

Final  
**CITY OF SUISUN CITY  
HIGHWAY 12 LOGISTICS CENTER**

Environmental Impact Report

**Appendix E  
Mitigation Monitoring and Reporting Program**

**AECOM**

September 2024

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# **MITIGATION MONITORING AND REPORTING PROGRAM**

## **CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENT**

Where a California Environmental Quality Act (CEQA) document has identified significant environmental effects, Public Resources Code Section 21081.6 requires adoption of a “reporting or monitoring program for the changes to the project which it has adopted or made a condition of a project approval to mitigate or avoid significant effects on the environment.”

This Environmental Mitigation Monitoring and Reporting Program (MMRP) has been prepared to provide for the monitoring of mitigation measures required of the Highway 12 Logistics Center (proposed project), as set forth in the Final Environmental Impact Report (EIR).

The City of Suisun City (City) is the Lead Agency that must adopt the MMRP for development and operation of the project. This report will be kept on file with the City of Suisun City at the City Hall, 701 Civic Center Blvd, Suisun City, CA 94585.

The CEQA Statutes and Guidelines provide direction for clarifying and managing the complex relationships between a lead agency and other agencies with implementing and monitoring mitigation measures. In accordance with CEQA Guidelines Section 15097(d), “each agency has the discretion to choose its own approach to monitoring or reporting; and each agency has its own special expertise.” This discretion will be exercised by implementing agencies at the time they undertake any of portion of the project, as identified in the EIR.

## **PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM**

The intent of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures. The MMRP is intended to be used by City staff and others responsible for project implementation.

This document identifies the individual mitigation measures, the party responsible for monitoring implementation of the measure, the timing of implementation, and space to confirm implementation of the mitigation measures.

## **ROLES AND RESPONSIBILITIES**

The City of Suisun City will oversee monitoring and documenting the implementation of mitigation measures. The City or its construction contractor is responsible for fully understanding and effectively implementing all of the mitigation measures contained within this MMRP. Certain mitigation measures also will require that the applicant coordinate or consult with one or more other public agencies in implementing mitigation measures specified herein.

## **CHANGES TO MITIGATION MEASURES**

Any substantive change in the MMRP is required to be reported in writing. Modifications to the mitigation measures may be made by the City, subject to one of the following findings, and documented by evidence included in the public record:

- a. The mitigation measure included in the Final EIR and the MMRP is no longer required because the significant environmental impact identified in the Final EIR has been found not to exist, or to occur at a level which makes

the impact less than significant as a result of changes in the project, changes in environment conditions, or other factors.

OR,

- b. The modified or substitute mitigation measure provides a level of environmental protection equal to, or greater than that afforded by the mitigation measure included in the Final EIR and the MMRP; and,
- c. The modified or substitute mitigation measure or measures do not have significant adverse effects on the environment in addition to, or greater than those which were considered by the responsible hearing parties in their decisions on the Final EIR and the proposed project; and,
- d. The modified or substitute mitigation measures are feasible, and the City, through measures included in the MMRP or other City procedures, can ensure implementation.

## **SUPPORT DOCUMENTATION**

Findings and related documentation supporting the findings involving modifications to mitigation measures shall be maintained in the project file with this MMRP and shall be made available to the public upon request.

This MMRP will be kept on file at:

Suisun City  
City Hall  
701 Civic Center Blvd  
Suisun City, CA 94585  
(707) 421-7300

## MITIGATION MONITORING AND REPORTING PROGRAM FOR THE HIGHWAY 12 LOGISTICS CENTER

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p><b>4.1 Aesthetics</b> <b>IMPACT 4.1-3</b> Substantial New Light and Glare and Skyglow Effects</p>	<p><b>Mitigation Measure 4.1-3 – Prepare an Exterior Lighting Plan Including an Off-Site Photometric Analysis</b></p> <p>The Project applicant or contractor(s) shall prepare and submit to the City Planning Division for review and approval, an Exterior Lighting Plan, which shall present the size, orientation, location, height, and appearance of proposed fixtures (Suisun City Municipal Code Title 18, Chapter 18.76.030). Before issuing any occupancy permit, the City will review each site-specific lighting plan to ensure that it includes the following standards:</p> <ul style="list-style-type: none"> <li>➤ Shield or screen all exterior lighting fixtures to direct the light downward and prevent light spill on adjacent properties.</li> <li>➤ Place and shield or screen flood and area lighting needed for security so as not to disturb adjacent properties or passing motorists.</li> <li>➤ Light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash, shall not be used. Light-emitting diode (LED) lighting shall be used, except in such cases that LED lighting cannot meet the requirements of the lighting purpose or is otherwise a safety hazard.</li> <li>➤ Motion-controlled exterior nighttime lighting, rather than lighting that is always on, shall be used, unless in the case in which an alternative is required for security or other safety purposes.</li> <li>➤ Based on an off-site photometric analysis, proposed on-site lighting fixtures shall be demonstrated to avoid spillage onto any property other than the boundaries for which lighting is intended.</li> </ul>	<p><b>Implementation:</b> Project applicant or contractor(s).</p> <p><b>Timing:</b> Prior to issuance of occupancy permit.</p>		
<p><b>4.2 Air Quality</b></p>	<p><b>Mitigation Measure 4.2-1a – Implement BAAQMD Basic Best Management Practices for Construction-Related Fugitive Dust Emissions</b></p>	<p><b>Implementation:</b></p>		

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<p><b>IMPACT 4.2-1.</b> Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.</p>	<p>The Project applicant shall require all construction contractors to implement the basic construction best management practices recommended by BAAQMD for construction-related fugitive dust. Emission reduction measures shall include, at a minimum, the following measures. Additional measures may be identified by BAAQMD or contractor as appropriate. The Project applicant shall demonstrate to the City the inclusion of these measures through applicable provisions of construction contracts requiring the use of the BAAQMD basic construction best management practices for fugitive dust prior to the issuance of a grading permit. On-site inspection may occur at any time by the City to verify compliance with mitigation requirements.</p> <ul style="list-style-type: none"> <li>➤ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li> <li>➤ All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li> <li>➤ All visible mud or dirt trackout 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.</li> <li>➤ All vehicle speeds on unpaved roads shall be limited to 15 mph.</li> <li>➤ 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.</li> <li>➤ All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.</li> <li>➤ All trucks and equipment, including their tires, shall be washed off prior to leaving the site.</li> </ul>	<p>Project applicant and construction contractor(s).</p> <p><b>Timing:</b> Prior to the issuance of grading permit(s) and during construction activities.</p>		

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	<ul style="list-style-type: none"> <li>➤ Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.</li> <li>➤ Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.</li> </ul>			
<p><b>4.2 Air Quality IMPACT 4.2-1.</b> (Continued) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.</p>	<p><b>Mitigation Measure 4.2-1b – Implement Construction Exhaust Emissions Control Measures.</b></p> <p>The Project applicant shall require that the construction contractor(s) comply with the following heavy-duty construction equipment exhaust emissions control measures. Prior to the issuance of grading permits for the Project, the Project applicant shall include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction activities. The Project applicant shall demonstrate to the City the inclusion of these measures through applicable provisions of construction contracts prior to the issuance of a grading permit. On-site inspection may occur at any time by the City to verify compliance with mitigation requirements.</p> <ul style="list-style-type: none"> <li>• Use Tier 4 final certified engines for all on-site, diesel-powered construction equipment rated at equal to or greater than 50 horsepower.</li> <li>• Prohibit the idling of construction equipment and trucks, if diesel-fueled, for more than two minutes. The Project applicant or construction contractor(s) shall provide appropriate signage onsite communicating this requirement to on-site equipment operators.</li> <li>• Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and</li> </ul>	<p><b>Implementation:</b> Project applicant and construction contractor(s).</p> <p><b>Timing:</b> Prior to issuance of grading permit(s) and during construction activities.</p>		

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	<p>compressors, and using electric tools, unless such electric-powered tools would not meet the power or longevity requirements to achieve the construction task, or are otherwise infeasible due to site conditions such as wet or damp circumstances.</p> <ul style="list-style-type: none"> <li>• Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites.</li> <li>• Use battery-powered equipment for all off-road construction equipment with a power rating below 19kW (e.g., plate compactors, pressure washers) during construction.</li> <li>• Maintain all equipment and maintenance records and data sheets, including design specifications and emission control tier classifications, onsite and furnish to the lead agency or other regulators upon request.</li> </ul>			
<p><b>4.2 Air Quality</b> <b>IMPACT 4.2-1.</b> (Continued) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.</p>	<p><b>Mitigation Measure 4.2-1c: Omit the Inclusion of Natural Gas Infrastructure</b> The City shall require the Project applicant to omit the inclusion of natural gas infrastructure in the design and construction of the proposed Project. The final design drawings must demonstrate the omission of natural gas connections to the Project site and be provided to and approved by the City prior to the issuance of grading permits.</p>	<p><b>Implementation:</b> Project applicant. <b>Timing:</b> Prior to issuance of grading permit(s)</p>		
<p><b>4.2 Air Quality</b> <b>IMPACT 4.2-1.</b> (Continued) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.</p>	<p><b>Mitigation Measure 4.2-1d: Implement Mitigation Measure 4.12-1, Transportation Demand Management (TDM) Plan</b> <i>See 4.10 Transportation Impact 4.12-1.</i></p>	<p><b>Implementation:</b> Project applicant and tenants(s). <b>Timing:</b> TDM Plan to be approved prior to issuance of building permit. Project</p>		



Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
		applicant <b>or</b> contractor(s) shall monitor and report on progress during operations. Tenant(s) shall report annually on required metrics.		
<b>4.2 Air Quality IMPACT 4.2-1.</b> (Continued) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.	<b>Mitigation Measure 4.2-1e: Incorporate CALGreen Tier 2 Standards for Electric Vehicle Infrastructure Project Design</b> The City shall require the Project applicant to include electric vehicle (EV) capable parking at the rate consistent with the California Green Building Standards Code (CALGreen) Tier 2 standards for the proposed Project land use. The EV capable parking shall include the installation of the enclosed conduit that forms the physical pathway for electrical wiring and adequate panel capacity to accommodate future installation of a dedicated branch and charging stations(s). The total EV capable parking to be provided shall be based on the proposed size and scale of development and the most current CALGreen Tier 2 standards at the time of the application for a building permit.	<b>Implementation:</b> Project applicant and construction contractor(s). <b>Timing:</b> Prior to the issuance of building permit.		
<b>4.2 Air Quality IMPACT 4.2-1.</b> (Continued) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.	<b>Mitigation Measure 4.2-1f: Electrification of Yard Equipment</b> The Project applicant shall stipulate in tenant lease agreements that all yard equipment and similar on-site off-road equipment, such as forklifts, be electric. Prior to the issuance of an occupancy permit, the Project applicant shall provide the City with documentation, to the City's satisfaction, demonstrating that the building occupant shall only use on-site off-road equipment that is electric-powered.	<b>Implementation:</b> Project applicant and tenants(s). <b>Timing:</b> Prior to issuance of occupancy permit(s)		
<b>4.2 Air Quality IMPACT 4.2-1.</b> (Continued)	<b>Mitigation Measure 4.2-1g: Electrification of Transportation Refrigeration Units</b> The Project applicant shall stipulate in tenant lease agreements that all transportation refrigeration units operating on the Project site are required to be electric or alternative zero-emissions technology, including hydrogen fuel cell transport refrigeration and cryogenic transport refrigeration, to reduce emissions of NO <sub>x</sub> without substantially	<b>Implementation:</b> Project applicant and tenant(s). <b>Timing:</b>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.	increasing other emissions. The Project design shall also include necessary infrastructure; for example, requiring all dock doors serving transportation refrigeration units to be equipped with charging infrastructure to accommodate the necessary plug-in requirements for electric transportation refrigeration units while docked or otherwise idling, as well as the electrical capacity to support the on-site power demand associated with electric transportation refrigeration unit charging requirements. Future tenants must provide documentation to the City to demonstrate compliance with this measure.	During construction and operation		
<b>4.2 Air Quality IMPACT 4.2-1.</b> (Continued) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.	<b>Mitigation Measure 4.2-1h: Prohibition of Truck Idling for More than Two Minutes</b> The Project applicant shall stipulate in tenant lease agreements that onsite idling of all visiting gasoline- or diesel-powered trucks not exceed two minutes, and that appropriate signage and training for on-site workers and truck drivers be provided to support effective implementation of this limit. Signage shall include both interior-and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the air district, and the building manager. Facility operators shall train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks. Future tenants must provide documentation to the City to demonstrate compliance with this measure.	<b>Implementation:</b> Project applicant and tenants(s). <b>Timing:</b> During operational activities.		
<b>4.2 Air Quality IMPACT 4.2-1.</b> (Continued) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.	<b>Mitigation Measure 4.2-1i: Limitation of Model Year of Visiting Trucks</b> The project applicant shall require that lease agreements stipulate that any gasoline- or diesel-powered vehicle, whether owned by tenant(s), that enters or operates on the project site and has a gross vehicle weight rating greater than 14,000 pounds, have a model year dated no older than model year 2014. Future tenants must provide documentation to the City to demonstrate compliance with this measure.	<b>Implementation:</b> Project applicant and tenant(s). <b>Timing:</b> During operational activities.		
<b>4.2 Air Quality IMPACT 4.2-1.</b> (Continued)	<b>Mitigation Measure 4.2-1j: Backup Generator and Fire Pump Specifications</b>	<b>Implementation:</b> Project applicant and tenant(s).		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.	The Project applicant shall ensure that backup generators and fire pumps utilize the best available control technology to minimize criteria air pollutant, diesel particulate matter, and greenhouse gas emissions. The preferred technology shall be non-diesel fueled units, should they meet the operational and safety requirements of the Project operations. Should diesel-powered engines be required, such units shall meet or exceed CARB Tier 4 emission standards. Additionally, once operational, the backup generators and fire pumps shall be maintained in good working order for the life of the equipment, and any future replacement of the equipment shall be required to be consistent with these emissions specifications. To ensure compliance with this measure, the Project applicant shall ensure that records of the testing schedule for the backup generators and fire pumps are maintained for the life of the equipment and make these records available to the City upon request.	<b>Timing:</b> During installation and throughout life of equipment; provide records of compliance for operational-related measures throughout operations.		
<b>4.2 Air Quality IMPACT 4.2-2.</b> Result in a Cumulatively Considerable Net Increase of Criteria Air Pollutant and Precursor Emissions.	<b>Implement Mitigation Measures 4.2-1a and 4.2-1b</b>	<b>Implementation:</b> Project applicant and construction contractor(s). <b>Timing:</b> During construction activities.		
<b>4.2 Air Quality IMPACT 4.2-2.</b> (Continued) Result in a Cumulatively Considerable Net Increase of Criteria Air Pollutant and Precursor Emissions.	<b>Implement Mitigation Measures 4.2-1c through 4.2-1j</b>	<b>Implementation/ Timing:</b> see Mitigation Measures 4.2-1c through 4.2-1j above		
<b>4.2 Air Quality</b>	<b>Implement Mitigation Measures 4.2-1a and 4.2-1b</b>	<b>Implementation:</b>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<b>IMPACT 4.2-3.</b> Expose Sensitive Receptors to Substantial Pollutant Concentrations.		Project applicant and construction contractor(s). <b>Timing:</b> During construction activities.		
<b>4.2 Air Quality</b> <b>IMPACT 4.2-3.</b> (Continued) Expose Sensitive Receptors to Substantial Pollutant Concentrations.	<b>Implement Mitigation Measures 4.2-1c through 4.2-1j</b>	<b>Implementation/ Timing:</b> see Mitigation Measures 4.2-1c through 4.2-1j above		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-1</b> Contra Costa Goldfields and Critical Habitat	<b>Mitigation Measure 4.3-1a: Establish New Contra Costa Goldfields Habitat and Populations</b> The Project applicant shall establish/create a minimum of 0.03 acre (1:1 ratio) of Contra Costa goldfields habitat with the performance standard of supporting a minimum of 183 individual Contra Costa goldfields plants at least 2 out of the 10 years of the monitoring period. Establishing new populations of Contra Costa goldfields shall be done in consultation with USFWS and CDFW and with approval from these agencies and may be accomplished by collecting seed from extant populations and salvaging seed and topsoil from occupied Contra Costa goldfields habitat within the proposed Development Area. As described in the Mitigation and Monitoring Plan for the proposed Managed Open Space area (Attachment 7 to Appendix C), the new Contra Costa goldfields populations would be established in the 38-acre wetland creation/establishment area within the proposed Managed Open Space area of the Project site, adjacent to the existing large population within the Pescadero silty clay loam soil type. A plan for collecting seed and establishing new populations shall be coordinated with the USFWS during the ESA Section 7 consultation process, as described in the Mitigation and Monitoring Plan.	<b>Implementation:</b> Project applicant in consultation with USFWS and CDFW. <b>Timing:</b> Prior to issuance of grading permit(s) and throughout pre-construction and post-construction		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p><b>4.3 Biological Resources</b>  <b>IMPACT 4.3-1</b>  (Continued)  Contra Costa Goldfields and Critical Habitat</p>	<p><b>Mitigation Measure 4.3-1b: Establish and Manage 38 Acres of Wetland Habitat</b></p> <p>To ensure a no-net-loss of potential Contra Costa goldfields habitat the project applicant shall establish/create 38 acres of in-kind, or higher quality, wetland habitat that is suitable for Contra Costa Goldfields within the proposed Managed Open Space area of the Project site, prior to or concurrent with project construction. The established/created wetlands shall be implemented, and performance standards shall be monitored for a minimum of 10 years in accordance with the Mitigation and Monitoring Plan for the proposed Managed Open Space area (Attachment 7 to Appendix C). Management actions to be implemented to manage, protect, and enhance wetlands and associated rare plant populations shall include but not be limited to managing grazing practices, invasive plant inspections and maintenance, maintaining fencing and signage, and annual reporting on inspections and maintenance practices to authorizing agencies. Protection and management of the created wetlands shall continue in perpetuity as described in the Mitigation and Monitoring Plan. Prior to site mobilization the project applicant shall secure approval of detailed construction plans for wetland mitigation in the Managed Open Space from USFWS, CDFW, RWQCB and BCDC.</p> <p>If additional wetland mitigation is required by the USFWS, CDFW, RWQCB or BCDC to compensate for impacts on unoccupied habitat for Contra Costa Goldfields or if success criteria for created wetlands cannot be fully attained with onsite wetland mitigation, the project applicant shall purchase wetland mitigation credits from an approved mitigation bank which services the Project site and which support existing populations of Contra Costa goldfields. The North Suisun Mitigation Bank and Goldfields Conservation Bank currently service the proposed Project site. Purchase of preservation credits may be used to accomplish this compensation; the ratio of credits purchased to habitat impacted shall be approved by USFWS and CDFW. If no mitigation banks that service the proposed development area are available, the Project applicant shall use an approved mitigation bank whose service area includes the Solano-Colusa Vernal Pool Region as defined in the 2006 Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon.</p>	<p><b>Implementation:</b>  Project applicant in consultation with USFWS, CDFW, RWQCB and BCDC.</p> <p><b>Timing:</b>  Prior to issuance of grading permit(s) and throughout pre-construction, construction, and post-construction</p>		
<p><b>4.3 Biological Resources</b>  <b>IMPACT 4.3-1</b></p>	<p><b>Mitigation Measure 4.3-1c: Preserve and Manage Contra Costa Goldfields Habitat</b></p> <p>The Project applicant shall preserve and manage the Contra Costa goldfields occupied habitat in the proposed Managed Open Space area as described in the Mitigation and Monitoring Plan. The Managed Open Space area contains an approximately 17-acre area</p>	<p><b>Implementation:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
(Continued) Contra Costa Goldfields and Critical Habitat	in the southwestern area of the Project site that currently supports from 8,000 to 7.7 million individual Contra Costa goldfields plants within the Pescadero silty clay loam soil, a 2.4-acre area of occupied habitat currently supporting 267 individual plants in the northern area east of Pennsylvania Road, approximately 107.2 acres of existing unoccupied seasonal wetlands similar to the 38-acres of unoccupied wetland habitat that would be impacted, and 38 acres of the wetland creation/establishment area, all of which will be preserved within the Managed Open Space area. To ensure a no-net-loss of CCG Critical Habitat, a minimum of 93 acres CCG Critical Habitat Subunit 5G shall be preserved and managed within proposed Managed Open Space area. Management actions to be implemented to manage, protect, and enhance Contra Costa goldfields occupied habitat shall include but not be limited to managing grazing practices, invasive plant inspections and maintenance, maintaining fencing and signage, and annual reporting on inspections and maintenance practices to authorizing agencies. Protection and management of the created Contra Costa goldfields habitat shall continue in perpetuity as described in the Mitigation and Monitoring Plan (Attachment 7 to Appendix C of the Draft EIR).	Project applicant in consultation with USFWS and CDFW. <b>Timing:</b> Post-construction, ongoing		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-1</b> (Continued) Contra Costa Goldfields and Critical Habitat	<b>Mitigation Measure 4.3-1d: Install Construction Fencing</b> To avoid direct or indirect impacts to occupied Contra Costa goldfields habitat during grading activities within the proposed Managed Open Space area of the Project site, orange construction fencing delineating a non-disturbance buffer from the boundary of occupied Contra Costa goldfields habitat shall be installed before construction activities begin. The size of the non-disturbance buffer shall be established in consultation with the appropriate permitting agencies and shall be of sufficient size to protect the Contra Costa goldfields populations from direct and indirect impacts. The contractor, in consultation with a qualified biologist and in accordance with the Project plans, shall clearly demarcate the boundaries of the non-disturbance buffer. Fencing shall remain in place throughout the duration of construction and shall be fully maintained and inspected daily when project activities are underway. Repairs to the fencing shall be made within 24 hours of identifying the need for repair. After construction is completed, the fencing shall be completely removed.	<b>Implementation:</b> Project applicant and construction contractor(s) in consultation with appropriate permitting agencies and qualified biologists. <b>Timing:</b> Prior to and during construction activities		
<b>4.3 Biological Resources</b>	<b>Mitigation Measure 4.3-1e: Limit Introduction and Spread of Invasive Species</b>	<b>Implementation:</b>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<b>IMPACT 4.3-1</b> (Continued) Contra Costa Goldfields and Critical Habitat	To reduce and limit the spread of invasive nonnative plant species on the Project site from invasive or noxious weeds, construction vehicles and equipment shall be cleaned inside and out before arrival at the project site; debris will be properly disposed of. Exterior cleaning shall consist of pressure washing vehicles and equipment, with close attention paid to the tracks, feet, and/or tires and on all elements of the undercarriage. Vehicle cabs shall be swept out, and refuse shall be disposed at an approved off-site location. If vehicles are driven in areas of invasive or noxious weeds already present in portions of the Project site, vehicles shall be cleaned before moving from infested areas to areas that are weed-free.	Construction contractor(s). <b>Timing:</b> During construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-2</b> Alkali Milk-Vetch	<b>Implement Mitigation Measure 4.3-1e: Limit Introduction and Spread of Invasive Species</b>	<b>Implementation:</b> Construction contractor(s). <b>Timing:</b> During construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-2</b> (Continued) Alkali Milk-Vetch	<b>Mitigation Measure 4.3-2a: Preserve and Establish Alkali Milk-Vetch Habitat</b> Within the proposed Managed Open Space area of the Project site, the Project applicant shall (1) preserve the 0.01 acre of seasonally saturated annual grassland habitat occupied with approximately 250 alkali milk-vetch plants, and (2) establish/create the equivalent of 16.3 acres of seasonally saturated annual grassland habitat. Topsoil from occupied alkali milk-vetch habitat within the proposed Development Area shall be collected and used to inoculate the established/created seasonally saturated annual grassland.	<b>Implementation:</b> Project applicant. <b>Timing:</b> Prior to issuance of grading permit(s) and throughout pre-construction, construction, and post-construction		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-2</b> (Continued) Alkali Milk-Vetch	<b>Mitigation Measure 4.3-2b: Install Construction Fencing</b> To ensure no impacts to occupied alkali milk-vetch habitat occurs during grading activities to establish wetlands in the proposed Managed Open Space area of the Project site, a non-disturbance buffer delineated by orange construction fencing shall be installed prior to the start of construction to demarcate the boundary of adjacent occupied alkali milk-vetch habitat. The size of the non-disturbance buffer shall be a minimum of 5 feet	<b>Implementation:</b> Construction contractor(s) in consultation with qualified biologists.		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	and established by an on-site qualified biologist to be of sufficient size to protect alkali milk-vetch populations from direct and indirect impacts. The contractor, in consultation with the qualified biologist and in accordance with the Project plans, shall clearly demarcate the boundaries of the non-disturbance buffer. Fencing shall remain in place throughout the duration of construction and shall be fully maintained and inspected daily when project activities are underway. Repairs to the fencing shall be made within 24 hours of identifying the need for repair. After construction is completed, the fencing shall be completely removed.	<b>Timing:</b> Prior to and during construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-3</b> (Continued) Saline Cover	<b>Implement Mitigation Measure 4.3-1e: Limit Introduction and Spread of Invasive Species</b>	<b>Implementation:</b> Construction contractor(s). <b>Timing:</b> During construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-3</b> (Continued) Saline Cover	<b>Mitigation Measure 4.3-3a: Preserve and Establish Saline Clover Habitat</b> Within the proposed Managed Open Space portion of the Project site, the Project applicant shall (1) preserve 19.1 acre of saline clover habitat occupied with an estimated 6,335 individual plants; and (2) establish the equivalent of 14.1 acre of vernal pool habitat and 16.3 acres of seasonally saturated annual grassland habitat. The preservation and establishment/creation of vernal pool and seasonally saturated annual grassland habitat within the proposed Managed Open Space area of the Project site as mitigation for the loss of potential habitat for the Contra Costa goldfields will also serve as mitigation for the loss of potential saline clover habitat. Topsoil from occupied saline clover habitat within the proposed Development Area of the Project site shall be collected and used to inoculate the established/created vernal pools and seasonally saturated annual grassland.	<b>Implementation:</b> Project applicant in consultation with qualified biologist. <b>Timing:</b> Prior to issuance of grading permit(s) and throughout pre-construction, construction, and post-construction		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-3</b> (Continued)	<b>Mitigation Measure 4.3-3b: Install Construction Fencing</b>	<b>Implementation:</b> Construction contractor(s) in consultation with		



Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
Saline Cover	To ensure no impact to occupied saline clover occurs during grading activities to establish wetlands in the proposed Managed Open Space area of the Project site, orange construction fencing shall be installed prior to the start of construction to demarcate the boundary of adjacent occupied saline clover habitat. The contractor, in consultation with a qualified biologist and in accordance with the Project plans, shall clearly demarcate the boundaries of the non-disturbance buffer. The size of the non-disturbance buffer shall be a minimum of 5 feet and established by an on-site qualified biologist to be of sufficient size to protect saline clover populations from direct and indirect impacts. Fencing shall remain in place throughout the duration of construction and shall be fully maintained and inspected daily when Project activities are underway. Repairs to the fencing shall be made within 24 hours of identifying the need for repair. After construction is completed, the fencing shall be completely removed.	appropriate qualified biologists. <b>Timing:</b> Prior to and during construction activities.		
4.3 Biological Resources IMPACT 4.3-4 Suisun Marsh Aster	<b>Implement Mitigation Measure 4.3-1e: Limit Introduction and Spread of Invasive Species</b>			
4.3 Biological Resources IMPACT 4.3-4 (Continued) Suisun Marsh Aster	<b>Mitigation Measure 4.3-4a: Conduct Preconstruction Plant Survey and Implement Avoidance Measures</b>  Plant surveys shall be conducted prior to the design of the stormwater culvert outfall to determine the location of Suisun Marsh aster plants in relation to the proposed outfall. If individual plants occur in the proposed location of the stormwater outfall culvert or in an area where impacts could occur to the plants, the location shall be modified to avoid directly or indirectly affecting the plants.			
4.3 Biological Resources IMPACT 4.3-4 (Continued) Suisun Marsh Aster	<b>Mitigation Measure 4.3-4b: Mitigate for Impacts on Suisun Marsh Aster</b>			

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>If impacts to individual plants are unavoidable, even with modifications to the Project design, the Project applicant shall establish/create a minimum of 0.002 acres (1:1 ratio) of Suisun Marsh aster habitat in the proposed Managed Open Space portion of the Project site. The performance standard for this mitigation shall be supporting the same or greater number of plants impacted for at least 2 out of the 10 years of the monitoring period. This mitigation measure for establishing new Suisun Marsh aster plants shall be incorporated into the Preliminary Mitigation and Monitoring Plan provided in Attachment 7 of Appendix C to the Draft EIR.</p>			
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-5</b> Long-styled sand spurrey plants</p>	<p><b>Implement Mitigation Measure 4.3-1e: Limit Introduction and Spread of Invasive Species</b></p>	<p><b>Implementation:</b> Construction contractor(s). <b>Timing:</b> During construction activities.</p>		
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-5</b> (Continued) Long-styled sand spurrey plants</p>	<p><b>Mitigation Measure 4.3-5a: Preserve and Establish Long-Styled Sand Spurrey Habitat</b> Within the proposed Managed Open Space area of the Project Site, the Project applicant shall establish the equivalent of 14.1 acres of vernal pool habitat and 16.3 acres of seasonally saturated annual grassland habitat within the proposed Managed Open Space area as part of the Mitigation and Monitoring Plan to mitigate for elimination of long-styled sand-spurrey habitat. Collection of topsoil within the proposed Development Area within occupied habitat for alkali milk-vetch and saline clover and use of the soil to inoculate established/created seasonally saturated grassland (Mitigation Measures 4.3-2a and 4.3-3a) shall be accomplished such that soil will also contain seeds for long-styled sand-spurrey.</p>	<p><b>Implementation:</b> Project applicant in consultation with qualified biologist. <b>Timing:</b> Prior to issuance of grading permit(s) and throughout pre-construction, construction, and post-construction</p>		
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-5</b> (Continued)</p>	<p><b>Mitigation Measure 4.3-5b: Install Construction Fencing</b> The contractor, in consultation with a qualified biologist and in accordance with the Project plans, shall install construction fencing to clearly demarcate the boundaries of a non-disturbance buffer to protect Contra Costa goldfields, alkali milk-vetch, and saline</p>	<p><b>Implementation:</b> Construction contractor(s) in consultation with qualified biologists.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
Long-styled sand spurrey plants	clover populations, if found in the Managed Open Space area within 100 feet from the Project disturbance footprint.	<b>Timing:</b> Prior to and during construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-6</b> Crotch Bumble Bee	<b>Mitigation Measure 4.3-6: Avoid, Minimize, and Mitigate for Impacts on Crotch Bumble Bee</b> Prior to construction, a qualified biologist shall conduct focused surveys for the Crotch bumble bee in potential habitat within the Project site during the Crotch bumble bee worker flight period (March-September, preferably near the peak in July). Surveys shall follow the <i>USFWS-approved Survey Protocols for the Rusty Patched Bumble Bee (Bombus affinis)</i> (USFWS 2019). During the survey, the qualified biologist shall flag inactive small mammal burrows and other potential nest or overwintering sites. If the Crotch bumble bee is detected, a site-specific Crotch’s Bumble Bee Avoidance and Minimization Plan shall be prepared in coordination with CDFW and implemented. The Plan shall include a description of onsite habitat, potential nest and overwintering sites present, recommendations for avoidance and minimization (such as unoccupied burrow avoidance buffers), potential identification of methods to evaluate potential nest sites for use (e.g., burrow scoping or emergence surveys), and compensatory mitigation for the loss of potential nest sites, such as incorporation of appropriate native flower resources that would support this species throughout the flight period and promote development of queens (i.e., perennial plants) into the Mitigation and Monitoring Plan for the Managed Open Space area, and/or reducing use of harmful pesticides within the Managed Open Space.	<b>Implementation:</b> Project applicant, construction contractor(s), qualified biologist in consultation with CDFW. <b>Timing:</b> Survey to be conducted prior to construction and within bee flight period of March – September, preferably near peak in July. As needed in accordance with developed plan if species is detected.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-7</b> Northern Harrier and Short-Eared Owl	<b>Mitigation Measure 4.3-7a: Preconstruction Nesting Survey</b> A qualified biologist shall conduct a preconstruction nesting survey for northern harrier and short-eared owl if construction is scheduled during the nesting season (February 1 through August 31). Surveys shall be conducted no more than 14 days prior to ground disturbance by walking transects through all suitable habitat (grassland, seasonal wetlands, and swales) within the proposed Development Area and the proposed Managed Open Space area of the Project site.	<b>Implementation:</b> Construction contractor(s), qualified biologist in consultation with CDFW. <b>Timing:</b>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
		Survey to be conducted no more than 14 days prior to ground disturbance if construction is scheduled during northern harrier and short-eared owl nesting season (February 1 – August 31).		
<p><b>4.3 Biological Resources</b>  <b>IMPACT 4.3-7</b>  (Continued)  Northern Harrier and Short-Eared Owl</p>	<p><b>Mitigation Measure 4.3-7b: Implement Non-Disturbance Buffers</b>  If an active northern harrier or short-eared owl nest is detected during the surveys, the nest site shall be protected by implementing a minimum 500-foot radius buffer zone around the nest marked with orange construction fencing. If an active nest is located outside of the Project site, the buffer shall be extended onto the Project site and demarcated where it intersects the Project site. The qualified biologist, in consultation with CDFW, may modify the size of buffer zone based on the type of construction activity that may occur, physical barriers between the construction site and active nest, behavioral factors, and the extent that northern harriers or short-eared owls may have acclimated to disturbance. No construction or earth-moving activity shall occur within the established buffer zone until it is determined by a qualified raptor biologist that the young have fledged or that the nesting cycle is otherwise determined to be complete based on monitoring of the active nest by a qualified biologist.</p>	<p><b>Implementation:</b>  Project applicant(s), construction contractor(s), qualified biologist in consultation with CDFW.  <b>Timing:</b>  Following completion of survey conducted in accordance with MM 4.3-7c and prior to construction activities.</p>		
<p><b>4.3 Biological Resources</b>  <b>IMPACT 4.3-8</b>  Swainson’s Hawk</p>	<p><b>Mitigation Measure 4.3-8a: Preserve Swainson’s Hawk Foraging Habitat</b>  To offset impacts to 92.0 acres of Swainson’s hawk foraging habitat, the Project applicant shall provide habitat preservation at a location that will provide foraging habitat value to Swainson’s hawks consistent with CDFW guidance as set forth in the 1994 Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley of</p>	<p><b>Implementation:</b>  Project applicant, construction contractor(s), qualified biologist in</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>California. CDFW 1994 guidance provides that mitigation lands should be provided if an active nest is located within a 10-mile radius of the Project site, mitigation habitat value shall be equal to or higher than what currently occurs on the project site, and at a minimum of 1:1 ratio. Currently, the Project proposes 393.2 acres of Managed Open Space area, of which 205.4 acres consists of annual grasslands and seasonal wetlands considered suitable foraging habitat, shall be preserved and protected in perpetuity. Acreage required to provide a 1:1 compensation acreage for Swainson’s hawk foraging habitat would be protected through a conservation easement; a deed restriction would be placed on the remained of the Managed Open Space area that prohibits development of, any resource extraction within, and public access to, and public use of the Managed Open Space area under the Project. Furthermore, the Project proposes that the preserved 205.4 acres of Swainson’s hawk foraging habitat would be enhanced by grazing the Managed Open Space area to control the buildup of thatch.</p> <p>If additional Swainson’s hawk foraging habitat mitigation is required by the 1194 CDFW guidance, the Project applicant shall purchase mitigation credits from an approved Swainson’s hawk mitigation bank which services the Project site, or preserve suitable foraging habitat off-site at an approved CDFW location so as to satisfy the additional CDFW requirement to offset the permanent loss of foraging habitat.</p>	<p>consultation with CDFW.</p> <p><b>Timing:</b> Prior to approval of grading permit(s).</p>		
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-8</b> (Continued) Swainson’ Hawk</p>	<p><b>Mitigation Measure 4.3-8b: Preconstruction Nesting Surveys</b></p> <p>Preconstruction surveys for Swainson’s hawk shall be conducted prior to initiation of Project construction activities. Surveys shall follow CDFW guidelines for conducting surveys for Swainson’s hawk (SHTAC 2000). These preconstruction surveys shall include investigation of all potential nesting trees within a one-half-mile radius around all Project activities and shall be completed for at least two survey periods immediately prior to commencement of project construction. If no nesting Swainson’s hawk are found during the first two required survey periods (Survey Period II and III) starting March 20 and extending to April 20, then project construction may commence. If during the third survey period (June 10 to July 30) Swainson’s hawks are found to be nesting in the Project vicinity and construction has commenced, the Project applicant shall consult CDFW to determine whether the nesting Swainson’s hawk are habituated to the ambient level of noise and</p>	<p><b>Implementation:</b> Project applicant and construction contractor(s) in consultation with CDFW.</p> <p><b>Timing:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	disturbance emanating from the Project site and setbacks can be reduced or whether additional measures are needed to avoid adversely affecting nesting activities.	Complete at least two survey periods immediately prior to construction commencement, with third survey following start of construction.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-8</b> (Continued) Swainson' Hawk	<b>Mitigation Measure 4.3-8c: Implement Nest Buffer</b> If Swainson's hawks are found to be nesting within 0.25 miles of Project construction, a non-disturbance buffer shall be established to keep all construction activities a minimum of 0.25 miles from the nest site (CDFW 1994). The CDFW shall be consulted regarding the adequacy of the buffer established by the qualified biologist.	<b>Implementation:</b> Project applicant, construction contractor(s), qualified biologist in consultation with CDFW.  <b>Timing:</b> Following completion of survey conducted in accordance with MM 4.3-8b and prior to construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-9</b> Burrowing Owl	<b>Mitigation Measure 4.3-9a: Preconstruction Burrowing Owl Nesting Survey</b> A pre-construction survey for burrowing owls shall be conducted in suitable habitat prior to any ground-disturbance for construction of the Project at the proposed Development Area of the Project site, and off-site improvement areas, and for construction of mitigation wetlands within the proposed Managed Open Space area of the Project site. The pre-construction survey shall be conducted by a qualified raptor biologist following CDFW <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW 2012) survey methods to establish the status of burrowing owl on the Project site.	<b>Implementation:</b> Project applicant, construction contractor(s), and qualified raptor biologist.  <b>Timing:</b>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
		Prior to issuance of grading permit and any on-site construction.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-9</b> (Continued) Burrowing Owl	<p><b>Mitigation Measure 4.3-9b: Avoid Impacts to Occupied Burrows</b></p> <p>If preconstruction surveys determine that burrowing owls occupy the Project Site during the non-breeding season (September 1 to January 31), occupied burrows shall be avoided by establishing a no-disturbance buffer zone in consultation with CDFW. During the non-breeding season, if a qualified raptor biologist determines in consultation with CDFW that an occupied burrow(s) may be impacted even with implementation of non-disturbance buffers, the Project applicant shall consult CDFW to determine if a passive relocation effort and implementation of a Burrowing Owl Exclusion Plan prepared in accordance with the CDFW guidelines (CDFG 2012) is appropriate to avoid impacts. Implementation of such a Burrowing Owl Exclusion Plan would likely require habitat mitigation consistent with the requirements of the 2012 CDFW Staff Report.</p> <p>If burrowing owls are found to be present on the Project site or off-site improvement areas during the breeding season (February 1 to August 31), the Project applicant shall consult CDFW and implement the avoidance protocol recommended in the 2012 CDFG guidance (CDFG 2012) whereby occupied burrows will be avoided with a no-disturbance buffer during the breeding season.</p> <p>At a minimum, impacts to each burrowing owl unoccupied breeding site (i.e., a burrow known to have been used in the past three years for breeding) shall be mitigated by creating one artificial burrow for every burrow impacted (1:1 ratio) in a location within the Managed Open Space area situated within a minimum of 6.5 acres of foraging habitat like the foraging habitat impacted. The same requirements (a 1:1 ratio) shall apply for impacts to non-breeding evicted burrowing owl sites. As an alternative, with the approval of CDFW, burrowing owl mitigation credits may be purchased at a CDFW approved mitigation bank.</p>	<p><b>Implementation:</b></p> <p>Project applicant, construction contractor(s), and qualified raptor biologist, in consultation with CDFW.</p> <p><b>Timing:</b></p> <p>Following completion of survey conducted in accordance with MM 4.3-9a and prior to construction activities.</p>		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-9</b>	<p><b>Mitigation Measure 4.3-9c (Cap Pipe and Hose):</b></p>	<p><b>Implementation:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
(Continued) Burrowing Owl	To prevent burrowing owls from sheltering or nesting in exposed material, all construction pipes, culverts, hoses or similar materials greater than two inches in diameter stored at the Project site shall be capped or covered before the end of each work day and shall be inspected thoroughly for wildlife before the pipe or similar structure is buried, capped, used, or moved.	Project applicant and construction contractor(s). <b>Timing:</b> During construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-10</b> California Black Rail	<b>Mitigation Measure 4.3-10: Preconstruction Nesting Surveys</b> If construction work is proposed during the black rail nesting season (February 1 through August 31) pre-construction surveys for nesting California black rail shall be conducted in suitable habitat within 700 feet of the work area to determine if setbacks are warranted to protect nesting California black rail from indirect impacts. Surveys shall be conducted using the methodology described in <i>Site-specific Protocol for Monitoring Marsh Birds: Don Edwards San Francisco Bay and San Pablo Bay National Wildlife Refuges</i> (Wood et al. 2017), or a variation thereof as approved by CDFW. If the surveys detect the presence of a California black rail nest, or the activity center of vocalizing California black rails, a non-disturbance buffer or other appropriate avoidance measures shall be established in consultation with CDFW.	<b>Implementation:</b> Project applicant, construction contractor(s), and a qualified biologist in consultation with CDFW if surveys detect presence. <b>Timing:</b> Prior to construction activities that would occur between February 1 and August 31.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-11</b> Loggerhead Shrike, Suisun Song Sparrow, Grasshopper Sparrow, Tricolored Blackbird	<b>Mitigation Measure 4.3-11: Preconstruction Nesting Surveys</b> If construction will occur during the nesting season (February 1 through August 31) in the proposed Development Area of the Project site or for construction of mitigation wetlands within the proposed Managed Open Space area of the Project site, a qualified biologist shall conduct a preconstruction nesting bird survey no more than 14 days prior to any ground-disturbance. Surveys shall be conducted by a qualified biologist to search for nesting of loggerhead shrike, Suisun song sparrow, grasshopper sparrow, or a tricolored blackbird nesting colony. If the surveys find an active tricolored blackbird colony CDFW shall be consulted to develop an appropriate non-disturbance buffer. If nests of loggerhead shrike, Suisun song sparrow, or grasshopper sparrow are found, appropriate buffer zones determined by the qualified biologist shall be established around	<b>Implementation:</b> Project applicant, construction contractor(s), qualified biologist in consultation with CDFW if surveys detect presence. <b>Timing:</b>		



Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	all active nests to protect nesting adults and their young from direct or indirect impacts related to project construction disturbance. The buffer shall be marked with orange construction fencing. The size of buffer zones shall be determined per recommendations of the qualified biologist based on site conditions and species involved. No construction or earth-moving activity shall occur within the established buffer zone until it is determined by the biologist that the young have fledged or that the nesting cycle is otherwise determined to be complete based on monitoring of the active nest.	Prior to construction activities that would occur between February 1 and August 31.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-12</b> Construction Impacts on Salt Marsh Harvest Mouse and Suisun Shrew	<b>Mitigation Measure 4.3-12a: Worker Environmental Awareness Training</b> All workers involved in the clearing of vegetation or other construction activities associated with construction of the proposed Project, including the proposed Development Area or for creation of mitigation wetlands within the proposed Managed Open Space portion of the Project Site, shall participate in a training session led by a qualified biologist prior to initiation of work. This training session shall include information on the ecology and identification of salt marsh harvest mouse and Suisun shrew. The training shall also include information related to the Endangered Species Act and penalties associated with harm done to an individual of a listed species and the need to stop work and inform the on-site biologist in the event of a potential sighting.	<b>Implementation:</b> Construction contractor(s) and qualified biologist. <b>Timing:</b> Prior to initiation of vegetation clearing and project construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-12</b> (Continued) Construction Impacts on Salt Marsh Harvest Mouse and Suisun Shrew	<b>Mitigation Measure 4.3-12b: Work Scheduling Restrictions</b> Where the Project footprint borders perennial marsh habitat suitable for this species (i.e., within 100 feet), work shall be scheduled to target the dry season to minimize the potential for wet weather, surface flooding, and high water tables in and adjacent work areas such that it might push salt marsh harvest mouse or Suisun shrew to seek refuge in the higher ground of the work areas.	<b>Implementation:</b> Construction contractor(s). <b>Timing:</b> During construction scheduling and during construction, as stipulated.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-12</b> (Continued)	<b>Mitigation Measure 4.3-12c: Vegetation Removal and Installation of Exclusion Fencing</b> Proposed construction work areas in areas immediately adjacent to brackish marsh habitat shall be protected with exclusion fencing to ensure that individuals of salt marsh harvest mouse or Suisun shrew do not wander into the work area during the construction period.	<b>Implementation:</b> Construction contractor(s) and qualified biologist in		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p>Construction Impacts on Salt Marsh Harvest Mouse and Suisun Shrew</p>	<p>The fence shall be established in all areas subject to construction disturbance within 50 feet of brackish marsh habitat subsequent to removal of pickleweed and other vegetation as described below. Exclusion fencing shall be made of a material that does not allow small mammals to pass through, such as a properly installed silt fence or other material (e.g., plastic or metal) so that the outside is too smooth to be climbed, and shall be buried at least 6 inches below the ground surface and extend a minimum of 2 feet above ground with stakes angling up and away from the work area so small mammals use the stakes to make their way over the fence and out of the work area rather than into it. The exclusion fence shall be installed on all three sides of the development associated with Planning Area 3 (e.g., Pennsylvania Avenue east to the perennial brackish marsh slough channel, south along the channel, and west back to Pennsylvania Avenue) and between areas of proposed created mitigation wetlands and brackish marsh in the proposed Open Space Management Area. The final design and proposed location of the fencing shall be submitted to USFWS and CDFW for review and approval prior to installation.</p> <p>Prior to installation of the exclusion fence described above, efforts shall be made to ensure that salt marsh harvest mouse and Suisun shrew are not present in areas of salt or brackish marsh or immediately adjacent uplands subject to potential impact from either the development or from construction of created mitigation wetlands within the proposed Open Space Management Area through vegetation removal. Prior to removal of vegetation, a qualified biologist will walk the work zone to ensure no nests of harvest mouse or Suisun shrew are present. Pickleweed and other vegetation shall be removed using hand tools such as weed-whackers from all construction areas within 50 feet of brackish marsh habitat. Immediately after vegetation removal is complete and no evidence of salt marsh harvest mouse or Suisun shrew presence is observed within the construction zone, the temporary exclusion fencing will be placed around the defined work area prior to the start of construction activities to prevent salt marsh harvest mouse or Suisun shrew from moving into construction areas. A biological monitor approved by USFWS and CDFW shall be present during vegetation clearing and installation of the exclusion fence. Fencing shall remain in place throughout the duration of construction and shall be fully maintained and inspected daily when project activities are underway. Repairs to the fencing shall be made within 24 hours of identifying the need for repair. After construction is completed, the fencing shall be completely removed.</p>	<p>consultation with USFWS and CDFW.</p> <p><b>Timing:</b> Prior to and during construction activities.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-12</b> (Continued) Construction Impacts on Salt Marsh Harvest Mouse and Suisun Shrew</p>	<p><b>Mitigation Measure 4.3-12d: Biological Construction Monitoring</b> A qualified biologist shall remain on-site during all work involving vegetation clearing and ground disturbance associated with construction of the Development Area (especially near Planning Area 3) or of mitigation wetlands within the Managed Open Space to help ensure that no salt marsh harvest mouse or Suisun shrew are harmed. The biological monitor shall check the integrity of the exclusion fence, search for salt marsh harvest mouse or Suisun shrew that may have wandered into the work area, and monitor construction to ensure impacts to the species do not occur. If a salt marsh harvest mouse is found on the site within the work area, construction should be halted until it appears that the individual has left the project area of its own volition. If a Suisun shrew is found in the work area, the individual should be relocated outside of the work area after coordination with CDFW regarding appropriate relocation methodologies.</p>	<p><b>Implementation:</b> Construction contractor(s) and qualified biologist in coordination with CDFW. <b>Timing:</b> During construction activities.</p>		
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-13</b> Loss of Upland Refugia</p>	<p><b>Mitigation Measure 4.3-13a: Create Upland Refugia in Managed Wetland</b> To offset potential loss of annual grassland upland refugia for salt marsh harvest mouse, Suisun shrew and any other species that need upland cover during high tide events, soil from the excavation of mitigation wetlands shall be used to raise the topographic elevation of portions of the remaining 60.2 acres of upland areas within the Managed Open Space area that are adjacent to the perennial brackish tidal marsh such that they would no longer become inundated and would serve as upland refugia during high tide events. Detailed design plans, including a Vegetation Planting Plan, for the upland refugia in the Managed Open Space shall be developed in consultation with USFWS.</p>	<p><b>Implementation:</b> Project applicant, construction contractor(s), qualified biologist in consultation with USFWS. <b>Timing:</b> During project design and construction.</p>		
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-14</b> Nesting Birds</p>	<p><b>Mitigation Measure 4.3-14a: Preconstruction Nesting Surveys</b> If construction is to be conducted during the breeding season of migratory birds (February 1 to August 31), a qualified biologist shall conduct a pre-construction breeding bird survey in areas of suitable habitat within 14 days prior to the onset of construction activity. Nesting bird surveys shall cover the Project footprint in addition to a 500-foot buffer beyond the boundaries of the footprint.</p>	<p><b>Implementation:</b> Project applicant, construction contractor(s) and qualified biologist. <b>Timing:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
		Within 14 days prior to construction activities that would occur between February 1 and August 31.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-14</b> (Continued) Nesting Birds	<b>Mitigation Measure 4.3-14b: Nest Zone Buffers</b> If bird nests are found, appropriate non-disturbance buffer zones shall be established around all active nests to protect nesting adults and their young from direct or indirect impacts related to project construction disturbance. Buffer zones shall be 500 feet for raptors and 250 feet for passerines, and other bird species. The size of the buffer zone may be modified per recommendations of the qualified biologist based on site conditions and species involved. No construction or earth-moving activity shall occur within the established buffer zone until it is determined by the biologist that the young have fledged or that the nesting cycle is otherwise determined to be complete based on monitoring of the active nest.	<b>Implementation:</b> Project applicant, construction contractor(s), and qualified biologist. <b>Timing:</b> Following completion of survey conducted in accordance with MM 4.3-14a and prior to construction activities.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-15</b> Special Status Fish Species	<b>Mitigation Measure 4.3-15a: Implement SWPPP and BMPs</b> The Project applicant shall comply with requirements described in SWRCB General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order WQ 2022-0057-DWQ) and shall coordinate with the San Francisco Bay Regional Water Quality Control Board to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) and erosion control BMPs to minimize any wind- or water-related material discharges. The SWPPP shall provide guidance for measures to protect environmentally sensitive areas, and to prevent and minimize stormwater and non-stormwater discharges. Protective measures shall include the following, at a minimum: <ul style="list-style-type: none"> <li>• Discharge of pollutants into storm drains or watercourses from vehicle and equipment cleaning will be prohibited.</li> </ul>	<b>Implementation:</b> Project applicant and construction contractor(s) in coordination with San Francisco Bay Regional Water Quality Control Board. <b>Timing:</b> Prior to and during construction.		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<ul style="list-style-type: none"> <li>• Maintenance and refueling areas for equipment will be located a minimum of 50 feet from active stream channels in pre-designated staging areas, except at an established commercial gas station or vehicle maintenance facility.</li> <li>• Spill containment kits will be maintained on-site at all times during construction operations and/or staging or fueling of equipment.</li> <li>• Dust control measures will include the use of water trucks and dust palliatives to control dust in excavation-and-fill areas, and to cover temporary stockpiles when weather conditions warrant such action.</li> <li>• Coir rolls or straw wattles that do not contain plastic or synthetic monofilament netting will be installed along or at the base of slopes during construction, to capture sediment.</li> <li>• Permanent erosion control measures, such as biofiltration strips and swales to receive stormwater discharges from the highway or other impervious surfaces, will be implemented to the maximum extent practicable.</li> <li>• Construction Site Management Practices. The following site restrictions will be implemented to avoid or minimize effects on listed species and their habitats: <ul style="list-style-type: none"> <li>○ Routes and boundaries of roadwork will be clearly marked before initiation of construction or grading.</li> <li>○ All equipment will be maintained to prevent leaks of automotive fluids, such as gasoline, oils, or solvents, and a spill response plan will be prepared.</li> <li>○ Hazardous materials, such as fuels, oils, and solvents, will be stored in sealable containers in a designated location that is located at least 100 feet from wetlands and aquatic habitats.</li> <li>○ Before construction activities begin, the contractor, in consultation with a qualified biologist and in accordance with the project plans, will clearly demarcate environmentally sensitive areas adjacent to the project footprint. Temporary fencing will be installed along the perimeter of all environmentally sensitive areas that are to be avoided; will remain in place throughout the duration of construction and will be fully maintained and inspected daily when project activities are underway. Repairs to the fencing will be made within 24 hours of identifying the need for repair. After construction is completed, the fencing will be completely removed.</li> <li>○ Restrict Vehicles and Construction to Designated Work Areas. All construction equipment will be restricted to operating within the designated work areas, staging</li> </ul> </li> </ul>			

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>areas, and access routes. The limits of designated work areas and staging areas (i.e., project footprint) will be clearly marked before beginning construction.</p>			
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-16</b> Riparian Habitat</p>	<p><b>Mitigation Measure 4.3-16a: Construction Best Management Practices</b></p> <p>Construction activities shall be implemented using the following BMPs to protect Ledgewood Creek:</p> <ul style="list-style-type: none"> <li>• Install temporary fencing during construction. The Project applicant shall install fencing along the boundary of the Riparian Corridor Protection Zone during construction in the vicinity of Ledgewood Creek. Fencing during construction will ensure that construction related ground-disturbances do not encroach into the minimum 50-foot Riparian Corridor Protection Zone referenced in Mitigation Measure 4.3-12b. The location of the fencing shall be marked in the field with stakes and flagging prior to installation and shown on the construction drawings. The construction specifications shall include clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities beyond the fence. Temporary construction fencing shall remain in place throughout the duration of construction and shall be fully maintained and inspected daily when project activities are underway. Repairs to the fencing shall be made within 24 hours of identifying the need for repair. After construction is completed, the temporary fencing shall be completely removed.</li> <li>• Vehicle Fueling and Maintenance. All fueling and maintenance of vehicles and other equipment as well as locations of staging areas shall occur at least 100 feet from the edge of the riparian area of Ledgewood Creek. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.</li> <li>• Proper Waste Disposal. Food, trash, and other solid wastes shall be disposed of in contained, covered refuse containers and regularly removed from the construction site.</li> </ul>	<p><b>Implementation:</b> Construction contractor(s).</p> <p><b>Timing:</b> Prior to and during construction activities.</p>		
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-16</b> (Continued) Riparian Habitat</p>	<p><b>Mitigation Measure 4.3-16b: Riparian Corridor Protection Zone</b></p> <p>The Project applicant shall establish a riparian corridor buffer zone to be protected with permanent fencing upon completion of construction. The western boundary of the proposed Development Area of the Project Site and the permanent fence line adjacent to Ledgewood Creek shall be set back a minimum of 50 feet from the top of the bank or the outside edge of riparian vegetation, whichever distance is greater. Fencing details</p>	<p><b>Implementation:</b> Project applicant and construction contractor(s) with approval from CDWF.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	including the material, specifications, and location of the fence line shall be approved by CDFW prior to installation.	<b>Timing:</b> Shown on project design drawings prior to issuance of occupancy permit(s) and fencing maintained throughout occupancy.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-17</b> Wetlands	<b>Implement Mitigation Measure 4.3-13a: Implement SWPPP and BMPs</b>	<b>Implementation:</b> Project applicant and construction contractor(s) in coordination with San Francisco Bay Regional Water Quality Control Board  <b>Timing:</b> Prior to and during construction.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-17</b> (Continued) Wetlands	<b>Mitigation Measure 4.3-17a: Secure Permits and Implement All Permit Conditions</b> The Project applicant shall coordinate with the San Francisco District USACE, the San Francisco Bay RWQCB, and the BCDC to obtain proper permits for the placement of fill material within approximately 38 acres of wetlands and implementation of the Mitigation and Monitoring Plan, which includes construction of mitigation wetlands in the Managed Open Space area of the Project Site within the Suisun Marsh Primary and Secondary Management Areas. The Project applicant shall implement all conditions required in these permits. The Mitigation and Monitoring Plan shall be submitted to the San Francisco Bay RWQCB, San Francisco District USACE, and BCDC for review and permit conditioning as part of the permitting process with these agencies.	<b>Implementation:</b> Project applicant and construction contractor(s) in coordination with San Francisco District USACE, San Francisco Bay RWQCB, and BCDC.		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
		<b>Timing:</b> Prior to the issuance of a grading permit(s).		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-17</b> (Continued) Wetlands	<b>Mitigation Measure 4.3-17b: Wetland Establishment and Performance Monitoring</b> The Project applicant shall establish/create wetlands at a 1:1 ratio to include 16.33 acres of Seasonally Saturated Annual Grassland; 14.09 acre of Vernal Pools; 7.42 acres of Alkali Seasonal Wetlands; and 0.002 acre of Perennial Brackish Marsh concurrent with project construction. Performance standards for the established/created wetlands will be monitored for a minimum of 10 years in accordance with the Mitigation and Monitoring Plan for the proposed Managed Open Space (Attachment 7 in Appendix C of the Draft EIR).  If the permits described above specify additional wetland mitigation beyond that described in the Mitigation and Monitoring Plan, the Project applicant shall purchase wetland mitigation credits from an approved mitigation bank which services the proposed Development Area. If no mitigation banks are available that service the proposed Development Area of the Project Site, the Project applicant shall use an approved mitigation bank whose service area includes the Solano-Colusa Vernal Pool Region as defined in the 2006 Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon.	<b>Implementation:</b> Project applicant and qualified biologist.  <b>Timing:</b> Demonstrate compliance with mitigation prior to issuance of grading permit(s), implement during construction and post-construction monitoring.		
<b>4.3 Biological Resources</b> <b>IMPACT 4.3-17</b> (Continued) Wetlands	<b>Mitigation Measure 4.3-17c: Avoid Impacts to Existing Wetlands in Managed Open Space</b> To ensure detailed construction plans will avoid potential indirect impacts to existing wetlands and special status plants and wildlife, the Project applicant shall obtain detailed topographic plans, at minimum of 0.5-foot contours, before implementing the proposed wetland creation activities described in Attachment 7 in Appendix C. This topographic information will be used to conduct a water balance study to determine if construction of the created wetlands in the proposed Managed Open Space could adversely affect ponding and/or soil saturation in adjacent existing wetlands. This study would supplement the “Adequate Hydrology Determination” presented in the Mitigation and Monitoring Plan for the proposed Managed Open Space (Attachment 7 in Appendix C). If it is determined	<b>Implementation:</b> Project applicant and qualified biologist.  <b>Timing:</b> Prior to the issuance of grading permit(s).		



Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>there is an adverse effect on the hydrology of existing wetlands due to grading within the Managed Open Space area to establish/create wetlands that would reduce the extent of the wetlands, construction plans will be modified to avoid alterations to the hydrology of existing wetlands. If the revised plans result in a reduction in available acreage for wetland creation for mitigation, and the acreage of wetlands established needs to be reduced, the project applicant shall purchase wetland mitigation credits to offset the reduced acreage, and/or preserve land offsite, approved by the USFWS, that is suitable for preserving and creating/establishing wetland habitat. The mitigation credits shall be purchased from an approved mitigation bank which services the proposed Development Area. If no mitigation banks are available which service the proposed development area, the project applicant shall use an approved mitigation bank whose service area includes the Solano-Colusa Vernal Pool Region as defined in the 2006 Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Currently, according to the Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS), there are banks with a service area that encompasses the project site with wetland preservation credits (e.g., Goldfields Conservation Bank) and establishment/creation credits (e.g., Elsie Gridley Mitigation Bank) available which may be suitable to off-set wetland impacts that cannot be mitigated on-site. In addition, according to RIBITS, there are mitigation banks with preservation and wetland creation credits with service areas that encompass the Solano-Colusa Vernal Pool Region.</p>			
<p><b>4.3 Biological Resources</b> <b>IMPACT 4.3-17</b> (Continued) Wetlands</p>	<p><b>Mitigation Measure 4.3-17d: Implement Staging Areas and Access Routes</b></p> <p>To avoid potential impacts to preserved wetlands during construction of the proposed Project, including the proposed Development Area and construction of mitigation wetlands of the proposed Managed Open Space area, the number of access routes, and number and size of staging areas shall be limited to the minimum necessary to achieve the project goal. Routes and boundaries shall be clearly marked/flagged. These areas shall be outside of wetland areas and other sensitive areas proposed for preservation.</p>	<p><b>Implementation:</b> Project applicant and construction contractor(s).</p> <p><b>Timing:</b> Demonstrate compliance prior to issuance of grading permit(s) and implement through project design and during construction.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p><b>4.3 Biological Resources</b>  <b>IMPACT 4.3-17</b>  (Continued)  Wetlands</p>	<p><b>Mitigation Measure 4.3-17e: Implement Mitigation and Monitoring Plan</b></p> <p>To compensate for loss of wetlands and impacts to rare plant populations, the Project applicant shall implement an Agency-approved Mitigation and Monitoring Plan. A draft Mitigation and Monitoring Plan for the proposed Managed Open Space portion of the project site (Appendix C, Attachment 7), has been prepared in accordance with the Subpart J – Compensatory Mitigation for Losses of Aquatic Resources outlined in the State Water Resources Control Board Procedures, and in accordance with the State Water Resources Control Board Implementation Guidance dated April 2020. The referenced Mitigation and Monitoring plan may be modified based on recommendations from the USACE, USFWS, and RWQCB during the permitting process. In summary, the Mitigation and Monitoring Plan shall:</p> <ul style="list-style-type: none"> <li>• Establish within the Managed Open Space a minimum of 5.17 acres of Seasonally Saturated Annual Grassland; 0.30 acre of Vernal Pools; and 0.14 acre of Alkali Seasonal Wetlands.</li> <li>• Provide financial assurances to ensure a high level of confidence that the Mitigation and Monitoring Plan will be successfully completed, in accordance with applicable performance standards.</li> <li>• Design ecological performance standards to assess whether the Mitigation and Monitoring Plan is achieving the overall objectives, so that it can be objectively evaluated to determine if it is developing into the desired resource type, providing the expected conditions or function, and attaining any other applicable metrics such as acres, percent cover of native plants, structural patch richness, control of invasive plants, water depth etc.</li> <li>• Monitor the site for a minimum of 10 years to determine if the Mitigation and Monitoring Plan is meeting the performance standards; and</li> <li>• Assess the potential effects of changing weather patterns that are currently occurring, and that may occur due to climate change in the foreseeable future and how these changes may impact the long-term viability of the constructed wetlands. The purpose of this assessment is to locate and design the wetlands to avoid and minimize impacts from climate change and to develop adaptive management measures into the Mitigation and Monitoring Plan specifically to minimize these potential effects.</li> </ul>	<p><b>Implementation:</b></p> <p>Project applicant and construction contractor(s), and qualified biologist in coordination with USACE, USFWS, and RWQCB.</p> <p><b>Timing:</b></p> <p>Demonstrate compliance prior to issuance of grading permit(s) and implement during construction and through ongoing monitoring, as stipulated.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>The Mitigation and Monitoring Plan shall include a conservation easement as the site protection instrument that will restrict use of the proposed Managed Open Space area of the Project Site in accordance with the acreages and ratios set forth by Mitigation Measures 4.3-1a, 4.3-1b, 4.3-1c, 4.3 -2a, 4.3-3a, 4.3-5a, 4.3-8a, 4.3-9b, 4.3-13, and 4.3-17b to offset impacts to wetlands and impacts to rare plants and shall include a long-term endowment funded by the proposed Project; the balance of the Managed Open Space area shall be protected through a deed restriction that prohibits development of, any resource extraction within, and public access to, and public use of the Managed Open Space area. The combination of these preservation tools shall manage the Managed Open Space area in perpetuity and in accordance with the Mitigation and Monitoring Plans' Long-Term Management Plan (see Property Analysis Record in the Mitigation and Monitoring Plan, in Appendix C to the Draft EIR).</p>			
<p><b>4.3 Biological Resources</b>  <b>IMPACT 4.3-17</b>  (Continued)  Wetlands</p>	<p><b>Mitigation Measure 4.3-17f: Lake and Streambed Alteration Notification</b>  The Project applicant shall notify CDFW pursuant to Fish and Game Code section 1600 et seq. using the Environmental Permit Information Management System (see: <a href="https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS">https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS</a>) for Project activities that may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake, and shall comply with the LSA Agreement, if issued.</p>	<p><b>Implementation:</b>  Project applicant.  <b>Timing:</b>  Notification and demonstrate compliance with Agreement prior to issuance of grading permit for any project activities that may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p><b>4.4 Cultural and Tribal Cultural Resources</b>  <b>IMPACT 4.4-2</b>  Substantial Adverse Change to Undiscovered Historical Resources or Unique Archeological Resources</p>	<p><b>Mitigation Measure 4.4-2: Avoid Potential Effects on Cultural Resources</b>  During ground disturbing activities, and in the event that archaeological cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural resources are discovered during Project ground disturbing activities, the Project applicant or construction contractor(s) shall ensure that all ground disturbing activity in the area of the discovery are halted until a qualified archaeologist can access the significance of the find. If it is a precontact archeological site, the appropriate Native American group shall be notified. If the archaeologist determines that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan shall be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the Project applicant to avoid disturbance to the resources and, if completed avoidance is not possible, follow accepted professional standards in recording any find including submittal of the standard DPR Record forms and location information to the appropriate California Historical Resources Information System office for the Project Site (the NWIC).</p>	<p><b>Implementation:</b>  Project applicant and construction contractor(s) in coordination with a qualified archaeologist.  <b>Timing:</b>  During any ground disturbing construction activities, in the event that archaeological cultural resources are discovered.</p>		
<p><b>4.4 Cultural and Tribal Cultural Resources</b>  <b>IMPACT 4.4-3</b>  Disturbance of Human Remains</p>	<p><b>Mitigation Measure 4.4-3: Halt Construction if Human Remains are Discovered and Implement Appropriate Actions</b>  In accordance with California law and local policies described above, if human remains are uncovered during Project ground-disturbing activities, the Project applicant and/or their contractor(s) would be required to halt potentially damaging excavation in the area of the burial and notify the County Coroner and a qualified archaeologist to determine the nature of the remains. The coroner would be required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, the coroner must contact the NAHC within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code 5097.9. Following the coroner’s findings, the Project applicant and/or contractor(s), a qualified</p>	<p><b>Implementation:</b>  Project applicant and construction contractor(s) in coordination with County Coroner and qualified archaeologist.  <b>Timing:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>archaeologist, and the NAHC-designated Most Likely Descendant will determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed.</p> <p>Upon the discovery of Native American remains, the Project applicant and/or their contractor(s) would be required to ensure that the immediate vicinity (according to accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the Most Likely Descendant has taken place. The Most Likely Descendant would have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California Public Resources Code 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that could be employed:</p> <ol style="list-style-type: none"> <li>1. record the site with the NAHC or the appropriate Information Center,</li> <li>2. use an open-space or conservation zoning designation or easement, and</li> <li>3. record a document with the county in which the property is located.</li> </ol> <p>If the NAHC is unable to identify a Most Likely Descendant or the Most Likely Descendant fails to make a recommendation within 48 hours after being granted access to the site, the Native American human remains and associated grave goods would be reburied with appropriate dignity on the subject property in a location not subject to further subsurface disturbance.</p> <p>In the event that Native American human remains are found during development of a Project and the Yocha Dehe Wintun Nation or a member of the Tribe is determined to be the Most Likely Descendant, the following additional provisions shall apply.</p> <p>The Tribe shall complete its inspection and make its MLD recommendation within forty-eight (48) hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination</p>	<p>During construction, in the event of the accidental discovery or recognition of any human remains in any location.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future. The Tribe may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b).</p> <p>The term “human remains” encompasses more than human bones because the Tribe’s traditions call for the burial of associated cultural items with the deceased (funerary objects), and/or the ceremonial burning of Native American human remains, funerary objects, grave goods, and animals. Ashes, soils, and other remnants of these burning ceremonies, as well as associated funerary objects and unassociated funerary objects buried with or found near the Native American remains are to be treated in the same manner as bones or bone fragments that remain intact.</p>			
<p><b>4.4 Cultural and Tribal Cultural Resources</b>  <b>IMPACT 4.4-4</b>  Substantial Adverse Change in the Significance of Tribal Cultural Resources</p>	<p><b>Mitigation Measure 4.4-4a: Cultural Sensitivity Training and Non-Disclosure of TCRs</b></p> <p>To minimize the potential for destruction of, or damage to, existing or previously undiscovered tribal cultural resources, to identify any such resources at the earliest possible time during Project-related earthmoving activities, and to prevent the disturbance of reburied TCRs, the Project applicant and its construction contractor(s) will implement the following measures:</p> <ul style="list-style-type: none"> <li>• Cultural sensitivity training shall be provided to assist construction teams with the identification and protection of TCRs prior to the beginning of earth disturbance. This training shall provide a definition and examples of TCRs that may be encountered during construction.</li> <li>• If any resources are encountered, unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The Tribe</li> </ul>	<p><b>Implementation:</b>  Project applicant and construction contractor(s) in coordination with a qualified archaeologist.</p> <p><b>Timing:</b>  Prior to and during any ground disturbing construction activities.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>will require that the location for reburial is recorded with the California Historic Resources Inventory System (“CHRIS”) on a form that is acceptable to the CHRIS center. The Tribe may also suggest that the landowner enter into an agreement regarding the confidentiality of site information that will run with title on the property.</p>			
<p><b>4.4 Cultural and Tribal Cultural Resources</b> <b>IMPACT 4.4-4</b> (Continued) Substantial Adverse Change in the Significance of Tribal Cultural Resources</p>	<p><b>Mitigation Measure 4.4-4b: Native American Monitoring</b> To minimize the potential for destruction of, or damage to, existing or previously undiscovered tribal cultural resources and to identify any such resources prior to Project-related earthmoving activities, the Project applicant and its construction contractor(s) will implement the following measures:</p> <p>Native American Monitors from Yocha Dehe Wintun Nation will be invited to monitor the vegetation grubbing, stripping, grading, or other ground-disturbing activities in the Development Area and off-site improvement areas to determine the presence or absence of any TCRs. Native American Representatives from culturally affiliated tribes act as a representative of their Tribal government and shall be consulted before any cultural studies or ground-disturbing activities begin.</p> <p>Native American Representatives and Native American Monitors have the authority to identify sites or objects of significance to Native Americans and to request that work be stopped, diverted, or slowed if such sites or objects are identified within the direct impact area; however, only a Native American Representative can recommend appropriate treatment of such sites or objects.</p>	<p><b>Implementation:</b> Project applicant and construction contractor(s).</p> <p><b>Timing:</b> Prior to and during any ground disturbing construction activities.</p>		
<p><b>4.4 Cultural and Tribal Cultural Resources</b> <b>IMPACT 4.4-4</b> (Continued)</p>	<p><b>Mitigation Measure 4.4-4c: Treatment of Native American Remains</b> In the event that Native American human remains are found during development of a Project and the Yocha Dehe Wintun Nation or a member of the Tribe is determined to be the Most Likely Descendant, implement Mitigation Measure 4.4-3.</p>	<p><b>Implementation:</b> Project applicant and construction contractor(s).</p> <p><b>Timing:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
Substantial Adverse Change in the Significance of Tribal Cultural Resources		During construction, in the event of the accidental discovery or recognition of any Native American human remains.		
<b>4.4 Cultural and Tribal Cultural Resources</b> <b>IMPACT 4.4-4</b> (Continued) Substantial Adverse Change in the Significance of Tribal Cultural Resources	<b>Mitigation Measure 4.4-4d: Treatment of Cultural Resources</b> Treatment of all cultural items, including ceremonial items and archeological items will reflect the religious beliefs, customs, and practices of the Tribe. All cultural items, including ceremonial items and archeological items, which may be found at a project site should be turned over to the Tribe for appropriate treatment, unless otherwise ordered by a court or agency of competent jurisdiction. The Project applicant shall waive any and all claims to ownership of Tribal ceremonial and cultural items, including archeological items, which may be found on a project site in favor of the Tribe. If any intermediary, (for example, an archaeologist retained by the Project applicant) is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the Tribe.	<b>Implementation:</b> Project applicant and construction contractor(s).  <b>Timing:</b> In the event of the accidental discovery or recognition of any tribal cultural items.		
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1a: Use Battery or Electric-powered Construction Equipment</b> The Project applicant shall require that construction contractor(s): <ul style="list-style-type: none"> <li>• Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools, unless such electric-powered tools would not meet the power or longevity requirements to achieve the construction task, or are otherwise infeasible due to site conditions such as wet or damp circumstances.</li> <li>• Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites.</li> </ul>	<b>Implementation:</b> Project applicant and construction contractor(s).  <b>Timing:</b> Demonstrate compliance prior to issuance of grading permit(s).		



Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<ul style="list-style-type: none"> <li>Use battery-powered equipment for all off-road construction equipment with a power rating below 19kW (e.g., plate compactors, pressure washers) during construction.</li> </ul> <p>Prior to the issuance of grading permits for the Project, the Project applicant shall include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction activities.</p>			
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1b: Reduce Construction Worker Travel for Meals</b> The Project applicant shall provide meal options on-site or shuttles between the facility and nearby meal destinations for construction employees.	<b>Implementation:</b> Project applicant. <b>Timing:</b> During construction activities.		
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1c: Limit Model Year of On-Road Heavy Duty Haul Trucks</b> The Project applicant shall require the construction contractor(s) use on-road heavy-duty haul trucks to be model year 2014 or newer if diesel-fueled.	<b>Implementation:</b> Project applicant and construction contractor(s). <b>Timing:</b> Prior to and during construction activities.		
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued)	<b>Mitigation Measure 4.6-1d: Limit Idling of Heavy-Duty Construction Equipment and Trucks</b> The Project applicant shall require the construction contractor(s) forbid the idling of construction equipment and trucks, if diesel-fueled, for more than two minutes. The	<b>Implementation:</b> Project applicant and construction contractor(s).		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	Project applicant or construction contractor(s) shall provide appropriate signage onsite communicating this requirement to onsite equipment operators.	<b>Timing:</b> During construction activities.		
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1e: Omit the Inclusion of Natural Gas Infrastructure</b> The City shall require the Project applicant to omit the inclusion of natural gas infrastructure in the design and construction of the proposed Project. The final design drawings must demonstrate the omission of natural gas connections to the Project Site and be provided to and approved by the City prior to the issuance of grading permits.	<b>Implementation:</b> Project applicant. <b>Timing:</b> Demonstrate compliance prior to issuance of grading permit(s).		
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1f: Source Electricity for Project Operations from a Power Mix that is 100 Percent Carbon-free</b> Electricity to serve the Project site shall be supplied from a power mix that comprises 100 percent carbon-free electricity sources. The Project applicant shall provide the City with documentation, to the City’s satisfaction, demonstrating the Project’s electricity demand, including that of electric vehicle charging stations and other onsite electric infrastructure required to support electrification of the onsite offroad equipment, will be supplied with 100 percent carbon-free electricity sources. These sources may include, but are not limited to, on-site renewable generation system(s) or Pacific Gas and Electric Company (PG&E) 100 percent solar electricity service option, or a similar 100 percent carbon-free utility option that becomes available in the future and meets the requirements of this mitigation measure.  To ensure that 100 percent of the Project’s electricity demand generated by the proposed Project site is supplied with 100 percent carbon-free electricity sources, the project applicant or other appropriate Project site operations manager shall maintain records for all electricity consumption and supply associated with the proposed Project’s operation and make these records available to the City upon request. These records shall be	<b>Implementation:</b> Project applicant. <b>Timing:</b> During operations. Maintain records for all electricity consumption and supply associated with operation and make available upon request.		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	maintained until such time as the only grid-available power options are inherently carbon-free and this mitigation does not serve to provide any additional Project requirements to reduce electricity-related GHG emissions.			
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1g: Implement Mitigation Measure 4.12-1, Transportation Demand Management (TDM) Plan</b>	<b>Implementation:</b> Project applicant and tenant(s). <b>Timing:</b> TDM Plan to be approved prior to issuance of building permit. Project applicant or contractor(s) shall monitor and report on progress during operations. Tenant(s) shall report annually on required metrics.		
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1h: Incorporate CALGreen Tier 2 Standards for Electric Vehicle Infrastructure Into Project Design</b> The City shall require the Project applicant to include electric vehicle (EV) capable parking at the rate consistent with the California Green Building Standards Code (CALGreen) Tier 2 standards for the proposed Project land use. The EV capable parking shall include the installation of the enclosed conduit that forms the physical pathway for electrical wiring and adequate panel capacity to accommodate future installation of a dedicated branch and charging stations(s). The total EV capable parking to be provided shall be based on the proposed size and scale of development and the most current CALGreen Tier 2 standards at the time of the application for a building permit.	<b>Implementation:</b> Project applicant. <b>Timing:</b> Prior to issuance of building permit.		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p><b>4.6 Greenhouse Gas Emissions</b>  <b>IMPACT 4.6-1</b>  (Continued)  Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan</p>	<p><b>Mitigation Measure 4.6-1i: Electrification of Yard Equipment</b></p> <p>The Project applicant shall stipulate in tenant lease agreements that all yard equipment and similar on-site off-road equipment, such as forklifts, be electric. Prior to the issuance of an occupancy permit, the Project applicant shall provide the City with documentation, to the City's satisfaction, demonstrating that the building occupant shall only use on-site off-road equipment that is electric-powered.</p>	<p><b>Implementation:</b>  Project applicant.  <b>Timing:</b>  Prior to issuance of occupancy permit(s)</p>		
<p><b>4.6 Greenhouse Gas Emissions</b>  <b>IMPACT 4.6-1</b>  (Continued)  Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan</p>	<p><b>Mitigation Measure 4.6-1j: Electrification of Transportation Refrigeration Units</b></p> <p>The Project applicant shall require that all transportation refrigeration units operating on the Project site be electric or alternative zero-emissions technology, including hydrogen fuel cell transport refrigeration and cryogenic transport refrigeration, to reduce emissions of NO<sub>x</sub> without substantially increasing other emissions. Any electric or hybrid transportation refrigeration units shall be charged via grid power (i.e., not an idling truck or diesel engine). The Project design shall also include necessary infrastructure; for example, requiring all dock doors serving transportation refrigeration units to be equipped with charging infrastructure to accommodate the necessary plug-in requirements for electric transportation refrigeration units while docked or otherwise idling, as well as the electrical capacity to support the on-site power demand associated with electric transportation refrigeration unit charging requirements.</p>	<p><b>Implementation:</b>  Project applicant.  <b>Timing:</b>  Prior to issuance of building permit and during operations</p>		
<p><b>4.6 Greenhouse Gas Emissions</b>  <b>IMPACT 4.6-1</b>  (Continued)</p>	<p><b>Mitigation Measure 4.6-1k: Prohibition of Truck Idling for More than Two Minutes</b></p> <p>The Project applicant shall require that onsite idling of all visiting gasoline- or diesel-powered trucks not exceed two minutes, and that appropriate signage and training for on-site workers and truck drivers be provided to support effective implementation of this limit.</p>	<p><b>Implementation:</b>  Project applicant.  <b>Timing:</b>  During operations</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan				
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1l: Limitation of Model Year of Visiting Trucks</b> The Project applicant shall require that lease agreements stipulate that any gasoline- or diesel-powered vehicle, whether owned or operated by tenant(s), that enters or operates on the Project site and has a gross vehicle weight rating greater than 14,000 pounds, have a model year dated no older than model year 2014.	<b>Implementation:</b> Project applicant. <b>Timing:</b> During operations		
<b>4.6 Greenhouse Gas Emissions</b> <b>IMPACT 4.6-1</b> (Continued) Generate GHG Emissions with Significant Impact or Conflict with Applicable Plan	<b>Mitigation Measure 4.6-1m: Use of Reduced GWP Refrigerants</b> Future buildings and tenants using cold storage shall use R-407F or class of refrigerant that has an equivalent or lower global warming potential (i.e., global warming potential of 1,825 or less). The Project applicant shall require that lease agreements stipulate that any refrigeration units operated on-site meet these requirements and that equipment specifications and maintenance records demonstrating system and refrigerant type and compliance with service and maintenance requirements to minimize fugitive leaks.	<b>Implementation:</b> Project applicant. <b>Timing:</b> During operations		
<b>4.7 Hazards, Including Wildfire, and Hazardous Materials</b> <b>IMPACT 4.7-3</b>	<b>Mitigation Measure 4.7-3a: Prepare and Implement a Site-Specific Health and Safety Plan</b> To protect the health of construction workers and the environment, the Project applicant or construction contractor(s) shall prepare and implement a site-specific Health and Safety Plan (HASP) as described below: <ul style="list-style-type: none"> <li>The HASP shall be prepared in accordance with State and federal OSHA regulations (29 CFR 1910.120) and approved by a certified industrial hygienist. Copies of the</li> </ul>	<b>Implementation:</b> Project applicant and construction contractor(s). <b>Timing:</b>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p>Exposure of People and the Environment to Existing Hazardous Materials, including Cortese-listed Sites</p>	<p>HASP shall be made available to construction workers for review during their orientation training and/or during regular health and safety meetings. The HASP shall identify potential hazards (including stained or odiferous soils at any location where earthmoving activities would occur within the proposed Development Area), chemicals of concern (i.e., VOCs, heavy metals, and gases), personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures.</p> <ul style="list-style-type: none"> <li>• The HASP shall state that if stained or odiferous soil or groundwater is discovered during Project-related construction activities, Project applicants shall retain a licensed environmental professional to conduct a Phase II ESA that includes appropriate soil and/or groundwater analysis. Recommendations contained in the Phase II ESA to address any contamination that is found shall be implemented before initiating ground-disturbing activities in these areas.</li> <li>• The HASP shall also require notification of the appropriate federal, State, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater, or groundwater with a surface sheen) or if previously undiscovered underground storage tanks are encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the RWQCB, DTSC, the Solano County Environmental Health Division, and/or other appropriate federal, State, or local regulatory agencies.</li> <li>• The HASP shall address potential accidental damage to utility lines, including high-pressure natural gas and jet fuel lines. The plan shall identify chain-of-command rules for notification of authorities and appropriate actions and responsibilities regarding the safety of the public and workers. A component of the response plan shall include worker education training in response to such situations. The HASP shall include telephone numbers for emergency response providers, as well as the location of the nearest hospital; this information shall also be posted in the construction superintendent's trailer on the job site during construction.</li> <li>• Because construction activities will be occurring in the immediate vicinity of an active rail line (i.e., California Northern Railroad), the HASP shall address potential railroad safety hazards for Project-related construction workers, including the need to: (1) stay a safe distance away from the tracks while working; (2) refrain from</li> </ul>	<p>Develop Plan prior to issuance of grading permit(s) and implement during construction activities.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>parking or driving vehicles or equipment across the tracks at any location other than the existing Pennsylvania Avenue crossing, and (3) observe all train crossing signals and warning lights. If there is a need for a temporary halt to train traffic on the California Northern Railroad lines during Project-related construction activities, the Project applicant and/or its construction contractor shall coordinate directly with the railroad and shall hold a site safety meeting to inform construction workers of their responsibilities and safety protocols. The appropriate emergency contact numbers for personnel at California Northern Railroad shall be included in the HASP and posted in the construction superintendent's trailer.</p>			
<p><b>4.7 Hazards, Including Wildfire, and Hazardous Materials</b>  <b>IMPACT 4.7-3</b>  (Continued)  Exposure of People and the Environment to Existing Hazardous Materials, including Cortese-listed Sites</p>	<p><b>Mitigation Measure 4.7-3b: Locate and Avoid Underground Utilities in Areas Where Development is Proposed, and Prepare a Response Plan to be Implemented if Accidental Rupture Occurs</b></p> <p>The Project applicant or construction contractor(s) shall implement the following measures before construction begins, to avoid and minimize potential damage to utilities that could result in hazardous materials incidents.</p> <ul style="list-style-type: none"> <li>• Prior to the start of earthmoving activities in the vicinity of the pipelines identified on <b>Error! Reference source not found.</b>, the Project applicant shall coordinate with Kinder Morgan, PG&amp;E, and the City of Vallejo to identify and clearly mark the exact locations of the pipelines. All construction personnel shall be informed of the location of the pipelines during safety briefings throughout the period when construction is occurring. The locations of the pipelines shall be clearly identified on construction drawings and posted in the construction superintendent's trailer.</li> <li>• Verify with Kinder Morgan that the pipeline underneath the proposed parking lot adjacent to Building A is no longer in service, and coordinate with Kinder Morgan for pipeline removal if necessary.</li> <li>• As required by Suisun City General Plan Policy PHS-10.8, dedicated pipeline rights-of-way shall be permanently protected from construction encroachment, particularly in areas where high-pressure pipelines adjoin proposed development. High-visibility orange exclusionary fencing, or other clearly visible above-ground markers, shall be placed along the pipeline rights-of-way prior to the start of earthmoving activities.</li> </ul>	<p><b>Implementation:</b>  Project applicant and construction contractor(s).</p> <p><b>Timing:</b>  Prior to and during construction activities.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<ul style="list-style-type: none"> <li>Verify through field surveys and the use of the Underground Service Alert services, the locations of any other utilities that may be buried at the Project Site in the areas where development is proposed (e.g., stormwater, sewer, water, electrical, or communication cables). Any buried utility lines shall be clearly marked in the field and on the construction drawings and protected to the satisfaction of the utility owner in advance of any Project-related earthmoving activities.</li> </ul>			
<p><b>4.7 Hazards, Including Wildfire, and Hazardous Materials</b> <b>IMPACT 4.7-4</b> Creation of Potential Safety Hazards, Including Possible Birdstrike, in the vicinity of an Airport</p>	<p><b>Mitigation Measure 4.7-4: Detention Basin Design to Drain within 48 Hours or Less</b> The applicant shall design all detention basins developed for the proposed Project to discharge within 48 hours or less. This specification for detention basin design will be demonstrated in the Final Drainage Study and reviewed by the City for approval prior to the issuance of a grading permit.</p>	<p><b>Implementation:</b> Project applicant. <b>Timing:</b> Show on improvement plans and demonstrate compliance prior to issuance of a grading permit(s).</p>		
<p><b>4.7 Hazards, Including Wildfire, and Hazardous Materials</b> <b>IMPACT 4.7-5</b> Interference with Emergency Response or Evacuation Plans</p>	<p><b>Mitigation Measure 4.7-5: Implement Traffic Control Plans</b> The Project applicant or contractor(s) shall implement traffic control plans for construction activities that may affect road rights-of-way during Project construction. The traffic control plans shall be designed to avoid traffic-related hazards and maintain emergency access during construction phases. The traffic control plans shall illustrate the location of the proposed work area; provide a diagram showing the location of areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work; show the proposed phases of traffic control; and identify the time periods when traffic control would be in effect and the time periods when work would prohibit access to private property from a public right-of-way. The plans may be modified by the City or Caltrans in order to eliminate or avoid traffic conditions that are hazardous to the safety of the public. Traffic control plans shall be submitted to the affected agencies, as appropriate, and shall be submitted to the City for review and approval before City approval of improvement plans, where future construction may cause impacts on traffic.</p>	<p><b>Implementation:</b> Project applicant and construction contractor(s). <b>Timing:</b> Prior to approval of improvement plans where future construction may cause impacts on traffic and during construction activities.</p>		



Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
<p><b>4.10 Noise and Vibration</b>  <b>IMPACT 4.10-1</b>  Temporary, Short-Term Exposure of Sensitive Receptors to Construction Noise</p>	<p><b>Mitigation Measure 4.10-1a: Implement Noise-Reducing Construction Practices, Prepare and Implement a Noise Control Plan, and Monitor and Record Construction Noise near Sensitive Receptors.</b></p> <p>The Project applicant(s) and their primary contractors for engineering design and construction of all Project phases shall ensure that the following requirements are implemented at each worksite during Project construction to avoid and minimize construction noise effects on sensitive receptors. The Project applicant(s) and primary construction contractor(s) shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the measures listed below:</p> <ul style="list-style-type: none"> <li>• Noise-generating construction operations shall be limited to the hours between 7 a.m. and 6 p.m. Monday through Friday, and between 8 a.m. and 5 p.m. on Saturdays (conservatively assuming the hours based on Solano County's permitted hours of construction).</li> <li>• Noisy construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses.</li> <li>• All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.</li> <li>• All motorized construction equipment shall be shut down when not in use to prevent idling.</li> <li>• Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site).</li> <li>• Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators) as planned phases are built out and future noise-sensitive receptors are located within 250 feet of future construction activities.</li> <li>• Written notification of construction activities shall be provided to all noise-sensitive receptors located within 800 feet of typical construction activities and 2,000 feet of pile driving activity. The notification shall include anticipated dates and hours during</li> </ul>	<p><b>Implementation:</b>  Project applicant and construction contractor(s).</p> <p><b>Timing:</b>  During project design and construction activities.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the Project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification.</p> <ul style="list-style-type: none"> <li>To the extent necessary to reduce construction noise levels consistent with applicable policies, acoustic barriers (e.g., lead curtains, sound barriers) shall be constructed to reduce construction-generated noise levels at affected noise-sensitive land uses. The barriers shall be designed to obstruct the line of sight between the noise-sensitive land use and on-site construction equipment.</li> </ul>			
<p><b>4.10 Noise and Vibration</b>  <b>IMPACT 4.10-3</b>  Temporary, Short-Term Exposure of Sensitive Receptors to Potential Groundborne Noise and Vibration from Project Construction</p>	<p><b>Mitigation Measure 4.10-2a: Implement Measures to Reduce Groundborne Noise and Vibration Levels at Sensitive Receptors during Pile Driving Activities.</b></p> <p>The Project applicant and contractor(s) for engineering design and construction of all proposed Project components and offsite improvements shall ensure that the following controls are implemented to minimize or avoid construction vibration effects on sensitive receptors:</p> <ul style="list-style-type: none"> <li>Place stationary construction equipment as far as possible from vibration sensitive uses.</li> <li>Use smaller construction equipment when practical, particularly smaller vibratory rollers that are as small as practicable, or that have an adjustable vibratory force feature.</li> <li>Locate loading areas, staging areas, stationary noise, vibration-generating equipment, etc., at the farthest point within the active pile driving construction area from sensitive receptors.</li> <li>Prohibit the use of vibratory rollers near the existing structures.</li> <li>If vibratory rollers are required to be used and need to be used within 110 feet of structures, the contractor must use a vibratory roller whose vibratory force can be turned down or turned off.</li> </ul>	<p><b>Implementation:</b>  Project applicant and construction contractor(s).</p> <p><b>Timing:</b>  During project construction pile driving activities.</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<ul style="list-style-type: none"> <li>• A disturbance coordinator shall be designated and this person’s contact information shall be posted in a location near the Project Site that is clearly visible to the nearby receivers most likely to be disturbed. The director would manage complaints and concerns resulting from activities that cause vibrations. The severity of the vibration concern should be assessed by the disturbance coordinator, and if necessary, evaluated by a professional with construction vibration expertise.</li> <li>• The pre-existing condition of all buildings within a 500-foot radius within the immediate vicinity of proposed pile driving activities shall be recorded in the form of a preconstruction survey. The preconstruction survey shall determine conditions that exist before construction begins for use in evaluating the damage caused by construction activities. Fixtures and finishes within a 500-foot radius of construction activities susceptible to damage shall be documented (photographically and in writing) before construction. All damage will be repaired to its pre-existing condition.</li> <li>• Vibration monitoring shall be conducted before and during pile driving operations occurring within 500 feet of the sensitive receptors. Every attempt shall be made to limit construction-generated vibration levels in accordance with Caltrans recommendations during pile driving and impact activities in the vicinity of the historic structures.</li> <li>• Pile driving required within a 500-foot radius of sensitive receptors should use alternative installation methods, where possible (e.g., pile cushioning, jetting, predrilling, cast-in-place systems, resonance-free vibratory pile drivers). This would reduce the number and amplitude of impacts required to seat the pile.</li> </ul>			
<p><b>4.10 Noise and Vibration</b>  <b>IMPACT 4.10-5</b>  Long-Term Non-Transportation Noise Levels at Existing Noise-Sensitive Receptors</p>	<p><b>Mitigation Measure 4.10-3a: Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Non-Transportation Source–Generated Noise.</b></p> <p>To reduce potential long-term exposure of sensitive receptors to noise generated by Project-related non-transportation noise sources, the Project applicant or contractor(s) for all Project phases shall implement the below measures to assure maximum reduction of Project interior and exterior noise levels from operational activities.</p> <ul style="list-style-type: none"> <li>• The proposed land uses shall be designed so that on-site mechanical equipment (e.g., HVAC units, compressors, and generators) and area-source operations (e.g., loading</li> </ul>	<p><b>Implementation:</b>  Project applicant and construction contractor(s).  <b>Timing:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>docks, parking lots, and recreational-use areas) are located as far as possible from or shielded from nearby noise-sensitive land uses.</p> <ul style="list-style-type: none"> <li>• Air conditioning units shall be shielded to reduce operational noise levels at adjacent dwellings or designed to meet City noise standards. Shielding may include the use of fences or partial equipment enclosures. To provide effectiveness, fences or barriers shall be continuous or solid, with no gaps, and shall block the line of sight to windows of neighboring dwellings.</li> <li>• Residential land uses located within 2,500 feet of and within the direct line of sight of major noise-generating commercial uses (e.g., loading docks and equipment/vehicle storage repair facilities,) shall be shielded from the line of sight of these facilities by construction of a noise barrier or other design feature that would accomplish equivalent noise mitigating results. To provide effectiveness, noise barriers shall be continuous or solid, with no gaps, and shall block the line of sight to windows of neighboring dwellings.</li> <li>• Routine testing and preventive maintenance of emergency electrical generators shall be conducted during the less sensitive daytime hours (i.e., 7:00 a.m. to 6:00 p.m.). All electrical generators shall be equipped with noise control (e.g., muffler) devices in accordance with manufacturers' specifications.</li> <li>• On-site landscape maintenance equipment shall be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications.</li> <li>• For maintenance areas located within 500 feet of noise-sensitive land uses, the operation of on-site landscape maintenance equipment shall be limited to the least noise-sensitive periods of the day, between the hours of 7 a.m. and 6 p.m.</li> </ul>	<p>Demonstrate compliance in project design prior to occupancy and implement during construction and occupancy.</p>		
<p><b>4.12 Transportation and Circulation</b>  <b>IMPACT 4.12-1</b>  Near-Term Vehicle-Miles Traveled (VMT)</p>	<p><b>Mitigation Measure 4.12-1: Transportation Demand Management (TDM) Plan.</b></p> <p>Prior to issuance of building permits, the Project applicant shall develop a TDM Plan for the proposed Project, including any anticipated phasing, and shall submit the TDM Plan to the City for review and approval. The TDM Plan shall identify trip reduction strategies, as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Plan shall be designed to achieve the trip reduction, as required to reduce the commute trip VMT per employee from 14.2 to 12.6, consistent with an 11.3-</p>	<p><b>Implementation:</b>  Project applicant and tenant(s).  <b>Timing:</b></p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed									
	<p>percent reduction. The analysis prepared to support the TDM Plan shall demonstrate that the selected reduction measures will achieve the necessary VMT reduction.</p> <p>Based on research in the <i>Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity</i> (GHG Handbook), Table 0-1 describes feasible measures for the Project's TDM Plan aimed to reduce Project-generated trips. The GHG Handbook calculates maximum VMT reduction based on a project's land use type and locational context. The proposed Project is considered a commercial project type in a suburban setting.<sup>1</sup> A 11.3-percent reduction is potentially achievable with implementation of the measures listed below.</p> <p><b>Table 0-1. TDM Plan</b></p> <table border="1"> <thead> <tr> <th>TDM Measure</th> <th>Description</th> <th>Maximum VMT Reduction<sup>1</sup></th> </tr> </thead> <tbody> <tr> <td>Commute Trip Reduction Marketing</td> <td>Designate a TDM Coordinator to plan, implement, and manage commute programs. The TDM Coordinator shall share information via regular emails, bulletin postings, challenges, or events on resources and incentives to encourage employees to use alternative modes of travel to work. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving, such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.</td> <td>4.00 percent</td> </tr> <tr> <td>Ridesharing Program</td> <td>Implement a ridesharing program and establish a permanent transportation management association with funding</td> <td>4.00 percent</td> </tr> </tbody> </table>	TDM Measure	Description	Maximum VMT Reduction <sup>1</sup>	Commute Trip Reduction Marketing	Designate a TDM Coordinator to plan, implement, and manage commute programs. The TDM Coordinator shall share information via regular emails, bulletin postings, challenges, or events on resources and incentives to encourage employees to use alternative modes of travel to work. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving, such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.	4.00 percent	Ridesharing Program	Implement a ridesharing program and establish a permanent transportation management association with funding	4.00 percent	TDM Plan to be reviewed and subject to approval prior to issuance of building permit. Project applicant or contractor(s) shall monitor and report on progress during operations. Tenant(s) shall report annually on required metrics.		
TDM Measure	Description	Maximum VMT Reduction <sup>1</sup>											
Commute Trip Reduction Marketing	Designate a TDM Coordinator to plan, implement, and manage commute programs. The TDM Coordinator shall share information via regular emails, bulletin postings, challenges, or events on resources and incentives to encourage employees to use alternative modes of travel to work. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving, such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.	4.00 percent											
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<sup>1</sup> *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (GHG Handbook), California Air Pollution Control Officers Association, 2021.

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>requirements for employers. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips, VMT, and GHG emissions. Ridesharing must be promoted through a multi-faceted approach. Examples include the following:</p> <ul style="list-style-type: none"> <li>• Designating a certain percentage of desirable parking spaces for ridesharing vehicles.</li> <li>• Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles.</li> <li>• Providing an app or website for coordinating rides, or promoting the use of the existing free ridematch program at <a href="http://merge.511.org">merge.511.org</a> for the Bay Area. The larger the pool of participants, the more effective the program will be.</li> </ul> <hr/> <p>Subsidized or Discounted Transit Program – Work Trips Only</p> <p>Provide subsidized or discounted, or free transit passes for employees. Reducing the out-of-pocket cost for choosing transit improves the competitiveness of transit against driving, increasing the total number of transit trips and decreasing vehicle trips. This decrease in vehicle trips results in reduced VMT and thus a reduction in GHG emissions.</p>			

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>End-of-Trip Bicycle Facilities      Install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers. The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.</p>			
	<p>Employer-Sponsored Vanpool      Implement an incentive to use vanpool services. Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting. The mode shift from long-distance, single-occupied vehicles to shared vehicles reduces overall commute VMT, thereby reducing GHG emissions. Provide an app or website for coordinating rides, or promote the use of the existing free ridematch program at <a href="http://merge.511.org">merge.511.org</a> for the Bay Area. The larger the pool of participants, the more effective the program will be.</p>			
	<p><b>Total VMT Reduction (with multiplicative dampening)</b>      <b>Not applicable.</b></p>			
	<p>Table Notes</p> <ol style="list-style-type: none"> <li>1. VMT reduction can range based on the level of effort in promoting and implementing the TDM strategies. A site operator doing just the bare minimum would result in lower VMT reduction, and a site operator willing to promote and invest heavily in TDM programs is expected to achieve the maximum VMT reduction. The reductions and measures are not additive but complementary of one another.</li> <li>2. The values in the Maximum VMT Reduction column cannot be purely added for a total VMT reduction as effectiveness is reduced or capped when measures are combined.</li> </ol>			

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<p>Multiplicative dampening considers the reduced or capped effectiveness of combined measures based on national research used to develop the calculations in the <i>Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (GHG Handbook)</i>. The Total VMT Reduction value was calculated with multiplicative dampening.</p> <p>As part of the TDM Plan, the Project applicant/contractor(s) shall monitor and report its effectiveness at reducing home-based work VMT per employee. Tenant/s shall submit annual reports to the City describing the specific TDM measures that are being implemented, the number of employees on-site, the daily vehicle trips generated by the Project, and length of the trips being generated by the Project. The report shall be prepared by an independent City-approved transportation planning/engineering firm. The TDM Coordinator will provide information to the firm to monitor implementation effectiveness of the approved TDM Plan. To assess the TDM Plan's commute trip reductions, a baseline daily driveway count of vehicle trips shall be conducted before implementation of the TDM Plan and compared to the driveway count after one year of TDM Plan implementation. If the monitoring report shows that there was at least 11.3 percent commute trip VMT reduction, then the TDM Plan is presumed to effectively mitigate the Project impact on VMT. If the monitoring report shows that the TDM Plan does not reduce commute trip VMT by at least 11.3 percent, then the transportation planning/engineering firm shall assess for financial penalties for non-compliance and provide guidance for TDM Plan modification to achieve the VMT reduction goal.</p> <p>Additionally, if the initial TDM Plan strategies do not reduce commute trip VMT by at least 11.3 percent, the Project shall incorporate additional TMD strategies, such as the following to increase TDM effectiveness in the future:</p> <ul style="list-style-type: none"> <li>• Provide enhancements to bus service to the Project site area during peak commute times in coordination with FAST and SolTrans (not quantifiable at this time as future coordination with FAST and SolTrans is required and has not occurred)</li> </ul>			



Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<ul style="list-style-type: none"> <li>• Compliance with a future City VMT/TDM ordinance (not quantifiable at this time as the City does not have a VMT/TDM ordinance)</li> <li>• Participation in a future City VMT fee program (not quantifiable at this time as the City does not have a VMT fee program)</li> </ul>			
<p><b>4.12 Transportation and Circulation</b>  <b>IMPACT 4.12-2</b>            Vehicle System</p>	<p><b>Mitigation Measure 4.12-2: Vehicle System Improvements</b>            Prior to issuance of building permits, the Project applicant shall provide site plans that include the following on-site and off-site vehicle system improvements to minimize hazardous conditions.</p> <ul style="list-style-type: none"> <li>• Driveway access improvements.               <ul style="list-style-type: none"> <li>– The Project site tenant has yet to be determined, and thus the exact operations are still unknown. The Project shall design each driveway width and throat length appropriate for the vehicle types expected to be served. For passenger vehicle access only, provide at least 10 feet driveway width for each direction of travel and a throat length of at least 50 feet to hold the approximate length of two vehicles. For driveways that serve trucks, provide at least 15 feet driveway width for each direction of travel and a throat length that can hold at least one of the longest expected trucks to access the site.</li> <li>– Combine driveways #1 and #2 to a single right-in right-out only driveway 300 feet south of the Pennsylvania Avenue and SR-12 intersection. This would improve the sight distance of drivers exiting the driveway and reduce vehicular conflicts with northbound vehicles on Pennsylvania Avenue.</li> <li>– Connect the northernmost parking lot accessible by driveways #1 and #2 to the vehicle system of Building B-C. This would improve on-site connectivity and circulation. Vehicles that want to make a left turn in and out from the northernmost parking would use driveway #3.</li> </ul> </li> </ul>	<p><b>Implementation:</b>            Project applicant.</p> <p><b>Timing:</b>            Shown on design drawings and demonstrate compliance prior to issuance of building permit(s).</p>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<ul style="list-style-type: none"> <li>– Orient all driveways to be perpendicular to the public road for improved sight distance and vehicle maneuvers.</li> <li>• On-site circulation improvements. <ul style="list-style-type: none"> <li>– Orient drive aisles to be as close to perpendicular as possible, while maintaining necessary design features for circulation and safety, for improved sight distance and vehicle maneuvers.</li> <li>– Add directional markers (e.g., signs or painted strips) for on-site circulation guidance and efficiency.</li> <li>– At the rail spurs, prohibit vehicles from crossing tracks with the use of signs or physical barriers and remove the adjacent parking spaces.</li> </ul> </li> <li>• Off-site vehicle system improvements. <ul style="list-style-type: none"> <li>– The Suisun City General Plan plans to widen Pennsylvania Avenue and Cordelia Road from a two-lane road to a four-lane road. Coordinate with the City to determine the roadway cross section.</li> <li>– For vehicle system efficiency and improved safety, add a center two-way left-turn lane between driveways #3 and #11 for vehicle deceleration and acceleration when making left-turns into and out of the Project driveways.</li> </ul> </li> </ul>			
<b>4.12 Transportation and Circulation</b> <b>IMPACT 4.12-4</b> Pedestrian and Bicycle Systems	<b>Mitigation Measure 4.12-3: Provide adequate pedestrian and bicycle facilities and improvements along Project Site frontages and on-site.</b> In accordance with Suisun City requirements and design standards, the Project shall provide adequate pedestrian and bicycle facilities along Project site frontages and on-site to improve the pedestrian and bicycle transportation conditions. <ul style="list-style-type: none"> <li>• Pedestrian Facilities List. <ul style="list-style-type: none"> <li>– Continuous sidewalks of at least five feet at the Project site frontages along both sides of Cordelia Road and Pennsylvania Avenue.</li> </ul> </li> </ul>	<b>Implementation:</b> Project applicant and construction contractor(s).  <b>Timing:</b>		

Impact	Mitigation Measure	Implementation Responsibility/Timing	Compliance Verification	Date Completed
	<ul style="list-style-type: none"> <li>- Physical barriers between Planning Area No. 1 and Planning Area No. 3 to designed to prevent jaywalking. Use signs to direct pedestrians to the nearby crosswalks.</li> <li>- High visibility crosswalks at the Pennsylvania Avenue and Cordelia Road/Cordelia Street intersection.</li> <li>- Adequate pedestrian-scale lighting along Project site frontages and on-site.</li> <li>- On-site markings or signage to notify drivers of pedestrians traveling between off-site pedestrian facilities or on-site parking facilities and building access points.</li> <li>- At the rail spurs, prohibit bicyclists from crossing tracks with the use of signs or physical barriers.</li> <li>• Bicycle Facilities List. <ul style="list-style-type: none"> <li>- Continuous bicycle facilities of at least four feet at the Project site frontages along both sides of Cordelia Road and Pennsylvania Avenue with even surface pavement, appropriate signage, delineation, and other features to improve the bicycle transportation conditions.</li> <li>- Bicycle parking facilities near the site access points.</li> <li>- On-site markings or signage to notify drivers of bicyclists traveling between bicycle parking facilities and building access points.</li> <li>- At the rail spurs, prohibit bicyclists from crossing tracks with the use of signs or physical barriers.</li> </ul> </li> </ul>	<p>Demonstrate compliance on improvement drawings prior to the approval of improvements plans.</p>		

Table Notes:

[1]Technical guidance for designing bioretention facilities is available from the Central Coast LID Initiative. The guidance includes design specifications and plant lists appropriate for the Central Coast climate. (<https://www.centralcoastlidi.org/projects.php>)

AMM = Avoidance and Minimization Measure

Cal-OSHA = California Occupational Safety and Health Administration

CARB = California Air Resources Board

CDFW = California Department of Fish and Wildlife

Central Valley RWQCB = Central Valley Regional Water Quality Control Board

CEQA = California Environmental Quality Act

CFR = Code of Federal Regulations

City = City of Suisun

Conservancy = Yolo Habitat Conservancy

dB = decibel

DTSC = California Department of Toxic Substances Control

EIR =Environmental Impact Report

EMD = Environmental Management Department  
ESA = Environmental Site Assessment  
g/L = grams per liter  
HCP = Habitat Conservation Plan  
HEPA = High Efficiency Particle Arresting  
LID = low impact development  
MERV = Minimum Efficiency Reporting Value  
NCCP = Natural Community Conservation Planning  
NO<sub>x</sub> = nitrogen oxide  
PM = particulate matter  
PM<sub>10</sub> = particulate matter with aerodynamic diameter less than 10 microns  
PPV = peak particle velocity  
SMAQMD = Sacramento Metropolitan Air Quality Management District  
TAC = toxic air contaminant  
TDM = Transportation Demand Management  
TRU = transport refrigeration unit  
UC Davis = University of California, Davis  
USFWS = U.S. Fish and Wildlife Service  
VdB = vibration decibel(s)  
VELB = Valley Elderberry Longhorn Beetle  
VMT = vehicle miles traveled  
VOC = Volatile Organic Compound  
WRTP = Woodland Research & Technology Park  
YCTD = Yolo County Transportation Department  
YSAQMD = Yolo Solano Air Quality Management District

## REFERENCES

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- California Department of Fish and Wildlife. 2012 (May). Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. Sacramento, CA.
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- Yolo Habitat Conservancy. 2018. Yolo Habitat Conservation Plan/Natural Community Conservation Plan – Final. Prepared by ICF. Yolo County, California. April 2018.

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