proposed project does not lie within the boundaries of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State HCP.[47] Therefore, no impact would occur.

Mitigation Measures

MM BIO-1 Pre-construction Avian Survey

If project construction-related activities would take place during the nesting season (February through August), pre-construction surveys for nesting passerine birds and raptors (birds of prey) within the project site and the large trees within the adjacent riparian area should be conducted by a qualified Biologist no more than 14 days prior to the commencement of the tree removal or site grading activities. If any bird listed under the Migratory Bird Treaty Act (MBTA) is found to be nesting within the

[45] Traverso Tree. 2023. Arborist Report. 3180 Walnut Boulevard, Walnut Creek, California.
[46] Ibid.
[47] California Department of Fish and Wildlife. 2019. California Natural Community Conservation Plans. Website: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline. Accessed December 21, 2022.

project site or within the area of influence, an adequate protective buffer zone should be established by a qualified Biologist to protect the nesting site. This buffer shall be a minimum of 75 feet from the project activities for passerine birds, and a minimum of 200 feet for raptors. The distance shall be determined by a qualified Biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a qualified Biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), a qualified Biologist shall determine if the project can proceed without further regard to the nest site(s). Prior to issuance of a building or grading permit, the CDD shall determine if project construction-related activities will take place during the nesting season, and if so, the avian pre-construction survey shall be reviewed and approved by the CDD.

MM BIO-2 Pre-construction Bat Survey

To avoid "take" of special-status bats, the following mitigation measures shall be implemented prior to the removal of any existing trees or structures on the project site:

If project construction-related activities take place during seasonal periods of bat activity (mid–February through mid–October – ca. February 15–April 15, and August 15–October 30), a bat habitat assessment within the project site shall be conducted by a qualified Bat Biologist to determine suitability of each tree or existing structure as bat roost habitat. Structures found to have no suitable openings can be considered clear for project activities as long as they are maintained so that new openings do not occur. Structures found to provide suitable roosting habitat, but without evidence of use by bats, may be sealed until project activities occur, as recommended by the Bat Biologist. Structures with openings and exhibiting evidence of use by bats shall be scheduled for humane bat exclusion and eviction, conducted during appropriate seasons, and under supervision of a qualified Bat Biologist. Bat exclusion and eviction shall only occur between February 15 and April 15, and from August 15 through October 30, in order to avoid take of non-volant (non-flying or inactive, either young, or seasonally torpid) individuals. Prior to issuance of a building or grading permit, the CDD shall determine if project construction-related activities will take place during seasonal periods of bat activity, and if so, the bat habitat assessment shall be reviewed and approved by the CDD.

MM BIO-3 Pre-construction Reptile Survey and Impact Avoidance

While potential occurrence of Alameda whipsnake is limited to dispersal throughout the project site, a pre-construction survey for special-status reptile species shall be conducted no more than 48 hours prior to the commencement of tree removal or project construction-related activities to determine presence/absence of these species. Worker Environmental Awareness training discussing the potential for these species shall be conducted by a qualified Biologist or Biological Monitor for all construction personnel working within the project site. Prior to issuance of a

building or grading permit, the reptile pre-construction survey shall be reviewed and approved by the CDD.

MM BIO-4 Avoidance and Minimization Measures for Riparian Habitat and On-site Aquatic Features

No work (including vegetation removal) shall take place within the riparian corridor and ephemeral drainage as indicated in the Biological Resource Analysis (BRA) Report completed by Olberding Environmental, Inc (Olberding) dated January 2023, unless evidence is provided to the CDD that the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and/or United States Army Corp of Engineers (USACE) reviewed and approved work within these areas. The plan set for a building permit shall show fencing that is approved by a qualified biologist to ensure work does not take place in this area. As-built photos shall be required prior to issuance of a grading or building permit to ensure that this fencing is installed.

MM BIO-5 Avoidance and Minimization Measures for Riparian Habitat and On-site Aquatic Features

At no time shall silt-laden runoff be allowed to enter on-site aquatic features and their associated habitats. Erosion control measures shall be utilized throughout all phases of operation where sediment runoff from the project may enter these aquatic features. Best Management Practices (BMPs) to avoid erosion, uncontrolled stormwater runoff and bank deterioration shall be implemented, following the requirements of the proposed project's Stormwater Control Plan, and typically include silt fencing, coir rolls, and/or straw bale dikes.

MM BIO-6 Avoidance and Minimization Measures for Riparian Habitat and On-site Aquatic Features

No substances toxic to fish and wildlife shall be discharged or allowed to leach into the aquatic features present on-site. Materials deleterious or toxic to fish and wildlife, including, but not limited to, asphalt, tires, concrete, construction materials, treated wood, and creosote containing materials, shall not be stockpiled within 100 feet of any aquatic feature present on-site.

MM BIO-7 Prepare and Implement a Tree Replacement Plan

As a result of tree removal, approval of a Tree Permit under the provisions of the County Tree Ordinance shall be required. The Tree Permit shall include a Tree Replacement Plan. The Tree Replacement Plan shall designate the approximate location, number, species and sizes of new trees to be planted. No tree shall be removed until a building or grading permit is issued.

MM BIO-8 Implement Tree Preservation Guidelines During Construction

To protect the trees to remain, approval of a Tree Permit under the provisions of the County Tree Ordinance shall be required. The Tree Permit shall include tree protection mitigation measures as described in the arborist report prepared by

Jennifer Tso (#WE-10270A) of Traverso Tree Service dated January 10, 2023[48], and these mitigation measures shall be implemented during construction through the clearing, grading, and construction phases, and stated on all construction plans.

[48] Traverso Tree. 2023. Arborist Report. 3180 Walnut Boulevard, Walnut Creek, California.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
5. Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
18. 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:*				
d) 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	☐	☒	☐	☐
e) 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.	☐	☒	☐	☐

Environmental Evaluation

Setting

This section describes the existing cultural and Tribal Cultural Resources (TCRs) setting and potential effects from the proposed project implementation on the project site and its surrounding area. The analysis in this section is based, in part, on the Historic Resource Assessment (HRA) completed by FCS on December 16, 2022, and an Archaeological Survey Report completed by Garcia and Associates (GANDA) on March 18, 2020.

Archaeological Survey Report

On March 18, 2020, GANDA completed a cultural resources assessment for the proposed project. The results of this cultural resource assessment were informed by a records search of the Northwest Information System (NWIC) of the California Historical Resources Information System (CHRIS), a

literature and archival review, Native American tribal consultation, and a pedestrian survey of the project site.

Northwest Information Records Search

A records search for the project site and its 0.25-mile radius were conducted on February 24, 2020, at the NWIC, located at Sonoma a State University in Rohnert Park, California. The purpose of this records search was to compile information pertaining to the locations of previously recorded cultural resources and prior cultural resources studies within the study area and its vicinity.

The results of the NWIC records search identified two previously recorded historic-period archaeological resources within 0.25 mile of the project site. Both are historic buildings. The records search identified three studies within 0.25 mile of the project site.

Native American Consultation

A GANDA Archaeologist initiated consultation via email with the Native American Heritage Commission (NAHC) on February 26, 2020, to determine whether any sacred sites were located within the project site or its vicinity. A response was received on February 27, 2020, indicating that no sacred sites were identified within the project site. Native American consultation under Assembly Bill (AB) 52 of CEQA is the responsibility of the Lead Agency, which was completed prior to the preparation of this report.

Archaeological Field Survey

On February 28, 2020, a GANDA Archaeologist conducted an intensive pedestrian survey of the project site. to determine the presence or absence of archaeological resources. The ground surface was examined for the presence of prehistoric artifacts, prehistoric milling surfaces on exposed bedrock, historic-era artifacts, sediment discoloration that might indicate the presence of a cultural midden, and depressions and other features that might indicate the former presence of historic-era structures or buildings. Ground disturbances such as rodent holes, burrows, and cut banks were also visually inspected. No archaeological resources were observed.

Historic Resources Assessment

FCS Staff Archaeologist Taylor Love conducted an architectural field survey and HRA of the project site on November 21, 2022. The project site contains a single-family residence that was constructed in 1954. The residence was assessed on its own merits for inclusion in the California Register of Historical Resources (CRHR) and/or the National Register of Historic Places (NRHP) and was found to be ineligible. Based on the results of the records searches, archival research and architectural field survey, FCS considers the project site to have low sensitivity for historic resources. FCS concluded that there are no unique historic resources located on the project site as defined under California Public Resources Code Sections 15064.5 and 5024.1.

Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?

Less than significant impact. CEQA Guidelines Section 15064.5 defines "historical resources" as resources listed in the CRHR, a local register, determined significant by the Lead Agency, or determined to be eligible by the California Historical Resources Commission for listing in the CRHR. The criteria for eligibility are generally set by the National Historic Preservation Act of 1966, which established the NRHP, and which recognizes properties that are significant at the federal, State, and local levels. To be eligible for listing in the NRHP and CRHR, a district, site, building, structure, or object must possess integrity of location, design, setting, materials, workmanship, feeling, and association relative to American history, architecture, archaeology, engineering, or culture.[49] In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible.

Historical significance is assessed against the following NRHP/CRHR criteria:

Criterion A: Associated with events that have made a significant contribution to the broad patterns of our history; or

Criterion B: Associated with the lives of persons significant in our past; or

Criterion C: Embodied of distinctive characteristics of a type, period, or method of construction, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D: Yielded, or may be likely to yield information important in prehistory or history.

The GANDA 2020 record search conducted at the NWIC determined that two historic-era resources are within a 0.25-mile radius of the project site, none of which are located within the project boundaries. The 2020 pedestrian survey did not identify any potentially historic resources within the proposed project site. However, the project site does contain one existing single-family residence. According to the HRA, historic topographic maps and records obtained from the Contra Costa County Assessor's Office indicate that construction of the residence was completed in 1954. Therefore, the residence is more than 50 years in age. However, the HRA Report concluded that the assessed property is not eligible for listing in the CRHR under any of the criteria listed above. Therefore, the building on-site does not qualify as significant historical resources under CEQA and impacts would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than significant with mitigation incorporated. Section 15064.5 of the CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources, as discussed above, or resources that constitute unique archaeological resources. A project-related

[49] National Register of Historic Places (NRHP). 2022. Publications of the National Register of Historic Places. Website: https://www.nps.gov/subjects/nationalregister/publications.htm. Accessed June 6, 2023.

significant adverse effect could occur if a project were to affect archaeological resources that fall under either of these categories.

As discussed above, the NWIC records search identified two previously recorded historic-period archaeological resources and three studies within 0.25-mile of the project site. Based on the results of the records searches, archival research and field survey, the HRA concluded that the project site has low sensitivity for historic resources. Furthermore, the Archaeological Survey Report concluded that the potential to encounter archaeological resources during project implementation is low. Nevertheless, it is possible that earthmoving activities associated with project construction could encounter previously undiscovered archaeological resources. Archaeological resources can include but are not limited to stone, bone, wood or shell artifacts or features, including hearths and structural elements. Damage or destruction of these resources would be a potentially significant impact. Implementation of MM CUL-1 would reduce this potential impact to less than significant.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant with mitigation incorporated. No human remains or cemeteries are known to exist within or near the project site. While it is unlikely that human remains exist within or near the project site, there is always a possibility that subsurface construction activities associated with the proposed project, such as grading or trenching, could potentially damage or destroy previously undiscovered human remains. Accordingly, potential impacts would be limited to construction activities.

In the event of an accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.98 must be followed. MM CUL-2 further specifies the procedures to follow in the event human remains are uncovered. Along with compliance with required guidelines and statutes, implementation of MM CUL-2 would reduce potential impacts to human remains to a less than significant level.

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:

d) 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

Less than significant with mitigation incorporated. A review of the CRHR, local registers of historic resources, the NWIC records search results, and NAHC Sacred Lands File search, and the pedestrian survey failed to identify any previously listed TCRs that may be adversely affected by the proposed projects. However, as discussed above, construction activities may result in potentially significant impacts should any undiscovered TCRs be encountered. Implementation of MM CUL-1 and MM CUL-2 would reduce potential impacts to a less than significant level.

e) 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.

Less than significant with mitigation incorporated. Tribal consultation efforts conducted by Contra Costa County pursuant to AB 52 to identify additional significant TCRs meeting the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 was initiated on September 22, 2021, and January 5, 2023, respectively. Consultation commenced on September 22, 2022, with Wilton Rancheria and concluded on October 22, 2022. Wilton Rancheria provided no comments pertaining to the proposed project. The County received an additional response on January 7, 2023, from the Confederated Villages of Lisjan Nation formally commencing consultation efforts as well requesting additional information about the proposed project and NAHC Sacred Lands File results. The Confederated Villages of Lisjan Nation received the requested information and were satisfied with the results of the Archaeological Survey report. The tribe provided no further comments. Tribal consultation concluded on February 6, 2023. However, as previously discussed, construction activities may result in potentially significant impacts should any undiscovered TCRs be encountered. Implementation of MM CUL-1 and MM CUL-2 would reduce potential impacts to a less than significant level.

Mitigation Measures

MM CUL-1 Unidentified Cultural Materials

All project-related ground disturbance shall be monitored by an archaeologist who meets the Secretary of the Interior's professional qualification standards for archaeology. In the event that significant cultural resources are discovered during construction activities, the applicant/project owner or sponsor shall ensure that operations within a 100-foot radius of the find shall cease and the archaeologist will be consulted to determine whether the resource requires further study. The standard inadvertent discovery clause shall be included on the grading plans submitted to the City to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. The archaeologist shall make recommendations to the City concerning appropriate measures, which shall be implemented by the applicant/project owner or sponsor to protect the discovered resources, including but not limited to recordation on appropriate California Department of Parks and Recreation (DPR) forms, evaluation, or excavation of the finds in accordance with CEQA Guidelines, Section 15064.5.

MM CUL-2 Encountering Human Remains

In the event of accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 shall be followed. If during the course of construction activities there is accidental discovery or recognition of any human remains, the following steps shall be taken:

a. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98.
b. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
    - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
    - The descendant identified fails to make a recommendation.
    - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
6. Energy *Would the project:*				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Environmental Evaluation

Setting

Energy is generally transmitted either in the form of electricity, measured in kilowatts (kW) or megawatts (MW), or natural gas measured in US Therms. Electricity is used primarily for lighting, appliances, and other uses associated with the proposed project. Natural gas is used primarily for space and water heating, when applicable; however, natural gas use is not anticipated in the proposed project. The proposed project would adopt an all-electric design and would not include natural gas use. However, natural gas use is included in CalEEMod to provide a conservative estimate of air quality and GHG emissions; the CalEEMod estimates are used as a basis for the energy consumption calculations referenced in this section.

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than significant impact. A significant impact would occur if the proposed project would result in the wasteful, inefficient, or unnecessary use of energy. Construction and operations are discussed separately below.

Construction

The anticipated construction schedule for the proposed project was assumed to occur from the first quarter of 2023 through the first quarter of 2024, lasting approximately 12 months. Should the construction schedule would move to later years, construction energy demand would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. The proposed project would require demolition, site preparation, grading, building construction, architectural coating, and paving activities. Project construction would require energy for the manufacturing and transportation of building materials, preparation of the site (e.g., site clearing, and grading), and construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 25,905 gallons of diesel fuel over the entire construction duration[50].

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB Emissions Factors model (EMFAC) mobile source emission model[51]. In total, the proposed project is estimated to generate 134,771 VMT and a combined 6,473 gallons of gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Single-wide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 8,930 kilowatt-hours (kWh) during the 13-month construction[52].

The proposed project's construction is not anticipated to result in unusually high energy use. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. Similarly, compliance with State regulations would limit idling from on-road and off-road diesel-powered equipment. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting, maintaining, and fueling the equipment. Therefore, it is anticipated that construction of the proposed project would not result in wasteful, inefficient, and unnecessary energy consumption, and energy impacts during construction would be less than significant.

Operation

The proposed project would consume energy as part of building operations and transportation activities. The proposed project would be built to all-electric design standards. Energy consumption of the proposed project is summarized in the table below.

Annual Project Energy Consumption

Energy Consumption Activity	Annual Consumption
Electricity Consumption	78,105 kWh
Fuel Consumption	7,341 gallons

[50] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.
[51] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.
[52] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

Energy Consumption Activity	Annual Consumption
Notes: kBTU = kilo-British Thermal Unit kWh = kilowatt-hour Source: FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.	

Unmitigated operation of the proposed project would consume an estimated 78,105 kWh of electricity on an annual basis. The single-family homes would include rooftop solar as part of the construction, consistent with Title 24 requirements. Therefore, a portion of electricity used at the project site would be provided through on-site renewable energy. The proposed project would be considered to result in a potentially significant impact if it would result in wasteful, inefficient, or unnecessary consumption of energy resources. This is assessed below by reviewing whether the proposed project would conflict with the following energy conservation goals:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, or oil; and
- Increasing reliance on renewable energy sources.

Decreasing Reliance on Fossil Fuels

The proposed project would be designed and constructed in accordance with the California Building Code energy efficiency standards. For example, the proposed project would install solar photovoltaic (PV) systems capable of generating renewable electricity, high-efficiency indoor and outdoor lighting, and low-flow plumbing fixtures and irrigation heads that are compliant with the California Building Code. California Building Code energy efficiency standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. Compliance with the California Building Code would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. As a result, the increase in energy conservation and efficiency would reduce the amount of potentially fossil fuel-sourced electricity consumption, and thereby reducing project reliance on fossil fuels. Additionally, the proposed project would adopt an all-electric design, consistent with County Ordinance 2022-02, which would further reduce use of fossil fuels.

Project-related vehicle trips would consume fuel throughout the life of the proposed project resulting from residents' vehicles and delivery vehicles traveling to and from the project site. This analysis evaluated operational fuel consumption based on the proposed project's operational assumptions. Regional access to the project site is provided by I-680, which is 1 mile west of the project site. As a result, the proposed project is located near regional and local roadways that would provide convenient access for future residents and would not result in excessively long VMT. Thus, the location of the proposed project would help minimize fossil fuel reliance with respect to transportation fuel consumption.

Increasing Reliance on Renewable Energy Sources

The proposed project would be considered to conflict with this criterion if it did not take steps to increase the reliance on renewable energy sources. As the proposed project constitutes a low-rise residential development, it would be required by the California Building Code to incorporate rooftop

solar. As such, the proposed project would incorporate on-site PV systems, thereby actively increasing future residents' reliance on renewable energy sources. Furthermore, consistent with Moreover, the proposed project would include applicable electric vehicle (EV) charging infrastructure, such as pre-wiring, to facilitate future EV charging within each garage. As a result, the proposed project would incrementally increase overall reliance on renewable energy sources by including on-site renewable energy generation technologies, incorporating an all-electric design, and incorporating EV charging infrastructure to facilitate the future use of EVs.

Summary

Considering the above analysis, the proposed project would not result in the wasteful, inefficiency, or unnecessary consumption of energy resources. This impact would be less than significant.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less than significant impact.

Construction

The proposed project would consume energy through the combustion of fossil fuels. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations Title 13 Sections 2449(d)(3) and 2485 limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would be required to comply with these regulations. There are no renewable energy standards that would apply to construction of the proposed project. As a result, construction would not conflict with or obstruct any regulations adopted for the purposes of increasing the use of renewable energy.

Operation

The proposed project would be served with electricity provided by Pacific Gas and Electric Company (PG&E). In 2021, PG&E obtained 48 percent of its electricity from renewable energy sources, while the remaining electricity was sourced from nuclear (39 percent), large hydroelectric (4 percent), and natural gas (9 percent).[53] PG&E also offers a Solar Choice 50 percent option that sources 71 percent of its power mix from eligible renewable energy sources, and a Solar Choice 100 percent option that sources 94 percent of its power mix from eligible renewable energy sources. Therefore, the proposed project's electricity provider meets the State's current objective of 33 percent. The proposed project's electricity provider would also be required to meet the State's future objective of 60 percent of in-State electricity sales being generated from renewable energy sources by 2030.

Additionally, the proposed project would be required to comply with the applicable Title 24 Energy Efficiency Standards (for example, EV charging infrastructure and solar requirements) in effect at the time building permit applications are submitted. As such, the proposed project would not conflict with or obstruct the applicable plan for renewable energy or energy efficiency. Therefore, the proposed project would result in less than significant impacts related to energy efficiency and renewable energy standards consistency.

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[53] California Energy Commission. 2022. Power Content Label. Website: https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label/annual-power-content-2. Accessed June 6, 2023.

Summary

As energy consumption resulting from construction and operation of the proposed project would not constitute a conflict with or obstruct a State or local plan for renewable energy or energy efficiency, this impact would be less than significant.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
7. Geology and Soils *Would the project:*				
a) Directly or indirectly cause 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 direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Environmental Evaluation

The analysis in this section is based, in part, on the Preliminary Geotechnical Exploration (Geotechnical Exploration) prepared by ENGEO Incorporated (ENGEO) on March 12, 2020.

Setting

Geotechnical Exploration

ENGEO conducted a Geotechnical Exploration which included excavation of six test pits within the site on February 25, 2020. During the excavation, ENGEO encountered an existing fill layer that ranged from approximately 1 to 3.5 feet thick, which consisted of sandy silt and sandy clay. Native

surficial soil (Colluvium) deposits consisting of fat clay ranging from few feet to over approximately 8 feet thick were encountered in the mantling bedrock across the site. The site's surficial soil is underlain by mudstone, sandstone, and conglomerate bedrock. The bedrock is highly weathered and very weak near the surface, but becomes less weathered, and moderately strong at depth. Atterberg limit testing of the existing soil encountered at the site yielded a Plasticity Index (PI) of 44 for the native clayey soil and PI of 13 for the mudstone, which indicates that the site soil has a moderate to very high expansion potential. Groundwater was not observed in any of the subsurface explorations at the site. Refer to the Geotechnical Exploration for specific details regarding subsurface conditions and PI testing for site subsurface conditions.

An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 11,000 years). The Geotechnical Exploration determined that the site is not located within a State of California Earthquake Fault Hazard Zone (1982) for active faults, and no known faults cross the site. The nearest known active fault surface trace is the Mount Diablo Thrust fault, which is mapped approximately 1.3 miles south of the site. Other active faults near the site are summarized in the Geotechnical Exploration and include the Mount Diablo Thrust fault, Calaveras fault, and the Hayward-Rodgers Creek fault. Because of the presence of nearby active faults, the Bay Area Region is considered seismically active. Numerous small earthquakes occur every year in the region, and large (greater than Moment Magnitude 7) earthquakes have been recorded and can be expected to occur in the future.

Based on the field exploration and review of readily available published maps for the site, ENGEO determined that the site is feasible for development of the proposed project.

Paleontological Records Search Results

A paleontological records search of the University of California Museum of Paleontology was performed on October 4, 2022, by Dr. Kenneth Finger for the project site. The surface of the project site consists of the Pliocene to late Miocene Orinda formation (Tor), while the surrounding 0.5-mile search area also includes Holocene alluvium (Qa) and late to middle Miocene Monterey Formation. Holocene deposits are too young to be considered fossiliferous. The records search indicated four vertebrate localities in the County, but only a single cetacean vertebra more than 10 miles away from the project site has been entered into the database. The Orinda Formation has 23 vertebrate locations listed for the County as well as three for Alameda County, with a composite assemblage of 140 specimens. The locality nearest the project site is in Orinda, located more than 5 miles to the west.

Would the project:

a) Directly or indirectly cause 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.

Less than significant impact. The project site is not located in an Alquist-Priolo Earthquake Fault Zone, however, the project site is located in a seismically active region. As discussed above, the nearest known active fault surface trace is the Mount Diablo Thrust fault located approximately 1.3 miles south of the site. Because there are no known active faults crossing the project site and because the project site is not located within an Earthquake Fault Special Study Zone, the Geotechnical Exploration concluded that ground rupture is unlikely. Furthermore, the proposed project's design and construction would comply with the 2022 California Building Standards Code (CBC), as required by Title 7, Section 74-2 of the Ordinance Code, which would reduce impacts related to the rupture of nearby faults. Therefore, the proposed project's impacts related to rupture of a known earthquake fault would be less than significant.

ii) Strong seismic ground shaking?

Less than significant impact. As discussed above, the proposed project is not located within an Alquist-Priolo Earthquake Zone and no known active faults cross the project site. However, the Geotechnical Exploration states that a moderate to high magnitude earthquake generated within the San Francisco Bay Region could cause considerable shaking at the project site, similar to what has occurred in the past. The intensity of ground shaking is determined by factors such as distance from the fault, magnitude and duration of the earthquake, and site-specific geologic conditions. The proposed project would comply with the 2022 CBC, as required by Section 74-2 of the Ordinance Code, which includes requirements related to seismic safety design features to avoid or minimize potential damage from seismic shaking. Therefore, compliance with applicable State and local regulatory requirements would reduce potentially significant impacts to less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. Liquefaction is the result of seismic activity and is characterized as the transformation of loosely water-saturated soils from a solid state to a liquid state after ground shaking. For liquefaction to occur, three conditions must be present: (1) shallow groundwater; (2) low density, fine, clean sandy soils; and (3) high-intensity ground motion. The Geotechnical Exploration concluded that because the project site is underlain by weathered mudstone at shallow depths, groundwater was not encountered during the exploration, and the existing fill will be removed and recompacted, the project site is not considered susceptible to liquefaction. As such, impacts would be less than significant.

iv) Landslides?

Less than significant impact. As shown on Figure 10-6, Geological (Landslide) Hazards, in the Safety Element of the General Plan, the majority of the area located within and near Walnut Creek is not

subject to significant landslide hazards.[54] While the project site does contain some areas with slopes of up to 50 percent,[55] the General Plan identifies the project site as being in an area with slopes of less than 26 degrees. Furthermore, the project site is located in a relatively flat area of the County and surrounded by existing development. As such, the proposed project result in significant impacts related to landslides. Impacts would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant impact. The project site contains an existing, vacant, single-family residence. The proposed project includes the demolition of the existing structure and the construction of 10 single-family homes. The proposed project would therefore involve ground-disturbing activities such as grading and excavation that have the potential to cause erosion and loss of topsoil. As discussed above, the Geotechnical Exploration encountered an existing fill layer in the test pits, which ranged from approximately 1 to 3½ feet thick and consists of sandy silt and sandy clay. The Geotechnical Exploration concluded that, since the compaction data of the fill are unknown, all existing fill should be removed to the depth of competent native soil, as evaluated by ENGEO, and replaced with engineered fill. Since the proposed project would disturb more than 1 acre of land during construction, it would be required to obtain a Construction General Permit from the California State Water Resources Control Board (State Water Board) consistent with the County's General Permit (No. CAS612008) and to comply with its conditions and requirements, which are designed to minimize potential erosion issues. Compliance with the County's NPDES permit would ensure that a Stormwater Control Plan is prepared and Best Management Practices (BMPs) are implemented that would prevent sediments and other pollutants from entering the stormwater system. As such, impacts related to soil erosion and loss of topsoil as a result of the proposed project would be less than significant.

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?

Less than significant impact. As discussed above, the project site is not located in an area that is subject to significant landslide hazards and is not considered susceptible to liquefaction. The Geotechnical Exploration determined that regional subsidence is considered to be low to negligible at the site. Furthermore, given the shallow bedrock on the west wide of the project site, the consistency of the bedrock, and the absence of groundwater the Geotechnical Exploration concluded that the potential for lateral spreading at the project site is negligible.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than significant impact with mitigation incorporated. As described above, ENGEO performed plasticity testing of the site soil and bedrock. PI of the native clay was found to be as high as 44, and the PI of the fine content of the bedrock is 13. These test results indicate that the native clay material on-site has a very high expansion potential and the bedrock has a moderate expansion potential. Expansive soil shrinks and swells as a result of moisture changes, which can cause heaving

[54] Contra Costa County. 2005. Safety Element. Figure 10-6, Geological (Landslide) Hazards.
[55] dk Engineering. 2022. 3180 Walnut Boulevard Hydrologic and Hydraulic Analyses. June 23.

and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Successful construction on expansive soil requires special attention during grading, and it is imperative to keep exposed soil moist by occasional sprinkling. If the soil dries, it is extremely difficult to remoisturize without excavation, moisture conditioning, and decompaction because of the clayey nature of the soil. The Geotechnical Exploration included subgrade soil requirements, which have been included herein under MM GEO-1, which would ensure proper methods for construction on expansive soil. With implementation of MM GEO-1, impacts related to expansive soil would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No impact. The proposed project would utilize existing wastewater utility connection provided by the Central Contra Costa County Sanitary District. Septic tanks or alternative wastewater disposal systems would be used. Therefore, no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant impact with mitigation incorporated. A significant adverse effect could occur if grading or excavation activities associated with a project would disturb paleontological resources or geologic features that presently exist within the project site.

The project site is located in an urbanized area and is surrounded by existing roads and residential development. The project site has been previously disturbed by past development activities and currently contains an existing single-family home, which would be demolished as part of the proposed project. As discussed above, the proposed project would involve ground-disturbing activities such as grading and excavation. The paleontological records search conducted for the proposed project determined that the surface of the project site consists of the Pliocene to late Miocene Orinda formation (Tor). This area has alternatively been mapped as part of the Green Valley and Tassajara Formation, however, both designations are considered equally fossiliferous due to their similar ages and compositions.[56]

As identified in the Geotechnical Exploration, ENGEO encountered an existing layer of artificial fill on the surface of the project site that consisted of sandy silt and sandy clay, and ranged from approximately 1 to 3.5 feet in depth. While paleontological monitoring of all earth-disturbing activities was recommended by Dr. Finger in his report, this does not include the surface layer of modern fill encountered by ENGEO in their report. As a result of these findings, MM GEO-2 stipulates that paleontological monitoring is required for all earth disturbing activities exceeding the minimum depth of the fill layer at 1 foot. The measure also outlines procedures for the inadvertent discovery of any paleontological resources. With the implementation of MM GEO-2, the proposed project would have a less than significant impact on unique paleontological resources or unique geologic features.

[56] R.W. Graymer, V.E. Langenheim. Regional Geology of Mount Diablo, California: Its Tectonic Evolution on the North America Plate Boundary. GSA Memoir, 217. 2021.

Mitigation Measures

MM GEO-1 Implementation of Geology and Soils Measures During Construction

Prior to submittal of a building or grading permit, the project applicant shall incorporate all recommendations provided in the project-Geotechnical Exploration into project plans, which shall be subject to review and approval by the County Geologist, or designee, prior to permit issuance. The geotechnical recommendations shall be implemented including general earthwork recommendations for site preparation, conditioning of expansive soils, removal of buried structures, removal of fill and disturbed soil, surface and subsurface drainage, biofiltration facilities, foundations, concrete flatwork, retaining walls, spread and pier footings, pavement areas, utility trenches, project review, and construction monitoring. Additionally, these include recommendations related to structural design, foundation design, foundation systems, slabs, moisture barriers, seismic design, walls, footings, slabs and walkways, concrete design, corrosion, pavement design, as well as lot maintenance, and future plan reviews.

MM GEO-2 Construction Monitoring by a Qualified Paleontologist

The applicant shall retain a qualified Paleontologist to conduct paleontological monitoring during all earth-disturbing construction activities. Should any significant fossils (I.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants) be unearthed, the construction crew shall not attempt to remove them, as they could be extremely fragile and prone to crumbling, and to ensure their occurrence is properly recorded; instead, all work in the immediate vicinity of the discovery shall be diverted at least 15 feet until a professional paleontologist assesses the find and, if deemed appropriate, salvages it in a timely manner. All recovered fossils shall be deposited in an appropriate repository, such as the University of California Museum of Paleontology (UCMP), where they would be properly curated and made accessible for future study. Prior to issuance of a grading or building permit, evidence shall be provided to CDD that a qualified paleontologist is contracted to implement this mitigation measure.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
8. Greenhouse Gas Emissions *Would the project:*				
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 adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Evaluation

The analysis in this section is based, in part, on the emission estimates prepared for the project using CalEEMod[57].

Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHG). The effect is analogous to the way a greenhouse retains heat. Prominent GHGs that naturally occur in the Earth's atmosphere are water vapor, carbon dioxide (CO_2), methane (CH_4), oxides of nitrogen (NO_X), and ozone. Anthropogenic (human-caused) GHG emissions include releases of these GHGs plus release of human-made gases with high global warming potential (GWP) (ozone-depleting substances such as chlorofluorocarbons [CFCs] and aerosols, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. Therefore, this section discusses the proposed project's contribution to the cumulative GHG impact.

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant. Both construction and operational activities have the potential to generate GHG emissions. The proposed project would generate GHG emissions during temporary (short-term) construction activities such as demolition and grading, running of construction equipment engines, movement of on-site heavy-duty construction vehicles, hauling materials to and from the project site, asphalt paving, and construction worker, vendor, and haul truck motor vehicle trips.

[57] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

Long-term, operational GHG emissions would result from project-generated vehicular traffic, operation of any landscaping equipment, off-site generation of electrical power over the life of the proposed project, the energy required to convey water to and wastewater from the project site, and the emissions associated with the hauling, and disposal of solid waste from the project site.

Construction Impacts

The proposed project would emit GHG emissions during construction from the off-road equipment, worker vehicles, and any hauling that may occur. The BAAQMD does not presently provide a construction GHG emission threshold but recommends that construction GHG emissions be quantified and disclosed. The BAAQMD also recommends that lead agencies (in this case, Contra Costa County) determine the level of significance of construction GHG emissions. Although neither the County nor the BAAQMD provides a construction-related GHG emission threshold, the Sacramento Metro Air Quality Management District (Sacramento Metro AQMD) has adopted 1,100 MT CO_2e per year as a threshold for construction-related GHG emissions.[58] Therefore, for the purposes of this analysis, the Sacramento Metro AQMD construction threshold is used to evaluate the project's construction-related emissions. The table below summarizes the proposed project's GHG emissions during construction.

Construction GHG Emissions

Construction Phase	MT CO_2e per year
Demolition	23
Site Preparation	3
Grading	6
Building Construction 2023	254
Building Construction 2024	41
Paving	8
Architectural Coating	2
Total Construction Emissions	**337**
Construction Thresholds[1]	**1,100**
Exceed Threshold?	**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
Totals may not add up due to rounding.
[1] Construction-related threshold was obtained from SMAQMD's CEQA Guidelines.
Source: CalEEMod Output, FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

As shown in the table above, the proposed project is expected to emit approximately 337 MT CO_2e during construction, resulting in approximately 306 MT CO_2e per year (337 divided by 1.1 years). Because the annual average and the total construction emissions would be less than the applied

[58] Sacramento Metro Air Quality Management District (Sacramento Metro AQMD). 2020. SMAQMD Thresholds of Significance Table. Website: https://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf. Accessed June 6, 2023.

threshold of significance, the project's construction-related GHG impacts would be less than significant.

Operational Impacts

The County adopted its Climate Action Plan (CAP) on December 15, 2015. The CAP is designed to demonstrate consistency with 2020 GHG reduction targets presented by AB 32. In addition, the CAP forecasts the potential GHG emissions and estimated GHG reductions from proposed measures through 2035.[59] The CAP is a qualified GHG reduction strategy and based on communication with the County Department of Conservation and Development, the CAP is appropriate to use to determine whether the proposed project could generate significant GHG emissions.[60]

However, since the CAP was adopted in 2015, SB 32 was adopted in 2017, which requires GHG emissions be reduced to 40 percent below the 1990 levels by 2030. As stated on the County CAP website, the County is currently in the process of updating their CAP and expects it to be completed in late 2023. As a result, a "substantial progress" efficiency threshold was calculated by FCS based on the GHG reduction goals of SB 32/Executive Order B-30-15 to demonstrate consistency with SB 32. To determine significance for the GHG impacts, the proposed project's GHG emissions are assessed against the following thresholds: 4.8 MT CO_2e/service population/year for the 2024 operational year and 3.4 MT CO_2e/service population/year[61] for the 2030 operational year.

To determine the efficiency thresholds, first FCS determined the 2024 and 2030 CAP reduction target. As shown in Table 3.8 of the Contra Costa County CAP, the County set a 2020 reduction target of 1,193,070 MT CO_2e and in 2035 of 596,540 MT CO_2e. To determine the 2024 and 2030 reduction targets, FCS calculated the yearly GHG reductions that the County would need to make to reach their 2035 calculated reduction target of 596,540 MT CO_2e. [62] This calculation showed that the County would need to reduce annual GHG emissions by 36,939 MT CO_2e per year.[63] By 2024, after 4 years of projected reduction at a rate of 36,939 MT CO_2e, the County would need to emit no more than 1,045,314 MT CO_2e and by 2030 after 10 years of reductions, the County would need to emit no more than 751,133 MT CO_2e to meet SB 32 goals of GHG emissions 40 percent below the 1990 levels.[64] Next, the County's GHG reduction target of 1,045,314 MT CO_2e in 2024 and 751,133 MT CO_2e in 2030 is divided by the estimated 2024 and 2030 unincorporated County service population. According to the County CAP Table 3.4, in 2024 unincorporated County would have 168,072 residents and 48,378 jobs and 173,500 residents and 50,330 jobs in 2030. As a result, the 2024 efficiency threshold of 4.8 MT CO_2e/service population/year and 2030 efficiency threshold of 3.4 MT CO_2e/service population/year demonstrates the necessary County per capita GHG emissions needed to be consistent with SB 32 GHG reduction goals.

The proposed project would contribute to global climate change through direct and indirect emissions of GHG from mobile sources (e.g., passenger vehicles, trucks), energy (e.g., purchased electricity), water use and wastewater generation, and solid waste generation. All modeling

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[59] Contra Costa County. 2015. Climate Action Plan. December 15.

[60] Contra Costa County. Joseph Lawlor Jr. Personal Communication, email. November 7, 2022.

[61] Calculation: 751,130 MT CO_2e/223,830 service population of unincorporated Contra Costa County = 3.36 MT CO_2e/service population/year

[62] Contra Costa County. 2015 Climate Action Plan, Table 3.8 Baseline GHG Emissions, Forecasts and Reduction Goals.

[63] Calculation: (626,630 MT CO_2e – 72,550 MT CO_2e)/15 years = 36,939 MT CO_2e per year. Source: Table 3.8 Baseline GHG Emissions, Forecasts and Reduction Goals.

[64] Calculation: [Year 2024] 1,193,070 MT CO_2e – (36,939 MT CO_2e per year x 4 years) = 1,045,314 MT CO_2e 1,193,070 MT CO_2e – (36,939 MT CO_2e per year x 10 years) = 751,133 MT CO_2e

parameters utilized in the Air Quality analysis are also utilized for this GHG analysis, including but not limited to trip generation rates, trip distances, building sizes and operations, energy consumption, water consumption, and waste generation[65].

Operational GHG emissions by source are shown in the table below. The proposed project was analyzed assuming full buildout in the year 2024, immediately following the construction period.

Operational GHG Emissions

Emission Source	Year 2024 Total Emissions	Year 2030 Total Emissions
	MT CO_2e per year[1] (biogenic CO_2 are not included)	
Area	0.5	0.5
Energy[2]	28	28
Mobile (Vehicles)	70	59
Waste	3	3
Water	2	2
Total Project Emissions	***104***	***93***
Service Population[3]	28	28
SB 32 Efficiency Threshold	**4.8 MT CO_2e/service population/year**	**3.4 MT CO_2e/service population/year**
Project Emission Generation (MT CO_2e/service population/year)	**3.7[3]**	**3.3[5]**
Exceeds Threshold?	**No**	**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
1 Emission totals may not sum exactly due to rounding.
2 The proposed project would adopt an all-electric design and would not include natural gas use. However, natural gas use is included in CalEEMod to provide a conservative estimate of air quality and GHG emissions.
3 As discussed in Section 2.14, Population and Housing, the California Department of Finance (CDF) states the average persons per household in the County is 2.84. Therefore, it can be assumed that the proposed project would result in an increase of approximately 28 residents.
4 Calculation: 104 MT CO_2e per year/28 residents = 3.7 MT CO_2e/service population/year. The 104 MT CO_2e excludes biogenic CO_2 based on BAAQMD CEQA Guidelines.
5 Calculation: 93 MT CO_2e per year/28 residents = 3.3 MT CO_2e/service population/year. The 93 MT CO_2e excludes biogenic CO_2 based on BAAQMD CEQA Guidelines.
Source: CalEEMod Output, FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

As shown in the table above, the proposed project would result in operational GHG Emissions of 104 MT CO_2e in 2024 and 93 MT CO_2e in 2030, which when divided by the service population of 28 residents, would result in 3.7 MT CO_2e/service population/year in 2024 and 3.3 MT CO_2e/service population/year in 2030. Consequently, the proposed project would not exceed the efficiency thresholds and demonstrates that the proposed project would contribute to meeting the County's CAP GHG reduction targets and SB 32 GHG emission reduction goals. Therefore, the proposed

[65] FirstCarbon Solutions. 2022. Air Quality, Greenhouse Gas Emissions, and energy Supporting Information Report. 3180 Walnut Boulevard Contra Costa County, California.

project would not generate significant amounts of GHG emissions, and impacts would be less than significant.

b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant impact. The following discusses project consistency with applicable plans adopted for the purpose of reducing GHG emissions, which include ARB's Scoping Plan and County CAP.

Senate Bill 32 2017 Scoping Plan Update

The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The table below provides an analysis of the proposed project's consistency with the 2017 Scoping Plan Update measures. As shown in the table below, many of the measures are not applicable to the proposed project, and the proposed project is consistent with strategies that are applicable.

Consistency with SB 2017 Scoping Plan Update

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 350: 50 Percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	**Not applicable.** This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from PG&E, which would be subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are submitted.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles used by future residents at the project site would benefit from the standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million Zero Emission Vehicles (ZEVs) on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Not applicable.** This measure is not applicable to the proposed project; however, vehicles accessing the project site would benefit from the increased availability of cleaner technology and fuels. In addition, as stipulated by the 2022 California Building Code, Title 24, Part 11, Chapter 4, Section 4.106.4.1, new one-family dwellings, such as the proposed project, would be required to implement the applicable provisions of Title 24, Part 6, Section 4.106.4 of the California Building Code to support future electric vehicle supply equipment (EVSE).
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services	**Not applicable.** The proposed project is residential in nature and would not have any major freight vehicles operational.

2017 Scoping Plan Update Reduction Measure	Project Consistency
produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	
Short-lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** Consistent with BAAQMD Regulation 6, Rule 3, no wood-burning devices are proposed as part of the proposed project. Therefore, the proposed project would not include major sources of black carbon.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a Sustainable Communities Strategy for reduction of per capita VMT.	**Not applicable.** The proposed project does not include the development of a Regional Transportation Plan.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The proposed project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the proposed project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not applicable**. The proposed project is in a built-up urban area and would not be considered natural or working lands.
Source of ARB 2017 Scoping Plan Update Reduction Measures: California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November.	

As shown in the table above, implementation of the proposed project would not conflict with the reduction measures proposed in SB 32.

Contra Costa County Climate Action Plan

As described previously, the CAP was adopted on December 15, 2015, and is designed to demonstrate consistency with 2020 GHG reduction targets presented by AB 32. In addition, the CAP forecasts the potential GHG emissions and estimated GHG reductions from proposed measures through 2035.[66] The County's CAP is structured around the following six topic areas: energy

[66] Contra Costa County. 2015. Climate Action Plan. December 15.

efficiency and conservation, renewable energy, land use and transportation, solid waste, water conservation, and government operations.

The proposed project incorporates several design elements that would reduce GHG emissions, such as conformance to the most recent Building Energy Efficiency Standards and CALGreen building regulations, installation of rooftop solar PV system, installation of one EV charging raceway in each garage, highly efficient lighting, and the use of low VOC content architectural coating at 30 grams per liter. Although this worksheet would not be required, the County could require the project include the worksheet to further demonstrate consistency with the CAP because the worksheet is required only on a case-by-case basis.[67] The proposed project would be consistent with the measures in the CAP, as identified in the table below.

Contra Costa County CAP Consistency

Applicable Goals	Measures	Consistency Analysis
Energy Efficiency and Conservation		
Increase energy efficiency in residential and commercial buildingstock, and reduce community-wide electricity and natural gas use.	**EE-1:** Provide opportunities for residential buildings to become more energy efficient.	**Consistent.** The proposed project would comply with the California Building Code and the most recent adopted version of the Building Energy Efficiency Standards. This would improve energy efficiency in the proposed residential homes compared to existing conditions. In addition, the proposed project would include landscaping and storm retention areas with native vegetation, which would reduce the urban heat island effect. Furthermore, the proposed project would be designed as all-electric and would not include natural gas as a source of heating or cooking appliances.
	EE-4: Reduce urban heat islands through vegetation management and cool surfaces.	
Renewable Energy		
Increase the production of renewable energy from small-scale and commercial-scale renewable energy installations.	**RE-1:** Promote installation of alternative energy facilities on homes and businesses	**Consistent.** The proposed project would install a PV rooftop solar system in accordance with the requirements contained in Title 24 of the California Building Code, which would increase renewable energy production compared to existing conditions.
Land Use and Transportation		
Reduce transportation emissions.	**LUT-1:** Maintain and expand access to goods, services, and other destinations through increased transportation alternatives (mobility improvements) and improved proximity (land use improvements).	**Consistent**. The proposed project would include a private garage as part of each home, which would provide secure parking to store bicycles. In addition, the new private street would maintain bicycle access to Grayson Road. These roadway improvements would not prohibit alternative transportation use.
	LUT-4: Reduce vehicle miles traveled.	**Consistent**. The proposed project site is served by the County Connection bus route #16 and #18, which have stops located 0.6 miles from the

[67] Contra Costa County. 2015. Climate Action Plan, Page E-1. December 15.

Applicable Goals	Measures	Consistency Analysis
		proposed project site and stops at the Pleasant Hill BART Station. Therefore, the proposed project would be located near existing transit routes that could reduce project resident VMT.
Waste Reduction and Recycling		
Increase recyclingand composting inthe commercial sector.	**W-1:** Develop a waste reduction strategy to increase recycling and reuse of materials.	**Consistent**. The proposed project site is served by Republic Services for solid waste management, which provides solid waste collection and disposal of residential and commercial solid waste. Republic Services would be required to implement recycling and waste reduction measures as part of service of the proposed project.
Water Conservation		
Conserve water.	**WE-1:** Reduce water demand.	**Consistent**. The proposed project would be constructed in conformance with CALGreen and the Title 24 Building Code, which requires high-efficiency water fixtures and water-efficient irrigation systems. In addition, the proposed project would include landscaping composed of native plant species that would reduce water demand compared to traditional landscaping.
Source: Contra Costa County. 2015. December 15. Climate Action Plan. Website: https://www.contracosta.ca.gov/8681/2015-Climate-Action-Plan. Accessed June 6, 2023.		

As shown in the table above, the proposed project's design features, such as rooftop solar PV systems and EV charging raceways, would ensure the proposed project would be consistent with the goals and strategies contained in the CAP. The proposed project would adopt an all-electric design, consistent with County Ordinance 2022-02. Furthermore, the proposed project would be consistent with the 2017 Scoping Plan. Therefore, the proposed project would not conflict with an adopted GHG reduction plan and impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
9. Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Environmental Evaluation

The analysis in this section is based on the Government Records Report prepared by Envirosite Corporation for the proposed project, generated on September 23, 2022.

Setting

Envirosite Corporation prepared a Government Records Report for the site in accordance with EPA AAI (40 Code of Federal Regulations [CFR] Part 312) requirements and the American Society for Testing and Materials (ASTM) wE-1527-21 Environmental Site Assessments standard. The report indicates no environmental points of concern on the project site. A number of Hazardous Waste Information System (HAZNET) listings were identified within 0.25 mile of the project site. These listings appear to be associated with private residences and asbestos waste. An unpermitted solid waste facility/landfill (SWF/LF) is located approximately 0.40 mile northwest of the project site and is

the nearest potential point of environmental concern. However, based on the distance between the SWF/LF and the project site, the difference in elevation, and the information available about the SWF/LF site, the facility does not pose an environmental risk to the project site.

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than significant impact. The proposed project consists of the construction of 10 single-family homes. Construction activities would require the routine use of substances such as solvents, paints, fuel, and other potentially hazardous substances. These materials are commonly used during construction activities and would be used in limited quantities. Heavy construction equipment such as dozers, excavators, and tractors would likely require the use of petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. These activities are standard activities at most construction sites, and the risks associated with the proposed project would be similar to the risks associated with other similar construction sites. The handling, use, and storage of hazardous materials is regulated by numerous agencies, including the California Environmental Protection Agency (Cal/EPA), Caltrans, California Division of Occupational Safety and Health (Cal/OSHA), and the Department of Toxic Substances Control (DTSC), in addition to applicable local regulations. All construction projects must comply with the Hazardous Materials Transportation Act administered by the United States Department of Transportation (USDOT) and implemented in California by Caltrans, as well as the applicable State Water Board NPDES Construction General Permit requirements.

Substances that may be used during project operation include cleaning agents, building maintenance chemicals, and pesticides and herbicides used for landscaping and maintenance. The amount of materials required for these activities would not be large enough to create a significant hazard to the public or environment. Although the proposed project would operate as single-family residences with no significant use of heavy chemicals or pollutants, the transport, use, and disposal of these operational substances is controlled and regulated by the Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and the federal Clean Air Act. Therefore, operation of the proposed project would not create a significant hazard to the public or the environment. Compliance with the applicable local, State, and federal standards, policies, and regulations would help ensure that the routine transport, use, or disposal of hazardous materials would not create a significant hazard. Therefore, impacts are considered less than significant.

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?

Less than significant impact. During project construction activities, there is always a limited risk of the accidental release of hazardous materials such as gasoline, oil, or fluids from construction equipment. However, use of these materials would be conducted in compliance with applicable federal, State, and local regulations, policies, and ordinances set forth by the EPA, State Water Board, DTSC, Cal/OSHA, Caltrans, RCRA, and Contra Costa Environmental Health Department. These include, but are not limited to, California Health and Safety Code Sections 25270.7, 25270.8, and 25507,

California Vehicle Code Section 23112.5, California Public Utilities Code Section 7673 (PUC General Orders #22-B, 161), California Government Code Sections 51018 and 8670.25.5(a), California Water Code Sections 13271 and 13272, California Labor Code Section 6409.1(b)10, and NPDES Construction General Permit requirements. Compliance with the provisions of these regulations would help minimize the risk of accidental release of hazardous materials into the environment and that appropriate remediation measures are implemented in the event of an accidental release. As such, impacts related to the release of hazardous materials into the environment would be less than significant with the implementation of mitigation.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than significant impact. The nearest school to the project site is Walnut Heights Elementary school, located approximately 0.16 mile east of the site. While construction of the proposed project could emit hazardous emissions, these emissions would be temporary and the project applicant is required to comply with all safe transport, handling, and disposal requirements and regulations. Operation of the proposed single-family homes would be similar to existing residential uses surrounding the site, and not result in the emission or handling of large quantities of hazardous materials, substances, or waste. Therefore, there would be less than significant impacts related to the possibility of hazardous emissions or handling of hazardous materials, substances, or waste within 0.25 mile of a school.

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?

No impact. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5[68] and therefore would not create a significant hazard to the public or the environment. As such, no impacts would occur.

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 or excessive noise for people residing or working in the project area?

No impact. The nearest airport to the project site is project site is the Buchanan Field Airport, located over six miles northwest of the project site. The project site is outside of the area affected by federal aviation regulations and the airport influence area and is therefore not subject to the noise and safety regulations pursuant to the Buchanan Field Airport Master Plan.[69] Therefore, the

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[68] Department of Toxic Substances Control (DTSC). Envirostor. 2021 Hazardous Waste and Substances Site List. Website: https://www.envirostor.dtsc.ca.gov/public/search.asp?page=1&cmd=search&business_name=&main_street_name=&city=&zip=&county=&status=ACT%2CBKLG%2CCOM&branch=&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&npl=&funding=&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&reporttype=CORTESE&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&searchtype=&hwmp_site_type=&cleanup_type=&ocieerp=&hwmp=False&permitted=&pc_permitted=&inspections=&inspectionsother=&complaints=&censustract=&cesdecile=&school_district=&orderby=upper%28business_name%29. Accessed June 6, 2023.

[69] Contra Costa County Airport Land Use Commission. 2000. Contra Costa County Airport Land Use Compatibility Plan. Website:https://www.contracosta.ca.gov/DocumentCenter/View/851/Cover-Introduction-and-County-wide-Policies?bidId=. Accessed June 6, 2023.

proposed project is not located within an airport land use plan or within an airport influence area or within 2 miles of a public or public use airport and no impacts would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. The proposed project consists of the construction of 10 single-family homes on a site zoned for residential development. Therefore, the proposed project would not result in a significant population increase in the County, and would not significantly affect travel along Walnut Boulevard, Ygnacio Valley Road, or other major evacuation routes. [70]

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than significant impact. The project site is located within an urbanized and residential area of the County that has not experienced wildfire. According to topographic data available from Google Earth, the site slopes down generally from northeast to southwest, from an elevation of 232 feet (WGS84) down to a minimum of 192 feet. The project site and surrounding area, including the City of Walnut Creek, is located in a Local Responsibility area in a Non-Very High Fire Hazard Severity Zone (VHFHSZ).[71] Furthermore, the proposed project would be required to adhere to all applicable requirements and regulations related to fire safety, including the California Fire Code and CBC. As such, the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. As such, impacts would be less than significant.

Mitigation Measures

None required.

[70] Contra Costa County. 2015. Emergency Operations Plan. Website: https://www.cocosheriff.org/home/showpublisheddocument/168/637284267426930000. Accessed June 6, 2023.

[71] California Department of Forestry and Fire Protection (CAL FIRE). 2009. Contra Costa County: Very High Fire Hazard Severity Zones in LRA as Recommended by CAL FIRE. Website: https://osfm.fire.ca.gov/media/6660/fhszl_map7.pdf. Accessed June 6, 2023.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
10. Hydrology and Water Quality *Would the project:*				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Environmental Evaluation

The analysis in this section is based on the Hydrologic and Hydraulic Analyses and Stormwater Control Plan prepared by dk Engineering in March 2022.

Setting

The project site is located within the jurisdiction of the San Francisco Bay RWQCB, Region 2.[72] The State Water Board regulates stormwater discharges under authorities of the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act. The State Water Board issues National Pollutant Discharge Elimination System (NPDES) permits for stormwater discharges, including those from Municipal Separate Storm Sewer Systems (MS4s). The NPDES General Construction Permit

[72] California State Water Resources Control Board (State Water Board). 2022. State and Regional Water Boards. Website: https://www.waterboards.ca.gov/sanfranciscobay/. Accessed June 6, 2023.

applies to all construction activities that would disturb 1 acre of land or more. To comply with the requirements of the Construction General Permit, the project applicant must prepare a Storm Water Pollution Prevention Plan (SWPPP) which identify BMPs that will be employed to prevent soil erosion and discharge of pollutants that could contaminate nearby water resources.

The Contra Costa Clean Water Program (CCCWP) is responsible for the County's compliance with its NPDES permits. The CCCWP's current NPDES permits are the Municipal Regional Permit (MRP) for discharges to the San Francisco Bay and the East Contra Costa County Permit for discharges into the Delta. Contra Costa County Ordinance Title 10, Division 1014, Stormwater Management and Discharge Control, supports the CCCWPs authority in implementing the requirements of the County's NPDES permits.[73] Additionally, the CCCWP assists its member agencies, which consists of the County and 20 other local government agencies, to implement stormwater quality activities in compliance with State and federal requirements.[74]

The project site is located within the EBMUD service area. EBMUD provides potable water to approximately 1.4 million people in a 332-square-mile area, including unincorporated areas within Alameda and Contra Costa counties. The EBMUD's primary water source is the Mokelumne River, with approximately 90 percent of the water supply originating from the Mokelumne River watershed. The remaining 10 percent originates as runoff from the protected watershed lands in the East Bay Area.[75] As detailed in Section 2.18, Utilities and Service Systems, EBMUD's water supply is projected to meet demand during normal years and single dry years out to 2050. However, during multi-year droughts EBMUD would be required to obtain supplemental supplies to meet customer demands.[76]

The project site slopes down generally from northeast to southwest, from an elevation of 232 feet to a minimum of 192 feet, with some areas of the site containing slopes up to 50 percent. There is an existing drainage swale flowing along the northern and western boundary that collects runoff from a portion of the site and several neighboring parcels. The project proposes to drain runoff from each of the private lots to the proposed new private street where it would be conveyed to a bioretention basin located on Lot 10, a natural low point allowing for gravity flow of stormwater runoff. The bioretention basin would serve as a dual-purpose basin for both treatment and retention. Treated stormwater would then be directed to the existing storm drain system in Walnut Boulevard. The proposed storm drain system and bioretention basin would meet County requirements and would effectively accommodate the runoff that would be generated by the proposed project.

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[73] Contra Costa Public Works. 2022. Contra Costa County Watershed Program. Website: https://www.contracosta.ca.gov/344/Contra-Costa-County-Watershed-Program. June 6, 2023.

[74] Contra Costa Clean Water Program. 2022. About Us. Website: https://www.cccleanwater.org/about. Accessed June 6, 2023.

[75] East Bay Municipal Utility District (EBMUD). 2021. Urban Water Management Plan 2020. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan. Accessed June 6, 2023.

[76] East Bay Municipal Utility District (EBMUD). 2021. Water Shortage Contingency Plan 2020. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan. Accessed June 6. 2023.

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than significant impact. The proposed project has the potential to release water pollutants during both construction and operation. During grading and construction activities, runoff carrying eroded soil and pollutants could enter storm drainage systems, increasing sedimentation and degrading downstream water quality. However, because the proposed project disturbs more than one acre of land, under the NPDES General Construction Permit the preparation and implementation of SWPPP is required. The SWPPP would identify structural and nonstructural BMPs intended to prevent erosion during construction. Compliance with applicable policies and regulations would minimize the potential to degrade water quality in downstream water bodies to the maximum extent possible. As such, the proposed project's construction-related impacts related to surface and groundwater quality would be less than significant.

The proposed project consists of the subdivision of the existing site into 10 lots for the development of 10 single-family homes. Implementation of the proposed project would introduce 40,755 square feet of new impervious surface area as compared to existing conditions, which would increase the generation of runoff that could carry pollutants into waterways. As described in the Stormwater Control Plan, the proposed project would utilize disconnected impervious areas, such as permeable pavers for the project site's driveways, and landscape features including bioretention to treat and manage stormwater. Furthermore, the stormwater runoff would flow through the storm drain system where it would be treated by a bioretention area before it connects with the existing storm drain system in Walnut Boulevard. C.3 is a provision in the MRP which requires permittees to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address pollutant discharges and prevent increases in runoff flows.[77] The landscaped bioretention basin facility would be consistent with C.3 stormwater requirements and would be located on Lot 10. Furthermore, the proposed project would implement permanent source control BMPs such as landscaping designed to minimize irrigation and runoff and minimal use of fertilizers and pesticides that could contribute to polluted runoff.

The proposed project would be required to comply with the NPDES program and all Ordinance Code requirements related to stormwater pollution, which would minimize the potential to degrade water quality in downstream water bodies to the maximum extent possible, the impacts to surface or groundwater quality would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than significant impact. The project site is not located above an identified groundwater basin or subbasin within the San Francisco Bay Hydrologic Region.[78] However, the EBMUD service area does

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[77] Contra Costa Clean Water Program (CCCWP). 2017. Stormwater C.3 Guidebook. Website: https://www.cccleanwater.org/userfiles/kcfinder/files/Stormwater_C3_Guidebook_7th_Edition_2017-05-12%281%29.pdf. Accessed June 6, 2023.

[78] California State Water Resources Control Board (State Water Board). 2016. Groundwater Basins and Subbasins within the San Francisco Bay Hydrologic Region. Website:

include the East Bay Plain Subbasin. In the event of an emergency or prolonged extreme drought conditions, EBMUD will supplement supply using local groundwater resources via its Bayside Groundwater Facility.[79] As detailed in Section 2.18, Utilities and Service Systems, the proposed project would receive potable water from EBMUD via an existing domestic water line within Walnut Boulevard. EBMUD's primary sources of water supply are the Mokelumne River and the East Bay Area watershed runoff. According to the 2020 Water Shortage Contingency Plan (WSCP), under base conditions assumptions EBMUD is projected to meet customer demand out to 2050 during normal years and single dry years. However, during multi-year droughts EBMUD would be required to obtain supplemental supplies to meet customer demands, as mentioned previously.[80] EBMUD does not operate water wells in the vicinity of the project site. The Geotechnical Exploration performed for the project site did not observe static or perched groundwater in any subsurface exploration.

Development of the proposed project would introduce a total of 40,755 square feet of new impervious surfaces on the project site. However, as detailed in the Stormwater Control Plan and the Hydrologic and Hydraulic Analyses, the proposed bioretention basin would allow for treatment and percolation of water into the underlying soils, which would, in turn, contribute to groundwater recharge. The proposed project would also utilize pervious pavers for project site driveways and landscaping features on the project site. No groundwater extraction or utilization is included as a part of the proposed project. Therefore, the proposed project would have a less than significant impact on groundwater supplies or groundwater recharge.

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Less than significant impact. Grading and site preparation for the proposed project would create new drainage patterns, including surface runoff being directed to the proposed bioretention basin in Lot 10 via the new private road, and eventually to the existing storm drain system in Walnut Boulevard. As discussed above in Impact 2.10(a), the project's construction activities would be subject to compliance with NPDES requirements, including the General Construction Permit which requires implementation of a SWPPP. The SWPPP would identify structural and nonstructural BMPs intended to prevent erosion during construction. Furthermore, the proposed bioretention catch basin and treatment device would reduce potential sediment from entering downstream waterways. Compliance with NPDES requirements and implementation of on-site treatment features would reduce impacts related to erosion or siltation on- or off-site. Therefore, the proposed project would have a less than significant impact.

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https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/groundwater/BasinLinks/Groundwater_Basins_Map_Table.pdf. Accessed June 6, 2023.

[79] East Bay Municipal Utilities District (EBMUD). 2022. Website: https://www.ebmud.com/water/about-your-water/water-supply/bayside-groundwater-project. Accessed June 6, 2023.

[80] East Bay Municipal Utility District (EBMUD). 2021. Water Shortage Contingency Plan 2020. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan. Accessed June 6. 2023.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than significant impact. According to the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (NFHL), the proposed project is located in Zone X, an area of minimal flood hazard.[81] Furthermore, the Geotechnical Exploration noted that the project site is located outside of the 0.2 percent annual chance floodplain and the General Plan does not identify the project site as being within a 100 Year Floodplain.[82,83] As previously discussed, implementation of the proposed project would result in an increase in impervious surfaces. However, the Hydrologic and Hydraulic Analyses prepared for the proposed project concluded that, with the implementation of the detention/bioretention basin, post-development flows would not exceed pre-development flows, in compliance with C.3 requirements. Furthermore, as detailed in Table 1 Peak Flow Rates of the Hydrologic and Hydraulic Analyses, peak flow rates for 10-year, 25-year and 100-year rainfall events under the post-development with retention scenario are lower than the pre-development peak flow rates. Additionally, if outlets are overwhelmed during a large rainfall event, runoff would release down the proposed new private street and into the catch basins in Walnut Boulevard, similar to the historical drainage pattern of the project site. As such, impacts would be less than significant.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

Less than significant impact. As mentioned above, the proposed project would not result in an increase in peak flow as compared to existing flow on-site. The proposed project would be served by existing stormwater drainage systems near the project site. Furthermore, the proposed project would install a bioretention basin on Lot 10, which would act as a dual-purpose basin for treatment and retention, reducing the likelihood of pollutants to be carried off-site. Treated stormwater runoff from the proposed bioretention device would be discharged into the existing public storm drain system in Walnut Boulevard. The selection, sizing, and preliminary design of stormwater treatment and other control measures detailed in the Stormwater Control Plan prepared for the proposed project meet the requirements of the MRP.[84] As such, impacts would be less than significant.

(iv) impede or redirect flood flows?

Less than significant impact. The proposed project consists of the division of the existing site into 10 lots and the development of 10 single-family homes. The proposed project would increase the amount of impervious surfaces on the project site compared to existing conditions; however, a bioretention basin is proposed along the Walnut Boulevard frontage for stormwater treatment. As described previously, project site runoff would flow through the storm drain system where it would be treated by a bioretention area before it connects with the existing storm drain system in Walnut Boulevard. According to the Hydrologic and Hydraulic Analyses, post-development flows would not exceed pre-development flows and if the outlets of the storm drain system are overwhelmed, runoff will release down the proposed new private street and into catch basins in Walnut Boulevard. As discussed above, the proposed project is located in an area of minimal flood hazard.[85] Furthermore,

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[81] Federal Emergency Management Agency (FEMA). 2020. National Flood Hazard Layer FIRMette. Website: https://msc.fema.gov/portal/search?AddressQuery=wlanut%20creek#searchresultsanchor. Accessed June 6, 2023.
[82] ENGEO Incorporated (ENGEO). 2020. Preliminary Geotechnical Exploration. March.
[83] Contra Costa County. 2005. Contra Costa County General Plan. Safety Element, Figure 10-8 Flood Hazard Areas.
[84] dk Engineering. 2022. Stormwater Control Plan for 3180 Walnut Boulevard. June.
[85] ENGEO Incorporated (ENGEO). 2020. Preliminary Geotechnical Exploration. March.

the project site is not within the 0.2 percent annual chance floodplain or a 100 Year Floodplain.[86,87] Therefore, impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than significant impact. As discussed above, the project site is located outside of the 0.2 percent annual chance floodplain and therefore flooding is not expected at the project site. Additionally, the Geotechnical Exploration noted that, due to the topographic and lithographic features of the project site, the risk of tsunamis, flooding or seiches is considered low to negligible.[88] According to General Plan Figure 10-8, Flood Hazard Areas, the project site is not located in an area identified as a 100 Year Flood Plain,[89] and is located outside a tsunami hazard area.[90] As such, impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than significant impact. The Sustainable Groundwater Management Act allows local water agencies to form a Groundwater Sustainability Agency (GSA) to develop, adopt and implement a groundwater sustainability plan.[91] As discussed previously, EBMUD would provide water to the proposed project. EBMUD, along with the City of Hayward, lies atop the East Bay Plain (EBP) groundwater subbasin and both agencies are the GSAs for the section of the EBP subbasin beneath their respective service areas. EBMUD and the City of Hayward jointly prepared the East Bay Plain Subbasin Groundwater Sustainability Plan in January 2022.[92]

As previously discussed, no groundwater extraction or utilization is included as a part of the proposed project. As such, the proposed project would not interfere with the implementation of any adopted water quality control plan. Furthermore, as discussed above, the proposed project would include a bioretention system that would ensure stormwater runoff would be controlled and directed to the municipal stormwater control systems or percolate into the groundwater basin for recharge. Therefore, based on the implementation of the BMPs discussed above, the incorporation of project-specific design features including a bioretention basin, and project compliance with NPDES permit requirements, project impacts would be less than significant.

Mitigation Measures

None required.

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[86] Ibid.
[87] Contra Costa County. 2005. Contra Costa County General Plan. Safety Element, Figure 10-8 Flood Hazard Areas.
[88] ENGEO Incorporated (ENGEO). 2020. Preliminary Geotechnical Exploration. March.
[89] Contra Costa County. 2005. Contra Costa County General Plan. Safety Element, Figure 10-8 Flood Hazard Areas.
[90] California Department of Conservation. 2019. California Tsunami Maps and Data. Website: https://www.conservation.ca.gov/cgs/tsunami/maps. Accessed June 6, 2023.
[91] East Bay Municipal Utilities District (EBMUD). City of Hayward. 2022. East Bay Plain Subbasin Groundwater Sustainability Plan, Executive Summary. Website: https://www.ebmud.com/water/about-your-water/water-supply/groundwater-sustainability-agencies/east-bay-plain-subbasin-gsp-documents. Accessed June 6, 2023.
[92] Ibid.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
11. Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Environmental Evaluation

Setting

The site is designated SL by the General Plan Land Use Element (Exhibit 3), and is zoned as R-20 according to the Zoning Map (Exhibit 4). The SL land use designation allows a for a range of 1.0 to 2.9 single-family units per net acre and the R-20 zoning designation allows for a detached single-family dwelling on each lot and the accessory structures and uses normally auxiliary to it. The project site is surrounded by existing residential development and is bounded by existing roadways Walnut Boulevard to the southwest and View Lane to the southeast.

Would the project:

a) Physically divide an established community?

Less than significant impact. The physical division of an established community typically refers to the construction of a physical feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local road or bridge that would impair mobility within an existing community or between a community and outlying area. The proposed project does not propose the construction of such a feature. The project proposes to divide the existing lot into 10 lots for 10 single-family residential homes. Existing roadways Walnut Boulevard and View Lane would not be altered in a way that would reduce connectivity. Therefore, the proposed project would not physically divide an established community and would improve connectivity within the community. As such, impacts would be less than significant.

The proposed project consists of the division of the existing lot into 10 lots for 10 single-family residential homes, which would be consistent with the land use designation and zoning. As described above, the project applicant is seeking concessions under the Density Bonus Law, including waivers and reductions in development standards relating to minimum lot area and lot width, front yard and side yard setbacks, and retaining wall setbacks. Under California Government Code 65915(e)(1), the proposed project would not be subject to any development standard that would physically preclude the construction of housing unit densities afforded by the Density Bonus Law. Therefore, the proposed project's alternative development standards outlined in Table Project Summary and Alternative Development Standards, would be considered for approval as part of the Density Bonus waivers. With approval of the proposed waivers, the proposed project would not conflict with the current zoning land use designation and impacts would be less than significant.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant impact. As discussed above, the project site is zoned R-20 and its land use designation is SL. Primary land uses permitted in the SL designation include detached single-family homes and accessory buildings and structures. Secondary uses generally considered to be compatible with low density homes may be allowed, including home occupations, small residential care and childcare facilities, churches, and other similar places of worship, ADUs, and other uses and structures incidental to the primary uses. The R-20 zoning designation allows for a detached single-family dwelling on each lot and the accessory structures and uses normally auxiliary to it.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
12. Mineral Resources *Would the project:*				
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?	☐	☐	☐	☒

Environmental Evaluation

Setting

According to the General Plan, the mineral extraction industry is responsible for significant employment within the County. The most important mineral resources that are currently mined in the County include crushed rock, currently being extracted near Mount Zion, north of Mount Diablo.[93] This regionally significant deposit of diabase—a volcanic rock—is located approximately 3.80 miles east of the project site.[94] The Clayton Quarry, owned and operated by CEMEX, mines diabase from this deposit in the form of aggregates. The quarry operation is located at 515 Mitchel Canyon Road in Clayton, California approximately 4.70 miles east.[95]

Would the project:

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?

No impact. As discussed above, the project site does not contain any known mineral resources. The General Plan identifies significant mineral resource areas of diabase, clay, and domengine sandstone within the County. None of these mineral resource areas are in the vicinity of the project site. The nearest mineral resource area is a deposit of diabase approximately 3.80 miles east of the project site. Therefore, the proposed project would have no impact on a known mineral resource that would be of value to the region and the residents of the State. As such, no impact would occur.

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?

No impact. As discussed above, the project site does not currently support any mineral extraction activity and there are no regionally significant mineral deposits, as identified by the General Plan, in the vicinity of the project site. Furthermore, the project proposes to subdivide the project site into 10 lots for 10 single-family residential homes and would not support any mineral extraction activity. Therefore, the proposed project would not result in the availability of a locally important mineral

[93] Contra Costa County. 2005. Contra Costa County General Plan. Conservation Element.
[94] Contra Costa County. 2005. Contra Costa County General Plan. Conservation Element, Figure 8-4 Mineral Resource Areas.
[95] CEMEX. 2022. About Clayton Quarry. Website: cemexclaytonquarry.com/about-clayton-quarry/. Accessed June 6, 2023.

recovery site as delineated in a local general plan, specific plan, or other land use plan. No impact would occur.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
13. Noise *Would the project result in:*				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or 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?	☐	☐	☒	☐

Environmental Evaluation

Setting

This Noise Impact Analysis has been prepared by FirstCarbon Solutions (FCS) generated on September 28, 2022. to determine the off-site and on-site noise impacts associated with the proposed project.

Characteristics of Noise

The standard unit of measurement of the loudness of sound is the decibel (dB). The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. A change of 3 dB is the lowest change that can be perceptible to the human ear in outdoor environments. While a change of 5 dBA is considered to be the minimum readily perceptible change to the human ear in outdoor environments.

Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was derived to relate noise to the sensitivity of humans, it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the CNEL, both of which represent how humans are more sensitive to sound at night. In addition, the equivalent continuous sound level (L_{eq}) is the average sound energy of time-varying noise over a sample period and the L_{max} is the maximum instantaneous noise level occurring over a sample period.

Regulatory Framework

The project site is located within Contra Costa County. The County addresses noise in their General Plan[96] and Ordinance Code.[97]

Contra Costa County General Plan

The Noise Element of the General Plan establishes the following noise policies that have relevance to the project. [98]

Policy 11-1 New projects shall be required to meet acceptable exterior noise level standards as established in the Noise and Land Use Compatibility Guidelines contained in Figure 11-6 [of the Noise Element]. These guidelines, along with the future noise levels shown in the future noise contours maps, should be used by the County as a guide for evaluating the compatibility of "noise-sensitive" projects in potentially noisy areas.

Policy 11-2 The standard for outdoor noise levels in residential areas is an L_{dn} of 60 dB. However, an L_{dn} of 60 dB or less may not be achievable in all residential areas due to economic or aesthetic constraints. One example is small balconies associated with multi-family housing. In this case, second and third story balconies may be difficult to control to the goal. A common outdoor use area that meets the goal can be provided as an alternative.

Policy 11-8 Construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods.

According to the County's land use compatibility standards contained in Figure 11-6 of the Noise Element, ambient noise environments are considered normally acceptable for new single-family residential land use development with noise levels ranging up to 60 dBA CNEL/L_{dn}. Environments with noise levels ranging from 55 dBA to 70 dBA CNEL/L_{dn} are considered conditionally acceptable for new single-family land use development; and such development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Environments with noise levels from 70 dBA to 75 dBA CNEL/L_{dn} are considered normally unacceptable for new single-family land use development, and clearly unacceptable for levels above 75 dBA CNEL/L_{dn}.

Contra Costa County Ordinance Code—Noise Ordinance

It should be noted that the Ordinance Code does not contain any noise ordinance codes or performance standards that are applicable to the proposed project.

Would the project result in:

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[96] Contra Costa County. 2005. Contra Costa County General Plan, Noise Element.

[97] Contra Costa County. 2022. Contra Costa Municipal Code, Title 8 Zoning. Website: https://library.municode.com/ca/contra_costa_county/codes/ordinance_code. Accessed on June 6, 2023.

[98] Contra Costa County. 2005. Contra Costa County General Plan, Noise Element.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than significant impact with mitigation incorporated. A significant impact would occur if the proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Short-Term Construction Impacts

A significant impact would occur if construction activities would result in generation of a substantial temporary increase in ambient noise levels which would result in annoyance or sleep disturbance of nearby sensitive receptors. According to the policies of the General Plan, construction activities shall be concentrated during the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods.

Construction of the project is expected to require the use of scrapers, dozers, water trucks, haul trucks, and pickup trucks. The maximum noise level generated by each scraper is assumed to be 85 dBA L_{max} at 50 feet from this equipment. Each dozer would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by graders is approximately 85 dBA L_{max} at 50 feet. A characteristic of sound is that each doubling of sound sources with equal strength increases a sound level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. The effect on sensitive receptors is evaluated below.

The closest noise-sensitive receptors to the proposed project construction footprint are single-family residential properties that neighbor the project site to the immediate west and north. The calculated reasonable worst-case noise levels could result in hourly average noise levels of up to 83 dBA L_{eq}, at the façade of the nearest receiving residential land use when equipment operate at the nearest project boundary for a full hour[99]. However, these reasonable worst-case construction noise levels would occur only periodically throughout the day as construction equipment operate along the nearest project boundaries. However, these noise levels would drop off at a rate of 6 dBA per doubling of distance as the equipment moves over the project site.

Based on the EPA's Protective Noise Levels, with a combination of walls, doors, and windows, standard construction in accordance with building code requirements for residential developments would provide a minimum of 25 dBA in exterior-to-interior noise reduction with windows closed. During the calculated loudest phase of construction described above the interior noise levels of the nearest off-site residences would be reduced to below 60 dBA L_{eq} (80 dBA – 52 dBA = 55 dBA), which would not be considered a substantial noise impact for daytime noise levels.

The County restricts construction activities to the hours of the day that are not noise-sensitive for adjacent land uses and should be commissioned to occur during normal work hours of the day to provide relative quiet during the more sensitive evening and early morning periods. Therefore,

[99] FirstCarbon Solutions. 2022. Noise Impact Analysis. 3180 Walnut Boulevard Contra Costa County, California.

restricting construction activity to daytime hours, as well as implementing the best management noise reduction techniques and practices outlined in MM NOI-1, would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Therefore, with implementation of MM NOI-1, temporary construction noise impacts would be reduced to less than significant.

Operational/Stationary Source Noise Impacts

Less than significant impact. A significant impact would occur if operational noise levels generated by stationary noise sources at the proposed project site would result in a substantial permanent increase in ambient noise levels in excess of established standards. As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of 5 dBA or greater above ambient noise levels or in excess of existing conditions would be considered a substantial permanent increase in ambient noise levels.

The only identified new stationary noise source associate with implementation of the proposed project is new mechanical ventilation system operations for the proposed residential uses.

Mechanical Equipment Operations

At the time of this analysis, details were not available pertaining to proposed ground-floor mechanical ventilation systems for the proposed project; therefore, a reference noise level for typical mechanical ventilation systems was used. Noise levels from typical residential mechanical ventilation equipment range from 60 dBA to 70 dBA L_{eq} at a distance of approximately 3 feet.

The nearest sensitive receptor to potential mechanical ventilation system locations is the single-family residence located west of the project site. The façade of this receptor could be located as close as 70 feet from the nearest proposed mechanical ventilation system. At this distance, noise generated by proposed mechanical ventilation equipment would attenuate to 39 dBA L_{eq}. If proposed mechanical ventilation systems operated for a 24-hour period, the resulting noise level as measured at these nearest receptors would be 45 dBA CNEL.[100]

Two noise measurement surveys were taken to determine existing noise levels at the project site. The dominant noise source in the project vicinity was found to be traffic noise on adjacent roadways and lawnmowing. Documented existing ambient noise levels on the project site measured 48 dBA L_{eq} at approximately 6 feet off View Lane; and measured 62 dBA L_{eq} directly opposite of 3175 Walnut Boulevard at approximately 15 feet from the edge of the roadway[101]. Therefore, the calculated reasonable worst-case operational noise levels from proposed mechanical ventilation equipment operations would not exceed these existing measured ambient noise levels in the project area, and would therefore not result in a substantial permanent increase in noise levels in excess of established standards. Therefore, the impact of mechanical ventilation equipment operational noise levels on off-site sensitive receptors would be less than significant.

[100] FirstCarbon Solutions. 2022. Noise Impact Analysis. 3180 Walnut Boulevard Contra Costa County, California.
[101] FirstCarbon Solutions. 2022. Noise Impact Analysis. 3180 Walnut Boulevard Contra Costa County, California.

Operational/Mobile Source Noise Impacts

Less than significant impact. A significant impact would occur if implementation of the proposed project would result in a substantial increase in traffic noise levels compared with traffic noise levels existing without the project. As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of 5 dBA or greater above existing noise levels would be considered a substantial permanent increase in traffic noise levels. Another characteristic of noise is that a doubling of sound sources with equal strength is required to result in a perceptible increase (defined to be a 3 dBA or greater) in noise levels.

Generally, a doubling of traffic volumes is required to increase traffic-related noise levels by 3 dBA. The proposed project would develop 10 single-family residences in a residential neighborhood consisting of hundreds of similar single-family residences. As such, the proposed project would not generate traffic volumes sufficient to double traffic volumes along Walnut Boulevard or any other surrounding roadway. As a result, the project would not result in even a 3 dBA increase in traffic noise levels along any roadway segment in the project vicinity, and any increase would be well below the 5 dBA increase that would be considered substantial. Therefore, impacts from project-related traffic noise levels would not result in a substantial permanent increase in traffic noise levels in excess of applicable standards, and the impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. A significant impact would occur if the project would generate groundborne vibration or groundborne noise levels in excess of established standards. The County has not adopted criteria for groundborne vibration impacts. Therefore, for purposes of this analysis, the Federal Transit Administration's (FTA) vibration impact criteria are utilized. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment Manual.[102]

Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room, and may also consist of the rattling of windows or dishes on shelves. In general, if groundborne vibration levels do not exceed levels considered to be perceptible, then groundborne noise levels would not be perceptible in most interior environments. Therefore, this analysis focuses on determining exceedances of groundborne vibration levels.

Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects such as the shaking of a building can be notable. When assessing annoyance from groundborne vibration, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 microinch per second. To distinguish these vibration levels referenced in decibels from noise levels referenced in decibels, the unit is written as "VdB."

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[102] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed on June 6, 2023.

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. However, construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, project-related impacts are expressed in terms of PPV.

Short-term Construction Vibration Impacts

Of the variety of equipment that would be used during construction, large vibratory rollers (that would be used in the construction of the internal roadway) would produce the greatest groundborne vibration levels. Impact equipment such as pile drivers is not expected to be used during construction of this project. Large vibratory rollers produce groundborne vibration levels ranging up to 0.201 inch per second (in/sec) PPV at 25 feet from the operating equipment.

The nearest off-site structure to the project site construction footprint where such heavy equipment would operate is the residence located north of the project site. This nearest off-site structure would be located approximately 70 feet from the nearest construction footprint where the heaviest construction equipment would potentially operate. At this distance, groundborne vibration levels would range up to 0.04 in/sec PPV from operation of the types of equipment that would produce the highest vibration levels. This is well below the FTA's Construction Vibration Impact Criteria of 0.2 in/sec PPV for this type of structure, a building of non-engineered timber and masonry. Therefore, project construction would not result in excessive groundborne vibration levels and this impact would be less than significant.

Operational Vibration Impacts

The project would not include any permanent noise sources that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any receiving land use in the project vicinity. Therefore, operational vibration impacts on proposed on-site receptors would be less than significant.

c) For a project located within the vicinity of a private airstrip or 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?

Less than significant impact. The nearest airport to the project site is the Buchanan Field Airport, which is located approximately 6 miles north of the project site. Because of its distance from the airport runways, the project site is located outside of the airport's 55 dBA CNEL noise contours. No private airstrips are located within the vicinity of the project site. Therefore, implementation of the project would not expose persons residing or working in the project site to excessive noise levels associated with private airstrip or public airport noise. No impact would occur.

Mitigation Measures

MM NOI-1 The following Mitigation Measure shall be implemented during project construction and shall be included on all construction plans:

a. The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.
b. The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
c. The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where such market available technology exists.
d. At all times during project grading and construction, the construction contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from the nearest residential land uses.
e. The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establish reasonable measures necessary to correct the problem. The construction contractor shall visibly post a telephone number for the disturbance coordinator at the construction site.
f. Unless specifically approved otherwise by the CDD, all construction activities shall be limited to the hours of 8:00 A.M. to 5:00 P.M., Monday through Friday, and are prohibited on State and Federal holidays on the calendar dates that these holidays are observed by the State or Federal government as listed below:
   New Year's Day (State and Federal)
   Birthday of Martin Luther King, Jr. (State and Federal)
   Washington's Birthday (Federal)
   Lincoln's Birthday (State)
   President's Day (State)
   Cesar Chavez Day (State)
   Memorial Day (State and Federal)
   Juneteenth National Independence Holiday (Federal)
   Independence Day (State and Federal)
   Labor Day (State and Federal)
   Columbus Day (Federal)
   Veterans Day (State and Federal)
   Thanksgiving Day (State and Federal)
   Day after Thanksgiving (State)
   Christmas Day (State and Federal)
   For specific details on the actual day the State and Federal holidays occur, please visit the following websites:
   Federal: **http://www.opm.gov/Operating_Status_Schedules/fedhol/2015.asp**
   California: **http://www.ftb.ca.gov/aboutFTB/holidays.shtml**
g. Transportation of large trucks and heavy equipment is subject to the same restrictions that are imposed on construction activities, except that the hours are limited to 9:00 AM to 4:00 PM.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
14. Population and Housing *Would the project:*				
a) Induce substantial unplanned 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Evaluation

Setting

According to the California Department of Finance (CDF) the estimated population of Contra Costa County was approximately 1,156,555 persons as of January 2022.[103]

Would the project:

a) Induce substantial unplanned 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)?

Less than significant impact. The proposed project consists of the division of the existing site into 10 lots and the construction of 10 single-family homes. According to the CDF, the average persons per household in the County is 2.84;[104] therefore, it can be assumed that the proposed project would result in an increase of approximately 28 new residents. As the site is already zoned for residential use, the development of the proposed project would result in growth that was already envisioned and evaluated as part of the General Plan, and would represent an increase of less than 0.003 percent of the County's total population as of January 2022.[105] According to CDF projections, the County's population is expected to increase to 1,197,341 in 2025 and 1,312,526 in 2040.[106] Furthermore, the General Plan Housing Element, adopted in 2014, projects a 6 percent increase in

[103] California Department of Finance (CDF). 2022. E-4 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022. Website: https://dof.ca.gov/forecasting/Demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed June 6, 2023.

[104] California Department of Finance (CDF). 2022. E-5 Population and Housing Estimates for Cities, Counties, and State 2020-2022. Website: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdof.ca.gov%2Fwp-content%2Fuploads%2FForecasting%2FDemographics%2FDocuments%2FE-5_2022_InternetVersion.xlsx&wdOrigin=BROWSELINK. Accessed June 6, 2023.

[105] (28/1,156,555) * 100 = 0.00242

[106] California Department of Finance (CDF). 2022. Projections. P-1: State Population Projections (2010-2060). Website: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdof.ca.gov%2Fwp-content%2Fuploads%2FForecasting%2FDemographics%2FDocuments%2FP2A_County_Total.xlsx&wdOrigin=BROWSELINK. Accessed June 6, 2023.

population from 159,785 to 169,000 within unincorporated areas between 2010 and 2030.[107] As such, the proposed project would not induce substantial unplanned population growth and a less than significant impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No impact. The project site contains one vacant single-family residence. The proposed project would demolish the existing residence in order to subdivide the site into 10 lots for the development of 10 single-family residential homes. Because the existing single-family residence is vacant, the proposed project would not displace existing people or housing and would provide additional housing opportunities. As such, no impacts would occur.

Mitigation Measures

None required.

[107] Contra Costa County. 2014. Contra Costa County Housing Element.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
15. 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 public services:*				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

Environmental Evaluation

Setting

Fire

The project site is located within, and would receive fire protection services from, the CCCFPD. The CCCFPD operates out of 25 fire stations with 27 companies and over 400 employees. In 2018, CCCFPD responded to nearly 75,000 fire and emergency medical service calls with an average response time of 5:35 minutes in central Contra Costa County.[108] The fire station nearest the project site is Station 1 located at 1330 Civic Drive, Walnut Creek, approximately 1.10 miles northwest of the project site.[109]

Police

The proposed project is located in unincorporated Contra Costa County and would receive police services from the Contra Costa County Office of the Sheriff.[110] The Office of the Sheriff is the largest law enforcement agency in the County, providing police services to over 1,000,000 residents in the County, including unincorporated areas.[111] The Office of the Sheriff patrol division operates out of four station houses and includes the Blackhawk Police Department, K-9 Unit, Watch Commander, and SWAT[112] Valley Station, located at 150 Alamo Plaza #C in Alamo, California, is the nearest station approximately 2.93 miles south of the project site. The Valley Station service area includes the area from Canyon (an unincorporated community west of the Town of Moraga and east of the City of Piedmont) through the City of Walnut Creek near the border of Brentwood and all unincorporated areas to the southern Contra Costa County/Alameda County border. The Valley Station consists of 27

[108] Contra Costa County Fire Protection District (CCCFPD). 2018. Annual Report 2018. Website: https://cccfpd.org/2018-annual-report/. Accessed October 30, 2022.
[109] Contra Costa County Fire Protection District (CCCFPD). 2022. Station Addresses. Website: https://cccfpd.org/station-address/. Accessed October 30, 2022.
[110] Contra Costa County. 2005. Contra Costa County General Plan. Public Facilities/Services Element.
[111] Contra Costa County Office of the Sheriff. 2022. Office of the Sheriff Overview. Website: https://www.cocosheriff.org/about-us/office-of-the-sheriff-overview. Accessed October 27, 2022.
[112] Contra Costa County Office of the Sheriff. 2022. Patrol Division. Website: https://www.cocosheriff.org/bureaus/field-operations/patrol-division. Accessed October 27, 2022.

sworn staff members including one Lieutenant, five Sergeants, 16 Beat Deputies and five special district Deputies.[113]

Schools

There are 18 school districts and one community college district in the County.[114] The project site is located within the Walnut Creek School District (WCSD) and the Acalanes Union High School District (AUHSD).[115] The project site is located within the enrollment boundary of Walnut Heights Elementary school, located approximately 0.16 mile east of the project site and within the WCSD.[116] The project site is also within the enrollment boundary of Las Lomas High School, located approximately 0.68 mile southwest of the project site and within the AUHSD.[117]

Parks

As discussed in Section 16, Recreation, Lar Rieu Park is located approximately 0.09 mile west of the project site and Howe Homestead Park is located approximately 0.36 mile north of the project site. Shell Ridge Open Space, Diablo Foothills Regional Park, and Mount Diablo State Park are also in the vicinity of the project site. Shell Ridge Open Space is located approximately 0.19 mile to the northeast, Diablo Foothills Regional Park is located approximately 2.12 miles east, and Mount Diablo State Park is located approximately 2.78 miles to the east.

Library Facilities

Library services would be provided by the County Library System. The County Library System consists of 26 community libraries serving 351,658 library card holders.[118] The branch nearest the project site is the Walnut Creek Library, located approximately 1 mile northwest of the project site. The library features a large children's wing and garden, a Teen Zone, a Business and Career Center, a Technology Center, a 16-seat Las Trampas conference room, and four group study rooms.[119]

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 public services:

a) Fire protection?

Less than significant impact. As discussed above, the CCCFPD would provide fire protection and emergency medical services to the project site. The proposed project may increase the need for fire protection service at the project site with an increase in up to 28 new residents. The nearest station

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[113] Contra Costa County Office of the Sheriff. 2022. Valley Station. Website: https://www.cocosheriff.org/bureaus/field-operations/patrol-division/valley-station. Accessed June 6, 2023.

[114] Contra Costa County Office of Education. County School Districts. Website: https://www.cccoe.k12.ca.us/district_resources/county_school_districts. Accessed June 6, 2023.

[115] City of Walnut Creek. 2066. Walnut Creek General Plan 2025, Chapter 2 Quality of Life, Figure 4 School District Boundaries within Planning Area.

[116] Walnut Creek School District (WCSD). 2022. WCSD School Boundaries. Website: https://www.walnutcreeksd.org/Page/45. Accessed June 6, 2023.

[117] Acalanes Union High School District (AUHSD). 2022. Schoolsite Locator. Website: https://portal.schoolsitelocator.com/apps/ssl/?districtcode=12031#. Accessed June 6, 2023.

[118] Contra Costa County Library. 2022. Newsroom. Website: https://ccclib.org/newsroom/#annual-reports. Accessed June 6, 2023.

[119] Contra Costa County Library. 2022. About Walnut Creek Library. Website: https://ccclib.org/about-walnut-creek-library/. Accessed June 6, 2023.

is approximately 1.10 miles away, allowing for efficient response time to the site in the event of an emergency.

Furthermore, the County has adopted the California Fire Code (Ordinance Code Division 722) and the County Fire Marshall would review the proposed project for compliance with the adopted Fire Code and policies related to fire protection. General Plan Goal 7-Y states that upgrades to facilities and staff are regularly reviewed for the CCCFPD to achieve the General Plan's target response time of 5 minutes and General Plan Implementation Measure 10-au states that major development will not be approved if firefighting services are not available or are not adequate for the area. The proposed project would be reviewed by the County Fire Marshall for compliance with Title 7, Division 722 of the Ordinance Code, also known as the County's Fire Code, and would be required to pay the applicable fire facilities fees required by the CCCFPD Ordinance 2021-18. Lastly, the Code of Ordinances Section 818-2.6 states that within unincorporated areas within fire protection service areas where fire facilities are overextended, fire protection facilities fees shall be collected prior to the issuance of building permits for any new development. Compliance with the County Fire Code, applicable General Plan policies and payment of appropriate fees would ensure that the proposed project would have a less than significant impact on fire protection services.

b) Police protection?

Less than significant impact. The proposed project is anticipated to result in an increase of 28 individuals to the County's population and would result in an increase in demand for police protection services. The County Sheriff's Office would provide police protection services to the proposed project. Valley Station, the nearest station to the project site, is located approximately 2.93 miles south. Based on a driving distance of 4.6 miles, the response time for law enforcement responding to the project site from the Valley Station traveling at an average speed of 35 miles per hour would be 7 minutes, 52 seconds, falling short of the General Plan's target response time of 5 minutes.

General Plan Policy 7-57 indicates a Sheriff facility standard of 155 square feet of Sheriff station space per 1,000 persons of population. To maintain this standard, the project applicant would be required to pay applicable fees to the County Office of the Sheriff to help provide for costs associated with a police facility building and equipment to serve additional demands for police services. Furthermore, General Plan Implementation Measure 7-ar states that public protection facilities need will be included in the 5-year Capital Improvements Program to ensure that the facilities will be available as development proceeds. With the payment of applicable fees, the proposed project would be incompliance with applicable General Plan policies supporting the adequacy of police protection, and would have a less than significant impact on police protection facilities.

c) Schools?

Less than significant impact. The project site is located within the WCSD and the AUHSD. As discussed previously, the proposed project is estimated to result in an increase to the population of 28 persons. According to the United States Census Bureau's 2021 population estimates,

approximately 22.2 percent of the population is under the age of 18.[120] Therefore, the proposed project is anticipated to result in approximately six people under the age of 18,[121] with a corresponding increase in demand for school services. Walnut Heights Elementary school, located approximately 0.16 mile east of the project site, is a K-5 public elementary school within the WCSD. As of 2021, this school has an enrollment of 400 students.[122] Las Lomas High School, located approximately 0.68 mile southwest of the project site, is a public 9-12 high school within the AUHSD. As of 2021, this school has an enrollment of 1,580 students.[123] The increase in persons under the age of 18 generated by the proposed project would represent 1.5 percent and 0.38 percent of each school's current enrollment,[124] respectively.

The WCSD collects Developer Fees for new construction to offset costs associated with providing school facilities and services to students within the district. Fees for residential development are set as $2.86 per square foot, and credit is given for existing area that is torn down for new construction.[125] The proposed project involves demolishing the existing single-family residence present on the project site. The AUHSD also collects Developers Fees, which are currently set at $4.08 per square foot for residential construction. An agreement between AUHSD, WCSD, Moraga School District, Orinda School District, and Lafayette School District will split the residential fees and commercial fees at 30 percent for the high school district and 70 percent for the elementary school districts.[126]

Therefore, with the payment of the applicable Developer Fees, the proposed project would have a less than significant impact on school facilities.

d) Parks?

Less than significant impact. The proposed project is anticipated to result in an increase to the County population of 28 individuals, which would increase demand for parks. As discussed above and in Section 16, Recreation, the nearest park is Lar Rieu Park, located approximately 0.09 mile west of the project site, and the next nearest park is Howe Homestead Park located approximately 0.36 mile to the north. Shell Ridge Open Space is located approximately 0.19 mile to the east, Diablo Foothills Regional Park is located approximately 2.12 miles east, and Mount Diablo State Park is located approximately 2.78 miles to the east.

While the proposed project would result in an increase in demand for parks and park services, the proposed project would be required to pay park dedication and park impact fees per the County Department of Conservation and Development. Payment of in lieu park dedication fees may be applied as credit toward park impact fees. With the payment of required impact and in lieu park

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[120] United States Census Bureau. 2021. QuickFacts Contra Costa County, California. Website: https://www.census.gov/quickfacts/contracostacountycalifornia. Accessed June 6, 2023.

[121] 0.222*28 = 6.21

[122] California School Dashboard. 2022. Walnut Heights Elementary. Website: https://www.caschooldashboard.org/reports/07618126005243/2021. Accessed June 6, 2023.

[123] California School Dashboard. 2022. Las Lomas High. Website: https://www.caschooldashboard.org/reports/07616300733725/2021. Accessed June 6, 2023.

[124] (6/400)*100 = 1.5%, (6/1,580)*100 = 0.379%

[125] Walnut Creek School District (WCSD). 2022. WCSD Developer Fee Information. Website: https://www.walnutcreeksd.org/Page/103. Accessed June 6, 2023.

[126] Acalanes Union High School District (AUHSD). 2020. Annual Accounting of Developer Fees for the 2019-2020 Fiscal Year. Website: https://www.acalanes.k12.ca.us/cms/lib/CA01001364/Centricity/Domain/638/2019-2020%20Annual%20Developer%20Fees%20Report.pdf. Accessed June 6, 2023.

dedication fees, the proposed project would have a less than significant impact on existing neighborhood and regional parks.

e) Library facilities?

Less than significant impact. As discussed above, the County Library System provides library services to the County and the project site. The nearest library branch to the project site is Walnut Creek Library, located approximately 1 mile northwest of the project site. The proposed project would result in approximately 28 additional County residents and would increase demand for library services. The increase of 28 individuals would represent approximately 0.008 percent of the County Library System's 351,658 current cardholders. Therefore, the increase in library users as a result of the proposed project would be negligible. Furthermore, Goal 1, Objective D of the County Library Strategic Plan aims to increase the number of active users in the library system by 10 percent annually, which given the current number of cardholders would be an increase of approximately 35,165 users. Therefore, the increase of potential users from the proposed project's 28 new residents is consistent with demand already anticipated by the County Library, and potential impacts on other public facilities would be less than significant.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
16. Recreation				
a) Would the project 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?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Environmental Evaluation

Setting

Major park facilities in the County are owned by the federal and State governments, along with an extensive system owned and operated by the EBRPD and water district watershed recreation facilities.[127] As previously discussed in Section 1, Aesthetics, the proposed project is located in the vicinity of Shell Ridge Open Space, Diablo Foothills Regional Park, and Mount Diablo State Park, all of which are identified by the General Plan as major parks and open space areas. Shell Ridge Open Space is 0.19 mile east of the project site. Diablo Foothills Regional Park and Mount Diablo State Park are located more than 2 miles from the project site.

The General Plan Open Space Element Table 9-1, County Park Criteria, identifies a service standard of 2.50 acres per 1,000 population for neighborhood parks and 1.50 acres per 1,000 population for community parks. General Plan Goal 9-K is to achieve a level of park facilities of 4 acres per 1,000 population. This is equivalent to a level of park facilities of 0.004 acres per person. As detailed previously, the County's current population is estimated at 1,156,555 people. A population of this size would require approximately 4,626 acres of parks to meet the goal specified in the General Plan. Shell Ridge Open Space, Diablo Foothills Regional Park and Mount Diablo State Park alone account for over 22,480 acres of parkland.[128] Therefore, the County currently meets its goal of 4 acres of park land per 1,000 people.

a) Would the project 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?

Less than significant impact. As discussed in Section 2.14, Population and Housing, the CDF states the average persons per household in the County is 2.84.[129] Therefore, it can be assumed that the

[127] Contra Costa County. 2005. Contra Costa County General Plan. Open Space Element.
[128] 1,420 + 1,060 + 20,000 = 22,480
[129] California Department of Finance (CDF). 2022. E-5 Population and Housing Estimates for Cities, Counties, and State 2020-2022.

proposed project would result in an increase of approximately 28 residents, which could increase demand for existing neighborhood and regional parks in the vicinity of the proposed project.

The project applicant would be required to pay the required park dedication and park impact fees per the County Department of Conservation and Development. Park fees are collected to fund the acquisition and development of parks in the County to serve unincorporated County residents. All residential projects are required to pay a park impact fee, and residential projects requiring a development plan or subdivision may also require dedication of parkland or in lieu fees.[130] As the proposed project includes a subdivision of the existing project site into 10 lots and the development of 10 single-family residences, the project applicant would be required to pay the appropriate in lieu park dedication fees. Payment of in lieu park dedication fees may be applied as credit toward park impact fees. With the payment of required impact and in lieu fees, the proposed project would have a less than significant impact on existing neighborhood and regional parks or other recreational facilities.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less than significant impact. As discussed above, the proposed project would subdivide the existing project site into 10 lots for the development of 10 single-family homes. The proposed project does not include the development of recreational facilities. Based on the County's persons per household figures, the proposed project would increase the population by approximately 28 individuals. This increase in population would increase the demand for recreational facilities. The nearest park is Lar Rieu Park, within the City of Walnut Creek, approximately 0.09 mile west of the project site and Shell Ridge Open Space lies approximately 0.19 mile to the east. As discussed previously, the proposed project would be subject to park impact fees and parkland dedication or in lieu fees to the County. With the payment of required fees, the proposed project would have a less than significant impact on recreational facilities.

Mitigation Measures

None required.

Website: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdof.ca.gov%2Fwp-content%2Fuploads%2FForecasting%2FDemographics%2FDocuments%2FE-5_2022_InternetVersion.xlsx&wdOrigin=BROWSELINK. Accessed December 16, 2022.

[130] Department of Conservation and Development. 2022. Park Dedication and Park Impact Fees. Website: https://www.contracosta.ca.gov/DocumentCenter/View/42080/Park-Fees-Overview-PDF. Accessed October 20, 2022.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
17. Transportation *Would the project:*				
a) Conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Environmental Evaluation

Setting

Walnut Boulevard runs northwest to southeast along the western boundary of the project site. Walnut Boulevard is a two-lane street with a posted speed of 25 miles per hour (mph) between Homestead Avenue and Mountain View Boulevard.[131] Large portions of Walnut Boulevard in the vicinity of the project site cannot accommodate street parking. From the intersection of Walnut Boulevard and View Lane to the intersection of Walnut Boulevard and Homestead Avenue, approximately 0.50 mile northwest of the project site, the east side of the street does not feature sidewalks. From roughly where the western-most boundary of the project site meets Walnut Boulevard to the intersection of Walnut Boulevard and Homestead Avenue, the west side of the street does not feature sidewalks.

Walnut Boulevard intersects with Ygnacio Valley Road approximately 1.09 mile northwest of the project site. Ygnacio Valley Road is a six-lane, northeast-southwest street with posted speeds between 30 mph and 55 mph and is a main arterial road in the City of Walnut Creek.[132] According to 511 Contra Costa, a County-wide transportation program administered by the Contra Costa Transportation Authority (CCTA), neither Ygnacio Valley Road nor Walnut Boulevard feature bike lanes.[133]

Regional access to the site is provided via I-680 by way of Ygnacio Valley Road. I-680 connects to State Route (SR) 24, SR-4, and SR-242.

Would the project:

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[131] City of Walnut Creek. 2022. Walnut Creek Posted Speed Limits. Website: https://www.google.com/maps/d/viewer?mid=1IHDguHOz5bHloyzvAF23RwTyp8lVn2vv&ll=37.899378772539066%2C-122.0379594&z=13. Accessed June 6, 2023.

[132] Ibid.

[133] 511 Contra Costa. 2022. 511CC's Bike Mapper. Website: https://bike.511contracosta.org/#. Accessed June 6, 2023.

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than significant impact. Policy 4-c of the Growth Management Element of the General Plan requires a traffic impact analysis of any project that is estimated to generate 100 or more AM or PM peak-hour trips.[134] The Institute of Transportation Engineers (ITE) estimates a daily trip rate of 9.43 trips per dwelling unit, thus the proposed project's 10 single-family homes would be expected to generate 94 daily trips. The ITE estimates AM peak-hour trip generation rate of 0.70 trips per dwelling unit, and PM peak-hour trip generation rate of 0.94 trips per dwelling unit.[135] The proposed project would develop 10 single-family residences, resulting in 7 AM peak-hour trips and 9 PM peak-hour trips. Therefore, the proposed project would generate less than 100 peak-hour AM or PM trips, and a project-specific traffic impact analysis is not required. The proposed project is not anticipated to conflict with the circulation system in the project vicinity.

The Complete Streets Policy, adopted by the County Board of Supervisors on July 12, 2016, requires Complete Streets infrastructure sufficient to enable reasonably safe travel along and across the right-of-way for each category of users be incorporated into all planning, funding, design, approval, and implementation processes for any construction, reconstruction, retrofit, maintenance, operations, alteration, or repair of streets (including streets, roads, highways, bridges, and other portions of the transportation system).[136]

The proposed project would construct a new private street. The new private street would be approximately 28 feet wide, with an 8-foot parking lane on one side and a 5-foot sidewalk along the southeast section of the proposed roadway, as is required by the CCCFPD standards. Furthermore, the proposed project would include approximately 0.16 acre of public roadway dedication along Walnut Boulevard. Other frontage improvements would consist of approximately 927 square feet of sidewalk improvements.

Because the proposed project would provide sidewalk and parking on the proposed private street and implement 0.16 acre of public roadway dedication and 927 square feet of sidewalk improvements, the proposed project would comply with the Complete Streets Policy. Therefore, impacts would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less than significant impact. CEQA Guidelines Section 15064.3(b) establishes criteria for determining the significance of transportation impacts. VMT is the metric for measuring transportation impacts. The County adopted Transportation Analysis Guidelines in 2020 that provide technical assistance, thresholds of significance and mitigation measures for land development projects.[137] According to County guidelines, small projects can be presumed to cause a less than significant VMT impact. The County defines small projects as those proposing 20 residential units or

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[134] Contra Costa County. 2005. Contra Costa County General Plan. Growth Management Element.
[135] Institute of Transportation Engineers. Trip Generation Manual. 11th Edition. Volume 3. Single-Family Detached Housing.
[136] Contra Costa County. 2016. Complete Streets Policy of Contra Costa County.
[137] Contra Costa County Conservation and Development Department. Public Works Department 2020. Contra Costa County Transportation Analysis Guidelines. VMT Screening Criteria. June 23.

less .[138]The project proposes 10 single-family residential units which is under the County guidelines VMT screening criteria threshold. Therefore, impacts are considered less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant impact. The centerline of the proposed private street would be located approximately 135 feet west of the existing View Lane, which bounds the project site to the east, and 447 feet to the west of Fraser Drive. Both View Lane and Fraser Drive do not have through connections, and only serve the single-family homes located directly on them. The proposed private street would be of similar character. Walnut Boulevard has a 25 mph speed limit. The ITE recommends that, for streets with a 35 mph speed limit, there be an intersection separation of over 150 feet. However, because posted speed limits are less than 35 mph, this recommendation does not apply. As previously noted, the proposed new private street would meet the CCCFPD standards. Therefore, the proposed project would result in a less than significant impact due to design features or incompatible uses.

d) Result in inadequate emergency access?

Less than significant impact. As discussed above, the proposed new private street would be approximately 28-feet-wide as required by the CCCFPD standards. As described in Section 15 Public Services, the project site is in near existing Sheriff and Fire stations. Furthermore, the CCCFPD would review project plans prior to project approval to ensure that adequate emergency access to the proposed buildings would be adequate. Therefore, impacts would be less than significant.

Mitigation Measures

None required.

[138] Ibid.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
19. Utilities and Service Systems *Would the project:*				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) 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?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental Evaluation

Setting

The proposed project would obtain water from the EBMUD. The proposed project's wastewater would be collected by sewer lines owned and maintained by Central San and treated at Central San's Treatment Plant in Martinez, California. Stormwater runoff from the project site would be collected in the proposed bioretention basin in Lot 10 before being released to existing stormwater drains in Walnut Boulevard. Solid waste service would be provided by Republic Service and electric power and natural gas would be provided to the project site by PG&E.

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than significant impact. The proposed project's impact on water, wastewater, stormwater drainage, electricity, and natural gas is analyzed below.

Water

As described above, the project site is within the service area of EBMUD. The proposed project would connect to an existing EBMUD domestic water line within Walnut Boulevard. EBMUD obtains its water from the Mokelumne River and East Bay Area watershed runoff. The Mokelumne Aqueducts convey the Mokelumne River supply from Pardee Reservoir, located upstream of Camanche Dam, across the Sacramento-San Joaquin River Delta (Delta) to local storage and treatment facilities in the East Bay. After treatment, water is distributed to the incorporated cities and unincorporated communities in Alameda and Contra Costa counties that EBMUD serves.[139]

EBMUD adopted their 2020 Urban Water Management Plan (UWMP) in June of 2021. Average annual water demand is forecasted to be 186 million gallons per day (mgd) in 2025 and 218 mgd in 2050. Specifically, average annual water demand for single-family residential use is forecasted to be 117 mgd in 2025 and 129 mgd in 2050.[140] According to 2020 WSCP, under base conditions assumptions EBMUD is projected to meet customer demand out to 2050 during normal years and single dry years. However, during multi-year droughts EBMUD would be required to obtain supplemental supplies to meet customer demands. EBMUD is contracted to receive water from the Central Valley Project in years when EBMUD's water supplies are relatively low.[141]

The proposed project is zoned R-20 according to the Zoning Map and designated as SL by the General Plan. As the proposed project is consistent with this land use designation and zoning, the proposed project would be considered planned growth that was accounted for in the 2020 UWMP and 2020 WSCP. As previously noted, the proposed project is anticipated to result in an additional 28 residents, which represents approximately 0.002 percent of EBMUD's service population.[142] Therefore, the proposed project would not increase demand such that it would result in the relocation or construction of new or expanded water facilities. As such, the proposed project would have a less than significant impact on water services.

Wastewater

As described above, wastewater from the project site would be collected and treated by Central San. The proposed project would connect to an existing Central San 8-inch sewer line within Walnut Boulevard. Central San's Sewer System Management (SSMP) plan was approved on October 6, 2022. According to the SSMP, Central San provides sanitary sewer service to approximately 487,300 customers and 3,000 businesses in the central Contra Costa County area. Central San operates 1,500 miles of collection system piping as well as Central San's Treatment Plant which processes an average daily flow of 34 million gallons of wastewater.[143] The plant has a treatment capacity of 54 mgd and 240 mgd of wet weather flow. This facility is staffed 24 hours a day, 265 days per year.[144]

According to Central San's most recent Comprehensive Wastewater Master Plan (CWMP), completed in 2017, Central San's Collection System has sufficient capacity for existing and future dry weather

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[139] East Bay Municipal Utility District (EBMUD). 2021. Urban Water Management Plan 2020. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan. Accessed June 6, 2023.

[140] Ibid.

[141] East Bay Municipal Utility District (EBMUD). 2021. Water Shortage Contingency Plan 2020. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan. Accessed June 6. 2023.

[142] (28/1,400,00)*100 = 0.002

[143] Central Contra Costa Sanitary District (Central San). 2022. Sewer System Management Plan. Website: https://www.centralsan.org/sites/main/files/file-attachments/2020_ssmp_approved_audit_06.05.2020.pdf?1665594125. Accessed June 66, 2023.

[144] Central Contra Costa Sanitary District (Central San). 2022. Treatment Plant. Website: https://www.centralsan.org/treatment-plant. Accessed June 6, 2023.

flows, including peak daily flows, and the capacity of the 10 largest pumping stations is adequate for the peak wet weather flow of a 10-year design event, with the exception of one pumping station which may require expansion when projected future flows are realized. A 10-year sewer system event would have a 1 in 10 chance of occurring each year.[145] Central San's Capital Improvement Program (CIP) includes wet weather capacity improvements to 12 areas throughout the Central San service area within the next 10 years and an additional eight areas within the next 10 to 20 years. The CWMP concluded that no improvements were needed for existing pipelines to accommodate planned growth in the service area.[146] As discussed previously, the proposed project would not result in a significant population increase necessitating new or expanded facilities.

Central San would also review project building plans to determine the availability of public sewers in the area to serve the proposed project, as well as the plumbing for a proposed connection and whether the proposed project would encroach into existing public easements of conflict with Central San facilities.[147] Furthermore, the applicant would be required to pay a one-time Capacity Fee to ensure wastewater infrastructure capacity remains adequate for existing and future development. Central San also imposes an annual Sewer Service Charge on each property connected to its sewer system.[148] With payment of the appropriate fees and Central San's review of the proposed projects building plans, impacts would be less than significant.

Stormwater

As discussed in Section 10, Hydrology and Water Quality, implementation of the proposed project would result in an increase in impervious surfaces on the project site and thus an increase in runoff. Stormwater runoff will flow through the storm drain system where it will be treated by a bioretention area before it connects with the existing storm drain system in Walnut Boulevard. The landscaped bioretention basin facility would be consistent with C.3 stormwater requirements. C.3 is a provision in the MRP which requires permittees to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address pollutant discharges and prevent increases in runoff flows. With implementation of the proposed wastewater collection and treatment features, impacts would be less than significant.

Electricity and Natural Gas

According to County Ordinance 2022-02, all building permits issued on or after June 1, 2022**,** for new construction of residential, retail, commercial, office and hotel buildings are required to be all-electric.[149] The proposed project would comply with this ordinance. As noted above, the project site would be serviced by PG&E for electricity and gas services. The proposed project would connect to existing electric lines. No off-site construction of utilities would be required. The process of connecting the project to existing infrastructure is expected to be standard for conveying electrical power to new

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[145] Central Contra Costa Sanitary District (Central San). 2017. Comprehensive Wastewater Master Plan, Technical Executive Summary. Website: https://www.centralsan.org/sites/main/files/file-attachments/cwmp_technical_executive_summary.pdf?1510867241. Accessed June 6, 2023.

[146] Central Contra Costa Sanitary District (Central San). 2017. Comprehensive Wastewater Master Plan, Executive Summary. Website: https://www.centralsan.org/sites/main/files/file-attachments/cwmp_executive_summary.pdf?1510867154. Accessed June 6, 2023.

[147] Central Contra Costa Sanitary District (Central San). 2022. New Connections. Website: https://www.centralsan.org/post/new-connections. Accessed June 6, 2023.

[148] Central Contra Costa Sanitary District (Central San). 2022. Frequently Asked Questions. Website: https://www.centralsan.org/permit-faqs. Accessed June 6, 2023.

[149] Contra Costa County. 2022. All-Electric Building Ordinance. Website: https://www.contracosta.ca.gov/8536/All--Electric-Building-Ordinance. Accessed June 6, 2023.

development. Construction of the proposed project would comply with County-approved BMPs for utilities infrastructure improvements and applicable construction-related mitigation measures identified in this IS/MND (e.g., air quality emissions and noise). As such, impacts related to the relocation or construction of new or expanded electric power or natural gas facilities would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than significant impact. As discussed above, average annual water demand is forecasted to be 186 mgd in 2025 and 218 mgd in 2050. Specifically, average annual water demand for single-family residential use is forecasted to be 117 mgd in 2025 and 129 mgd in 2050. The 2020 WSCP forecasts that EBMUD would have adequate water supplies to meet customer demand out to 2050 during normal years and single dry years and would receive water from the Central Valley Project during multiple dry years.

Average annual water demand for single-family residential use is forecasted to be 117 mgd in 2025 and 129 mgd in 2050. EBMUD's 2020 target for daily per capita water use for residential indoor uses is 55 gallons per capita per day (gpcd).[150] Based on this target rate, the proposed project is anticipated to result in an estimated 1,540 gallons per day of water demand, or 0.00154 mgd.[151] This represents approximately 0.0012 percent of EBMUD's 2050 forecasted single-family residential water demand of 129 mgd.[152] Therefore, the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years and impacts would be less than significant.

c) 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?

Less than significant impact. As discussed above, the proposed project would receive wastewater collection and treatment services from Central San and would connect to an existing 8-inch sewer line within Walnut Boulevard. The proposed project is expected to produce approximately 0.0012 mgd of wastewater, which represents approximately 0.0022 percent of Central San's 54 mgd treatment capacity.[153] The CWMP concluded that no improvements were needed for existing pipelines to accommodate planned growth in the service area. Central San would also review project building plans to determine the availability of public sewers in the area to serve the proposed project. Furthermore, the applicant would be required to pay a one-time Capacity Fee to ensure wastewater infrastructure capacity remains adequate for existing and future development. Central San also imposes an annual Sewer Service Charge on each property connected to its sewer system. Therefore, the proposed project would have less than significant impact on wastewater treatment providers.

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[150] East Bay Municipal Utility District (EBMUD). 2021. Urban Water Management Plan 2020. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan. Accessed June 6, 2023.

[151] (55*28) = 1,540 gpd, (1,540/1,000,000) = 0.00154 mgd

[152] (0.00154/129) = 0.00001194, (0.00001194*100) = ~0.0012

[153] (0.0012/54) = 0.0000222, (0.0000222*100) = 0.0022

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than significant impact. Significant impacts could occur if the proposed project would exceed the existing permitted landfill capacity or violates federal, State, and local statutes and regulations. The proposed project consists of the development of 10 single-family homes. As described above, Republic Services is the solid waste services provider for the project site. Solid waste picked up by Republic Services is taken to their Martinez Transfer Station to be compacted before it is transported to Keller Canyon Landfill in Pittsburg, CA.[154] According to the California Department of Resources Recycling and Recovery (CalRecycle), the Keller Canyon Landfill has a maximum permitted throughput of 3,500 tons of solid waste per day and a remaining capacity of 63,408,140 cubic yards as of November 16, 2004. The Keller Canyon Landfill is projected to cease operations on December 31, 2050.[155]

According to CalRecycle's estimated solid generation rates by sector, single-family homes generate between approximately 7.8 and 12.23 pounds per dwelling unit per day of solid waste.[156] As such, the proposed project would generate between 78 and 122.3 pounds, or 0.039 to 0.06115 tons per day. This is less than 0.002 percent of the daily permitted throughput of 3,500 tons at Keller Canyon Landfill. As such, solid waste produced by the proposed project would have a negligible impact on the landfill's total remaining capacity as well as daily permitted throughput, and there would be sufficient capacity to serve the proposed project's solid waste needs. Therefore, impacts would be less than significant.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Less than significant impact. AB 939 requires local jurisdictions to achieve at least a 50 percent solid waste diversion rate. The County's Department of Conservation and Development Solid Waste and Recycling aims to implement AB 939 through the County Integrated Waste Management Plan. Per Chapter 418-6 of the Ordinance Code, it would be the responsibility of the owner of each premises in the unincorporated area of the County to subscribe and pay for solid waste collection service, or to dispose of on-site solid waste in accordance with Chapter 418-2 of the Ordinance Code. Therefore, it would be up to the occupant to comply with local regulations related to solid waste. Impacts would be less than significant.

Mitigation Measures

None required.

[154] Republic Services. 2021. Unincorporated Contra Costa 2021 Residential Services Guide. Website: https://www.republicservices.com/cms/documents/municipality/ca/contra-costa-county/CCC-2021_Cust_Guide_BLUE.pdf. Accessed June 6, 2023.

[155] California Department of Resources Recycling and Recovery (CalRecycle). 2019. SWIS Facility/Site Activity Details. Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4407?siteID=228. Accessed June 6, 2023.

[156] California Department of Resources Recycling and Recovery (CalRecyle). 2019. Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed June 6, 2023.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
20. Wildfire *If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:*				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Environmental Evaluation

Setting

According to the CAL FIRE Fire Hazard Severity Zone Viewer, the project site is located within a Local Responsibility Area (LRA) and is not classified as a very high fire hazards severity zone. The proposed project is not within the State Responsibility Area (SRA). The nearest fire hazard severity zone (FHSZ) within an SRA is 1.80 miles southeast of the project site and is classified as a moderate FHSZ. The nearest VHFHSZ is approximately 3.96 miles southeast of the project site.[157] The General Plan does not identify the project site as a fire hazard zone.[158]

If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. As discussed above, the proposed project is not located within an SRA or a VHFHSZ. However, the nearest FHSZ is located 1.80 miles southeast of the project site.

The County adopted an Emergency Operations Plan (EOP) in 2015. The purpose of the EOP is to provide the basis for a coordinated response before, during and after an emergency affecting the

[157] California Department of Forestry and Fire Protection (CAL FIRE). 2022. FHSZ Viewer. Website: https://egis.fire.ca.gov/FHSZ/. Accessed June 6, 2023.
[158] Contra Costa County. 2005. Contra Costa County General Plan. Safety Element, Figure 10-10 Fire Hazard Areas.

County and applies to incorporated and unincorporated areas of the County.[159] The proposed project would not interfere with the implementation of the EOP. Furthermore, access to the 10 single-family homes would be provided via a new private street off Walnut Boulevard that would be approximately 28 feet wide with an 8-foot parking lane on one side and a 5-foot sidewalk along the southeast side of the roadway as required by the CCCFPD standards. Additionally, Lot 4 of the proposed project would include an emergency vehicle access easement. As indicated in Section 15, Public Services, the proposed project would be adequately served by police and fire services. The proposed project would comply with General Plan Policy 7-64, which requires new development to pay fair share costs for new fire protection facilities and services. Measure 7-au also provides fire protection agencies the opportunity to review projects and submit conditions of approval for consideration to determine whether road widths, road grades and turnaround radii are adequate for emergency equipment, among other considerations.[160] The CCCFPD has approved the proposed layout of the new private road and turnaround. For these reasons, the proposed project would have a less than significant impact related to emergency response or emergency evacuation.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than significant impact. As detailed previously, the proposed project is not within an SRA or a VHFHSZ. The General Plan identifies the project site as being in an area with slopes of less than 26 degrees. As discussed in Section 9, Hazards and Hazardous Materials, the site slopes down generally from northeast to southwest, from an elevation of 232 feet (WGS84) down to a minimum of 192 feet and is not subject to significant landslide hazard.

The BAAQMD monitoring stations provide wind speed data from several monitoring stations in the eastern zone of the San Francisco Bay Area. The station nearest the project site is located in Concord, CA approximately 2.88 miles northeast of the project site. The average monthly wind speed recorded at this monitoring location in 2020 ranged from 7 mph to 16 mph.[161] The next nearest monitoring station is located in San Ramon, approximately 11.92 miles south of the project site. This station includes wind speed data from multiple months in 2022. Average monthly wind speed data available from this station range from 0 to 14 mph.[162] Therefore, the project site would not be exposed to high winds which could exacerbate wildfire risks.

Furthermore, the proposed project is surrounded by existing roads and residential development which would reduce risks associated with wildfire. The proposed project would also be required to adhere to all applicable requirements and regulations related to fire safety, including the California Fire Code and CBC. Furthermore, General Plan Measure 7-au, as discussed above, allows fire protection agencies to review the proposed project and submit conditions of approval for

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[159] Contra Costa County. 2015. Contra Costa County Emergency Operations Plan. Website: https://www.contracosta.ca.gov/DocumentCenter/View/37349/Contra-Costa-Emergency-Operations-Plan-2015?bidId=. Accessed June 6, 2023.

[160] Contra Costa County. 2005. Contra Costa County General Plan. Public Facilities/Services Element.

[161] Bay Area Air Quality Management District (BAAQMD). 2020. Wind Speed. Website: https://www.baaqmd.gov/about-air-quality/current-air-quality/air-monitoring-data/#/met?date=2020-10-19&id=203&view=monthly&style=chart. Accessed June 6, 2023.

[162] Bay Area Air Quality Management District (BAAQMD). 2022. Wind Speed. Website: https://www.baaqmd.gov/about-air-quality/current-air-quality/air-monitoring-data/#/met?date=2022-10-19&id=203&view=monthly&style=chart. Accessed June 6, 2023.

consideration to determine whether the proposed structures are built in compliance with the standards of the Uniform Building Code, the Uniform Fire Code, other State regulations, and local ordinances regarding the use of fire-retardant materials and detection, warning and extinguishment devices.[163] As noted above, the CCCFPD has approved the proposed turnaround and private road. Therefore, impacts related to exposure of project occupants to pollutant concentrations from a wildfire or uncontrolled spread of wildfire would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than significant impact. The proposed project is not within an SRA or a VHFHSZ. The proposed project would include the development of a new private road which would provide access to the project site from Walnut Boulevard. As previously discussed, this new road would be approximately 28-feet-wide with an 8-foot parking lane on one side and a 5-foot sidewalk along the southeast section and would comply with CCCFPD standards. Electric and natural gas utilities would be provided by PG&E and new connections to the project site would be undergrounded, minimizing potential impacts to fire risk. Furthermore, the proposed project would not require emergency water sources as the project site would be served by an existing EBMUD domestic water line within Walnut Boulevard. Thus, the proposed project would have a less than significant impact related to the exacerbation of wildfire risk by the installation or maintenance of associated infrastructure.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than significant impact. The proposed project is not within an SRA or a VHFHSZ. Though some areas of the project site have slopes of up to 50 percent,[164] the majority of the area located within and near Walnut Creek is not subject to significant landslide hazards, including the project site.[165] Furthermore, the project site is located in a developed area and is surrounded by existing roads and residential development. As previously discussed, the Shell Ridge Open Space, which contains topographic features such as slopes and ridges, lies approximately 0.19 mile to the northeast of the project site. Therefore, impacts related downslope flooding or landslides would be less than significant.

Mitigation Measures

None required.

[163] Contra Costa County. 2005. Contra Costa County General Plan. Public Facilities/Services Element.
[164] dk Engineering. 2022. 3180 Walnut Boulevard Hydrologic & Hydraulic Analyses. June 23.
[165] Contra Costa County. 2005. Contra Costa County General Plan. Safety Element, Figure 10-6, Geological (Landslide) Hazards.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
21. Mandatory Findings of Significance				
a) Does the project have the potential to substantially 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, substantially 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?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Environmental Evaluation

a) Does the project have the potential to substantially 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, substantially 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?

Less than significant impact with mitigation incorporated. The proposed project would demolish existing structures on the project site and construct 10 single-family residences. As described previously in Section 4, Biological Resources, the proposed project would not result in significant impacts to wildlife or plant species with mitigation incorporated. The analysis provides mitigation to prevent erosion control and to protect riparian habitat, nesting birds and raptors, special-status bats, Alameda whipsnake, mixed woodland, and trees within the site. These measures include pre-construction surveys potentially followed by impact avoidance measures, preparation of a tree replacement plan, and implementation of tree preservation guidelines.

Additionally, the proposed project includes mitigation and avoidance measure to reduce construction-related impacts to unidentified cultural materials and the accidental discovery of human remains. Mitigation to reduce potential impacts to paleontological resources include paleontological monitoring during all earth-disturbing construction activities. Based on the discussion provided above, with implementation of the listed mitigation measures, the proposed

project would not substantially 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, substantially reduce the number or restrict the range of a rare of endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

Therefore, impacts would be less than significant with implementation of MM BIO-1 through MM BIO-8, MM CUL-1, MM CUL-2, and MM GEO-2.

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)?

Less than significant impact with mitigation incorporated. The combined effects of any past, current, and future projects in the project area in combination with the proposed project would not result in significant cumulative impacts. The project is proposed in an area that is mostly developed and there are no planned or proposed developments in the immediate site vicinity that could contribute to cumulative environmental items discussed below.

The proposed project could result in potentially significant impacts related to aesthetics, air quality, biological resources, cultural and tribal cultural resources, geology and soils, paleontological resources, and noise. These impacts would primarily be related to construction period activities, would be temporary in nature, and would not substantially contribute to any potential cumulative impacts associated with these topics. Specifically, since the proposed project would not exceed BAAQMD Thresholds of Significance related to air quality, the proposed project would not result in a cumulatively considerable net increase of construction emissions (with implementation of MM AIR-1 and MM AIR-2), operational emissions, or TACs. As discussed in Section 8 of this IS/MND, GHG emissions-related impacts are inherently cumulative in nature. The proposed project also would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. As such, the proposed plan, in conjunction with other existing, planned, and probable foreseeable projects, would not result in a significant cumulative impact related to GHG emissions generation. Therefore, with implementation of the foregoing mitigation measures, the proposed project would not result in adverse impacts at a project- or cumulative-level.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Impacts would be less than significant with mitigation incorporated. Based on the information provided in the Project Description and the responses to Sections 1 through 19 of this IS/MND, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly, because the project's potential impacts would be mitigated to a less than significant level. With implementation of all mitigation measures discussed herein, the proposed project would not result in substantial adverse effects on human beings.

Mitigation Measures

Implement MM AES-1, MM AIR-1, MM AIR-2, MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-5, MM BIO-6, MM BIO-7, MM BIO-8, MM CUL-1, MM CUL-2, MM GEO-1, MM GEO-2, and MM NOI-1.

REFERENCES

References used in the process of preparing the Initial Study Checklist and conduction of the evaluation are stated in the footnotes throughout this Initial Study and available for review at the Contra Costa County Department of Conservation and Development, 30 Muir Rd., Martinez, CA 94553.

ATTACHMENTS

1. **Exhibit 1: Regional Location Map**
2. **Exhibit 2: Local Vicinity Map**
3. **Exhibit 3: Land Use Map**
4. **Exhibit 4: Zoning Map**
5. **Exhibit 5: Vesting Tentative Map**
6. **Exhibit 6: Site Plan**
7. **Exhibit 7a: Architectural Elevations 1**
8. **Exhibit 7b: Architectural Elevations 2**
9. **Exhibit 7c: Architectural Elevations 3**
10. **Exhibit 8: Mitigation Monitoring and Reporting Program (MMRP)**

Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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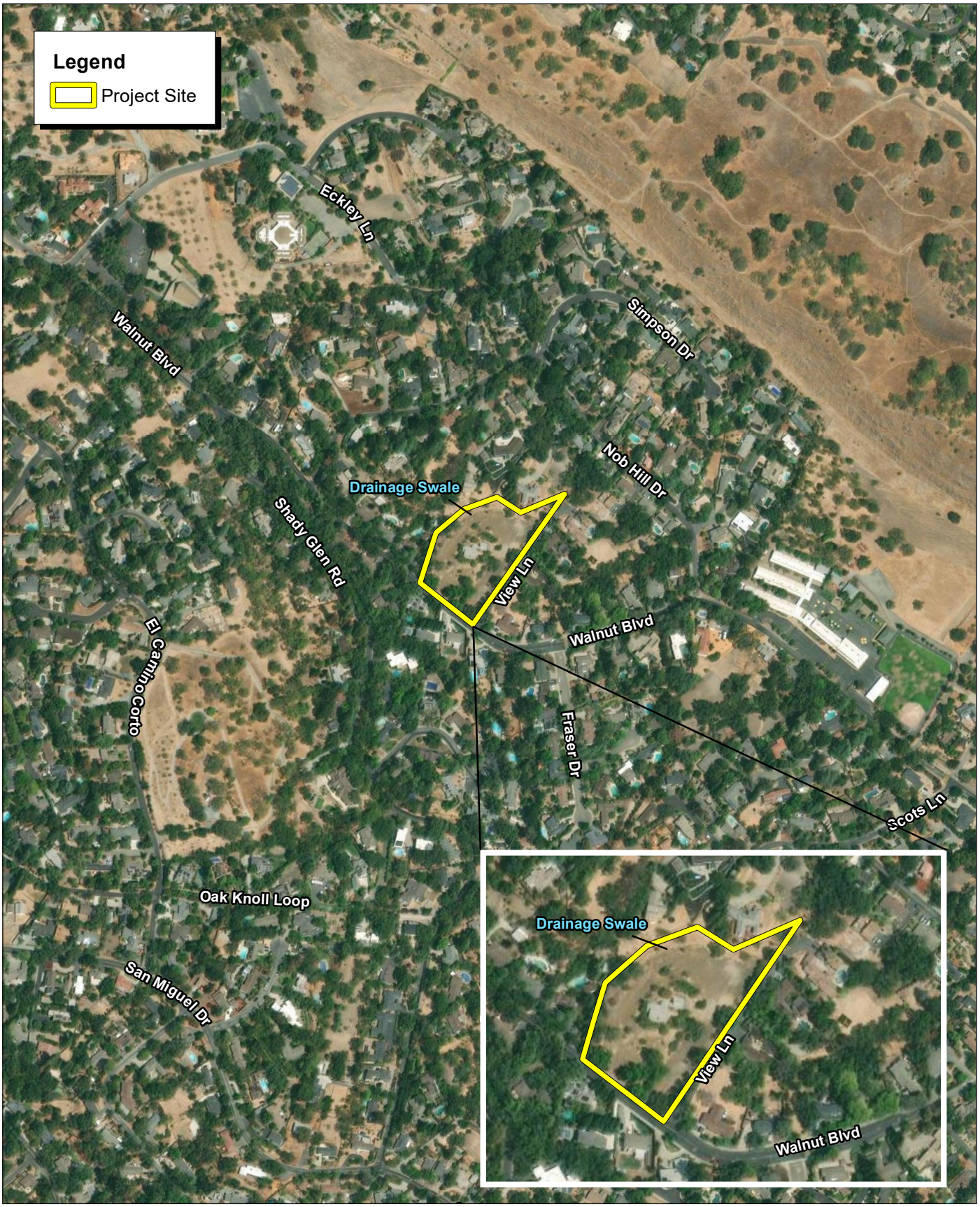
5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

57880002 • 01/2023 | 1_regional.mxd

CONTRA COSTA COUNTY
WALNUT BOULEVARD RESIDENTIAL PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

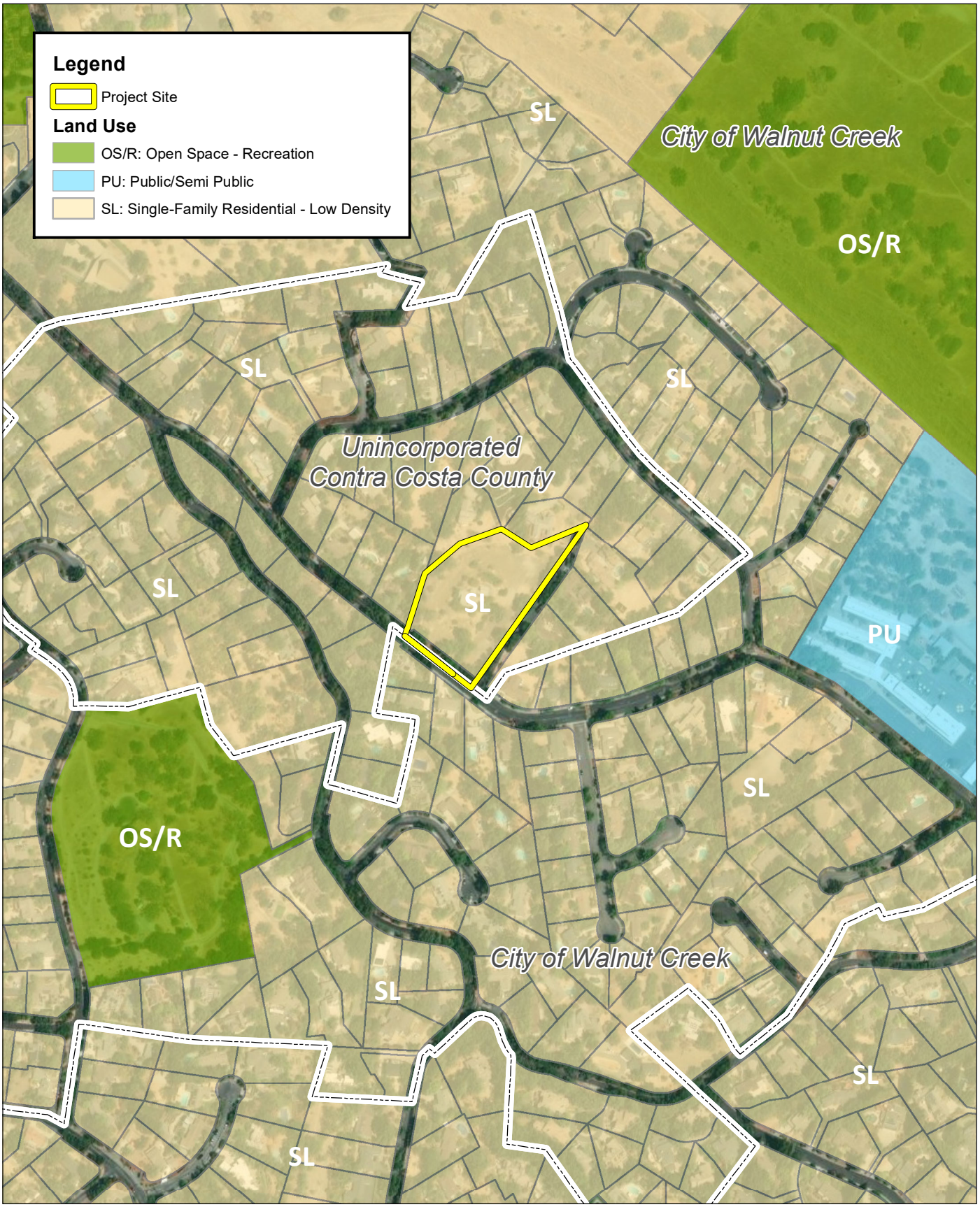


Source: ESRI Aerial Imagery.

FIRSTCARBON SOLUTIONS™

510 255 0 510 Feet

Exhibit 2
Local Vicinity Map

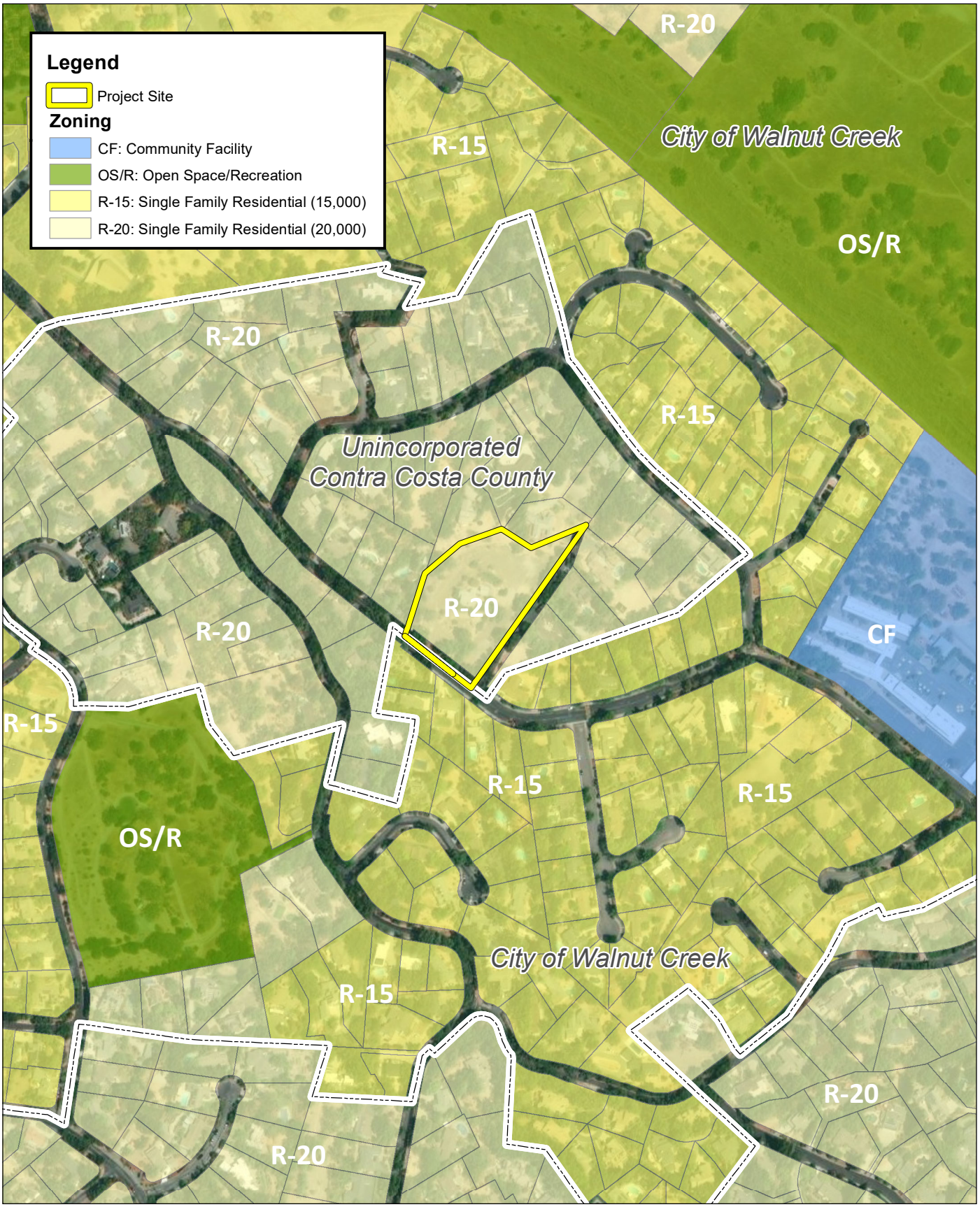


Source: ESRI Aerial Imagery. Contra Costa County. City of Walnut Creek.

FIRSTCARBON SOLUTIONS™

400 200 0 400 Feet

Exhibit 3
Land Use Map

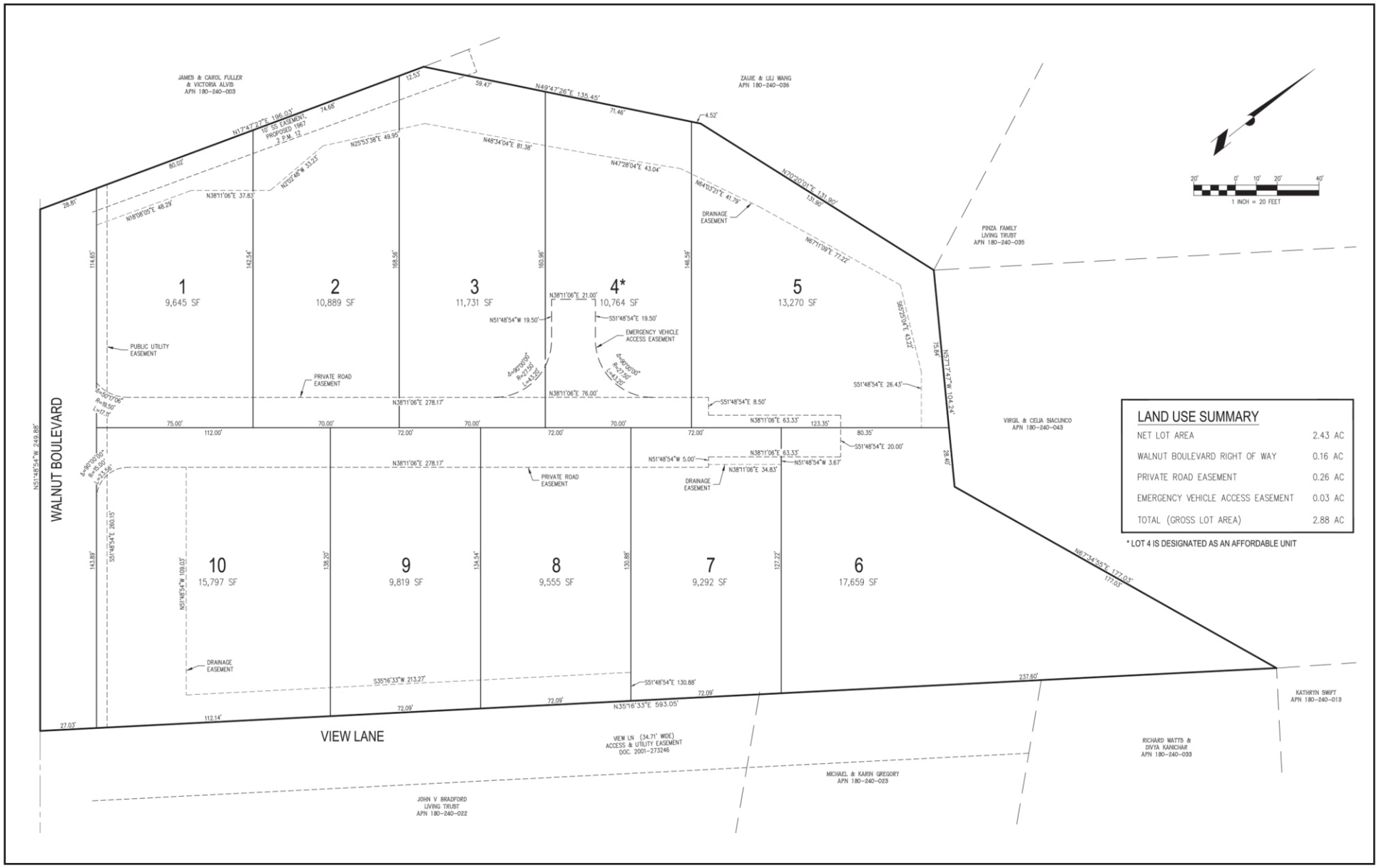


Source: ESRI Aerial Imagery. Contra Costa County. City of Walnut Creek.

FIRSTCARBON SOLUTIONS™

400 200 0 400 Feet

Exhibit 4
Zoning Map



Source: DK Engineering, 12/19/2022.

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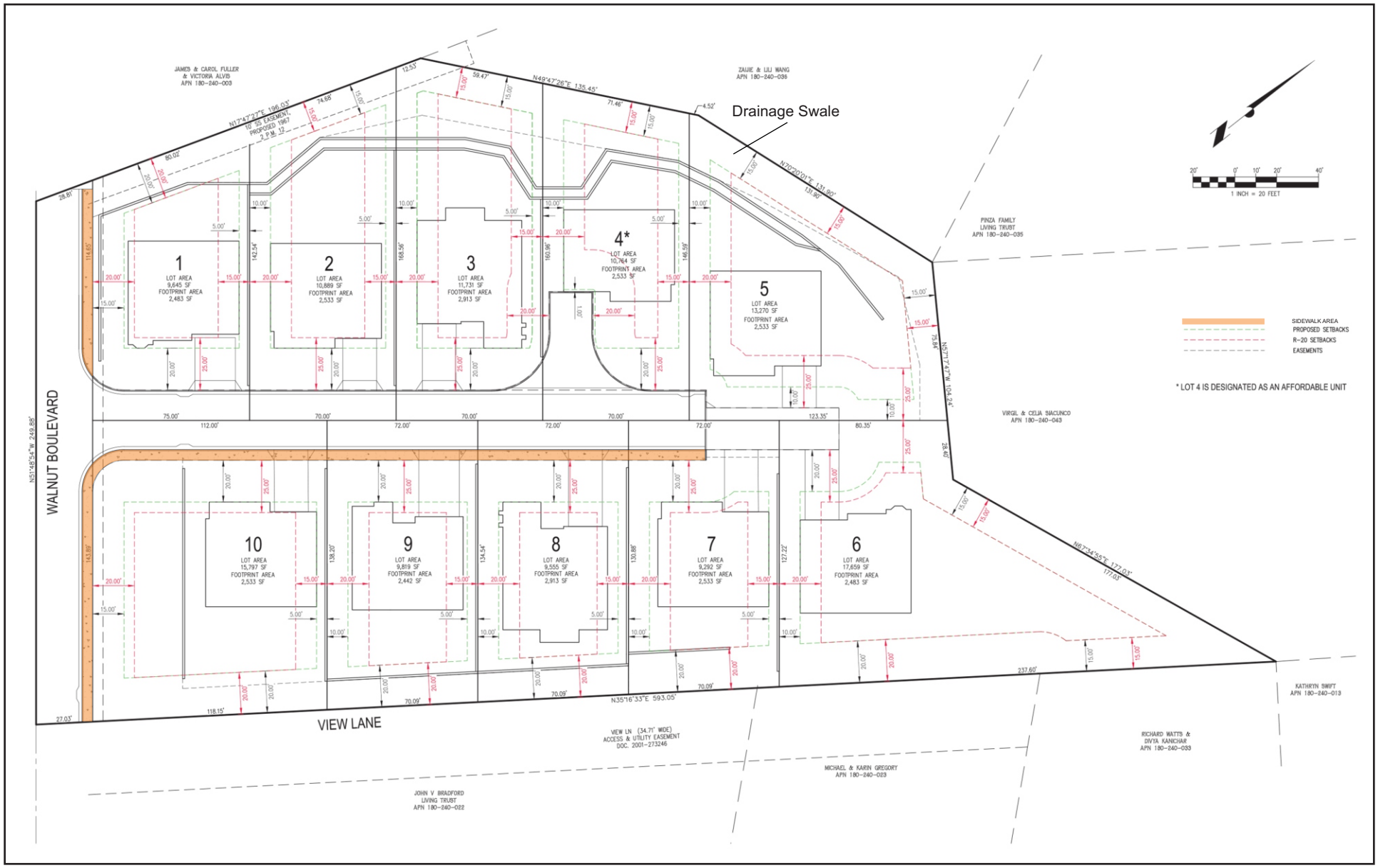
Exhibit 5
Vesting Tentative Map



Source: DK Engineering, 12/19/2022.

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Exhibit 6
Site Plan

Craftsman Elevation

American Foursquare Elevation

Source: CALIBR Ventures. WHA. 12/17/2021

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Exhibit 7a
Architectural Elevations 1

Northern European Elevation

Traditional Elevation

Source: CALIBR Ventures. WHA. 12/17/2021

Spanish Colonial Elevation

Modern Farmhouse Elevation

Source: CALIBR Ventures. WHA. 12/17/2021

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Exhibit 7c
Architectural Elevations 3

Calibr Ventures c/o Andy Byde, (Applicant / Owner)

Exhibit 8: Mitigation Monitoring and Reporting Program
County File #CDSD21-09581

3180 Walnut Boulevard
Walnut Creek, CA 94596

June 2023

SECTION 1: AESTHETICS	
Potential Impact: The change in ambient nighttime light levels on the project site, and the extent to which project lighting would spill off the project site and affect adjacent light-sensitive areas, would determine whether the project could adversely affect nighttime views in the area. Project lighting could create a potentially significant adverse environmental impact due to substantial new light and glare on neighboring properties.	
Mitigation Measures:	
Aesthetics 1 (AES-1): Prior to issuance of a building permit, a Lighting Plan shall be submitted for review and approval by the CDD. At a minimum, the plan shall include the following measures: **a. All outdoor lighting, including façade, yard, security, and streetlights, shall be oriented down, onto the project site or road.** **b. Back shields or functionally similar design elements shall be installed on every lighting pole to reduce lighting from spilling off site, and to ensure that lighting remains within the project site.**	
Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction plans for a building permit and during construction.
Responsible Department, Agency, or Party:	Project proponent, CDD, and Building Inspection.
Compliance Verification:	Submittal of lighting plan(s) for CDD review; Include CDD approved lighting plan(s) in construction plans for CDD review; and Implementation with oversight of Building Inspection during construction.
SECTION 2: AIR QUALITY	
Potential Impact: Grading and construction activities could have a potentially significant adverse environmental impact by exposing sensitive receptors to substantial pollutant concentrations.	
Mitigation Measures:	
Air Quality 1 (AIR-1): The following Bay Area Air Quality Management District, Basic Construction Mitigation Measures shall be implemented during project construction and shall be included on all construction plans: **a. All exposed non-paved surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and access roads) shall be watered at least two times per day and/or non-toxic soil stabilizers shall be applied to exposed non-paved surfaces.** **b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered and/or shall maintain at least 2 feet of freeboard.** **c. All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.** **d. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.**	

e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. **f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes, as required by the California Airborne Toxics Control Measure (ACTM) Title 13, Section 2485 of California Code of Regulations. Clear signage regarding idling restrictions shall be provided for construction workers at all access points.** **g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.** **h. The prime construction contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall take corrective action within 48 hours of receipt of the complaint. The Bay Area Air Quality Management District (BAAQMD) phone number shall also be visible to ensure compliance with applicable regulations.** **Air Quality 2 (AIR-2): The following Mitigation Measure shall be implemented during project construction and shall be included on all construction plans:** **a. All off-road equipment equal to or greater than 25 horsepower shall meet either United States Environmental Protection Agency (EPA) or California Air Resources Board (ARB) Tier 4 Final off-road emission standards during all construction activities.** **b. Prior to issuance of a grading or building permit, a construction management plan shall be submitted to the CDD for review and approval. The construction management plan shall demonstrate that the off-road equipment used on-site to construct the proposed project would comply with Tier 4 Final off-road emission standards. Off-road equipment descriptions and information included in the construction management plan should include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number47T47T.**	
Implementing Action:	COA
Timing Verification:	Prior to CDD approval of construction plans for a building permit and during construction.
Responsible Department or Agency:	Project proponent, CDD, and Building Inspection.
Compliance Verification:	Provide a copy of the Contact Sign required under MM AIR-1h and the Construction Management Plan required under MM AIR-2b for CDD review; Include MM AIR-1 and AIR-2a language on construction plans for CDD review; and Implementation with oversight of Building Inspection during construction.
Potential Impact: Grading and construction activities using diesel powered vehicles and equipment on the site could have a potentially significant adverse environmental impact by creating localized odors.	
Mitigation Measures:	

Mitigation Measures **Air Quality 1 and 2** would reduce this impact to a less than significant level.	
SECTION 3: BIOLOGICAL RESOURCES	
Potential Impact: Construction activities, including tree removal and site clearance, may impact nesting passerine birds and raptors.	
Mitigation Measures:	
Biology 1 (BIO-1): If project construction-related activities take place during the nesting season (February through August), an avian pre-construction survey for nesting passerine birds and raptors (birds of prey) within the project site and the trees within the adjacent riparian area shall be conducted by a qualified Biologist no more than 14 days prior to the commencement of the tree removal or project construction-related activities. If any bird listed under the Migratory Bird Treaty Act (MBTA) is found to be nesting within the project site or within the area of influence, an adequate protective buffer zone shall be established by a qualified Biologist to protect the nesting site. This buffer shall be a minimum of 75 feet from the project activities for passerine birds, and a minimum of 200 feet for raptors. The distance shall be determined by a qualified Biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a qualified Biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), a qualified Biologist shall determine if the project can proceed without further regard to the nest site(s). Prior to issuance of a building or grading permit, the CDD shall determine if project construction-related activities will take place during the nesting season, and if so, the avian pre-construction survey shall be reviewed and approved by the CDD.	
Implementing Action:	COA
Timing of Verification:	If during the nesting season: Prior to any disturbance of the project site; Prior to issuance of a building or grading permit; and During site clearing and construction.
Responsible Department, Agency, or Party:	Project proponent, project biologist (if applicable), CDD, and Building Inspection.
Compliance Verification:	Timing of building or grading permit issuance; and If applicable, submittal of avian pre-construction nesting survey for CDD review, and implementation of approved biologist mitigation measures with project biologist and Building Inspection oversight during site clearing and construction activities.

Potential Impact: Construction activities, including tree removal and site clearance, may impact nesting bats.	
Mitigation Measures:	
Biology 2 (BIO-2): If project construction-related activities take place during seasonal periods of bat activity (mid–February through mid–October – ca. February 15–April 15, and August 15–October 30), a bat habitat assessment within the project site shall be conducted by a qualified Bat Biologist to determine suitability of each tree or existing structure as bat roost habitat. Structures found to have no suitable openings can be considered clear for project activities as long as they are maintained so that new openings do not occur. Structures found to provide suitable roosting habitat, but without evidence of use by bats, may be sealed until project activities occur, as recommended by the Bat Biologist. Structures with openings and exhibiting evidence of use by bats shall be scheduled for humane bat exclusion and eviction, conducted during appropriate seasons, and under supervision of a qualified Bat Biologist. Bat exclusion and eviction shall only occur between February 15 and April 15, and from August 15 through October 30, in order to avoid take of non-volant (non-flying or inactive, either young, or seasonally torpid) individuals. Prior to issuance of a building or grading permit, the CDD shall determine if project construction-related activities will take place during seasonal periods of bat activity, and if so, the bat habitat assessment shall be reviewed and approved by the CDD.	
Implementing Action:	COA
Timing of Verification:	If during bat-activity season: Prior to any disturbance of the project site; Prior to issuance of a building or grading permit; and During site clearing and construction.
Responsible Department, Agency, or Party:	Project proponent, project biologist (if applicable), CDD, and Building Inspection.
Compliance Verification:	Timing of building or grading permit issuance; and If applicable, submittal of a bat habitat assessment for CDD review, and implementation of approved biologist mitigation measures with Building Inspection oversight during site clearing and construction activities.
Potential Impact: Construction activities, including site clearance, may impact the Alameda whipsnake.	
Mitigation Measures:	
Biology 3 (BIO-3): A pre-construction survey for special-status reptile species shall be conducted no more than 48 hours prior to the commencement of tree removal or project construction-related activities to determine presence/absence of these species. Worker Environmental Awareness training discussing the potential for these species shall be conducted by a qualified Biologist or Biological Monitor for all construction personnel working within the project site.	

Prior to issuance of a building or grading permit, the reptile pre-construction survey shall be reviewed and approved by the CDD.	
Implementing Action:	COA
Timing of Verification:	Prior to any disturbance of the project site; Prior to issuance of a building or grading permit; and During site clearing and construction.
Responsible Department, Agency, or Party:	Project proponent, project biologist (if applicable), CDD, and Building Inspection.
Compliance Verification:	Timing of building or grading permit issuance; and Submittal of pre-construction reptile survey for CDD review, and implementation of approved biologist mitigation measures with Building Inspection oversight during site clearing and construction activities.
Potential Impact: Construction activities, including site clearance, may impact the ephemeral drainage, and its associated riparian habitat.	
Mitigation Measures:	
Biology 4 (BIO-4): No work (including vegetation removal) shall take place within the riparian corridor and ephemeral drainage as indicated in the Biological Resource Analysis (BRA) Report completed by Olberding Environmental, Inc (Olberding) dated January 2023, unless evidence is provided to the CDD that the California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and/or United States Army Corp of Engineers (USACE) reviewed and approved work within these areas. The plan set for a building permit shall show fencing that is approved by a qualified biologist to ensure work does not take place in this area. As-built photos shall be required prior to issuance of a grading or building permit to ensure that this fencing is installed. **Biology 5 (BIO-5): At no time shall silt-laden runoff be allowed to enter on-site aquatic features and their associated habitats. Erosion control measures shall be utilized throughout all phases of operation where sediment runoff from the project may enter these aquatic features. Best Management Practices (BMPs) to avoid erosion, uncontrolled stormwater runoff and bank deterioration shall be implemented, following the requirements of the proposed project's Stormwater Control Plan, and typically include silt fencing, coir rolls, and/or straw bale dikes.** **Biology 6 (BIO-6): No substances toxic to fish and wildlife shall be discharged or allowed to leach into the aquatic features present on-site. Materials deleterious or toxic to fish and wildlife, including, but not limited to, asphalt, tires, concrete, construction materials, treated wood, and creosote containing materials, shall not be stockpiled within 100 feet of any aquatic feature present on-site.**	
Implementing Action:	COA

Timing of Verification:	Prior to any disturbance of the project site; Prior to CDD approval of construction; Prior to issuance of a building or grading permit; and During site clearing and construction.
Responsible Department, Agency, or Party:	Project proponent, CDFW, RWQCB and/or USACE (if applicable), project biologist, CDD, and Grading and Building Inspection.
Compliance Verification:	Timing of building or grading permit issuance; If applicable, submittal of CDFW, RWQCB and/or USACE approval for CDD review; fencing details on construction plans for CDD review; photos of installed fencing for CDD review; and Implementation with Grading and Building Inspection oversight during site clearing and construction activities.
Potential Impact: Code-protected trees being removed and work within the dripline of additional trees will occur to allow for project grading and construction. Tree removal has the potential to reduce natural habitat or create soil instability and/or erosion. Work within the dripline has the potential to impact tree health.	
Mitigation Measures:	
Biology 7 (BIO-7): As a result of tree removal, approval of a Tree Permit under the provisions of the County Tree Ordinance shall be required. The Tree Permit shall include a Tree Replacement Plan. The Tree Replacement Plan shall designate the approximate location, number, species and sizes of new trees to be planted. No tree shall be removed until a building or grading permit is issued. **Biology 8 (BIO-8): To protect the trees to remain, approval of a Tree Permit under the provisions of the County Tree Ordinance shall be required. The Tree Permit shall include tree protection mitigation measures as described in the arborist report prepared by Jennifer Tso (#WE-10270A) of Traverso Tree Service dated January 10, 2023, and these mitigation measures shall be implemented during construction through the clearing, grading, and construction phases, and stated on all construction plans.**	
Implementing Action:	COA
Timing of Verification:	Prior to submittal of a building permit; Prior to CDD approval of construction plans for a building permit; During site clearing, tree removal, and construction activities; Post restitution tree planting and prior to final building inspection; and

	Prior to the release of tree bonds.
Responsible Department, Agency, or Party:	Project proponent, project arborist, CDD, and Building Inspection.
Compliance Verification:	Submittal of the required materials per the approved Tree Permit for CDD review; Include CDD approved tree plans and arborist tree mitigation measures in construction plans for CDD review; Implementation of approved arborist mitigation measures during site clearing, tree removal, and construction activities with Building Inspection and Project arborist oversight; As-built photos of trees to remain and planted restitution trees prior to final building inspection; and Verification by that restitution trees are still onsite and in good health prior to CDD release of tree bond(s).

SECTION 4: CULTURAL RESOURCES

Potential Impact: The project could cause a substantial adverse change in the significance of a historical resource as defined in California Environmental Quality Act Guidelines Section 15064.5. Subsurface construction activities have the potential to damage or destroy previously undiscovered historic and prehistoric resources. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. If during project construction, subsurface construction activities damaged previously undiscovered historic and prehistoric resources, there could be a potentially significant impact.

Mitigation Measures:

Cultural Resources 1 (CUL-1): All project-related ground disturbance shall be monitored by an archaeologist who meets the Secretary of the Interior's professional qualification standards for archaeology. In the event that significant cultural resources are discovered during construction activities, the applicant/project owner or sponsor shall ensure that operations within a 100-foot radius of the find shall cease and the archaeologist will be consulted to determine whether the resource requires further study. The standard inadvertent discovery clause shall be included on the grading plans submitted to the City to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. The archaeologist shall make recommendations to the City concerning appropriate measures, which shall be implemented by the applicant/project owner or sponsor to protect the discovered resources, including but not limited to recordation on appropriate California Department of Parks and Recreation (DPR) forms, evaluation, or excavation of the finds in accordance with CEQA Guidelines, Section 15064.5.

Cultural Resources 2 (CUL-2): In the event of accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 shall be followed. If during the course of construction activities there is accidental discovery or recognition of any human remains, the following steps shall be taken:

a. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98.

b. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:

- **The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.**
- **The descendant identified fails to make a recommendation.**
- **The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.**

Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction plans for a building permit; and During construction.
Responsible Department, Agency, or Party:	Project proponent, project archeologist (if applicable), CDD, and Building Inspection.
Compliance Verification:	Include MM CUL-1 and MM CUL-2 language on construction plans for CDD review; Implementation with oversight of Building Inspection during construction; and Submittal of archaeologist report, in the event of a find, for CDD review.

SECTION 5: GEOLOGY AND SOILS

Potential Impact: The project could significantly impact the potential for increased exposure to adverse effects, including the risk of loss, injury or death from seismic-related ground failure, including liquefaction.

Mitigation Measures:

Geology 1 (GEO-1): Prior to submittal of a building or grading permit, the project applicant shall incorporate all recommendations provided in the project-Geotechnical Exploration into project plans, which shall be subject to review and approval by the County Geologist, or designee, prior to permit issuance. The geotechnical recommendations shall be implemented including general earthwork recommendations for site preparation, conditioning of expansive soils, removal of buried structures, removal of fill and disturbed soil, surface and subsurface drainage, biofiltration facilities, foundations, concrete flatwork, retaining walls, spread and pier footings, pavement areas, utility trenches, project review, and construction monitoring. Additionally, these include recommendations related to structural design, foundation design, foundation systems, slabs, moisture barriers, seismic design, walls, footings, slabs and walkways, concrete design, corrosion, pavement design, as well as lot maintenance, and future plan reviews.	
Implementing Action:	COA
Timing of Verification:	Prior to submittal of a building permit; Prior to CDD approval of construction plans for a building permit; Structural review; and During Construction.
Responsible Department, Agency, or Party:	Project proponent, project geotechnical engineer and geologist, peer review of County geologist, CDD, and Grading and Building Inspection.
Compliance Verification:	Submittal of required materials per MM GEO-1 for County geologist and CDD review; Include CDD approved geotechnical report and any other pertinent materials/reports/plans in construction plans for CDD review; During structural review by County structural engineers, and During construction with Grading and Building Inspection approval.
Potential Impact: There is a possibility that previously undiscovered buried fossils and other paleontological resources could be present and accidental discovery could occur.	
Mitigation Measures:	
Geology 2 (GEO-2): The applicant shall retain a qualified Paleontologist to conduct paleontological monitoring during all earth-disturbing construction activities. Should any significant fossils (I.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants) be unearthed, the construction crew shall not attempt to remove them, as they could be extremely fragile and prone to crumbling, and to ensure their occurrence is properly recorded; instead, all work in the immediate vicinity of the discovery shall be diverted at least 15 feet until a professional paleontologist assesses the find and, if deemed appropriate, salvages it in a timely manner. All recovered fossils shall be deposited in an appropriate repository, such as the University of California Museum of Paleontology (UCMP), where they would be properly curated and made	

accessible for future study. Prior to issuance of a grading or building permit, evidence shall be provided to CDD that a qualified paleontologist is contracted to implement this mitigation measure.	
Implementing Action:	COA
Timing of Verification:	Submittal of required materials per MM GEO-2 for CDD review; and Prior to CDD approval of construction plans for a building permit and during construction.
Responsible Department, Agency, or Party:	Project proponent, project paleontologist, CDD, and Grading and Building Inspection.
Compliance Verification:	Include MM GEO-2 language on construction plans for CDD review; and Implementation with oversight of Grading and Building Inspection and project paleontologist during construction.
Section 13: NOISE	
Potential Impact: Construction related noise could impact adjacent sensitive receptors.	
Mitigation Measures:	
Noise 1 (NOI-1): The following Mitigation Measure shall be implemented during project construction and shall be included on all construction plans: **a. The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.** **b. The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.** **c. The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where such market available technology exists.** **d. At all times during project grading and construction, the construction contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from the nearest residential land uses.** **e. The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establish reasonable measures necessary to correct the problem. The construction contractor shall visibly post a telephone number for the disturbance coordinator at the construction site.** **f. Unless specifically approved otherwise by the CDD, all construction activities shall be limited to the hours of 8:00 A.M. to 5:00 P.M., Monday through Friday, and are prohibited on State**	

and Federal holidays on the calendar dates that these holidays are observed by the State or Federal government as listed below:

New Year's Day (State and Federal)
Birthday of Martin Luther King, Jr. (State and Federal)
Washington's Birthday (Federal)
Lincoln's Birthday (State)
President's Day (State)
Cesar Chavez Day (State)
Memorial Day (State and Federal)
Juneteenth National Independence Holiday (Federal)
Independence Day (State and Federal)
Labor Day (State and Federal)
Columbus Day (Federal)
Veterans Day (State and Federal)
Thanksgiving Day (State and Federal)
Day after Thanksgiving (State)
Christmas Day (State and Federal)

For specific details on the actual day the State and Federal holidays occur, please visit the following websites:
Federal: http://www.opm.gov/Operating_Status_Schedules/fedhol/2015.asp
California: http://www.ftb.ca.gov/aboutFTB/holidays.shtml

g. Transportation of large trucks and heavy equipment is subject to the same restrictions that are imposed on construction activities, except that the hours are limited to 9:00 AM to 4:00 PM.

Implementing Action:	COA
Timing of Verification:	Prior to CDD approval of construction plans for a building permit and during construction.
Responsible Department, Agency, or Party:	Project proponent, CDD, and Building Inspection.
Compliance Verification:	Include MM NOI- language on construction plans for CDD review; Implementation with oversight of Building Inspection during construction

SECTION 18: TRIBAL CULTURAL RESOURCES

Potential Impact: The project could 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 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). The expected construction and grading could cause ground disturbance which may impact heretofore undocumented cultural resources.

Mitigation Measures:

Implementation of mitigations measures **Cultural Resources 1 and 2** would reduce the impact on archeological resources during project related work.
Potential Impact: The project could 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 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. The expected construction and grading could cause ground disturbance which may impact heretofore undocumented cultural resources.
Mitigation Measures:
Implementation of mitigations measures **Cultural Resources 1 and 2** would reduce the impact on archeological resources during project related work.
SECTION 10: MANDATORY FINDINGS OF SIGNIFICANCE
Potential Impact: As discussed in individual sections of the Initial Study, the project to create two parcels from the site may impact the quality of the environment (Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geological Resources, Noise, and Tribal Cultural Resources).
Mitigation Measures:
The impact would be reduced to a less than significant level with the adoption of the recommended Mitigation Measures that are specified in the respective sections of the Initial Study.