1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Environmental Impact Report (EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to inform decision makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from the implementation of the proposed Highway 12 Logistics Center Project, also referred to in this EIR as the "proposed Project." This document is prepared in conformance with CEQA (California Public Resources Code section 21000, *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14 section 15000, *et seq.*).

As required by CEQA Guidelines section 15123(a), "[a]n EIR shall contain a brief summary of the proposed action and its consequences." This executive summary includes (1) a summary description of the proposed Project, (2) a synopsis of environmental impacts (including significant and unavoidable impacts) and recommended mitigation measures (Table 1-1), (3) identification of the alternatives evaluated, and (4) a discussion of the areas of controversy associated with the proposed Project.

1.2 PROJECT SUMMARY

1.2.1 PROJECT LOCATION

The proposed Project Site consists of approximately 487 acres of land area, which is primarily in unincorporated Solano County, California, west of the city of Suisun City (Suisun City or City) with an approximately 4.5-acre site within the existing City jurisdiction. Suisun City is in central Solano County, southwest of the city of Fairfield, and is situated along State Route 12 (SR 12), just west of the intersection with Interstate 80, centrally located between the San Francisco Bay Area and Sacramento Valley. The Project Site is bordered by SR 12 to the north, a drainage channel and warehouse development to the west, the Union Pacific Railroad to the east, and Suisun Marsh to the south.

1.2.2 SUMMARY OF PROJECT DESCRIPTION

The Project proposes a General Plan amendment, annexation, and pre-zoning of approximately 161 acres of land into the City of Suisun City (referred to as the 'Annexation Area').¹ Annexation will be required to comply with the policies and standards of the Solano Local Agency Formation Commission (LAFCO) and this EIR has been prepared so that LAFCO may rely on the analysis and mitigation when considering the boundary changes required for the Project.

¹ "Pre-zoning" communicates to the Solano Local Agency Formation Commission the intended zoning of the subject properties prior to annexation. Upon annexation, the pre-zoning would become City of Suisun City zoning districts. The land area within the Annexation Area – 161 acres – includes a 5-acre property east of Pennsylvania Avenue that is not a part of the Project Site, but that is surrounded by the Project Site. The Project does not propose any physical changes, General Plan changes, prezoning, or any other change to this property, but the acreage is included in the total Annexation Area since annexation of this property would be required to avoid an unincorporated "island."

Approximately 93.4 acres of land would be developed (referred to as the 'Development Area') for warehouse and logistic uses, and the remainder would be Managed Open Space. Upon annexation, the proposed Development Area would be zoned Commercial Services & Fabricating (CFS) and the remaining Annexation Area would be zoned Open Space (OS) or would be within roadway rights-of-way. The Commercial Services & Fabricating zoning would accommodate light manufacturing, research and development, warehousing, and accessory office space. The Open Space zoning would allow agriculture, resource protection and restoration, and resource-related recreation.

Construction within the Development Area would be developed over time based on market conditions. At full buildout, the Development Area would accommodate six warehouse buildings of approximately 1.28 million square feet collectively, and truck and trailer parking (collectively approximately 2,024 stalls). Four buildings (Buildings A, B/C, D, and E) would be clustered west of Pennsylvania Avenue and north of the railroad line operated by the California Northern Railroad; one building (Building F) would be bounded by Cordelia Road to the south and southeast and by the railroad line operated by the California Northern Railroad to the north. The last building (Building G) is proposed in the area east of Pennsylvania Avenue, adjacent to undeveloped land to the east and south.

Pennsylvania Avenue Creek runs along the eastern perimeter of the Development Area proposed for Building G. The proposed Project would also include construction and operation of on- and off-site infrastructure improvements, including stormwater facilities, and water, wastewater, electricity, natural gas, and telecommunications utilities to serve demand resulting from the Project.

The proposed Development Area would be designed to allow for trucks to enter the site from driveway access points along Pennsylvania Avenue and Cordelia Road separate from passenger vehicles to minimize conflicts. Truck access points would be designed to allow for truck stacking to minimize impacts to the public streets. Access to the Project Site for passenger vehicles would also be provided at separate driveway access points along both Pennsylvania Avenue and Cordelia Road.

Within the Annexation Area, approximately 57 acres east of Pennsylvania Avenue, not otherwise designated as CFS, would be designated OS. The proposed Project envisions primarily unimproved and/or Managed Open Space on this portion of the Annexation Area. The proposed Project Site also includes a 4.5-acre parcel northeast of the proposed annexation area, southwest of the intersection of SR 12 and the Union Pacific Railroad line; this parcel is within the existing City limits and therefore is not proposed for annexation but is included in the overall Project Site and the total area to be maintained as Managed Open Space. An additional approximately 332 acres of the Project site that would be maintained within the unincorporated area of Solano County south of Cordelia Road and the railroad line operated by the California Northern Railroad is also proposed as Managed Open Space. These open space areas (totaling approximately 393.2 acres) would be managed to protect the existing habitat and also to provide for mitigation of development impacts. Any on-site mitigation proposed by the Project would be subject to approval of the appropriate resource agencies. The Managed Open Space area would be protected in perpetuity with a deed restriction or conservation easement.

1.2.3 PROJECT OBJECTIVES

The City has identified the following objectives to guide planning for the proposed Project, as well as the analysis included within the EIR:

- Further the goals and policies of the City of Suisun City General Plan by developing land contemplated to support urban development.
- Promote economic growth through new capital investment, expansion of the tax base, and creation of new employment opportunities.
- Improve the City of Suisun City's jobs-to-housing ratio by locating employment land uses on historically underutilized land near existing infrastructure, transportation corridors, and residential areas.
- Capitalize on the existing Interstate 80 and State Highway 12 transportation corridor, the existing rail
 facilities that can provide direct rail service unique to this logistics market area, and the increased demand for
 warehouse and distribution services in the City and region.
- Create a master planned complex of buildings to accommodate the current and future need for warehouse and distribution uses in an economically viable project with coordinated infrastructure and landscaping.
- Create opportunities to generate jobs and attract new employment-creating industries to Suisun City that generate new tax revenue and minimize demands on City services.
- Continue the orderly development of the western gateway of Suisun City and provide a visual environment that gives visitors an immediate positive first impression of Suisun City with attractive building facades and landscaping.
- Preserve and manage areas of the Project Site with concentrations of wetlands and other sensitive habitat for permanent open space to mitigate impacts and further regional habitat and species preservation goals.
- Implement a range of sustainability measures aimed at conserving resources, decreasing energy and water consumption, and reducing air and water pollution.
- Install circulation improvements along Pennsylvania Avenue and Cordelia Road that provide efficient ingress and egress to the proposed Project, while also ensuring these facilities operate at acceptable levels.
- Design internal circulation to provide efficient ingress and egress while ensuring facilities operate at acceptable levels.
- Offer a project with the scale, location, amenities, and sustainability features necessary to create competitive advantages in attracting and retaining a variety of reputable warehousing and logistics users.

1.3 ALTERNATIVES TO THE PROJECT

The CEQA Guidelines (Section 15126.6) require that an EIR describe a range of reasonable alternatives to a proposed project that could feasibly attain the basic objectives and avoid or lessen the environmental effects. Below is a summary of the alternatives to the proposed Project, which are considered in Chapter 6, "Alternatives," of this EIR.

1.3.1 ALTERNATIVE 1, NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 assumes that the current land use designations at the Project Site as set forth in the Suisun City General Plan would remain unchanged. The City's General Plan designates the portion of the Alternative 1 site that is west of Pennsylvania Avenue and north of the railroad line operated by the California Northern Railroad as Commercial Mixed-Use development. The remainder of the Alternative 1 site is designated as Agriculture and Open Space under the Suisun City General Plan (City of Suisun City 2015), and as Marsh, Extensive Agriculture, and Park & Recreation under the Solano County General Plan (Solano County 2008). Alternative 1 assumes that the approximately 161 acres north of Cordelia Road and Cordelia Street within the City's Sphere of Influence would be annexed into the city in the same way as the proposed Project. Areas with the Commercial Mixed-Use designation would be developed consistent with the intent of this land use designation, and consistent with allowable uses and development intensities provided in the City's Land Use Element of the General Plan. Under this alternative, the remainder of the Alternative 1 site would remain in open space. Land uses developed within the Commercial Mixed-Use designated area could include retail development, as well as research, assembly, fabrication, storage, distribution, and processing uses; professional offices; public services and facilities; and other compatible uses, such as higher-density dwelling units (Suisun City General Plan Table 3-1). Alternative 1 assumes a mix of commercial uses, including retail and commercial services. Land south of Cordelia Road and the California Northern Railroad tracks would be a part of the Alternative 1 site.

1.3.2 ALTERNATIVE 2, REDUCED FOOTPRINT ALTERNATIVE

Alternative 2 would propose annexation and prezoning for Commercial Services & Fabricating in the same manner as the proposed Project but would only provide for approximately 51.2 acres of developed area and 529,708 square feet of building space. The Development Area would include approximately 38.7 acres west of Pennsylvania Avenue and north of the railroad, and 13.14 acres north of Cordelia Road and south of the railroad. The Development Area west of Pennsylvania Avenue would be split, with one building and supporting circulation infrastructure in the northwestern corner and one building and supporting circulation and infrastructure in the southern portion. The area south of the railroad tracks would support a building and related infrastructure and circulation. All of the buildings would be similar in size, ranging from approximately 170,000 to 187,000 square feet, and would range in height from 44 to 47 feet.

Under Alternative 2, approximately 437 acres would be designated as Managed Open Space and protected in perpetuity with a deed restriction or conservation easement. All of the Annexation Area east of Pennsylvania Avenue would be designated Managed Open Space, as well as approximately 30 acres in the central portion of the Alternative 2 site west of Pennsylvania Avenue that would not be developed. Under Alternative 2, the Development Area west of Pennsylvania Avenue is specifically designed and oriented to avoid existing wetlands. Other portions of the Alternative 2 site designated for Managed Open Space under this alternative would include a 4.5-acre parcel in the northeastern corner of the Alternative 2 site within the existing City limits and an approximately 331-acre area southeast of Cordelia Road and south of the railroad line operated by the California Northern Railroad.

On-site detention basins and low impact development features would be required under Alternative 2 to detain and treat stormwater runoff, just as under the proposed Project, but the size of these features would be reduced compared to the proposed Project, since the proposed Development Area would also be reduced in size. Off-site sewer and water conveyance pipelines would still be necessary under Alternative 2 and would be installed in the same locations as under the proposed Project. Under Alternative 2, only the west side of Pennsylvania Avenue would require roadway frontage improvements (to accommodate an additional lane for driveway access, along with sidewalks and bicycle lanes), as compared to the proposed Project where acceleration and deceleration lanes and additional roadway improvements would also be required east of Pennsylvania Avenue. Similar to the proposed Project, Alternative 2 would require roadway improvements to the north side of Cordelia Road to accommodate an additional lane for driveway access, along with sidewalks and bicycle lanes.

1.3.3 ALTERNATIVE 3, REDUCED VEHICLE MILES TRAVELED ALTERNATIVE

Alternative 3 would provide for land uses within the Development Area that would provide employment opportunities that are somewhat more aligned with occupational demand of the local region and existing working residents. The land uses would be relatively more focused on those occupations for which existing residents are currently commuting outside the city to reach places of employment. Though there are many factors involved in household location, many households consider the location of employment in decision on a place of residence. Alternative 3 is focused on providing additional employment opportunities in sectors that match the occupations of the local labor force, but where there are relatively low numbers of matching local jobs in Suisun City.

Examining private, primary job types, employed Suisun City residents had occupations in a variety of industry sectors, while jobs in Suisun City are provided also in a variety of sectors that do not match the job types of local residents. Some of the largest variance between the occupations of local residents and the job types offered locally are in occupations that are in office settings, such as finance and insurance, information, real estate, professional services, management, administration and support, and health care and social assistance (U.S. Census Longitudinal Employer-Household Dynamics 2020).

Total warehousing and logistics space under Alternative 3 would be limited to approximately 203,000 square feet (approximately 15 percent of that provided under the proposed Project), with approximately 268,000 square feet, provided in a variety of increments, in office space, over approximately 46 acres, compared with the approximately 93-acre Development under the proposed Project. The total number of employees at the Project site would remain the same as under the proposed Project – 1,275. Instead of 1,275 employees in warehousing and logistics, approximately 1,100 employees would be in office settings, while the remaining 200 employees would be in warehousing and logistics. As with any new employment offerings, it would be anticipated that some local jobs under this alternative would be filled by existing local residents, some would be filled by existing residents of Solano County, some would be filled by existing residents in the region, and the balance would be filled by new residents of the city, Solano County, or the region. Since jobs in office settings represent the biggest need in terms of fitting Suisun City residents with local job opportunities, this alternative would have the potential to reduce commuting distances and associated vehicle miles traveled (VMT) by future employees.

Alternative 3 would include the annexation and prezoning for Commercial Services & Fabricating in the same manner as the proposed Project, but would provide for a reduced Development Area of approximately 46 acres, all west of Pennsylvania Avenue and north of the railroad in the area designated Commercial Mixed Use in the City's General Plan. This alternative would not include a managed open space area. The locations of proposed on-site detention basins and low impact development drainage features that would be implemented under Alternative 3 to detain and treat stormwater runoff would be reduced compared to the proposed Project, since the proposed Development Area would also be reduced. Off-site sewer and water conveyance pipelines would still be necessary

under Alternative 3 and would be installed in the same locations as the proposed Project. Roadway improvements would be similar to that required under the proposed Project.

1.4 POTENTIAL AREAS OF CONCERN AND ISSUES TO BE RESOLVED

CEQA Guidelines Section 15123(b) requires that the summary of an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public, and issues to be resolved including the choice among alternatives and whether and how to mitigate potentially significant effects. Based on public comments and input received to date, areas of interest that are related to potential adverse physical environmental effects consist of:

- Impacts related to climate change
- ► Interference with passenger and freight rail operations
- Impacts to rare species and habitats
- ► Release of hazardous wastes and substances near the project site
- ► Air pollutant emissions from construction worker trips
- ► Impacts of building operation
- Cumulative impacts related to increased demand for workers and housing
- Ensuring right-of-way for emergency access
- ► Impacts to tribal cultural resources
- ► Impacts related to sea level rise and the Suisun Marsh
- ► Impacts related to total vehicle miles traveled
- ► Impacts related to Solano County agricultural zoning
- ► Cumulative impacts related to a second logistics center in Suisun City
- ► Impacts to Travis Air Force Base
- ► Impacts related to agriculture and prime agricultural lands
- Aesthetic impacts
- Air pollutant emissions impacts including those contributing to health risk

Each topic raised during outreach and public input on the scope of analysis of potential adverse physical impacts associated with the proposed Project has been incorporated into this EIR, as appropriate.

1.5 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1-1 summarizes the potentially significant environmental impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the proposed Project. The table is intended to provide an overview. Narrative discussions for the issue areas are included in the corresponding topic area sections in Chapters 4 and 5 of this EIR.

Table 1-1. Summary of Significant Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
4.1 Aesthetics. Impact 4.1-1. Effects on Scenic Vistas. Operation of the proposed Project would result in new urban development that would permanently block some views of the Coast Ranges, Suisun Marsh, Howell Mountains, Vaca Mountains, Cement Hill, Potrero Hills, and Mt. Diablo from several public viewpoints, which are defined by the City as locally important scenic vistas.	S	No feasible mitigation.	SU
4.1 Aesthetics. Impact 4.1-3. Substantial New Light and Glare and Skyglow Effects. Project implementation would result in new urban development on approximately 93 acres of the Project Site. The Development Area would require security lighting and other types of lighting during project operation. This could inadvertently cause increased light and glare, potentially obscuring views of stars and other features of the nighttime sky. In addition, nighttime lighting or the presence of reflective surfaces on buildings could result in glare shining on motorists traveling along SR 12, Pennsylvania Avenue, and Cordelia Road.	S	 Mitigation Measure 4.1-3: Prepare an Exterior Lighting Plan Including an Off-Site Photometric Analysis. 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: Shield or screen all exterior lighting fixtures to direct the light downward and prevent light spill on adjacent properties. Place and shield or screen flood and area lighting needed for security so as not to disturb adjacent properties or passing motorists. 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 where feasible. Motion-controlled exterior nighttime lighting, rather than lighting that is always on, shall be used where feasible. 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. 	SU
4.2 Air Quality. Impact 4.2-1. Conflict with or Obstruct Implementation of the Applicable Air Quality Plan. A project that would conflict with or obstruct the goals would be considered inconsistent with the 2017 Bay Area Clean Air Plan. Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the BAAQMD 2017 Bay Area Clean Air Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the 2017 Clean Air Plan goals.	S	Mitigation Measure 4.2-1a: Implement BAAQMD Basic Best Management Practices for Construction-Related Fugitive Dust Emissions. 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.	SU

		Significance		Significance
	Impacts	before Mitigation	Mitigation Moasures	after Mitigation
	Impacts	witigation	Mitigation Measures • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.	Milligation
			• All haul trucks transporting soil, sand, or other loose material off- site shall be covered.	
			 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. 	
			All vehicle speeds on unpaved roads shall be limited to 15 mph.	
			• 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.	
			 All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. 	
			 All trucks and equipment, including their tires, shall be washed off prior to leaving the site. 	
			 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. 	
			 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. 	
			Mitigation Measure 4.2-1b: Implement Construction Exhaust Emissions Control Measures.	
			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.	
			 Use Tier 4 final certified engines for all on-site, diesel-powered construction equipment rated at equal to or greater than 50 horsepower. 	
			• 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 onsite equipment operators.	
B = Beneficial	LTS = less than significant	PS = potentially significant	S = significant SU = significant and una	woidable

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
		 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 whenever feasible. Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites. 	
		 Use battery-powered equipment for all off-road construction equipment with a power rating below 19kW (e.g., plate compactors, pressure washers) during construction. 	
		Mitigation Measure 4.2-1c: Omit the Inclusion of Natural Gas Infrastructure.	
		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.	
		Mitigation Measure 4.2-1d: Implement Mitigation Measure 4.12-1, Transportation Demand Management (TDM) Plan.	
		Mitigation Measure 4.2-1e: Incorporate CALGreen Tier 2 Standards for Electric Vehicle Infrastructure into Project Design.	
		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.	
		Mitigation Measure 4.2-1f: Electrification of Yard Equipment 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.	
		Mitigation Measure 4.2-1g: Electrification of Transportation Refrigeration Units	

LTS = less than significant

B = Beneficial

SU = significant and unavoidable

PS = potentially significant

S = significant

Impacts	Significance before Mitigation	Mitigation Mossures	Significance after Mitigation
Impacis	mitgation	Mitigation MeasuresThe 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 _X without substantially 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.Mitigation Measure 4.2-1h: Prohibition of Truck Idling for More than Two MinutesThe Project applicant shall require that onsite idling of all visiting 	wnugauon
		be provided to support effective implementation of this limit. Mitigation Measure 4.2-1i: Limitation of Model Year of Visiting Trucks 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.	
		Mitigation Measure 4.2-1j: Diesel Backup Generator and Fire Pump Specifications The project applicant shall ensure that the diesel backup generators and fire pumps meet or exceed the air board's Tier 4 emission standards. Additionally, once operational, the diesel 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 diesel backup generators and fire pumps are maintained for the life of the equipment and make these records available to the City upon request.	
b.2 Air Quality. Impact 4.3-2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in ionattainment under an applicable federal or state ambient air quality itandard. Emissions of criteria air pollutants and ozone precursors could exceed an ambient air quality standard or contribute substantially to an existing or predicted air quality exceedance.	S	Construction Implement Mitigation Measures 4.2-1a and 4.2-1b. Operation Implement Mitigation Measures 4.2-1c through 4.2-1j.	SU

Impacts 4.2 Air Quality. Impact 4.3-3. Expose sensitive receptors to substantial pollutant concentrations. As discussed in the Environmental Setting section above, the nearest sensitive receptors include residents on the north side of SR 12 approximately 500 feet from the northern border of the Project Site and two commercial uses, an auto repair shop and U-Haul rental shop on one parcel and a concrete contractor on another, somewhat central to the Project parcels but not within the Project Site, adjacent to the west side of Pennsylvania Avenue at the intersection of Pennsylvania Avenue and Cordelia	Significance before Mitigation PS	Mitigation Measures Construction Implement Mitigation Measure 4.2-1a and 4.2-1b. Operations: Implement Mitigation Measures 4.2-1c through 4.2-1j.	Significance after Mitigation LTS
Street. Residences are also located east of the Union Pacific Railroad tracks, more than 1,500 feet from the easternmost border of the Development Area and 200 feet from the eastern border of the Project Site. 4.3 Biological Resources. Impact 4.3-1. Contra Costa Goldfields & Critical Habitat. Development of the proposed Project would directly impact an	PS	Mitigation Measure 4.3-1a: Establish New Contra Costa goldfields Habitat and Populations.	LTS
estimated 183 to 231 individual Contra Costa goldfields plants over an approximately 0.03-acre area of occupied habitat for Contra Costa goldfields, would directly impact 38.0 acres of marginal habitat for Contra Costa goldfields, and may indirectly impact occupied Contra Costa goldfields habitat in proposed Managed Open Space area as a result of mitigation wetland grading. The proposed Project also would impact 93.4 acres of Critical Habitat Subunit 5G.		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 = Beneficial LTS = less than significant PS =	potentially significant	Mitigation Measure 4.3-1b: Establish and Manage 38 Acres of Wetland Habitat. 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 S = significant	vaidabla

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measuresbut 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
		Mitigation Measure 4.3-1c: Preserve and Manage Contra Costa goldfields Habitat. 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 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 93.4 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	
3 = Beneficial LTS = less than sign	ificant PS = potentially significan	t S = significant SU = significant and u	navoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
impacts	Mitigation	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). Mitigation Measure 4.3-1d: Install Construction Fencing. 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	Wittgation
		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.	
		Mitigation Measure 4.3-1c: Limit Introduction and Spread of Invasive Species. 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.	
4.3 Biological Resources. Impact 4.3-2. Alkali Milk-Vetch. Development of the proposed Project would directly impact and estimated 12 individual alkali milk-vetch plants over an approximately 0.02-acre area, and 16.3 acres of seasonally saturated annual grassland habitat suitable to support alkali milk-vetch and may indirectly affect occupied alkali milk-vetch habitat in the proposed Managed Open Space area as a result of mitigation wetland grading.	PS	Implement Mitigation Measure 4.3-1e. Limit Introduction and Spread of Invasive Species (see above) Mitigation Measure 4.3-2a: Preserve and Establish Alkali Milk- Vetch Habitat. 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	LTS
= Beneficial LTS = less than significant PS = p	otentially significant	S = significant SU = significant and una	voidable

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures Development Area shall be collected and used to inoculate the established/created seasonally saturated annual grassland. Mitigation Measure 4.3-2b: Install Construction Fencing. 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 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	After Mitigation
4.3 Biological Resources. Impact 4.3-3. Saline Clover. Development of the proposed Project would directly impact an estimated 465 individual saline	PS	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. Implement Mitigation Measure 4.3-1e. Limit Introduction and Spread of Invasive Species (see above)	LTS
clover plants over a 1.4-acre area, would directly impact 14.1 acres of vernal pool and 16.3 acres of seasonally saturated annual grassland habitat suitable to support saline clover, and may indirectly affect occupied saline clover habitat in proposed Managed Open Space area as a result of mitigation wetland grading.		Mitigation Measure 4.3-3a: Preserve and Establish Saline Clover Habitat. Within the proposed Managed Open Space portion of the project site, the Project applicant shall (1) preserve 19.1 acres of saline clover habitat occupied with an estimated 6,335individual plants; and (2) establish the equivalent of 14.1 acres 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.	
	otentially significant	Mitigation Measure 4.3-3b: Install Construction Fencing. 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 S = significant SU = significant and una	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		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.	
4.3 Biological Resources. Impact 4.3-4. Suisun Marsh Aster. Development of the proposed Project could directly impact a few individual plants of Suisun Marsh aster if they occur at the location of the proposed stormwater culvert.	PS	 Implement Mitigation Measure 4.3-1e. Limit Introduction and Spread of Invasive Species (see above) Mitigation Measure 4.3-4a: Conduct Preconstruction Plant Survey and Implement Avoidance Measures. 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. Mitigation Measure 4.3-4b: Mitigate for Impacts on Suisun Marsh Aster. 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 Appendix C, Attachment 7. 	LTS

LTS = less than significant

PS = potentially significant

S = significant

SU = significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
4.3 Biological Resources. Impact 4.3-5. Long-styled sand-spurrey plants. Development of the proposed Project would directly impact long-styled sand- spurrey plants and would remove 14.1 acres of vernal pool and 16.3 acres of seasonally saturated annual grassland habitat suitable to support the species.	PS	 Implement Mitigation Measure 4.3-1e. Limit Introduction and Spread of Invasive Species (see above) Mitigation Measure 4.3-5a: Preserve and Establish Long-Styled Sand-Spurrey Habitat. 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. Mitigation Measure 4.3-5b: Install Construction Fencing. 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 clover populations, if found in the Managed Open Space area within 100 feet from the Project disturbance footprint. 	LTS
4.3 Biological Resources. Impact 4.3-6. Crotch Bumble Bee. Project construction could result in direct impacts to underground nest or queen overwintering sites and removal of 92.0 acres of upland and seasonal wetland habitat that could serve as potential foraging habitat for the Crotch bumble bee, if present on-site during construction.	PS	Mitigation Measure 4.3-6a: Avoid, Minimize, and Mitigate for Impacts on Crotch Bumble Bee. 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 USFWS-approved Survey Protocols for the Rusty Patched Bumble Bee (Bombus affinis) (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	LTS

LTS = less than significant

PS = potentially significant

S = significant

SU = significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures Monitoring Plan for the Managed Open Space area, and/or reducing	Significance after Mitigation
		use of harmful pesticides within the Managed Open Space.	
4.3 Biological Resources. Impact 4.3-7. Northern Harrier and Short-Eared Owl. Grading or vegetation removal associated with construction of the proposed Project, including the proposed development area or for creation of mitigation wetlands within the proposed Managed Open Space area, could result in disruption of northern harrier or short-eared owl nesting.	PS	Mitigation Measure 4.3-7a: Preconstruction Nesting Survey. 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.	LTS
		Mitigation Measure 4.3-7b: Implement Non-Disturbance Buffers. 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.	
4.3 Biological Resources. Impact 4.3-8. Swainson's Hawk . Project construction would result in the loss of 92.0 acres of Swainson's hawk foraging habitat. Construction activities could disturb nesting Swainson's hawk if individuals of this species were found to be nesting within one-half mile of Project construction activities.	PS	Mitigation Measure 4.3-8a: Preserve Swainson's Hawk Foraging Habitat 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 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 by deed restriction or a conservation easement that would provide more than the minimum 1:1 compensation acreage for Swainson's hawk foraging habitat. Furthermore, the Project proposes that the	LTS

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
Impacts	Mitigation	Mitigation Measures preserved 205.39 acres of Swainson's hawk foraging habitat would be enhanced by grazing the Managed Open Space area to control the buildup of thatch. If additional Swainson's hawk foraging habitat mitigation is required by the CDFW, 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. Mitigation Measure 4.3-8b: Preconstruction Nesting Surveys. 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 disturbance emanating from the project site and setbacks can be reduced or whether additional measures are needed to avoid adversely affecting nesting activities.	Mitigation
		Mitigation Measure 4.3-8c: Implement Nest Buffer. 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.	
4.3 Biological Resources. Impact 4.3-9. Burrowing Owl. Construction of the Project, including the proposed Development Area or for creation of wetlands within the proposed Managed Open Space area, could impact burrowing owls if found to be present in or near areas of construction.	PS	Mitigation Measure 4.3-9a: Preconstruction Burrowing Owl Nesting Survey. 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 Staff Report on Burrowing Owl Mitigation (CDFW 2012) survey methods to establish the status of burrowing owl on the Project Site.	LTS

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
		Mitigation Measure 4.3-9b: Avoid Impacts to Occupied Burrows. 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. 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 CDFW-recommended avoidance protocol (CDFG 2012) whereby occupied burrows will be avoided with a no-disturbance buffer during the breeding season.	
4.3 Biological Resources. Impact 4.3-10. California Black Rail. Construction activity associated with creation of mitigation wetlands in the proposed Managed Open Space portion of the Project Site could result in impacts to nesting California black rail if construction near marsh areas was to take place during the California black rail nesting season and nesting rails were present.	PS	Mitigation Measure 4.3-10a: Preconstruction Nesting Surveys. 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 rails, a non-disturbance buffer or other appropriate avoidance measures shall be established in consultation with CDFW.	LTS
4.3 Biological Resources. Impact 4.3-11. Loggerhead Shrike, Suisun Song Sparrow, Grasshopper Sparrow, Tricolored Blackbird. Grading or vegetation removal associated with construction of the Project, including the proposed Development Area or for creation of mitigation wetlands within the proposed Managed Open Space area of the Project Site, could result in disruption of the nesting cycle of any of several special status bird species (loggerhead shrike, Suisun song sparrow, grasshopper sparrow, or a tricolored blackbird nesting colony) if active nests of are present.	PS	Mitigation Measure 4.3-11a: Preconstruction Nesting Surveys. 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-	LTS
B = Beneficial LTS = less than significant PS = p	ootentially significant	S = significant SU = significant and una	voidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		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 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.	
.3 Biological Resources. Impact 4.3-12. Construction Impacts on Salt Marsh Harvest Mouse and Suisun Shrew. Direct and indirect impacts to salt narsh harvest mouse or Suisun shrew may occur as a result of construction or peration of the proposed Project.	PS	 Mitigation 4.3-12a: Worker Environmental Awareness Training. 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. Mitigation Measure 4.3-12b 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. Mitigation Measure 4.3-12c: Vegetation Removal and Installation of Exclusion Fencing. 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. 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 marmals to pass through, such as a properly installed silt fence or other material (e.g., plastic or	LTS

	Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			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. 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 memain in place throughout the duration of construction and shall be fully maintaine	
B = Beneficial			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,	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		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.	3
		Mitigation Measure 4.3-12e: Establish Setback of 50 feet. Establish a minimum of a 50-foot (average) setback from the proposed Development Area of the Project Site and the adjacent perennial brackish marsh that is suitable for salt marsh harvest mouse and Suisun shrew to minimize indirect impacts to salt marsh harvest mouse and Suisun shrew habitat from industrial uses introduced by the proposed Project. The 50-foot setback would begin at the edge of the perennial brackish marsh on the east side of the slough channel adjacent to Planning Area 3. The open channel of the slough and areas to the west are not suitable for these species; the open slough channel would also act as a movement barrier to the species.	
		Mitigation Measure 4.3-12f: Install Permanent Fencing. Install a permanent fence along the boundaries of the proposed Development Area of the Project Site adjacent to perennial brackish marsh slough channel, to prevent people from accessing potential salt marsh harvest mouse and Suisun shrew w habitat.	
		Mitigation Measure 4.3-12g: Proper Waste Disposal During operation of the proposed Project, appropriate waste disposal procedures shall be adopted and enforced for the industrial uses proposed (i.e., all garbage shall be placed in cans with lids) to avoid and minimize attracting predators such as crows and ravens.	
		Mitigation Measure 4.3-12h: Night Lighting Shielding Night lighting shall be shielded and directed onto the proposed Development Area of the Project Site and away from marsh areas and immediately surrounding uplands.	
4.3 Biological Resources. Impact 4.3-13. Loss of Upland Refugia. Proposed Project construction would permanently develop 54.2 acres of upland annual grassland, of which approximately 3 acres are directly adjacent to perennial marsh, and would convert 38 acres of upland annual grassland to seasonal wetlands within the proposed Managed Open Space portion of the Project Site. This habitat loss and conversion could result in potential indirect impacts to salt marsh harvest mouse, the Suisun shrew, and other wildlife that rely on upland refugia habitat adjacent to the tidal marsh during high tide events.	PS	Mitigation Measure 4.3-13a: Create Upland Refugia in Managed Wetland. 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	LTS

Impacts	Significance before Mitigation	Mitigation Measures upland refugia in the Managed Open Space shall be developed in	Significance after Mitigation
		consultation with USFWS.	
4.3 Biological Resources. Impact 4.3-14. Nesting Birds. The removal of vegetation during the February 1 to August 31 breeding season for the proposed Project could result in mortality of nesting avian species if they are present.	PS	 Mitigation Measure 4.3-14a: Preconstruction Nesting Surveys. 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. Mitigation Measure 4.3-14b: Nest Zone Buffers. 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. 	LTS
4.3 Biological Resources. Impact 4.3-15. Special Status Fish Species. Proposed Project construction activities could result in potential water quality impacts in Ledgewood Creek and other waterways and could adversely affect special status fish species.	PS	 Mitigation Measure 4.3-15a: Implement SWPPP and BMPs 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: Discharge of pollutants into storm drains or watercourses from vehicle and equipment cleaning will be prohibited. Maintenance and refueling areas for equipment will be located a minimum of 50 feet from active stream channels in predesignated staging areas, except at an established commercial gas station or vehicle maintenance facility. Spill containment kits will be maintained on-site at all times during construction operations and/or staging or fueling of equipment. Dust control measures will include the use of water trucks and dust palliatives to control dust in excavation-and-fill areas, and to cover 	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation			
impacts	Miligation	temporary stockpiles when weather conditions warrant such action.	witigation			
		 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. 				
		 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. 				
		 Construction Site Management Practices. The following site restrictions will be implemented to avoid or minimize effects on listed species and their habitats: 				
		 Routes and boundaries of roadwork will be clearly marked before initiation of construction or grading. 				
		 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. 				
					 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. 	
		 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. 				
		 Restrict Vehicles and Construction to Designated Work Areas. All construction equipment will be restricted to operating within the designated work areas, staging areas, and access routes. The limits of designated work areas and staging areas (i.e., project footprint) will be clearly marked before beginning construction. 				
1.3 Biological Resources. Impact 4.3-16. Riparian Habitat. Construction activities near the riparian corridor of Ledgewood Creek could reduce the value of the riparian wildlife habitat, disrupt the natural wildlife corridor, and could esult in degradation of sensitive habitat areas through increased erosion,	PS	Mitigation Measure 4.3-16a: Construction Best Management Practices Construction activities shall be implemented using the following BMPs to protect Ledgewood Creek:	LTS			
edimentation, spills during vehicle refueling, or disposal of food and trash. The increased noise and disturbance associated with proposed Project operation would also adversely affect wildlife in the riparian corridor.		 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 				

	Significance		Significance
	before		after
Impacts	Mitigation	 Mitigation Measures 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. 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. 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. Mitigation Measure 4.3-16b: Riparian Corridor Protection Zone. 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 including the material, specifications, and location of the fence line shall be approved by	Mitigation
4.3 Biological Resources. Impact 4.3-17. Wetlands. Grading activities would result in the permanent placement of fill material into 16.3 acres of Seasonally Saturated Annual Grassland; 14.1 acres of Vernal Pools; 7.4 acres of Alkali Seasonal Wetlands; and 0.002 acre of Perennial Brackish Marsh. In addition, grading within the Managed Open Space to establish/create wetlands may have an indirect adverse effect on the hydrology of adjacent wetlands.	PS	Implement Mitigation Measure 4.3.3-13a: Implement SWPPP and BMPs (see Impact 4.3-13, above) Mitigation Measure 4.3-17a: Secure Permits and Implement All Permit Conditions 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.	LTS

	Significance before		Significance after
 Impacts	Mitigation	Mitigation Measures	Mitigation
·		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.	
		Mitigation Measure 4.3-17b: Wetland Establishment and Performance Monitoring.	
		The Project applicant shall establish/create wetlands at a 1:1 ratio to include 16.33 acres of Seasonally Saturated Annual Grassland; 14.09 acres 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).	
		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.	
		Mitigation Measure 4.3-17c: Avoid Impacts to Existing Wetlands in Managed Open Space	
		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 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	

la serte	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures 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. Mitigation Measure 4.3-17d: Limit Staging Areas and Access Routes. 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. Mitigation Measure 4.3-17e. Implement Mitigation and Monitoring Plan. To compensate for loss of wetlands and impacts to rare plant populations, the Project	Mitigation
		acres of Seasonally Saturated Annual Grassland; 14.09 acres of	

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
·		Vernal Pools; 7.42 acres of Alkali Seasonal Wetlands; and 0.002 acre of Perennial Brackish Marsh.	
		• 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.	
		 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. 	
		 Monitor the site for a minimum of 10 years to determine if the Mitigation and Monitoring Plan is meeting the performance standards; and 	
		 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. 	
		The Mitigation and Monitoring Plan shall include a site protection instrument (e.g., deed restriction or conservation easement[s]) that will restrict use of the proposed Managed Open Space area of the Project Site to offset impacts to wetlands and impacts to rare plants and shall include a long-term endowment funded by the proposed Project to manage the entire 381.6693.2-acre 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).	
4.4 Cultural and Tribal Cultural Resources. Impact 4.4-2. Substantial adverse change to undiscovered historical resources or unique archaeological resources. Earth disturbance in the Development Area, off- site infrastructure improvement areas, and areas proposed for the creation of mitigation wetlands within the proposed Managed Open Space Area could affect precontact or historic-era archaeological cultural resources.	PS	Mitigation Measure 4.4-2 Stop Work and Evaluate if Materials are Encountered, and Implement a Treatment Plan, as Necessary, to Avoid Potential Effects on Cultural Resources. 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	LTS

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures 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).	Mitigation
4.4 Cultural and Tribal Cultural Resources. Impact 4.4-3. Disturbance of human remains. It is possible that unknown human remains could be discovered through ground-disturbing construction activities associated with the proposed Project.	PS	 Mitigation Measure 4.4-3: Halt Construction if Human Remains are Discovered and Implement Appropriate Actions 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 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. 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 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	LTS

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
		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:	•
		1. record the site with the NAHC or the appropriate Information Center,	
		 use an open-space or conservation zoning designation or easement, and 	
		3. record a document with the county in which the property is located.	
		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.	
		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.	
		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 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).	
		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.	
4.4 Cultural and Tribal Cultural Resources. Impact 4.4-4. Substantial adverse change in the significance of a tribal cultural resources. The	PS	Mitigation Measure 4.4-4a: Cultural Sensitivity Training and Non- Disclosure of TCRs	LTS
Sacred Lands File records search indicated that no Native American resources are on file fall within the Project Site. Nonetheless, it is possible that construction of the Project could affect existing or previously undiscovered tribal cultural resources.		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	

	Significance		Significance
Impacto		Mitigation Measures	
Impacts	before Mitigation	Mitigation Measures TCRs, the Project applicant and its construction contractor(s) will implement the following measures: 1. 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. 2. 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 will require that the location for reburial is provided to the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption set forth in California Coverset in the specific exemption coverset in the specific exemption set forth in California Coverset in the specific exemption coverset in the specific exempting exempting the specific exemption for reburing in the coverse	after Mitigation
		 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. Mitigation Measure 4.4-4b: Native American Monitoring 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: 	
		 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. Native American Representatives and Native American Monitors 	
		 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. Mitigation Measure 4.4-4c: Treatment of Native American Remains 	
		In the event that Native American human remains are found during development of a Project and the Yocha Dehe Wintun Nation or a	

LTS = less than significant

PS = potentially significant

S = significant

SU = significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		 member of the Tribe is determined to be the Most Likely Descendant, implement Mitigation Measure 4.4-3. Mitigation Measure 4.4-4d: Treatment of Cultural Resources 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. 	
4.5 Geology, Soils, Minerals, and Paleontological Resources No potentially significant impacts and no mitigation required for geology, soils, minerals, or paleontological resources.	LTS	None required.	LTS
4.6 Greenhouse Gas Emissions & Energy	S	 Mitigation Measure 4.6-1a: Use Battery or Electric-powered Construction Equipment The Project applicant shall require that construction contractor(s): 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 whenever feasible. Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites. Use battery-powered equipment for all off-road construction equipment with a power rating below 19kW (e.g., plate compactors, pressure washers) during construction. 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 activities. 	SU

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Mitigation Measure 4.6-1b: Reduce Construction Worker Travel for Meals
The Project applicant shall provide meal options on-site or shuttles between the facility and nearby meal destinations for construction employees.
Mitigation Measure 4.6-c: Limit Model Year of On-road Heavy Duty Haul Trucks
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.
Mitigation Measure 4.6-1d: Limit Idling of Heavy-Duty Construction Equipment & Trucks
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 Project applicant or construction contractor(s) shall provide appropriate signage onsite communicating this requirement to onsite equipment operators.
Mitigation Measure 4.6-1e: Omit the Inclusion of Natural Gas Infrastructure.
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.
Mitigation Measure 4.7-1f: Source Electricity for Project Operations from a Power Mix that is 100 Percent Carbon-free.
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

	Significance before		Significance after
Impacts	s Mitigation	Mitigation Measures	Mitigation
		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 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 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.	
		Mitigation Measure 4.6-1g: Implement Mitigation Measure 4.12-1, Transportation Demand Management (TDM) Plan.	
		Mitigation Measure 4.6-1h: Incorporate CALGreen Tier 2	
		Standards for Electric Vehicle Infrastructure into Project Design.	
		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.	
		Mitigation Measure 4.6-1i: Electrification of Yard Equipment	
		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.	

I	Nitigation Macours 4.6 dis Electrification of Transportation
	Mitigation Measure 4.6-1j: Electrification of Transportation
	Refrigeration Units
	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 _x 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.
	Mitigation Measure 4.6-1k: Prohibition of Truck Idling for More
	than Two Minutes
	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.
	be provided to support enective implementation of this limit.
	Mitigation Measure 4.6-1I: Limitation of Model Year of Visiting
	Trucks
	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.
	Mitigation Measure 4.6-1m: Use of Reduced GWP Refrigerants
	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 unites operated onsite meet these requirements and that
	equipment specifications and maintenance records demonstrating
	oquipmont opcomoations and maintenance records demonstrating

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Highway 12 Logistics Center EIR City of Suisun City

		Significance		Significance
	Impacts		Mitigation Measures	
	Impacts	before Mitigation	Mitigation Measures system and refrigerant type and compliance with service and maintenance requirements to minimize fugitive leaks. Mitigation Measure 4.6-1n: Purchase and Retire GHG Emissions Credits. The Project applicant shall purchase and retire greenhouse gas (GHG) emissions credits for the proposed Project. Prior to the issuance of a building permit, the Project applicant shall provide documentation for review and approval by the City, that demonstrates consistency with the requirements of this mitigation measure, including the specific performance standards outlined below regarding the credit program selected. The Project applicant shall purchase and retire GHG emissions credits in an amount sufficient to reduce the proposed Project's annual amortized construction and operational emissions, after implementation of Mitigation Measures 4.6-1a through 4.6-1m, to a level considered less than cumulatively considerable based upon the 2030 GHG efficiency threshold of 13.98 MT CO ₂ e per employee and the State's target of an 85 percent reduction from 1990 levels by 2045, represented by the 2045 GHG efficiency threshold of 3.32 MT CO ₂ e per employee. The Project applicant shall purchase and retire GHG emissions credits sufficient to meet such requirements for operations through 2055, which reflects the assumed 30-year lifetime of the proposed Project. Total amortized construction emissions plus operational emissions between 2025 and 2055, the total required amount credits is currently estimated to be 358,128 MT CO ₂ e for the life of the Project. The purchase and retirement of credits may occur through one of the following programs, which are all developed consistent with ARB's offset protocols: (i) a California Air Resources Board (CARB) approved registry, such as the Climate Action Reserve, California	after Mitigation
			Offsets through the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) through	
B = Beneficial	LTS = less than significant P	S = potentially significant	S = significant SU = significant and una	voidable

		Significance		Significance
		before		after
	Impacts		Mitigation Measures	
	Impacts	-	 Mitigation Measures the California Air Pollution Control Officers Association (CAPCOA) GHG Rx. Such credits shall be based on protocols approved by ARB, consistent with Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California. Off-site mitigation credits shall be real, additional, quantifiable, verifiable, enforceable, permanent, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2) and that satisfy all of the following criteria: Real: emission reduction must have actually occurred, yielding quantifiable and verifiable reductions or removals determined using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage. Additional: an emission reduction cannot be required by an existing law, rule, or other requirement that applies directly to the proposed Project, or otherwise have occurred in a conservative business-as-usual scenario, consistent with CEQA Guidelines Section 15126.4(c)(3) and Health and Safety Code section 38562(d)(2). One carbon offset credit shall mean the past reduction or sequestration of one metric ton of carbon dioxide equivalent that is 'not otherwise required', consistent with CEQA Guidelines Section 15126.4(c)(3). Quantifiable: reductions must be quantifiable through tools or tests that are reliable, based on applicable methodologies, relative to the proposed project baseline in a reliable and replicable manner for all GHG emission sources and recorded with adequate documentation. Verifiable: the action taken to produce credits can be audited by an accredited verification body and there is sufficient evidence to show that the reduction occurred and was quantified correctly. Enfo	-
			reversible, or if the reductions may be reversible, that mechanisms are in place to replace any reversed GHG emissions reductions). The purchase and retirement of credits shall be prior to the issuance	
			of any grading permit for the Project. Purchase and retirement of	
3 = Beneficial	LTS = less than significant	PS = potentially significant	S = significant SU = significant and una	voidable

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures credits can also occur for multiple years in advance up to the total purchase requirement described above. The applicant shall provide the City with evidence of the purchase and retirement of credits in adequate amounts and appropriate timing to achieve the 2030 and 2045 efficiency thresholds. If the entire amount is retired up-front, the applicant shall provide the City evidence of the purchase and retirement prior to approval of any building permit associated with the project. If the reduction credits are purchased annually, the applicant shall provide evidence to the City prior to the annual renewal of the business license. The evidence of purchase and retirement of credits shall include (i) the applicable protocol(s) and methodologies associated with the carbon offsets, (ii) the third-party verification report(s) and statement(s) affiliated with the carbon offset projects, and (iii) the unique serial numbers assigned by the registry(ies) to the carbon offsets to be retired, which serves as evidence that the registry has determined the carbon offset project to have been implemented in accordance with the applicable protocol or methodology and ensures that the offsets cannot be further used in any manner.	Mitigation
4.7 Hazards and Hazardous Materials. Impact 4.7-3. Exposure of People and the Environment to Existing Hazardous Materials, Including Cortese- listed. Development of the proposed Project could expose people and the environment to existing hazards and hazardous materials from development in a Cortese-listed site, leachate from a former landfill, accidental rupture of underground pipelines, chemicals from railroad tracks, and aerially deposited lead potentially disturbed by proposed SR 12 roadway improvements.	PS	 Mitigation Measure 4.7-3a: Prepare and Implement a Site-Specific Health and Safety Plan. 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: 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 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. 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 	LTS

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
 		the Phase II ESA to address any contamination that is found shall be implemented before initiating ground-disturbing activities in these areas.	
		 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. 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. 	
		 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 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. 	
		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.	
		The project applicant or construction contractor(s) shall implement the following measures before construction begins, to avoid and	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impacts	Mitigation	Mitigation Measures minimize potential damage to utilities that could result in hazardous materials incidents. • Prior to the start of earthmoving activities in the vicinity of the pipelines identified on Exhibit 4.71, the project applicant shall coordinate with Kinder Morgan, PG&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. • 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. • As required by Suisun City General Plan Policy PHS-10.8,	Mitigation
		 As required by Sulsun 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 (see Exhibit 4.71) 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. 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 in advance of any project-related earthmoving activities. 	
4.7 Hazards and Hazardous Materials. Impact 4.7-5. Interference with Emergency Response or Evacuation Plans. Construction of the off-site improvements could result in short-term, temporary lane closures on SR 12; in addition, construction would increase construction-related truck traffic on SR 12 that could interfere with and result in slower emergency response times	PS	Mitigation Measure 4.7-5: Implement Traffic Control Plans. 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 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	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impacto	intigution	improvement plans, where future construction may cause impacts on traffic.	mitgation
4.10 Noise & Vibration. Impact 4.10-1. Temporary, Short-term Exposure of Sensitive Receptors to Construction Noise. Short-term construction source noise levels could exceed the applicable City standards at nearby noise- sensitive receptors. In addition, if construction activities were to occur during more noise-sensitive hours, construction source noise levels could also result in annoyance and/or sleep disruption to occupants of existing and proposed noise-sensitive land uses and create a substantial temporary increase in ambient noise levels.	S	 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. 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: 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). Noisy construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses. 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. All motorized construction equipment shall be shut down when not in use to prevent idling. 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). 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. Written notification of construction activities shall be provided to all noise-sensitive receptors located within 800 feet	SU

LTS = less than significant

PS = potentially significant

S = significant

SU = significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
	3	land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification.	
		 To the extent feasible and 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. 	
		 When future noise-sensitive uses are within close proximity to prolonged construction noise, noise-attenuating buffers such as structures, truck trailers, or soil piles shall be located between noise sources and future residences, as feasible, to shield sensitive receptors from construction noise. 	
4.10 Noise & Vibration. Impact 4.10-3. Temporary, short-term exposure of sensitive receptors to potential groundborne noise and vibration from project construction. Future development would result in temporary	S	Mitigation Measure 4.10-2a: Implement Measures to Reduce Groundborne Noise and Vibration Levels at Sensitive Receptors during Pile Driving Activities.	LTS
increases in on- and off-site roadway traffic noise associated with project construction. Construction-generated traffic could expose sensitive receptors to noise levels along on- and off-site roadways that would not exceed the applicable noise standards and/or result in a substantial increase in ambient noise.		The Project applicant and contractor(s) for engineering design and construction of all proposed Project components and off-site improvements shall ensure that the following controls are implemented to reduce avoid and minimize construction vibration effects on sensitive receptors:	
		 Place stationary construction equipment as far as possible from vibration sensitive uses. 	
		 Use smaller construction equipment when practical, particularly smaller vibratory rollers that are as small as practicable, or that have an adjustable vibratory force feature. 	
		 Locate loading areas, staging areas, stationary noise, vibration- generating equipment, etc., as far as feasible from sensitive receptors. 	
		 Prohibit the use of vibratory rollers near the existing, occupied residential structures. 	
		 If vibratory rollers are required to be used and need to be used within 110 feet of residential structures, the contractor must use a vibratory roller whose vibratory force can be turned down or turned off. 	
		 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. 	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impacts	mitigation	 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. 	Willgauon
		 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. 	
		 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. 	
4.10 Noise & Vibration. Impact 4.10-5. Long-term non-transportation noise levels at existing noise-sensitive receivers. Future development would result in an increase in stationary and non-transportation noise sources. These non-transportation noise sources could exceed the applicable noise standards (hourly Leq dBA) and result in a substantial increase in ambient noise levels.	S	Mitigation Measure 4.10-3a: Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Non- Transportation Source–Generated Noise. 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. The City shall evaluate individual facilities for compliance with the City Noise Ordinance and policies contained in the City's General Plan at the time that tentative subdivision maps and improvements plans are submitted. All Project elements shall comply with City noise standards.	LTS
		 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 docks, parking lots, and recreational-use areas) are located as far as possible from or shielded from nearby noise-sensitive land uses. Air conditioning units shall be shielded to reduce operational noise 	
		 All conditioning units shall be shielded to reduce operational holse 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. To the extent feasible, residential land uses located within 2,500 feet of and within the direct line of sight of major noise-generating 	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		 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. 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. 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. On-site landscape maintenance equipment shall be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications. 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. 	
4.12 Transportation and Circulation. Impact 4.12-1. Near-Term Vehicle- Miles Traveled (VMT). The proposed Project home-based work VMT per employee is above 85 percent of the City-wide average.	PS	Mitigation Measure 4.12-1: Transportation Demand Management (TDM) Plan. 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-percent reduction. The analysis prepared to support the TDM Plan shall demonstrate that the selected reduction measures will achieve the necessary VMT reduction. Based on research in the Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (GHG Handbook), Table 4.12-3 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. A 11.3-percent reduction is potentially achievable with implementation of the measures listed below. TDM Description Maximum VMT Reduction ¹	LTS

Im	pacts	Significance before Mitigation		Mitigation Measures		Significance after Mitigation
			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 precent	
			Ridesharing Program	Implement a ridesharing program and establish a permanent transportation management association with funding 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: Designating a certain percentage of desirable parking spaces for ridesharing vehicles. Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles. Providing an app or website for coordinating rides, or promoting the use of the existing free ridematch program at <u>merge.511.org</u> for the Bay Area. The larger the pool of participants, the more effective the program will be.	4.00 percent	
			Subsidized or Discounted Transit Program – Work Trips Only	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.	0.84 percent	
			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	2.50 percent	

anl	Impacts	Significance before Mitigation	Mitigation Measures			Significance after Mitigation
	P			provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.		
			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 <u>merge.511.org</u> for the Bay Area. The larger the pool of participants, the more effective the program will be.	3.76 percent	
			Total VMT Reduction (with multiplicative dampening)	Not applicable.	14.3 percent²	
			implementing the minimum would promote and investment maximum VMT but complemen 2. The values in the for a total VMT measures are concepted effective used to develop Greenhouse Ga and Advancing	can range based on the level of effort in promo ne TDM strategies. A site operator doing just the result in lower VMT reduction, and a site oper vest heavily in TDM programs is expected to a reduction. The reductions and measures are near tary of one another. e Maximum VMT Reduction column cannot be reduction as effectiveness is reduced or cappe combined. Multiplicative dampening considers eness of combined measures based on nation to the calculations in the Handbook for Analyzin as Emission Reductions, Assessing Climate Vi Health and Equity (GHG Handbook). The Tota e was calculated with multiplicative dampening	he bare rator willing to ichieve the not additive e purely added ed when the reduced or hal research og uinerabilities, al VMT	
			monitor and report VMT per employ describing the sp the number of er the Project, and The report shall transportation pla provide informati effectiveness of	DM Plan, the Project applicant/contractor ort its effectiveness at reducing home-ba ee. Tenant/s shall submit annual reports pecific TDM measures that are being imp nployees on-site, the daily vehicle trips g length of the trips being generated by the be prepared by an independent City-app anning/engineering firm. The TDM Coorc ion to the firm to monitor implementation the approved TDM Plan. To assess the ⁻ luctions, a baseline daily driveway count	sed work to the City plemented, generated by e Project. woved dinator will	

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
		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. 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:	
		 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) 	
		 Compliance with a future City VMT/TDM ordinance (not quantifiable at this time as the City does not have a VMT/TDM ordinance) 	
		 Participation in a future City VMT fee program (not quantifiable at this time as the City does not have a VMT fee program) 	
4.12 Transportation and Circulation. Impact 4.12-2. Vehicle System. The proposed driveway lengths and turn angles, lack of directional markers and signs, and mix of vehicular and rail activity pose potentially hazardous conditions for vehicles.	PS	Mitigation Measure 4.12-2: Vehicle System Improvements. Prior to issuance of building permits, the Project shall provide site plans that include the following on-site and off-site vehicle system improvements to minimize hazardous conditions.	LTS
		 Driveway access improvements. 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. 	
		 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. Connect the northernmost parking lot accessible by driveways #1 and #2 to the vehicle or the driver of the location. 	
		#1 and #2 to the vehicle system of Building B-C. This would improve on-site connectivity and circulation. Vehicles that want	

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
		to make a left turn in and out from the northernmost parking would use driveway #3.	
		 Orient all driveways to be perpendicular to the public road for improved sight distance and vehicle maneuvers. 	
		On-site circulation improvements.	
		 Orient drive aisles to be perpendicular to the extent feasible for improved sight distance and vehicle maneuvers. 	
		 Add directional markers (e.g., signs or painted strips) for on-site circulation guidance and efficiency. 	
		 At the rail spurs, prohibit vehicles from crossing tracks with the use of signs or physical barriers and remove the adjacent parking spaces. 	
		Off-site vehicle system improvements.	
		 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. 	
		 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. 	
4.12 Transportation and Circulation. Impact 4.12-4. Pedestrian and Bicycle Systems. The Project is expected to increase pedestrian and bicycle activity and the increased activity would be incompatible with the existing transportation infrastructure for pedestrians and bicyclists by exposing users to potential hazards.	PS	Mitigation Measure 4.12-3: Provide adequate pedestrian and bicycle facilities and improvements along Project Site frontages and on site.	LTS
		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.	
		Pedestrian Facilities List.	
		 Continuous sidewalks of at least five feet at the Project Site frontages along both sides of Cordelia Road and Pennsylvania Avenue. 	
		 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. 	
		 High visibility crosswalks at the Pennsylvania Avenue and Cordelia Road/Cordelia Street intersection. 	
		 Adequate pedestrian-scale lighting along Project Site frontages and on-site. 	
		 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. 	
		 At the rail spurs, prohibit bicyclists from crossing tracks with the use of signs or physical barriers. 	

	Significance before		Significance after
Impacts	Mitigation	Mitigation Measures	Mitigation
		Bicycle Facilities List.	
		 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. 	
		 Bicycle parking facilities near the site access points. 	
		 On-site markings or signage to notify drivers of bicyclists traveling between bicycle parking facilities and building access points. 	
		 At the rail spurs, prohibit bicyclists from crossing tracks with the use of signs or physical barriers. 	

Notes:

LTS = less than significant PS = potentially significant S = significant

SU = significant and unavoidable

B = Beneficial

LTS = less than significant

PS = potentially significant

S = significant

SU = significant and unavoidable

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LTS = less than significant

PS = potentially significant

S = significant

SU = significant and unavoidable