EXECUTIVE SUMMARY

Purpose

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of The Ranch Project (State Clearinghouse No. 2019060012). This document is prepared in conformance with CEQA (Public Resources Code [PRC], § 21000, *et seq*.) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, § 15000, *et seq.*).

The purpose of this Draft EIR is to inform decision makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the proposed The Ranch Project (referred to herein as the proposed project). This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided.

Project Summary

Project Location

The project site is located in the City of Antioch. The site is bound by single-family residential subdivision to the north, undeveloped land to the south, Deer Valley Road and Kaiser Permanente Antioch Medical Center to the east, and undeveloped land within the Restricted Development Area of Sand Creek, and Empire Mine Road to the west.

Project Description

The project proposes a master planned residential community consisting of 1,177 residential units over 253.50 acres on a 551.50-acre site, including Low Density (LD), Medium Density (MD), and Age Restricted (AR) units; a 5.00-acre Village Center consisting of commercial, office, and retail space; 3.00 acres of public services facilities, including a new fire station site and a trail staging area; approximately 22.50 acres of public parks and landscaped areas; 229.50 of open space including trails; and 38.00 acres of roadway improvements.

Project Objectives

The objectives of the proposed project are to:

- Develop a project consistent with the West Sand Creek Open Space Protection, Public Safety Enhancement, and Development Restriction Initiative.
- Establish a 551.5-acre, well-planned community that incorporates the natural, historic and physical elements of the land and the surrounding uses.
- Design a land use plan with a mix of uses complementary to existing neighborhoods and in symmetry with the larger Antioch community.

- Provide housing opportunities responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types.
- Provide a Village Center adjacent to Deer Valley Road and across from the Kaiser Permanente Antioch Medical Center, functioning as a hub of activity and source of sales tax revenue.
- Preserve and protect the hills and hillsides on-site as permanent open space.
- Preserve and protect the Sand Creek corridor as permanent open space and provide public access with perimeter trails and crossings.
- Provide a pedestrian-friendly community which focuses on open space, parks, and trails to facilitate resident and visitor access to natural and historical experiences both on- and off-site in the East Bay Regional Parks system.
- Provide a land use plan with a balance of uses and density that results in an adequate tax base, which at project build-out generates financial resources to pay for public services and infrastructure without financial burden to existing residents.
- Provide a land use plan, design standards, and guidelines consistent with the City Antioch General Plan goals and policies, that incorporate market-acceptable design features and foster an attractive, well-maintained community.
- Establish a land use and circulation system that promotes convenient mobility, completes the extension of Dallas Ranch Road to Deer Valley Road, and provides modes of transportation within a setting that is safe, accessible, and convenient for all modes of travel.
- Provide a comprehensive infrastructure system, including parks, open space, storm water quality facilities, public services, roadways, and utilities infrastructure sized to serve the project and properties to the east and south in the Sand Creek Focus Area that complements the existing Citywide infrastructure and ensures funding for the on-going maintenance needs of such infrastructure.

Significant Unavoidable Adverse Impacts

The proposed project would result in the following significant unavoidable impacts:

- **Visual resources and views:** The proposed project would result in significant and unavoidable impacts to the existing visual character and quality of public views of the site and its surroundings.
- **Air Quality Management Plan Consistency:** The proposed project would result in significant and unavoidable impacts related to operational criteria air pollutant emissions in violation of an air quality standard.
- **Cumulative Criteria Pollutant Emissions:** The proposed project would result in operational-related air pollutants or precursors that would exceed the Bay Area Air Quality Management District (BAAQMD) thresholds of significance for both annual and daily operational emissions.
- **Greenhouse Gas Emissions Generation:** Because the availability and feasibility of carbon credits is unknown at this time and the fate of Pacific Gas and Electric (PG&E) and its

renewable resources programs is uncertain, the proposed project would result in significant and unavoidable impacts related to operational greenhouse gas (GHG) emissions.

- **Conflict with a Program Plan, Ordinance, or Policy of the Circulation System:** The proposed project would result in significant and unavoidable impacts to the circulation system under Existing Plus Project, Near Term, and Cumulative traffic conditions.

- **Conflict with a Program Plan, Ordinance, or Policy of the Circulation System:** The proposed project would result in significant an unavoidable impacts to freeways within the circulation system.

- **Vehicle Miles Traveled:** The proposed project would be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b).

Summary of Project Alternatives

Below is a summary of the alternatives to the proposed project considered in Section 6, Alternatives, to the proposed project.

No Project/No Build Alternative

Under the No Project Alternative, construction of the proposed 1,177-unit master planned community would not occur. The Sand Creek Focus Area would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain on-site.

Reduced Density Alternative

Under the Reduced Density Alternative, 900 total dwelling units consisting of a maximum total of 478 single-family dwelling units and 422 age-restricted (AR) units would be constructed on approximately 253.50 acres of the 551.50-acre site. This alternative would still include the 5.00-acre village center, as well as the fire station and 10.00 acres of proposed parks instead of 20.00 acres. The total amount of open space would be approximately 239.00 acres.

Reduced Footprint Alternative

Under the Reduced Footprint Alternative, a total of 1,177 units consisting of 543 high-density and 212 medium density single-family dwelling units and 422 AR units would be constructed, along with a commercial center, fire station, and parks on land north of Sand Creek only. All bridges across the creek would be eliminated, as would the trail staging area and the detention basin south of the creek.

Reduced Traffic Alternative

Under the Reduced Traffic Alternative, 1,177 residential dwelling units would be constructed on 253.50 acres of the 551.50-acre site. This alternative would reduce the proposed low-density residential units from 543 to 218 and increase the proposed AR units from 422 to 747. The total

amount of open space, parks, landscaping, the village center, and fire station site would remain the same as the proposed project.

Areas of Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) for the proposed project was issued on June 11, 2019. The NOP describing the original concept for the proposed project and issues to be addressed in the Draft EIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from June 11, 2019 through July 11, 2019. The NOP identified the potential for significant impacts on the environment related to the following topical areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions and Energy
- Hazards, Hazardous Materials, and Wildfire
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities and Service Systems

Disagreement Among Experts

This Draft EIR contains substantial evidence to support all the conclusions presented herein. It is possible that there will be disagreement among various parties regarding these conclusions, although the City of Antioch is not aware of any disputed conclusions at the time of this writing. Both the CEQA Guidelines and case law clearly provide the standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the Draft EIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision makers to make an informed judgment about the environmental consequences of the proposed project.

Potentially Controversial Issues

Below is a list of potentially controversial issues that may be raised during the public review and hearing process of this Draft EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation

- Geology and Soils
- Greenhouse Gas Emissions and Energy
- Hazards, Hazardous Materials, and Wildfire
- Transportation
- Utilities and Service Systems

It is also possible that evidence will be presented during the 45-day, statutory Draft EIR public review period that may create disagreement. Decision makers would consider this evidence during the public hearing process.

In rendering a decision on a project where there is disagreement among experts, the decision makers are not obligated to select the most environmentally preferable viewpoint. Decision makers are vested with the ability to choose whatever viewpoint is preferable and need not resolve a dispute among experts. In their proceedings, decision makers must consider comments received concerning the adequacy of the Draft EIR and address any objections raised in these comments. However, decision makers are not obligated to follow any directives, recommendations, or suggestions presented in comments on the Draft EIR, and can certify the Final EIR without needing to resolve disagreements among experts.

Public Review of the Draft EIR

Upon completion of the Draft EIR, the City of Antioch filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (PRC § 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code Section 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the City of Antioch offices and one alternative location. The address for each location is provided below. Additionally, the document is available for review at https://www.antiochca.gov/community-development-department/planning-division/environmental-documents/.

City of Antioch
200 H Street
Antioch, CA 94509
Hours: Monday through Friday
except designated holidays
8:00 a.m.–5:00 p.m.

Antioch Library
501 West 18th Street
Antioch, CA 94509
Monday and Tuesday: 12:00 p.m.–8:00 p.m.
Wednesday and Thursday: 11:00 a.m.–6:00 p.m.
Saturday: 12:00 p.m.–5:00 p.m.
Closed Friday and Sunday

Agencies, organizations, and interested parties have the opportunity to comment on the Draft EIR during the 45-day public review period. Written comments on this Draft EIR should be addressed to:

Alexis Morris, Planning Manager
City of Antioch
200 H Street
Antioch, CA 94509
Phone: 925.779.7035
Email: amorris@ci.antioch.ca.us

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the public hearing before the City of Antioch on the project, at which the certification of the Final EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

Executive Summary Matrix

Table ES-1 below summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the proposed project. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding section of this Draft EIR. Table ES-1 is included in the Draft EIR as required by CEQA Guidelines Section 15123(b)(1).

Table ES-1: Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 3.1—Aesthetics, Light, and Glare			
Impact AES-1: The project would not have a substantial adverse effect on a scenic vista.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact AES-2: The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway.	No Impact	No mitigation is necessary	No Impact
Impact AES-3: With respect to the non-urban character of the existing project site, the project would 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 points).	Potentially Significant	No Feasible Mitigation is Available	Significant and Unavoidable
Impact AES-4: The project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Less Than Significant	No mitigation is necessary	Less Than Significant
Cumulative Impact	Cumulatively Significant (Visual Character and Views) Less than Cumulatively Significant (Light and Glare)	No Feasible Mitigation is Possible (Visual Character and Views) No Mitigation is Required (Light and Glare)	Cumulatively Significant and Unavoidable (Visual Character and Views) Less than Cumulatively Significant (Light and Glare)
Section 3.2—Agricultural Resources and Forestry Resources			
Impact AG-1: The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	Less Than Significant	No mitigation is necessary	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AG-2: The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.	No Impact	No mitigation is necessary	No Impact
Impact AG-3: The project would not 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	No mitigation is necessary	No Impact
Impact AG-4: The project would not result in the loss of forest land or conversion of forest land to non-forest use.	No Impact	No mitigation is necessary	No Impact
Impact AG-5: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural uses or conversion of forest land to non-forest use?	No Impact	No mitigation is necessary	No Impact
Cumulative Impact	No Impact	No mitigation is necessary	No Impact
Section 3.3—Air Quality			
Impact AIR-1: The project would conflict with or obstruct implementation of the applicable air quality plan.	Potentially Significant	Implement MM AIR-2a and MM AIR-2b	Significant and Unavoidable

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AIR-2: The project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.	Potentially Significant	**MM AIR-2a: Implement BAAQMD Best Management Practices During Construction** The following Best Management Practices (BMPs), as recommended by the Bay Area Air Quality Management District (BAAQMD), shall be included in the design of the proposed project and implemented during construction: • All active construction areas shall be watered at least two times per day. • All exposed non-paved surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and access roads) shall be watered at least three times per day and/or non-toxic soil stabilizers shall be applied to exposed non-paved surfaces. • 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. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • 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.	Significant and Unavoidable

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• 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 Title 13, Section 2485 of California Code of Regulations). Clear signage regarding idling restrictions shall be provided for construction workers at all access points. • 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. • The prime construction contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. The City of Antioch and the construction contractor shall take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations. **MM AIR-2b:** The following measure shall be applied during construction of the proposed project to facilitate the use of low volatile organic compound (VOC) landscaping equipment during project operations: • Prior to issuance of building permits,	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the applicant shall prepare and submit building plans to the City of Antioch that demonstrate that all buildings meet or exceed building code standards. Additionally, the following measures shall be applied during both construction and operation of the proposed project to reduce reactive organic gases (ROG) emissions: • Use super-compliant architectural coatings. These coatings are defined as those with volatile organic compound VOC less than 10 grams per liter. South Coast Air Quality Management District (SCAQMD) provides a list of manufacturers that provide this type of coating. • Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors. • Use compliant low VOC cleaning solvents to clean paint application equipment. • Keep all paint and solvent laden rags in sealed containers to prevent VOC emissions.	
Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations.	Less Than Significant	No mitigation is necessary	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AIR-4: The project would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people).	Less Than Significant	No mitigation is necessary	Less Than Significant
Cumulative Impact—Criteria Pollutants	Potentially Significant	Implement MM AIR-2a and MM AIR-2b.	Significant and Unavoidable
Cumulative Impact—Toxic Air Contaminants	Potentially Significant	Implement MM AIR-2a and MM AIR-2b.	Significant and Unavoidable
Section 3.4—Biological Resources			
Impact BIO-1: The project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	Potentially Significant	**MM BIO-1a:** The project Applicant hired a qualified Biologist to conduct protocol surveys of the shining navarretia in the 2018-2019 and submitted them to the City for independent peer review. (See Appendix D) To the extent construction moves forward within 5 years of these surveys, they shall be deemed valid and no further surveys shall be required. However, if construction does not occur on affected areas on or before 5 years of the protocol surveys, the project Applicant shall hire a qualified Biologist to survey the project area prior to construction. All survey results shall be submitted to the City of Antioch Planning Division prior to approval of grading permits. Where populations are outside of the project footprint, qualified Biologists shall demarcate these areas for complete avoidance. Where shining navarretia populations are within the project footprint, this shall be considered a direct impact. If	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the project will avoid the mapped populations, but will impact a portion of the avoidance zone, then that will be considered an indirect impact. The project Applicant shall have the following options to mitigate for direct and/or indirect impacts to the shinning navarretia. Options one and two are listed by order of effectiveness: **Option 1.** The project Applicant shall identify one or more existing, unprotected populations of shining navarretia in Contra Costa County (or nearest other jurisdiction) and acquire land that supports those populations. Under this Option, once the proposed mitigation area is approved by the City of Antioch Planning Division, the mitigation habitat shall be protected by a recorded conservation easement and managed in accordance with a long-term management plan, the goal of which is to maintain the shining navarretia population and its habitat. The project Applicant shall provide an endowment in favor of the conservation easement holder to fund the long-term management outlined in the long-term management plan. As this option would preserve an existing, established population, there would be no temporal loss, and no risk of failure.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		As a result, the mitigation ratio for this option would be 1:1. Alternatively, the project Applicant may purchase mitigation credits (at a 1:1 ratio) from an established mitigation bank for all directly impacted shining navarretia locations. **Option 2.** The project Applicant shall mitigate for any direct impacts at a ratio of 3:1 (preserved habitat: impacted habitat), and for any indirect impacts at a 1:1 ratio. The ratio shall be reduced to 1.5:1 if the project Applicant chooses to develop a monitoring plan, monitor the relocated seeds/plants in accordance with that plan, and meet established success criteria for successful establishment of a new population of the impacted special-status plant. The success criterion for Option 2 would be 1:1 replacement of special-status plants by Year 5 or later following transplantation. This would require documentation of the number of plants within the proposed impact area such that the number of impacted plants could be compared to the number of established plants at the mitigation site. The monitoring plan and monitoring reports shall be submitted to the City of Antioch Planning Division for review and approval. If the success criteria are not met, additional habitat shall be set aside	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		as set forth under Option 1. As population sizes for annual plants can vary widely from year to year, population counts shall be conducted in the last 3 years of monitoring, and the highest count shall be at least equivalent to the number of impacted plants. **Option 3.** As an alternative Options 1 and 2, the project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the shining navarretia would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1b:** To avoid take of crotch and western bumblebee species the project Applicant shall implement one of the following options: **Option 1.** Prior to each phase of construction, a qualified Biologist shall conduct a take avoidance survey for active bumblebee colony nesting sites. In order to maximize detection of active bee colonies, the take avoidance survey	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The Biologist shall walk the entire area proposed for grading and inspect all ground squirrel burrows for bumblebee activity. The survey shall specifically target the slopes that face west to southwest as these areas are specifically utilized by western bumblebee. If any bumblebees are identified during the survey, they shall be identified to species. All active colonies of crotch bumblebee or western bumblebee shall be avoided and no work shall occur within 50-feet of the colony, unless pursuant to consultation with the California Department of Fish and Wildlife (CDFW) an Incidental Take Permit is obtained prior to disturbance. If a colony can be fully avoided and work will not occur within 50 feet of the colony, no mitigation shall be required. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the western bumblebee would be fully mitigated, including payment of applicable fees,	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		provided that California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1c:** Prior to the issuance of any grading permit, the project Applicant shall implement one of the following options: **Option 1.** Consult with the United States Fish and Wildlife Service (USFWS) regarding impacts of the project on vernal pool fairy shrimp and vernal pool tadpole shrimp. The project Applicant shall obtain the appropriate take authorization (Section 7 or 10 of the Federal Endangered Species Act [FESA], as appropriate) from the USFWS prior to issuance of grading permits. The project Applicant shall comply with all terms of the endangered species permits, including any mitigation requirements, which shall be determined during consultation with USFWS. Mitigation may be accomplished through permittee-responsible mitigation and/or through the preservation of vernal pool fairy shrimp habitat at USFWS-approved ratios at a USFWS-approved mitigation bank. A minimum ratio of 1:1 mitigation shall be required.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Option 2. The project Applicant shall demonstrate compliance with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts on the fairy and tadpole shrimp would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and USFWS have approved the conservation plan. **MM BIO-1d:** The project Applicant shall implement one of the following options: **Option 1.** The elderberry shrub within the project site shall be avoided. Although there were no signs of the valley elderberry longhorn beetle, the following measures will ensure that there are no significant impacts to valley elderberry longhorn beetle: All elderberry shrubs (which are defined for the purposes of this section as those with stems greater than 1 inch in diameter) shall be avoided completely during project construction with a buffer of at least 20 feet, and the following avoidance and minimization measures [as outlined in the Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle shall	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		be implemented for all work within 165 feet of a shrub: - All areas to be avoided during construction activities shall be fenced and/or flagged as close to construction limits as feasible. - Activities that could damage or kill an elderberry shrub (e.g., trenching, paving, etc.) shall receive an avoidance area of at least 20 feet from the drip-line. - A qualified Biologist shall provide training for all contractors, work crews, and any on-site personnel on the status of the valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for noncompliance, prior to the commencement of work. - A qualified Biologist shall monitor the work area at project appropriate intervals to assure that all avoidance and minimization measures are implemented. - As much as feasible, all activities within 165 feet of an elderberry shrub shall be conducted between August and February. - Elderberry shrubs shall not be trimmed. - Herbicides shall not be used within the drip-line of the shrub. Insecticides	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		shall not be used within 100 feet of an elderberry shrub. - Mechanical weed removal within the drip-line of the shrub shall be limited to the season when adults are not active (August–February) and shall avoid damaging the elderberry shrub. If either a 20-foot diameter avoidance area around the elderberry shrub is found later to not be feasible or an elderberry shrub must be removed to accommodate construction, then the project Applicant shall notify the City and implement additional mitigation measures required by the Framework after consultation with the United States Fish and Wildlife Service (USFWS). **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts on the elderberry beetle would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and USFWS have approved the conservation plan. **MM BIO-1e:** Prior to the commencement of construction activities, the project Applicant shall implement one of the following options:	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Option 1. The project Applicant shall obtain take coverage from the United States Fish and Wildlife Service (USFWS) under Sections 7 or 10 of the Federal Endangered Species Act (FESA) for any impacts to the California tiger salamander and/or its habitat. In addition, the project Applicant shall obtain take coverage from the California Department of Fish and Wildlife (CDFW) under Section 2081 of the California Fish and Game Code for any impacts to the California tiger salamander and/or its habitat. Any required compensatory mitigation shall be determined during consultation with USFWS and CDFW and may include permittee-responsible mitigation and/or the purchase of mitigation credits from a USFWS- and CDFW-approved mitigation bank. Should consultation with the USFWS and CDFW result in required mitigation measures in conflict with the measures included here, USFWS and CDFW measures shall take precedence. A minimum ratio of 1:1 shall apply. The project Applicant shall preserve both aquatic habitat and upland habitat that are either known to be California tiger salamander breeding habitat and upland habitat, or which have the proper hydrology to support breeding	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		California tiger salamander, on off-site mitigation properties and within the on-site open space or as otherwise required as a result of consultation with the USFWS. Project activities shall occur during the dry season (May 1 through October 15) unless otherwise authorized by the CDFW and USFWS; Prior to the start of construction, a qualified Biologist shall conduct a training program for all construction personnel including contractors and subcontractors. The training shall include, at a minimum, a description of the California tiger salamander and its habitat within the project area; an explanation of the species status and protection under State and federal laws; the avoidance and minimization measures to be implemented to reduce take of this species; communication and work stoppage procedures in case a listed species is observed within the project site; and an explanation of the importance of the Environmentally Sensitive Areas (ESAs) and Wildlife Exclusion Fencing (WEF). A fact sheet conveying this information shall be prepared and distributed to all construction personnel by the Biologist. The training shall provide interpretation	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		for non-English speaking workers. The same instruction shall be provided to any new workers before they are authorized to perform project work. Prior to the start of each phase of construction, ESAs (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) shall be clearly delineated using high visibility orange fencing. The ESA fencing shall remain in place throughout the duration of the construction and shall be regularly inspected and fully maintained at all times by the project Applicant's contractor. A qualified Biologist shall be on-site during all activities that may result in take of California tiger salamander. The qualifications of the Biologist(s) shall be submitted to the USFWS and CDFW for review and approval at least 30 calendar days prior to the date earthmoving is initiated at the project site. Prior to the start of each phase of construction, WEF shall be installed at the edge of the project footprint in all areas where sensitive species could enter the construction area. The location of the fencing shall be determined by the contractor and the	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		qualified Biologist. The WEF shall remain in place throughout the duration of the project phase and shall be regularly inspected and fully maintained by the project Applicant's contractor. Repairs to the WEF shall be made within 24 hours of discovery. Upon project completion, the WEF shall be completely removed and the area cleaned of debris and trash and returned to natural conditions. Exceptions to the foregoing fencing measures include work sites where the duration of work activities is very short (e.g., 3 days or less),occur during the dry season, and the installation of exclusion fencing will result in more ground disturbance than from project activities. In this case, the boundaries and access areas and sensitive habitats may be staked and flagged (as opposed to fully fenced) by the qualified Biologist prior to disturbance and species monitoring would occur during all project activities. If a water body is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh no larger than 5 millimeters and the intake shall be placed within a perforated bucket or other method to attenuate suction to prevent California tiger salamander from entering the pump	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		system. Pumped water shall be managed in a manner that does not degrade water quality and then upon completion released back into the water body, or at an appropriate location in a manner that does not cause erosion. No rewatering of the water body is necessary if sufficient surface or subsurface flow exists to fill it within a few days, or if work is to be completed during the time of year the water body would have dried naturally. When constructing a road improvement within California tiger salamander habitat, the project Applicant shall enhance or establish wildlife passage for the California tiger salamander across roads, highways, or other anthropogenic barriers. This may include upland culverts, tunnels, and other crossings designed specifically for wildlife movement, as well as making accommodations in curbs (no vertical faced curbs), median barriers, and other impediments to terrestrial wildlife movement at locations most likely to be beneficial to the California tiger salamander. Preconstruction surveys shall be provided to the City of Antioch Planning Division, and shall be conducted by a USFWS or CDFW approved Biologist	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		within 72 hours of the initiation of any ground disturbing activities and vegetation clearing that may result in take of the California tiger salamander. All suitable aquatic and upland habitat, including refugia habitat such as small woody debris, refuse, burrow entries, etc., shall be duly inspected. The approved Biologist(s) shall conduct clearance surveys at the beginning of each day and regularly throughout the workday when construction activities are occurring that may result in take of the California tiger salamander. Where feasible and only on a case-by-case basis, rodent burrows and other ground openings suspected to contain Central California tiger salamanders that would be destroyed from project activities may be carefully excavated under supervision of the Biologist. If the California tiger salamander is observed, the approved Biologist shall implement the species observation and handling protocol outlined below. At least 15 days prior to initiation of ground disturbance activities the project Applicant's Biologist shall prepare and submit a Relocation Plan for the California tiger salamander for the USFWS and CDFW written approval. The plan shall include protocol to be followed should a California tiger	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		salamander be encountered during project activities. The Relocation Plan shall contain the name(s) of the approved Biologist(s) to relocate the California tiger salamander, method of relocation, a map, and description of the proposed release site(s) within 300 feet from the project, unless at a distance otherwise agreed to by the USFWS and CDFW, and written permission from the landowner to use their land as a relocation site. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the California tiger salamander would be fully mitigated, including payment of applicable fees, provided that the CDFW and USFWS have approved the conservation plan. **MM BIO-1f:** Prior to issuance of any grading permits, the project Applicant shall implement one of the following options: **Option 1.** The project Applicant shall consult with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Wildlife (CDFW) regarding impacts to California red-legged frog from the proposed project. The project Applicant shall obtain the appropriate take authorization from the USFWS (Section 7 or 10 of the Federal Endangered Species Act [FESA]) and/or from the CDFW (Section 2081 of the California Fish and Game Code). The project Applicant shall comply with all required compensatory mitigation determined during consultation with the USFWS and CDFW, and provide proof of compliance to the City of Antioch Planning Division. Should consultation with the USFWS result in required mitigation measures in conflict with the measures included here, USFWS measures shall take precedence. Approximately 1.40 acres of California red-legged frog aquatic habitat shall be preserved on-site as part of the proposed project. Prior to the start of construction, a qualified Biologist shall conduct a training program for all construction personnel including contractors and subcontractors. The training shall include, at a minimum, a description of the California red-legged frog and their	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		habitats within the project site; an explanation of the species status and protection under State and federal laws; the avoidance and minimization measures to be implemented to reduce take of this species; communication and work stoppage procedures in case a listed species is observed within the project site; and an explanation of the importance of the Environmentally Sensitive Areas (ESAs) and Wildlife Exclusion Fencing (WEF). A fact sheet conveying this information shall be prepared and distributed to all construction personnel. The training shall provide interpretation for non-English speaking workers. The same instruction shall be provided to any new workers before they are authorized to perform project work. Prior to the start of each phase of construction, ESAs (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) shall be construction activities are ongoing, and shall be regularly inspected and fully maintained at all times. A qualified Biologist shall be on-site during all activities that may result in take of the California red-legged frog.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		The qualifications of the Biologist(s) shall be submitted to the USFWS for review and approval at least 30 calendar days prior to the date earthmoving is initiated at the project site. Prior to the start of each phase of construction, WEF shall be installed at the edge of the project footprint in all areas where sensitive species could enter the construction area. The location of the fencing shall be determined by the contractor and the qualified Biologist prior to the start of staging or ground disturbing activities. The WEF shall remain in place throughout the duration of the project and shall be regularly inspected and fully maintained. Repairs to the WEF shall be made within 24 hours of discovery. Upon project completion, the WEF shall be completely removed and the area cleaned of debris and trash and returned to natural conditions. An exception to the foregoing fencing measures is that for work sites where the duration of work activities is very short (e.g., 3 days or less) and that occur during the dry season, and the installation of exclusion fencing will result in more ground disturbance than from project activities. In this case, the boundaries and access areas and sensitive habitats	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		may be staked and flagged (as opposed to fenced) by the qualified Biologist prior to disturbance and species monitoring would occur during all project activities at that site. No more than 24 hours prior to the date of initial ground disturbance, a preconstruction survey for the California red-legged frog shall be conducted by the qualified Biologist at the project site. The results shall be provided to the City of Antioch Planning Division. The survey shall consist of walking the project limits and within the project site to ascertain the possible presence of the species. The Biologist shall investigate all potential areas that could be used by the California red-legged frog for feeding, breeding, sheltering, movement, and other essential behaviors. This includes an adequate examination of mammal burrows, such as California ground squirrels or gophers. If any adults, subadults, juveniles, tadpoles, or eggs are found, the Biologist shall contact the USFWS to determine if moving any of the individuals is appropriate. In making this determination, the USFWS shall consider if an appropriate relocation site exists. Only USFWS-approved Biologists may capture, handle, and monitor the California red-legged frog.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		To the extent practicable, initial ground-disturbing activities shall be avoided between November 1 and March 31 because that is the time period when the California red-legged frog are most likely to be moving through upland areas. When ground-disturbing activities must take place between November 1 and March 31, the project Applicant shall ensure that daily monitoring by the USFWS-approved Biologist is completed. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the California red-legged frog would be fully mitigated, including payment of applicable fees, provided that CDFW and USFWS have approved the conservation plan. **MM BIO-1g:** Prior to initiation of construction activity, the project Applicant shall implement one of the following options: **Option 1.** The project Applicant shall retain a qualified Biologist to survey all suitable aquatic habitat within the project site (including features proposed for avoidance) by sampling	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the features thoroughly with dipnets during March or early April, when spadefoot tadpoles would be present. In addition, one nocturnal acoustic survey of all areas within 300 feet of suitable aquatic habitat shall be conducted. Acoustic surveys shall consist of walking through the area and listening for the distinctive snore-like call of this species. The results shall be provided to the City of Antioch Planning Division. Timing and methodology for the aquatic and acoustic surveys shall be based on those described in Distribution of the western spadefoot in the Northern Sacramento Valley of California, with Comments on Status and Survey Methodology. If both the aquatic survey and the nocturnal acoustic survey are negative, further mitigation is not necessary. If western spadefoot are observed within aquatic habitat proposed for impact, the tadpoles shall be captured by a qualified Biologist and relocated either to aquatic habitat to be avoided on-site (and implement the fencing requirement outlined below), or to an off-site open space preserve with suitable habitat in the vicinity of the project site. If western spadefoot are observed within aquatic habitats proposed for avoidance, then the project	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Applicant shall install a keyed in silt fence along the edge of the proposed impact area within 300 feet of the occupied aquatic habitat to prevent metamorphose individuals from dispersing into the construction area. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the western spadefoot would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1h:** Prior to construction activities, the project Applicant shall implement one of the following options: **Option 1.** Within 14 days prior to the initiation of any construction activities for each phase, a qualified Biologist shall conduct preconstruction surveys for northwestern pond turtles. The results shall be provided to the City of Antioch Planning Division. If northwestern pond turtles are found	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		prior to the initiation of, and/or during, construction activities, a qualified Biologist shall relocate them outside of the project site, subject to review and approval by the appropriate resource agencies (i.e., California Department of Fish and Wildlife [CDFW]). **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the western pond turtle would be fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1i:** Prior to construction, the project Applicant shall implement one of the following options: **Option 1.** Within 14 days prior to the initiation of any construction activities for each phase of the project, a qualified Biologist shall conduct preconstruction surveys for northern California legless lizard, Alameda whipsnake, and coast horned lizard. The results shall be provided to the City of Antioch Planning Division. If Alameda	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		whipsnake is identified during the survey, it will be allowed to leave the work area on its own, subject to confirmation by a qualified Biologist. If Northern California legless lizard or coast horned lizard are found during the survey, a qualified Biologist shall relocate them to suitable habitat outside of the project site, subject to review and approval by the appropriate resource agencies (i.e., California Department of Fish and Wildlife [CDFW] and/or the United States Fish and Wildlife Service [USFWS], and the City of Antioch Planning Division). **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the lizards and whipsnake would be fully mitigated, including payment of applicable fees, provided that the CDFW and the USFWS have approved the conservation plan. **MM BIO-1j: Option 1.** Where construction activities will occur during nesting and breeding season (typically February 15 through September 1), the project Applicant shall conduct a targeted Swainson's hawk nest survey	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		throughout all accessible areas within 0.25 mile of the proposed construction area no later than 14 days prior to construction activities. The results shall be provided to the City of Antioch Planning Division. If active Swainson's hawk nests are found within 0.25 mile of a construction area, construction shall cease within 0.25 mile of the nest until a qualified Biologist determines that the young have fledged, or it is determined that the nesting attempt has failed. If the project Applicant desires to work within 0.25 mile of the nest, the project Applicant shall consult with the California Department of Fish and Wildlife (CDFW) to determine if the nest buffer can be reduced. The project Applicant, the Biologist, and the CDFW shall collectively determine the nest avoidance buffer and what (if any) nest monitoring is necessary. If an active Swainson's hawk nest is found within the project site prior to construction and is in a tree that is proposed for removal, then the project Applicant shall implement additional mitigation recommended by a qualified Biologist based on CDFW Guidelines and obtain any required permits from the CDFW. Prior to project construction, a qualified Biologist shall conduct a review of Swainson's hawk nest data available in the California Natural Diversity Database	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		(CNDDB) and contact the CDFW to determine if they have any additional nest data. A Biologist shall conduct a survey of these nests to determine if they are still present and provide the City with a summary of the findings. If it is determined that the project site is within 10 miles of an active Swainson's hawk nest (an active nest is defined as a nest with documented Swainson's hawk use within the past 5 years), the project Applicant shall mitigate for the loss of suitable Swainson's hawk foraging habitat by implementing one of the below measures: Active nest identified within 1 mile of the project site: 1 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the City. Active nest identified within 5 miles (but greater than 1 mile) of the project site: 0.75 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the City.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Active nest identified within 10 miles (but greater than 5 miles) of the project site: 0.5 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the City. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the Swainson's hawk would be fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1k: Option 1.** A targeted take avoidance burrowing owl nest survey shall be conducted of all accessible areas within 500 feet of the proposed construction area within 14 days prior to construction activities utilizing 60 foot transects as outlined in the Staff Report on Burrowing Owl Mitigation. The results shall be provided to the City of Antioch Planning Division. If an active burrowing owl nest burrow	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		(i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area either before or during construction, no construction shall occur within 250 feet of the nest burrow until a qualified Biologist determines that the young have fledged or it is determined that the nesting attempt has failed. If the project Applicant desires to work within 250 feet of the nest burrow, the project Applicant shall consult with the California Department of Fish and Wildlife (CDFW) to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the project Applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined by the CDFW. If any nesting burrowing owl are found during the pre-construction survey, mitigation for the permanent loss of burrowing owl foraging habitat (defined as all areas of suitable habitat within 250 feet of the active burrow)	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		shall be accomplished at a 1:1 ratio. The mitigation provided shall be consistent with recommendations in the 2012 CDFW Staff Report and may be accomplished within the Swainson's hawk foraging habitat mitigation area if burrowing owls have been documented utilizing that area, or if the Biologist, the City, and the CDFW collectively determine that the area is suitable. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the burrowing owl would be fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1l:** Prior to construction activities, the project Applicant shall implement one of the following options to reduce impacts to Swainson's hawk and Burrowing owl: **Survey Report** **Option 1.** For any nesting raptor or songbird pre-construction survey conducted pursuant to Mitigation Measure (MM) BIO-2i through MM	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		BIO-2k, a report summarizing the survey(s), including those for Swainson's hawk and burrowing owl, shall be provided to the City and the California Department of Fish and Wildlife (CDFW) within 30 days of the completed survey. The survey report shall be valid for one construction season. If no nests are found, no further mitigation is required. Where birds are nesting during construction and construction activities cause a nesting bird do any of the following in a way that would be considered a result of construction activities: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, the exclusionary buffer shall be increased such that activities are far enough from the nest to stop this agitated behavior. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified Biologist in consultation with the CDFW. Construction activities may only resume within the buffer zone after a follow-up survey by the biologist has been conducted and a report has been prepared indicating that the nest (or nests) are no longer active, and no new nests have been identified.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Option 2. The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to nesting birds would be fully mitigated, including payment of applicable fees, provided that the CDFW and United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1m: Option 1.** A pre-construction nesting bird survey shall be conducted by a qualified Biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 3 days prior to the initiation of construction. The results shall be provided to the City of Antioch Planning Division. If there is a break in construction activity of more than 2 weeks, subsequent surveys shall be conducted. If active raptor nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. These no-disturbance buffers may be reduced if a smaller buffer is proposed by the Biologist and approved by the	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		City (and California Department of Fish and Wildlife (CDFW) if it is a tricolored blackbird nesting colony) after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (are there visual or acoustic barriers between the proposed activity and the nest). A qualified Biologist shall visit the nest as needed to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to raptors and songbirds would be are fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1n:** Prior to construction activities, the project Applicant shall implement one of the following options:	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Option 1. A qualified Biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed development footprint. This habitat assessment shall identify all potentially suitable roosting habitat, and may be conducted up to 1 year prior to the start of construction. The results shall be provided to the City of Antioch Planning Division. If potential roosting habitat is identified (cavities in trees) within the areas proposed for development, the Biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50°F (degrees Fahrenheit) to determine presence of roosting bats. These surveys are recommended to be conducted utilizing methods that are considered acceptable to the California Department of Fish and Wildlife (CDFW) and bat experts, including but not limited to evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiber optic cameras or a combination thereof. If roosting bats are identified within any of the trees planned for removal, or if	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		presence is assumed, the trees shall be removed outside of pup season only on days when temperatures are in excess of 50°F. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified Biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50°F to avoid potential impacts to foliage-roosting bat species. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, including payment of applicable fees, to the extent that all project impacts to roosting bats would be fully mitigated, provided that the CDFW and United States Fish and Wildlife Service (USFWS) have approved the conservation plan. **MM BIO-1o: Option 1.** Within 48 hours prior to the initiation of any construction activities for any project phase, a	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		qualified Biologist shall conduct a preconstruction-level American badger den survey within the project site. The results shall be provided to the City of Antioch Planning Division. If American badger or burrows with American badger sign are found within the project site or Off-site Improvement Area during the preconstruction surveys, consultation with the California Department of Fish and Wildlife (CDFW) shall occur prior to the initiation of any construction activities to determine an appropriate burrow excavation and/or relocation method. If American badger burrows are not found, further measures are not necessary. All survey results shall be submitted to the City of Antioch Planning Division prior to the initiation of any construction activities or where construction has been halted for 30 days or more. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, including payment of applicable fees, to the extent that all project impacts to the American badger would be fully mitigated, provided that the CDFW and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM BIO-1p: Prior to any ground-disturbing or vegetation-removal activities, the project Applicant shall implement one of the following options: **Option 1.** The project Applicant shall hire a qualified Biologist to conduct a Worker Environmental Awareness Training (WEAT) with the construction crews. The WEAT shall include the following information: discussion of the California Endangered Species Act (CESA) and Federal Endangered Species Act (FESA), the Clean Water Act, the project permits and California Environmental Quality Act (CEQA) documentation, and associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife, location of any avoided waters of the United States; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species. The WEAT shall also discuss the different habitats used by the species' different life stages and the annual timing of these life stages. A handout summarizing the WEAT information shall be provided to workers to keep	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		on-site for future reference. Upon completion of the WEAT training, workers shall sign a form stating that they attended the training, understand the information presented and will comply with the regulations discussed. Workers shall be shown designated "avoidance areas" during the WEAT training, and worker access shall be restricted to outside of those areas to minimize the potential for inadvertent environmental impacts. **Option 2.** The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, including payment of applicable fees, to the extent that all project impacts to special-status wildlife species would be fully mitigated, provided that the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.	
Impact BIO-2: The project could 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 Game or U.S. Fish and Wildlife Service.	Less Than Significant	Implementation of MM BIO-3 below.	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact BIO-3: The project could 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.	Potentially Significant	**MM BIO-3:** Prior to the issuance of a grading permit for the project, the project Applicant shall obtain all required resource agency approvals for the project, including as follows: The project Applicant shall obtain for a Section 404 permit from the United States Army Corps of Engineers (USACE). Waters that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE. The project Applicant shall apply for and obtain a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB) and adhere to the certification conditions. The project Applicant shall apply for and obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). The information provided will include a description of all of the activities associated with the proposed project, not just those closely associated with the drainages and/or riparian vegetation. Impacts will be outlined in the application and are expected to be in substantial conformance with the impacts to	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		biological resources outlined in this document. Impacts for each activity will be identified as temporary or permanent with a description of the proposed mitigation for the associated biological resource impacts. Information regarding project-specific drainage and hydrology changes resulting from project implementation will be provided as well as description of stormwater treatment methods. Minimization and avoidance measures shall be proposed as appropriate and may include preconstruction species surveys and reporting; protective fencing around avoided biological resources; worker environmental awareness training; seeding disturbed areas adjacent to open space areas with native seed; and installation of project-specific stormwater Best Management Practices (BMPs). Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat mitigation credits from an agency-approved mitigation/conservation bank, purchase of off-site land approved by resource agencies for mitigation, working with a local land trust to preserve land, or any other method acceptable to the CDFW.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact BIO-4: The project would not 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.	Potentially Significant	**MM BIO-4:** No permanent or temporary fencing shall be erected that will hinder migratory wildlife from utilizing the Sand Creek corridor. Utility and bridge crossings of Sand Creek shall be designed to be free spanning of the creek.	Less Than Significant
Impact BIO-5: The project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially Significant	**MM BIO-5:** The project Applicant shall preserve and incorporate existing trees into the project design to the extent feasible. If any Protected Trees (i.e., indigenous trees, street trees, mature trees, and/or landmark trees) are required to be removed due to project-related activities, the removal shall be mitigated in accordance with the City of Antioch Code of Ordinances Title 9, Chapter 5, Article 12 Section 9-5.1205: Tree Preservation and Regulation by either paying the requisite fee as outlined in the City's ordinance, or through conducting on-site plantings at the ratios required by the City's Tree Ordinance. Efforts shall be made to save trees where feasible. This shall include the use of retaining walls, planter islands, pavers, or other techniques commonly associated with tree preservation. The Improvement Plans shall include a note and show placement of temporary construction fencing around trees to be saved: The project Applicant shall install	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		a 4-foot tall, brightly colored (typically orange), synthetic mesh material fence (or an equivalent) approved by the City at the following locations prior to any construction equipment being moved on-site or any construction activities taking place: at the limits of construction; outside the Protected Zone of all native oaks, California buckeye, or landmark trees; within 50 feet of any grading, road improvements, underground utilities, or other development activity; or as otherwise shown on the tentative subdivision map. Any encroachment within these areas, including Protected Zones of trees to be saved, shall first be approved by the City of Antioch Community Development Director. Grade cuts and fills, hardscapes, structures, and utility lines shall be located outside of the drip line of any trees being preserved. All required protective fencing shall be installed prior to the commencement of grading any particular phase.	
Impact BIO-6: The project would not 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	No mitigation is necessary	No Impact

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impact	Potentially Significant (as to Special-status Plant Species, Special-status Wildlife Species, Aquatic Resources)	Implementation of MM BIO-1a through MM BIO-1p, MM BIO-3, MM BIO-4 MM NOI-1b, MM NOI-1c, and MM NOI-1d.	Less Than Significant
Section 3.5—Cultural and Tribal Cultural Resources			
Impact CUL-1: The project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact CUL-2: The project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Potentially Significant	**MM CUL-2: Stop Construction Upon Encountering Archeological Materials** In the event that subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during earth-moving activities, all work within 100 feet of the resource shall be halted, and the Applicant shall consult with a qualified Archeologist. Representatives of the City and the qualified Archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If a Native American archeological, ethnographic, or a spiritual resource is discovered, all identification and treatment shall be conducted by qualified Archeologists who are certified by the Society of Professional Archeologists and/or meet the federal standards as stated in the Code of Federal Regulations (36 Code of Federal Regulations [CFR] Part 61), and are Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions. In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical Archeologists, who shall meet Register of Professional Archeologists or 36 Code of Regulations Part 61 requirements. The Applicant shall retain the services of a professional Archaeologist to educate the construction crew that will be conducting grading and excavation at the project site. The education shall consist of an introduction to the	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		geology of the project site and the kinds of archeological and/or Native American resources that may be encountered, as well as what to do in case of a discovery.	
Impact CUL-3: The project could disturb human remains, including those interred outside of formal cemeteries.	Potentially Significant	**MM CUL-3: Stop Construction Upon Encountering Human Remains** If during the course of construction activities there is accidental discovery or recognition of any human remains, the following steps shall be taken: 1. 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	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Code Section 5097.98. 2. 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 or her authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.	
Impact CUL-4: The project could cause a substantial adverse change in the significance of a Tribal Cultural Resource 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).	Potentially Significant	Implement MM CUL-2	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact CUL-5: The project would not cause a substantial adverse change in the significance of a tribal cultural 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.	Less Than Significant	No mitigation is necessary	Less Than Significant
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.6—Geology and Soils			
Impact GEO-1: The proposed project could 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.	Potentially Significant (ground shaking, landslides, and liquefaction)	**MM GEO-1a: Implement Project-specific Geotechnical Report Recommendations** Prior to issuance of any grading permits, all recommendations and specifications set forth in the project-specific Geotechnical Exploration Report prepared for the proposed project shall be reflected on the project grading and foundation plans (inclusive of seismic design parameters), subject to review and approval by the City of Antioch Engineer. **MM GEO-1b: Grading and Foundation Plan Review and Construction Monitoring** Prior to issuance of any grading permits, the project Applicant shall retain the design geotechnical engineering firm to review the final grading and foundation plans and specifications to evaluate whether	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		recommendations have been implemented from the project-specific Geotechnical Exploration Report, and to provide additional or modified recommendations, as needed. Construction monitoring shall be performed by a California Registered Geologist and/or Engineer to check the validity of the assumptions made in the geotechnical investigation. Earthwork operations shall be performed under the observation of a California Registered Geologist and/or Engineer to check that the site is properly prepared, the selected fill materials are satisfactory, and that placement and compaction of the fills has been performed in accordance with recommendations and the project specifications.	
Impact GEO-2: The proposed project could result in substantial soil erosion or the loss of topsoil.	Potentially Significant	**MM GEO-2: a. Development of a Storm Water Pollution Prevention Plan** Prior to the issuance of grading permits, the project Applicant shall prepare and submit to the City Public Works Department and Central Valley Regional Water Quality Control Board (RWQCB), a Storm Water Pollution Prevention Plan (SWPPP) detailing measures to control soil erosion and waste discharges during construction. The SWPPP shall include an erosion	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		control plan, a water quality monitoring plan, a hazardous materials management plan, and post-construction Best Management Practices (BMPs).	
Impact GEO-3: The proposed project could be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Potentially Significant	Implement MM GEO-1a and GEO-1b	Less Than Significant
Impact GEO-4: The proposed project could 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.	Potentially Significant	Implement MM GEO-1a and GEO-1b	Less Than Significant
Impact GEO-5: The proposed project would not 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	No mitigation is necessary	No Impact
Impact GEO-6: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant	**MM GEO-3: Preconstruction Paleontological Survey** Prior to any grading or excavation activities, a professional Paleontologist shall conduct a worker awareness training to inform construction personnel of the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction activities,	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		and the property notification procedures to follow should fossils be encountered. If paleontological resources are discovered during earth-moving activities, the construction crew shall immediately stop work within 100 feet of the discovery and notify the Planning Department. A qualified Paleontologist shall be retained to evaluate the resource and prepare and implement a proposed mitigation plan, including curation, in accordance with the Society of Vertebrate Paleontology Guidelines.	
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.7—Greenhouse Gas Emissions and Energy			
Impact GHG-1: The project could generate direct and indirect greenhouse gas emissions that could result in a significant impact on the environment even with mitigation.	Potentially Significant	**MM GHG-1: Implement potentially feasible mitigation measures** Prior to the issuance of the last certificate of occupancy (or as otherwise specifically stated), the project Applicant shall provide documentation to the City of Antioch that the proposed project has employed one or more of the following measures to reduce greenhouse gas (GHG) emissions (i.e., 1,191 metric tons of carbon dioxide equivalent per year (MT CO_2e/year) to at or below 2.6 MT CO_2e/year/service population by 2030: • Purchased electricity from a utility offering 100 percent renewable power for some or all of the	Significant and Unavoidable

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		proposed project's power needs. • Installed on-site solar panels to generate electricity for a portion or all of project electricity consumption. • Installed on-site charging units for electric vehicles consistent with parking requirements in California Green Building Standards Code (CALGreen) Section 5.106.5.2. • Implemented a ride sharing program for employees starting no later than 60 days after commercial operations begin. • Purchased voluntary carbon credits from a verified GHG emissions credit broker in an amount sufficient to offset operational GHG emissions of approximately 34,531 MT CO_2e over the lifetime of the proposed project (or a reduced amount estimated based on implementation of other measures listed above). Copies of the contract(s) shall be provided to the City Planning Department.	
Impact GHG-2: The project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of greenhouse gases.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact GHG-3: The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Less Than Significant	No mitigation is necessary	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact GHG-4: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less Than Significant	No mitigation is necessary	Less Than Significant
Cumulative Impact	Potentially Significant	MM GHG-1.	Less Than Significant
Section 3.8—Hazards, Hazardous Materials, and Wildfire			
Impact HAZ-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact HAZ-2: The project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	Potentially Significant (construction only)	**MM HAZ-2a: Performance of Pre-Construction Hazardous Materials Surveys** Prior to the issuance of a demolition permit for each of the structures on-site, the Applicant shall hire a California Registered Asbestos Abatement Contractor to inspect, and if necessary, remove all asbestos containing materials, and conduct final clearance inspections (visual) to document the completion of the action. All demolition activities shall be completed in accordance with California Code of Regulations Title 17, Division 1, Chapter 8, Article 1. All construction work where an employee may be occupationally exposed to lead-containing paint, including demolition, must comply with Occupational and Safety Health Administration (OSHA) Regulation 29 Code of Federal	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Regulations 1926.62, and California Occupational and Safety Health Administration (Cal/OSHA) Title 8 California Code of Regulations 1523.1. **MM HAZ-2b: Agrichemical Soil Assessment** The Applicant shall conduct a limited agrichemical soil assessment within the areas where the two orchards were located on-site to determine if residual agrichemicals are present within on-site soils in excess of applicable limits. If found to be present in excess of applicable limits, the Applicant shall have a remedial action plan developed and implemented to ensure that all residual soils are removed to the satisfaction of the Department of Toxic Substance Control (DTSC) and City of Antioch prior the issuance of a grading permit. **MM HAZ-2c: Obtain an Abandonment Permit** Prior to any ground disturbance activities within 50 feet of any water well or septic tank on the project site, the Applicant shall hire a licensed contractor to obtain an abandonment permit from the Contra Costa County Environmental Management Department, and properly abandon the on-site well(s) and/or septic tank, pursuant to review and approval by the City Engineer.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM HAZ-2d: Well Abandonment Proper abandonment of Well No. 1 is required in accordance with current California Department Division of Oil, Gas, and Geothermal Resources (DOGGR) regulations to address past oil and gas exploration and production activities. Prior to final map approval, the Applicant shall submit to the City of Antioch Engineering Department, for review and approval, plans which show that future inhabited structures will not be located over the two abandoned oil/gas wells. The plans shall be completed in compliance with the DOGGR Construction Site Review Program, which includes guidelines and recommendations for setbacks and mitigation measures for venting systems. If grading is proposed proximate to the two abandoned well locations, DOGGR shall be consulted to determine if the wells will require modification in casing height. A Soil Management Plan (SMP) shall be prepared to address potential impacted soil that may be encountered during grading activities within the area of the two abandoned wells. **MM HAZ-2e: Removal of Hazardous Material Containers** Prior to site grading, the Applicant shall cause all noted potentially hazardous material containers and tanks to be removed from the parcel.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM HAZ-2f: Conduct a Phase II Environmental Site Assessment Prior to issuance of a grading permit, the Applicant shall hire a certified Soils Engineer to prepare a Phase II Environmental Site Assessment (Phase II ESA) to address all concerns identified in the Phase I ESAs. The Applicant shall comply with all Phase II recommendations. **MM HAZ-2g: Petroleum Pipeline Abandonment/Removal** Prior to commencement of residential construction, the Applicant shall ensure that all petroleum pipelines within the areas of the project site planned for development shall be abandoned and/or removed in accordance with applicable federal, state, and/or local standards to the satisfaction of the Contra Costa Environmental Health Department and the City Engineer. If any indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are found at the project site associated with the petroleum pipelines, the impacted area shall be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with applicable regulatory	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		residential screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). Where the soil contaminant concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to the satisfaction of the Contra Costa Environmental Health Department. If soil contaminants do not exceed the applicable regulatory residential screening levels, further action is not required. **MM HAZ-2h: Preparation of Safety Guidelines** In the event the pipelines are abandoned and not removed, prior to commencement of grading, the construction contractor, the pipeline operator, and a representative from the City's Engineering Department shall meet on the project site and prepare site-specific safety guidelines for construction in the field to the satisfaction of the City Engineer. The safety guidelines and field-verified location of the pipelines shall be noted on the improvement plans and be included in all construction contracts involving the project site.	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact HAZ-3: The project would not 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	No mitigation is necessary	Less Than Significant
Impact HAZ-4: The project would not 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 not create a significant hazard to the public or the environment.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact HAZ-5: 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, the project would not result in a safety hazard or excessive noise for people residing or working the project area.	No Impact	No mitigation is necessary	No Impact
Impact HAZ-6: The project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Potentially Significant	The Applicant shall implement MM TRANS-7. **MM TRANS-7:** Prior to recordation of the final map, the City of Antioch and Contra Costa County Fire Protection District shall review and approve the proposed emergency access points for Villages 9, 10, 11, and 12 to ensure that adequate access is provided for large emergency vehicles in accordance with the California Fire Code.	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact HAZ-7: The project would not expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact WILD-1: Due to slope, prevailing winds, and other factors, the project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact WILD-2: The project would not 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	No mitigation is necessary	Less Than Significant
Impact WILD-3: The project would not 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	No mitigation is necessary	Less Than Significant
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.9—Hydrology and Water Quality			
Impact HYD-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Less Than Significant	No mitigation is necessary	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact HYD-2: The proposed project would not 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	No mitigation is necessary	Less Than Significant
Impact HYD-3: The proposed project could 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 offsite; (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?	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact HYD-4: The proposed project could be located in a flood hazard zone, tsunami, or seiche zone, or risk release of pollutants due to project inundation.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact HYD-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less Than Significant	No mitigation is necessary	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.10—Land Use			
Impact LAND-1: The proposed project would not physically divide an established community.	No Impact	No mitigation is necessary	No Impact
Impact LAND-2: The proposed project would not 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	No mitigation is necessary	Less Than Significant
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.11—Noise			
Impact NOI-1: The proposed project could generate 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.	Potentially Significant	**MM NOI-1a: Construction Noise Reduction Measure** To reduce potential construction noise impacts, the City shall ensure that the following multi-part mitigation measure is implemented at the project site: • 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. • The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists. • 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 adjacent residences. • The construction contractor shall ensure that the construction staging areas shall be located to create the greatest feasible distance between the staging area and noise-sensitive receptors nearest the project site. • 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 complaint (e.g. starting too early, bad muffler, etc.) and institute reasonable measures warranted to correct the problem. The construction contractor shall conspicuously post a telephone number for the disturbance coordinator at entrances to the construction site. • The construction contractor shall	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		comply with the City's permissible hours for construction (7:00 a.m. to 6:00 p.m., or 8:00 a.m. to 5:00 p.m. if within 300 feet of occupied dwellings, Monday through Friday, and 9:00 a.m. to 5:00 p.m. on weekends and holidays). **MM NOI-1b: Traffic Noise Reduction Measure** The proposed project shall construct a soundwall along rear yards of residential lots fronting Deer Valley Road. The soundwall shall be a minimum of 8-foot high, as measured from the finished grade of the proposed residential pads. The soundwall should be located so as to block the line of sight from rear yards for all proposed residences located within 160 feet of the centerline of Deer Valley Road. **MM NOI-1c: Mechanical Equipment Noise Reduction Measure** To reduce potential operational stationary noise impacts from mechanical ventilation equipment at the proposed residential homes, mechanical ventilation equipment must be located a minimum of 15 feet from the boundary of the project site, or must be shielded by a noise-reducing barrier. If a noise barrier is required, the barrier shall be a minimum of 5 feet in height, extending 2 feet beyond the sides of the equipment and located	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		between the equipment and the receiving property line. **MM NOI-1d: Commercial Operation Noise Reduction Measure** The commercial land uses shall be designed so that on-site mechanical equipment (i.e., HVAC units, compressors, generators) and area-source operations (e.g., parking lots) are located no closer than 100 feet from the nearest residential dwelling unit or provide shielding from nearby noise sensitive land uses to meet the City's normally acceptable threshold of 60 dBA CNEL. Shielding shall have a minimum height sufficient to completely block line-of-sight between the on-site noise source and the nearest residential dwelling to meet the City's noise standards. Based on the size and placement of the HVAC units (i.e., ground level or roof top), barrier heights may range between three to six feet.	
Impact NOI-2: The project would not result in generation of excessive groundborne vibration or groundborne noise levels.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact NOI-3: The proposed project would not expose people residing or working in the project area to excessive noise levels 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.	No Impact	No mitigation is necessary	No Impact

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.12—Population and Housing			
Impact POP-1: The proposed project would not 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	No mitigation is necessary	Less Than Significant
Impact POP-2: The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	Less Than Significant	No mitigation is necessary	Less Than Significant
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant
Section 3.13—Public Services and Recreation			
Impact PUB-1: The project would 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 fire protection.	Potentially Significant	Implementation of MM AQ-2a, MM BIO-1a through MM BIO-1p, MM BIO-3, MM BIO-4, MM CUL-1, MM CUL-2, MM CUL-3, MM GEO-1a, MM GEO-1b, MM GEO-2, and MM GEO-3, MM HAZ-2a, MM HAZ-2f, MM HAZ-2h MM NOI-1a, MM NOI-1b, MM NOI-1c, MM TRANS-1a, TRANS-1b, MM TRANS-1c, MM TRANS-2, MM TRANS-7, MM TRANS-8a, MM TRANS-8b, and MM TRANS-8c.	Less than Significant
Impact PUB-2: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered	Less Than Significant	No mitigation is necessary	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
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 police protection.			
Impact PUB-3: The project would not 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 schools.	Less Than Significant.	No mitigation is necessary	Less Than Significant.
Impact PUB-4: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, or the need for new or physically altered library facilities, the construction of which could cause significant environmental impacts.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact PUB-5: The project would not 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	No mitigation is necessary	Less Than Significant
Impact PUB-6: The project would include the construction of recreational facilities which could have an adverse physical effect on the environment.	Potentially Significant	Implementation of MM AQ-2a, MM BIO-1a through MM BIO-1p, MM BIO-3, MM BIO-4, MM CUL-1, MM CUL-2, MM CUL-3, MM GEO-1a, MM GEO-1b, MM	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		GEO-2, MM GEO-3, HAZ-2a, MM HAZ-2f, MM HAZ-2h, MM NOI-1a, and MM TRANS-1a.	
Cumulative Impact	Less Than Significant (fire, police, school, library facilities, increased park use, provision of park facilities)	No mitigation is necessary	Less Than Significant
Section 3.14—Transportation			
Impact TRANS-1: The project could conflict with a program plan, ordinance or policy of the circulation system under Existing Plus Project traffic conditions.	Potentially Significant	**MM TRANS-1a:** Prior to issuance of grading permits, the project Applicant shall retain a qualified transportation consultant to prepare and submit a Construction Traffic Management Plan to the City of Antioch for review and approval. The plan shall include: • Project staging plan to maximize on-site storage of materials and equipment; • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak-hours; lane closure proceedings; signs, cones, and other warning devices for drivers; and designation of construction access routes; • Permitted construction hours; • Location of construction staging; • Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations; and • Provisions for street sweeping to	**TRANS-1a**—Less Than Significant **TRANS-1b**—Significant and Unavoidable (unless and until Caltrans accepts the improvements) **TRANS-1c**—Significant and Unavoidable (unless and until the City of Brentwood and Contra Costa County accepts the improvements).

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		remove construction related debris on public streets. **MM TRANS-1b:** Prior to issuance of the first building permit, the project Applicant shall provide fees to the City of Antioch to fund the design and installation of Adaptive Signal Control Technologies (ASCT) or other traffic signal interconnect system approved by the City at the following intersections: • Slatten Ranch Road at SR-4 Westbound Ramps • Slatten Ranch Road/Sunset Drive at Hillcrest Avenue • Hillcrest Avenue at SR-4 Eastbound Ramps • East Tregallas Road/Larkspur Drive at Hillcrest Avenue In conjunction with the signal timing adjustments, the Applicant shall work with the City and Caltrans to design and install potential restriping options within the Hillcrest Avenue at SR-4 interchange area that improve vehicle and bicycle travel through the interchange area. The design process for these improvements shall start prior to the issuance of the 10th residential building permit for the proposed project, and installation of the traffic signal interconnect system and restriping shall	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		be completed prior to the issuance of the 422nd building permit unless the City of Antioch Engineer determines that design and installation delays are beyond the control of the project Applicant. **MM TRANS-1c:** Prior to issuance of the 431st building permit, the project Applicant shall install a traffic signal at the intersection at Balfour Road/Deer Valley Road in conjunction with other planned improvements, including the construction of a southbound left-turn lane, as well as separate westbound left and right-turn lanes.	
Impact TRANS-2: The project could conflict with a program plan, ordinance or policy of the circulation system under Near-term traffic conditions.	Potentially Significant	Implement MM TRANS-1b, MM TRANS-1c, and: **MM TRANS-2:** Prior to issuance of the first building permit, the project Applicant shall provide the City of Antioch with East Contra Costa Regional Fee and Financing Authority regional transportation impact fees in accordance with the latest adopted fee schedule to support improvements at the Lone Tree Way/SR-4 Eastbound ramp intersection. If the required fees would not support the necessary improvements at the intersection of Lone Tree Way and the Eastbound ramp of SR-4, then no such fees shall be required.	Significant and Unavoidable (until the improvements are implemented)
Impact TRANS-3: The project could conflict with a program plan, ordinance or policy of	Potentially Significant	The project Applicant shall implement MM TRANS-1b, MM TRANS-1c, and MM	Significant and Unavoidable

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
the circulation system under Cumulative Traffic Conditions.		TRANS-2 as well as the following additional mitigation measures: **MM TRANS-3a:** Prior to issuance of the 1,000th residential building permit, the project Applicant shall implement the following improvements to the Lone Tree Way/Davison Drive: 1. The westbound approach of the Davison Drive approach shall be converted from a westbound through lane to a left-through shared lane; and 2. If determined necessary by the City of Antioch Engineer, the project Applicant shall reconstruct the median on the south leg of the intersection to allow concurrent left-turn movements on the westbound approach. **MM TRANS-3b:** The design process shall start prior to the issuance of the 10th residential building permit for the proposed project, and installation shall be completed prior to the issuance of the 422nd building permit unless the City of Antioch City Engineer determines that design and installation delays are beyond the control of the project Applicant, the project Applicant shall fund the design and installation of Adaptive Signal Control Technologies (ASCT) or other traffic signal	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		interconnect system approved by the City at the following intersections: • Deer Valley Road/Hillcrest Avenue-Davison Drive • Hillcrest Avenue/Hillcrest Crossroads The ASCT system at the Deer Valley Road at Hillcrest Avenue/Davison Drive and Hillcrest Avenue at Hillcrest Crossroads shall be coordinated with the ASCT systems identified as part of Mitigation Measure (MM) TRANS-1b. **MM TRANS-3c:** Prior to issuance of the 431st residential building permit, project Applicant shall restripe the westbound approach of Lone Tree Way at SR-4 Westbound Ramps/Jeffery Way to provide a second westbound left-turn lane (requires widening of the south leg of the intersection to provide a second southbound receiving lane, which is currently under construction). This improvement is under construction by others and shall only be required if not already in place by the time the 431st residential building permit is issued. **MM TRANS-3d:** Prior to issuance of the first building permit, the project Applicant shall provide the City of Antioch with East Contra Costa Regional Fee and Financing Authority regional transportation impact fees in accordance with the latest adopted fee schedule to	

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		support improvements at the Sand Creek Road/SR-4 Westbound Ramps intersection. If the required fees would not support the necessary improvements at the intersection, then no such fees shall be required. **MM TRANS-3e:** Prior to the issuance of the 622nd residential building permit, the project Applicant shall have started construction on the Sand Creek Road extension from Deer Valley Road to Dallas Ranch Road as a four-lane roadway. **MM TRANS-3f:** Prior to the issuance of the 421st residential building permit for the proposed project, the project Applicant shall have started construction on Sand Creek Road from the Kaiser Permanente Antioch Medical Center entrance roadway to the western boundary of the Dozier Libbey High School as a two-lane roadway (one lane in each direction) along the ultimate alignment, connecting to the portion of Sand Creek Road at Dozier Libbey High School to be constructed by others.	
Impact TRANS-4: The project would conflict with a program plan, ordinance or policy of the circulation system.	Potentially Significant	Implement MM TRANS-2.	Significant and Unavoidable
Impact TRANS-5: The project would not be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b).	Potentially Significant	MM TRANS-1 through MM TRANS-8	Significant and Unavoidable

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact TRANS-6: The project would not 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	No mitigation is necessary	Less Than Significant
Impact TRANS-7: The project could result in inadequate emergency access.	Potentially Significant	**MM TRANS-7:** Prior to recordation of the final map, the City of Antioch and Contra Costa County Fire Protection District shall review and approve the proposed emergency access points for Villages 9, 10, 11, and 12 to ensure that adequate access is provided for large emergency vehicles in accordance with the California Fire Code.	Less Than Significant
Impact TRANS-8: The project would provide adequate access for public transit, bicycles, or pedestrians.	Potentially Significant	**MM TRANS-8a:** The project Applicant shall consult with TriDelta Transit to determine if additional transit facilities shall be provided throughout the site. If transit stop locations are identified, the project Applicant shall include those locations on the improvement plans for the requisite tentative map being processed by the City. The improvement plans shall include pedestrian passages through cul-de-sacs and other potential barriers to minimize pedestrian walking distances to any transit stops identified. **MM TRANS-8b:** The project Applicant shall identify the bicycle circulation facilities on all final improvement plans submitted to the City. Such facilities may	Less Than Significant

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		include a painted buffer between the bicycle lanes and the vehicular travel way, reducing the travel lane width to 11-feet each to allow for a 7-foot wide bicycle lane and a 3-foot wide buffer between the bicycle lanes and the vehicular travel-way on the proposed arterial streets. In addition, appropriate bicycle crossing treatments shall be provided at roundabouts to be constructed as part of the proposed project. **MM TRANS-8c:** The project Applicant shall identify pedestrian circulation facilities on all final improvement plans submitted to the City. These plans shall show primary pedestrian routes connecting neighborhood destinations and marked crosswalks at key uncontrolled pedestrian crossing locations. In addition, the plans shall demonstrate that signalized intersections provide crosswalks and pedestrian actuation. At roundabouts to be constructed as part of the project, appropriate pedestrian crossing treatments shall be provided.	
Cumulative Impact	Potentially Significant	Implement MM TRANS-1a, MM TRANS-1b, MM TRANS-1c, MM TRANS-2, MM TRANS-3a, MM TRANS-3b, MM TRANS-3c, MM TRANS-3d, MM TRANS-3e, MM TRANS-3f, MM TRANS-7, MM TRANS-8a, MM TRANS-8b, MM TRANS-8c.	Significant and Unavoidable

Table ES-1 (cont.): Executive Summary Matrix

Impacts	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 3.15—Utilities and Service Systems			
Impact UTIL-1: The project could require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact UTIL-2: 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.	Less Than Significant	No mitigation is necessary	Less Than Significant
Impact UTIL-3: The project would 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	No mitigation is necessary	Less Than Significant
Impact UTIL-4: The project would not 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	No mitigation is necessary	Less Than Significant
Impact UTIL-5: The project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	Less Than Significant	No mitigation is necessary	Less Than Significant
Cumulative Impact	Less Than Significant	No mitigation is necessary	Less Than Significant