# **FIRSTCARBON**SOLUTIONS<sup>TM</sup>

Fairfield Justice Campus Asset Protection and Resiliency Project Initial Study/Mitigated Negative Declaration Solano County, California

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# ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
μg/m <sup>3</sup>	micrograms per cubic meter
AB	Assembly Bill
ADA	Americans with Disabilities Act
Air Basin	San Francisco Bay Area Air Basin
APN	Assessor's Parcel Number
AQP	Air Quality Plan
ARB	California Air Resources Board
ASTM	American Society of Testing and Materials
BAAQMD	Bay Area Air Quality Management District
BERD	California Built Environment Resource Directory
BMP	Best Management Practice
C&D	Construction and Demolition
CalEEMod	California Emissions Estimator Model
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
САР	Climate Action Plan
СВС	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CG&E	Cal Engineering and Geology
CHL	California Historical Landmarks
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
СО	carbon monoxide
CO <sub>2</sub> e	carbon dioxide equivalent
СРНІ	California Points of Historical Interest
CREC	Controlled Recognized Environmental Condition

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CRHR	California Register of Historical Resources
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
ESL	Environmental Screening Levels
EV	electric vehicle
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
НСР	Habitat Conservation Plan
IEA	International Energy Agency
in/sec	inches per second
IPaC	Information for Planning and Consultation
IS/MND	Initial Study/Mitigated Negative Declaration
IWD	Water Dependent Industrial
kWh	kilowatt-hour
L <sub>dn</sub>	day/night sound level
L <sub>eq</sub>	equivalent continuous sound level
LESA	Land Evaluation and Site Assessment Model
L <sub>max</sub>	maximum instantaneous noise level
LRA	Local Responsibility Area
МВТА	Migratory Bird Treaty Act
MLD	Most Likely Descendant
mph	miles per hour
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO <sub>X</sub>	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center

# FirstCarbon Solutions Https://adecinnovations.sharepoint.com/sites/PublicationsSite/Shared Documents/Publications/Client (PN-JN)/2085/20850049/ISMND/20850049 Solano County Fairfield Justice Campus Asset Protection and Resiliency Project ISMND\_TRACKS.docx

0111111	and the second state of th
OHWM	ordinary high water mark
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric Company
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
rms	root mean square
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCDEM	Solano County Department of Environmental Management
SLCP	Short-Lived Climate Pollutant
SLF	Sacred Lands File
SPT	Standard Penetration Test
SR	State Route
SRA	State Responsibility Area
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
TCR	Tribal Cultural Resource
ТРН	total petroleum hydrocarbons
UCMP	University of California Museum of Paleontology
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
VdB	vibration in decibels
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
WEF	Wildlife Exclusion Fencing
ZEV	Zero-Emission Vehicle
ZLV	

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## **SECTION 1: INTRODUCTION**

### 1.1 - Purpose

The purpose of this Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) is to identify any potential environmental impacts that would result from implementation of the proposed Fairfield Justice Campus Asset Protection and Resiliency Project (proposed project) in Solano County, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the Solano County Department of General Services (applicant or DGS) has discretionary authority over the proposed project and is the Lead Agency in the preparation of this Draft IS/MND and any additional environmental documentation required for the proposed project. The intended use of this document is to determine the level of environmental analysis required to adequately analyze the proposed project pursuant to the requirements of CEQA and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the project location and the primary project characteristics. Section 2 includes an environmental checklist that provides an overview of the potential impacts that may result from project implementation, elaborates on the information contained in the environmental checklist, and provides justification for each checklist response. Section 3 contains the List of Preparers.

### 1.2 - Project Location

The project site is located at 510, 530, 550, and 600 Union Avenue; 512 and 530 Clay Street, and 510 Texas Street in the southern portion of the City of Fairfield, in eastern Solano County, California (Exhibit 1 and Exhibit 2). The project site also encompasses a pumping station, cogeneration plant, and warehouse immediately south of the Justice Campus on the south side of Delaware Street. While the project site is County-owned land, it is entirely surrounded by the City of Fairfield. The approximately 17-acre site is located on the south side of Texas Street (also known as West Texas Street), east of Union Avenue, north of Delaware Street, and west of Clay Street within the *Fairfield South* 7.5-minute United States Geological Survey (USGS) Topographic Quadrangle Map. The project site is located approximately 47 miles northeast of San Francisco and 43 miles southwest of Sacramento.

The City of Fairfield is bound to the north by unincorporated Solano County and Rockville Hills Regional Park, to the south by unincorporated Solano County and Suisun City, to the east by unincorporated Solano County, and to the west by unincorporated Solano County and Lynch Canyon Open Space. Regional access is provided by Interstate 80 (I-80) and State Route (SR) 12.

#### 1.3 - Environmental Setting

The project site is identified as Assessor's Parcel Number (APN) 0030-257-030 and 0030-295-140. The project site consists of the Downtown Fairfield Justice Campus (Campus) and associated

#### Introduction

facilities. Washington Street partially bisects the campus from north to south, terminating in an access restricted cul-de-sac near the center of the campus (Exhibit 3).

#### 1.3.1 - Project Site

The Campus consists of a courthouse, the Justice Center Detention Facility, a University of California Cooperative Extension building, public safety buildings, and surface parking. According to the Solano County General Plan (General Plan), the land use designation for the project site is Public/Quasi-Public.<sup>1</sup> According to the Solano County Zoning Map, the project site is zoned Water Dependent Industrial (IWD).<sup>2</sup>

Past winter storms have damaged County buildings, causing loss of function and extended impairment of operations at the Fairfield Hall of Justice at 600 Union Avenue and the adjacent Law and Justice Center at 530 Union Avenue.

#### 1.3.2 - Surrounding Land Uses

The project site is surrounded by commercial and residential uses. Adjoining and nearby properties include the following:

- North: West Texas Street; Old Solano Courthouse; and Armijo High School.
- **East:** Clay Street; two auto repair shops; an oil change service; an upholstery shop; a spa; and a towing service.
- South: An auto repair shop; a vacant building; and a food and liquor store.
- West: The County Events Center; Solano County Administration Center and a parking garage with electric vehicle (EV) charging stations.

### **1.4 - Project Description**

In order to prevent further stormwater damage, loss of function, and impairment of operations, DGS is proposing to replace or upgrade existing storm drainage facilities across approximately 4.6 acres of the project site to improve drainage and overland stormwater runoff. Specific upgrades include low barrier walls, hydraulic gates, landscaped berms, and roadway ramps on Delaware Street and Washington Street (Exhibit 3). A new Americans with Disabilities Act (ADA)-compliant plaza would be installed in front of the Hall of Justice.

Pedestrian and vehicle ramps would provide access during normal operations and would also allow for emergency access during severe storm events. Additional storm drains and pump capacity are

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<sup>&</sup>lt;sup>1</sup> Solano County. 2008. Solano County General Plan Figure LU-1 Land Use Diagram. Website:

https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=11013. Accessed May 11, 2022. <sup>2</sup> Solano County. County of Solano Zoning Districts. Website:

https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=17741 Accessed May 11, 2022.

also included. The proposed project would improve security to protect operations and staff including new pedestrian facilities, lighting features, and vehicle access gates, card readers, and metal fencing.

### 1.4.1 - Construction

The proposed project would require site grading, paving, and installation of various drainage improvements and security enhancements. The construction phases and approximate durations are outlined below. Some phases, such as construction, paving, and architectural features, would occur concurrently:

- Demolition (13 weeks): During this phase approximately 0.11 acre of existing hardscape would be removed.
- Site preparation (13 weeks): During this phase, the project site would be readied for construction, including removal of approximately 60 trees and other existing vegetation.
- Grading (13 weeks): During this phase, grading of the entire site would occur.
- Construction (26 weeks): This phase includes construction of the proposed project.
- Paving (26 weeks): This phase includes paving and striping of the parking areas and driveways, and installation of signage.
- Architectural Features (17 weeks): This phase involves the application of architectural coatings, if any.

The proposed project is anticipated to be constructed over an 11-month period, starting Spring 2024. Approximately 2,100 cubic yards of fill material would be imported to the project site and no export is anticipated.

#### 1.4.2 - Site Access and Circulation

Access to the project site is currently provided by Washington Street, a driveway along Clay Street, and a driveway along Delaware Street. Vehicles driving south on Washington Street can turn east to enter a parking lot. An access restricted cul-de-sac is located at the end of Washington Street, north of the Solano County Coroner's Office.

Pedestrian access is provided by sidewalks along Washington Street, Union Avenue, Clay Street, and Delaware Street. Pedestrian walkways are located throughout the project site. The proposed project includes improvements to surrounding sidewalks. Additionally, a new walkway along the outside of the Sheriff's Office parking lot is proposed.

#### 1.4.3 - Utilities

The proposed project is located within the service areas of the following utility service providers:

- Water: Water service is provided by the City of Fairfield.
- Wastewater: Wastewater Service is provided by Fairfield-Suisun Sewer District.
- Solid Waste: Solid Waste collection services is provided by Republic Services.

• Electricity and Gas: Pacific Gas and Electric Company (PG&E) provides electricity and gas to the project site.

#### 1.4.4 - Potential State Courthouse

The State of California has tentative plans to construct a State Courthouse within the project site boundaries. A potential location of the State Courthouse is in the northwest corner of the project site, through Washington Street. However, no plans have been finalized or formally submitted for consideration. There is no timeline for considering or approving the potential State Courthouse. As such, it is entirely speculative and beyond the scope of this environmental analysis. In the event the State Courthouse proceeds, it would be subject to appropriate environmental review and would evaluate any potential impacts related to the storm drainage facility.

#### **1.5 - Required Discretionary Approvals**

As mentioned previously, Solano County has discretionary authority over the proposed project and is the CEQA Lead Agency for the preparation of this Draft IS/MND. In order to implement the proposed project, the County would need to secure the following permits/approvals:

Building Permit

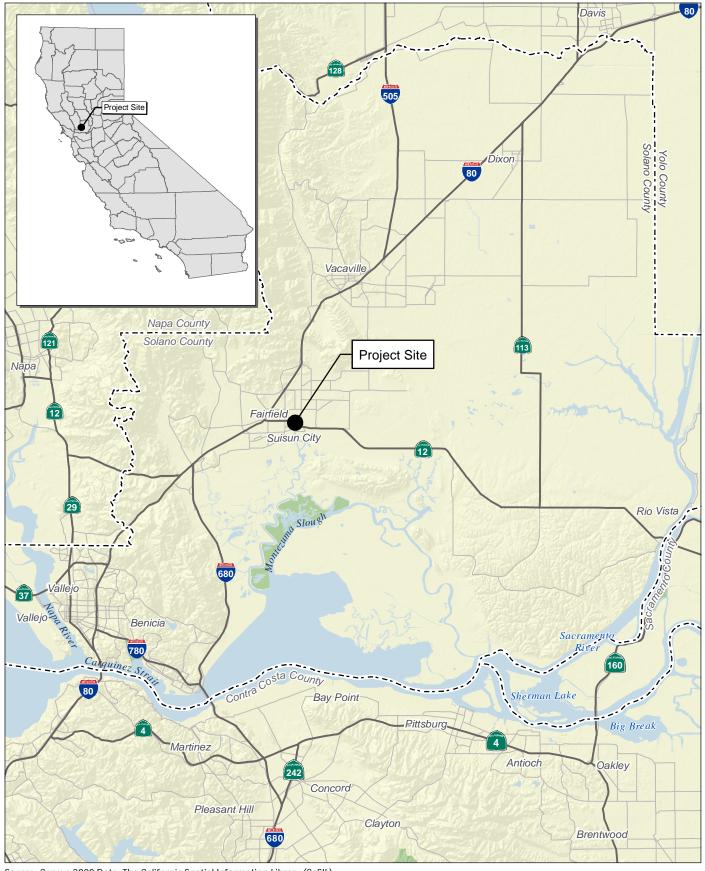
4

Construction Stormwater General Permit

#### 1.6 - Intended Uses of This Document

This Draft IS/MND has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the proposed project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the proposed project. The Draft IS/MND will be circulated for a minimum of 30 days, during which comments concerning the analysis contained in the Draft IS/MND should be sent to:

Tim Reynolds, Capital Projects Coordinator Solano County Department of General Services 675 Texas Street, Suite 2500 Fairfield, CA 94533 Phone: 707.784.7908 Fax: 707.784.7912 Email: tsreynolds@solanocounty.com



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

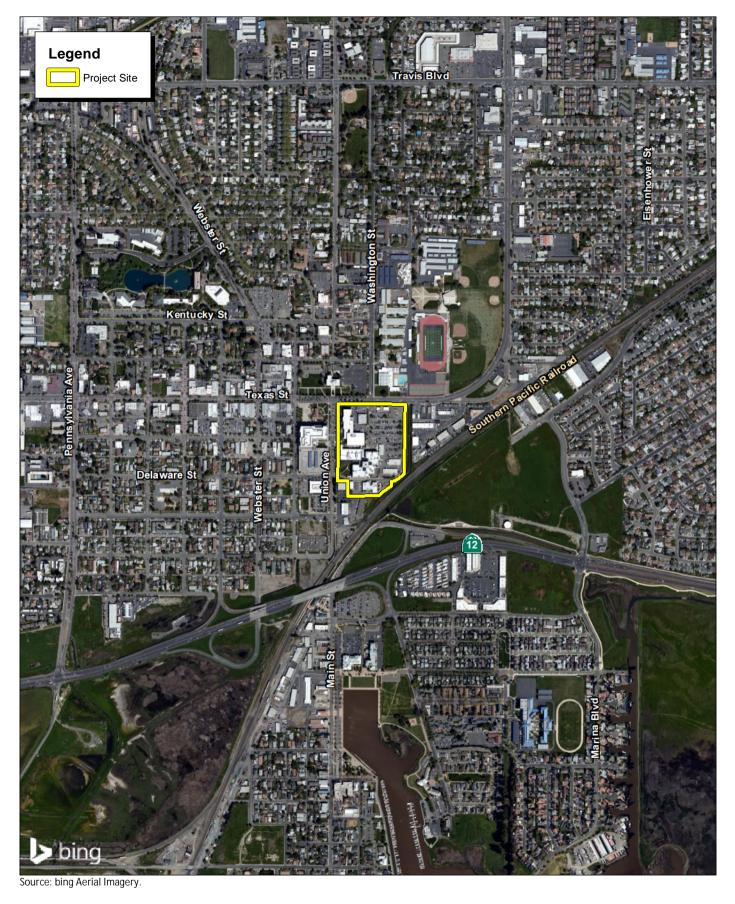
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Regional Location Map

Exhibit 1

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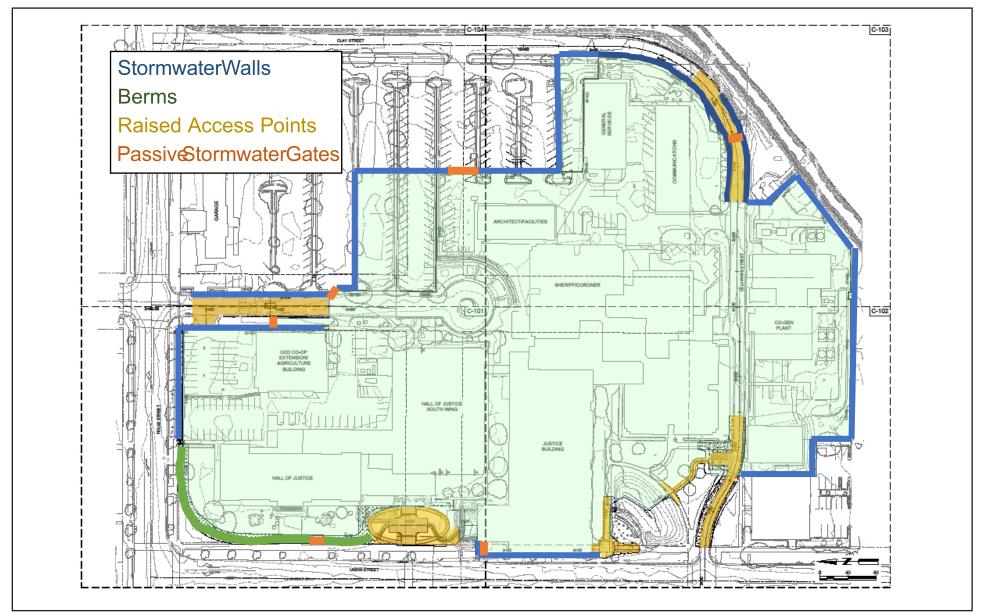
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SOLANO COUNTY DEPARTMENT OF GENERAL SERVICES FAIRFIELD JUSTICE CAMPUS ASSET PROTECTION PROJECT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Exhibit 2

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Source: Mead & Hunt, Inc., Solano County, 2021.



Exhibit 3 Site Plan

SOLANO COUNTY DEPARTMENT OF GENERAL SERVICES FAIRFIELD JUSTICE CAMPUS ASSET PROTECTION PROJECT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION THIS PAGE INTENTIONALLY LEFT BLANK

# SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

#### **Environmental Factors Potentially Affected**

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

Aesthetics		Agriculture and Forestry Resources		Air Quality		
Biological Resources		Cultural Resources		Energy		
Geology/Soils		Greenhouse Gas Emissions		Hazards/Hazardous Materials		
Hydrology/Water Quality		Land Use/Planning		Mineral Resources		
Noise		Population/Housing		Public Services		
Recreation		Transportation		Tribal Cultural Resources		
Utilities/Services Systems		Wildfire		Mandatory Findings of Significance		
Environmental Determination						

On the basis of this initial evaluation:

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

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

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

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

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

Date:	Signed:	
	-	

2.1	Environmental Issues Aesthetics Except as provided in Public Resources Code Section 2	Potentially Significant Impact 1099, would t	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?				$\boxtimes$
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?				$\boxtimes$
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				

### **Environmental Evaluation**

Would the project:

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

**No impact.** Solano County encompasses numerous unique views: views of marshlands and Delta waters to the south, the Coast Range extending in a north–south direction north and west of Fairfield, meandering hills between Cordelia and Benicia, and expanses of agricultural lands primarily in the eastern half of the County. From these unique views in Solano County, views of the Coast Range and nearby hills are considered a scenic vista in Solano County because they are the one scenic resource viewable from a distance and from throughout the County.<sup>3</sup> Suisun Marsh, located approximately 1 mile to the south is the nearest scenic vista to the project site.<sup>4</sup> None of the scenic resources are located on the project site, nor are any views of identified scenic vistas available from the project site. The nearest identified scenic vista is Suisun Marsh; however, because of intervening topography and structures, this scenic vista is not visible from the project site.

Moreover, the proposed project would include the construction of new drainage and security improvements, a new ADA-compliant plaza, and new landscaping. None of these proposed features

<sup>&</sup>lt;sup>3</sup> Solano County. 2008. Solano County 2008 Draft General Plan DEIR. April 18. Website:

https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=15179. Accessed May 12, 2022. <sup>4</sup> Solano County. 2008.Solano County General Plan. Chapter 4: Resources. Website:

https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=6494. Accessed February 24. 2022.

would have a greater height than the existing buildings on-site. This precludes the possibility of the proposed project having a substantial adverse effect on a scenic vista. Therefore, no impact would occur.

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

**No impact.** There are no California designated State Scenic Highways in the City of Fairfield or the County.<sup>5</sup> This precludes the possibility of the proposed project substantially damaging scenic resources within a State Scenic Highway. No impact would occur.

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

**No impact.** The proposed project is located in an urbanized area. The General Plan designates the project site for Public/Quasi-Public land use. The proposed project would include the construction of new drainage and security improvements, a new ADA-compliant plaza, and new landscaping. As such, the proposed project would not alter the existing land use and therefore, would not conflict with applicable zoning and other regulations governing scenic quality. No impact would occur.

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

**Less than significant impact.** The project site contains existing sources of light and glare from interior and exterior lighting on buildings, streetlamps surrounding the project site and vehicles circulating the project site. The proposed project would include the construction of new drainage and security improvements, a new ADA-compliant plaza, and new landscaping, which would not involve a substantial addition of lighting features. However, any additional lighting features would be required to comply with Section 28.73.30 of the Solano County Code, which requires that exterior lighting to provide adequate illumination for security and safety, while directing light away from adjacent properties and public rights-of-way to prevent offensive light or glare.<sup>6</sup> Therefore, impacts would be less than significant.

### **Mitigation Measures**

No mitigation required.

<sup>&</sup>lt;sup>5</sup> California Department of Transportation (Caltrans). 2018. California State Scenic Highway System Map. Website: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed February 24, 2022.

<sup>&</sup>lt;sup>6</sup> Solano County. 2021. Solano County Code. Article IV Site Development and Other Standards. Website: https://www.codepublishing.com/CA/SolanoCounty/#!/html/SolanoCounty2800/SolanoCounty2804.html. Accessed February 24, 2022.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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#### 2.2 Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?		
b)	Conflict with existing zoning for agricultural use, or a Williamson Act Contract?		$\boxtimes$
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?		
d)	Result in the loss of forest land or conversion of forest land to non-forest use?		
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?		

#### **Environmental Evaluation**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment (LESA) Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection (CAL FIRE) regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (ARB).

Would the project:

#### a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

**No impact.** According to the California Department of Conservation, the project site does not contain and is not adjacent to lands classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.<sup>7</sup> The project site is currently developed and does not contain agricultural or farmland uses. Since no agricultural or farmland uses exist on the site, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural uses. Therefore, no impacts would occur.

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

**No impact.** The project site is developed and does not contain agricultural uses. Furthermore, the project site is zoned IWD. Therefore, the proposed project would not conflict with existing zoning for agricultural uses and the project site is not subject to a Williamson Act Contract. Thus, no impact would occur.

#### c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

**No impact.** The California Public Resources Code defines forestland as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits (Public Resources Code [PRC] § 12220). "Timberland" is defined as land that is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products (PRC § 4526). "Timberland production zone" is defined as an area that has been zoned and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses (PRC § 51104(g)).

The project site is currently developed, zoned IWD, and does not contain forestland as defined above. Therefore, the proposed project would not conflict with or cause rezoning of forestland, timberland, or timberland zoned Timberland Production and no impact would occur.

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

**No impact.** The project site does not contain nor is adjacent to any forested land. Therefore, there would be no loss of forest land or conversion of forest land to non-forest use as a result of the proposed project. No impact would occur.

<sup>&</sup>lt;sup>7</sup> California Department of Conservation. 2016. Farmland Mapping and Monitoring Program: California Important Farmland Finder. Website: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed February 24, 2022.

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

**No impact.** The proposed project is not located on or near land used for farmland or agriculture. Therefore, the proposed project would not result in changes to the existing environment that would result in the conversion of farmland to nonagricultural use or the conversion of forestland to nonforest use. Therefore, no impact would occur.

#### **Mitigation Measures**

No mitigation required.

#### 2.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a)	Conflict with or obstruct implementation of the applicable air quality plan?	$\square$		
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?			
c)	Expose sensitive receptors to substantial pollutant concentrations?		$\boxtimes$	
d)	Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?			

#### **Environmental Evaluation**

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

#### Setting

The proposed project is located within the San Francisco Bay Area Air Basin (Air Basin), which consists of the entirety of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the western portion of Solano County; and the southern portion of Sonoma County. The Air Basin is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays. The regional climate of the Air Basin is characterized by mildly dry summers and moderately wet winters. The region experiences moderate humidity with wind patterns consisting of mild onshore breezes during the day. The location of a strong subtropical high-pressure cell located in the Pacific Ocean induces foggy mornings and moderate temperatures during the summer, as well as occasional rainstorms during the winter.

The air pollutants for which national and State standards have been promulgated and that are most relevant to air quality planning and regulation in the Bay Area include ozone, nitrogen oxides (NO<sub>X</sub>), carbon monoxide (CO), particulate matter, including dust, 10 micrometers or less in diameter (PM<sub>10</sub>), and particulate matter, including dust, 2.5 micrometers or less in diameter (PM<sub>2.5</sub>). In addition, toxic air contaminants (TACs) are of concern in the Bay Area. Each of these pollutants is briefly described below. Other pollutants that are regulated but not considered an issue in the project area are sulfur

dioxide, vinyl chloride, sulfates, hydrogen sulfide, and lead; the proposed project would not emit substantial quantities of those pollutants, so they are not discussed further in this section.

- Ozone is a gas that is formed when reactive organic gases (ROG) and NO<sub>x</sub>—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are conducive to its formation. Its effects can include the following: irritate respiratory system; reduce lung function; cause breathing pattern changes; reduce breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; cause some immunological changes; increase mortality risk; and cause vegetation and property damage.
- CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines—unlike ozone—and motor vehicles operating at slow speeds are the primary source of CO in the Bay Area, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Potential health effects from CO ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; and death.
- PM<sub>10</sub> and PM<sub>2.5</sub> consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. Health effects from short-term exposure (hours per days) can include the following: irrigation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravation of existing lung disease causing asthma attacks and acute bronchitis; those affected with heart disease can suffer heart attacks and arrhythmias. Health effects from long-term exposure can include the following: reduced lung function; chronic bronchitis; changes in lung morphology; and death.
- TACs refer to a diverse group of air pollutants that can affect human health but have not had ambient air quality standards established for them. Diesel particulate matter (DPM) is a toxic air contaminant that is emitted from construction equipment and diesel-fueled vehicles and trucks. Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.

Construction and operation of the proposed project would be subject to applicable Bay Area Air Quality Management District (BAAQMD) rules and requirements. The BAAQMD CEQA Guidelines were developed to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality. It should be noted that the Air District is currently updating its CEQA Guidelines and the Thresholds of Significance for GHGs. The new thresholds will be considered for adoption in the Spring of 2022.<sup>8</sup>

Would the project:

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

**Less than significant with mitigation incorporated.** The 2017 Clean Air Plan is the currently applicable regional Air Quality Plan (AQP) for the San Francisco Bay Air Basin. The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate. The 2017 Clean Air Plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants<sup>9</sup> and greenhouse gas (GHG) emissions.<sup>10</sup> The proposed project would develop flood control infrastructure, such as flood barriers and new stormwater basins, that would require construction activity. Because the proposed project does not involve population or employment growth, determining consistency with the 2017 Clean Air Plan involves assessing whether applicable control measures contained in the 2017 Clean Air Plan are implemented and whether implementation of the proposed project would disrupt or hinder implementation of AQP control measures.

The control measures are organized into five categories: stationary and area source control measures, mobile source measures, transportation control measures, land use and local impact measures, and energy and climate measures. The control measures are geared toward traditional land uses (e.g., residential, commercial, and industrial uses) and buildings. All projects within BAAQMD's jurisdiction are required to implement the BAAQMD Best Management Practices (BMPs) during construction activities. As discussed in further detail under Impact 2.3(b), the proposed project would implement all BMPs for construction activities and would be consistent with the assumptions in the AQP after implementation of Mitigation Measure (MM) AIR-1. MM AIR-1 would require the proposed project to include BAAQMD construction control measures, such as watering the site twice per day and limiting vehicle speeds on unpaved surfaces to 15 miles per hour (mph). Furthermore, the proposed project would not include any special features, such as stationary sources of air pollutants, that would disrupt or hinder implementation of the AQP control measures.

<sup>&</sup>lt;sup>8</sup> Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa\_guidelines\_may2017-pdf.pdf?la=en. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed February 16, 2022.

<sup>&</sup>lt;sup>9</sup> The EPA has established National Ambient Air Quality Standards (NAAQS) for six of the most common air pollutants—carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants (or simply "criteria pollutants").

<sup>&</sup>lt;sup>10</sup> Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\_-proposed-final-cap-vol-1pdf.pdf?la=en. Accessed February 16, 2022.

Therefore, the proposed project would not conflict with or obstruct implementation of the 2017 Clean Air Plan with implementation of mitigation.

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

**Less than significant with mitigation incorporated.** The BAAQMD's thresholds of significance represent the allowable amount of emissions a project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on a project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. The region is non-attainment for the federal and State ozone standards, State PM<sub>10</sub> standards, and federal and State PM<sub>2.5</sub> standards. Impacts related to construction and operations of the proposed project are addressed separately below.

#### **Construction Emissions**

Emissions from construction-related activities are generally short-term in duration but may still cause adverse air quality impacts. The proposed project would generate emissions from construction equipment exhaust, worker travel, and fugitive dust. These construction emissions include criteria air pollutants and precursors from the operation of heavy construction equipment. As discussed below, the proposed project's construction emissions would not exceed any significance threshold adopted for this project. Therefore, the proposed project would have a less than significant contribution to cumulative impacts during construction.

According to applicant-provided information, project construction is anticipated to occur from April 1, 2022, through February 28, 2023. Although this date of construction has since passed, the construction schedule used in the analysis represents a "worst-case" analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and compliance with more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years. Thus, this conservative analysis evaluates the worst-case scenario.

#### **Construction Fugitive Dust**

For all proposed projects, the BAAQMD requires the implementation of BMPs to ensure that construction-related fugitive dust emissions are considered less than significant. As such, the proposed project would be required to implement MM AIR-1 to ensure construction emission impacts are less than significant, which would apply the following BAAQMD BMPs during construction activities at the proposed project site:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered with non-potable water two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks shall be paved as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

#### Construction: ROG, NO<sub>x</sub>, PM<sub>10</sub> (exhaust), and PM<sub>2.5</sub> (exhaust)

Construction emissions were estimated for the activities associated with replacing and upgrading existing storm drainage facilities. Based on applicant-provided information, it is expected that construction activities associated with the proposed project would last 11 months. The construction schedule used to estimate emissions is shown in Table 1. The off-road construction equipment list is shown by construction activity in Table 2. The exhaust emissions generated by construction equipment. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by CEQA Guidelines. The number of off-site trips assumed to occur during construction of the proposed project is shown in Table 3.

Construction Activity	Phase Start Date	Phase End Date	Working Days per Week	Total Number of Working Days
Demolition	04/01/2022	06/30/2022	5	65
Site Preparation	05/01/2022	07/29/2022	5	65
Grading	06/01/2022	8/30/2022	5	65
Flood Barrier Construction	06/01/2022	11/30/2022	5	131
Paving/roadwork/Flood Gates	07/01/2022	12/31/2022	5	131
Architectural Features	11/01/2022	02/28/2023	5	86

#### Table 1: Combined Construction Schedule

Notes:

<sup>1</sup> The construction schedule in the CalEEMod Output is based on the anticipated schedule provided by the applicant. Because vehicle fuel use becomes more efficient through time in compliance with federal and State regulations, these dates support a conservative evaluation of potential impacts.

Source: CalEEMod Output (see Appendix A).<sup>1</sup>

Activity	Equipment	Amount	Hours per Day	Horsepower	Load Factor
Demolition	Excavator	1	10	158	0.38
	Crushing/Proc. Equipment	1	10	85	0.78
	Concrete/Industrial Saws	1	10	81	0.73
	Dumpers/Tenders	1	10	16	0.38
	Tractors/Loaders/Backhoes	1	10	97	0.37
	Generator Sets	1	10	84	0.74
Site Preparation	Tractors/Loaders/Backhoes	1	10	97	0.37
	Signal Boards	1	10	6	0.82
Grading	Graders	1	10	187	0.41
	Excavators	1	10	158	0.38
	Tractors/Loaders/Backhoes	1	10	97	0.37
	Rollers (compactor)	1	10	80	0.38
Flood Barrier Construction	Off-Highway Trucks	2	10	402	0.38
	Air Compressors	2	10	78	0.48
	Generator Sets	3	10	84	0.74
	Welders	2	10	46	0.45
	Plate Compactors	2	10	8	0.43
	Pressure Washers	1	10	13	0.3
	Trenchers	1	10	78	0.5
	Skid Steer Loaders	1	10	65	0.37
	Pumps	2	10	84	0.74
Paving/roadwork/Flood	Off-Highway Trucks	1	10	402	0.38
Gates	Paving Equipment	1	10	132	0.36
	Skid Steer Loaders	1	10	65	0.37
	Welders	2	10	46	0.45
Architectural Features	Air Compressors	1	10	78	0.48
	Generator Sets	1	10	84	0.74
	Pressure Washers	1	10	13	0.30

## **Table 2: Construction Equipment Assumptions**

	Construction Vehicle Trips				
<b>Construction Activity</b>	Worker Trips per Day	Vendor Trips per Day	Total Haul Trips		
Demolition	15	0	324		
Site Preparation	5	0	0		
Grading	10	0	275		
Flood Barrier Construction	48	19	0		
Paving/Roadway/Flood Gates	13	0	0		
Architectural Features	10	0	0		
Source: CalEEMod Output (see Appendix A).					

### **Table 3: Combined Construction Off-site Vehicle Trips**

Annual project construction emissions prior to the application of mitigation are shown in Table 4. Average daily construction emissions are compared with the significance thresholds in Table 5.

#### **Table 4: Annual Construction Emissions**

	Tons/Year				
<b>Construction Activity</b>	ROG	NOx	PM <sub>10</sub> (Exhaust)	PM <sub>2.5</sub> (Exhaust)	
2022	0.63	4.91	0.23	0.22	
2023	0.03	0.13	0.01	0.01	
Maximum	0.66	5.04	0.24	0.23	
Notes:	1		1		

 $NO_X$  = oxides of nitrogen

PM<sub>10</sub> = particulate matter, including dust, 10 micrometers or less in diameter

PM<sub>2.5</sub> = particulate matter, including dust, 2.5 micrometers or less in diameter

ROG = reactive organic gases

Sums were calculated using unrounded numbers from the CalEEMod Output. Source: CalEEMod Output (see Appendix A).

# **Table 5: Average Daily Construction Emissions**

	Air Pollutants			
Parameter	ROG	NO <sub>x</sub>	<b>PM</b> <sub>10</sub> <sup>1</sup>	PM <sub>2.5</sub> <sup>1</sup>
Total Emissions (tons/year)	0.66	5.04	0.24	0.23
Total Emissions (lbs/year)	1,316.44	10,087.28	470.86	458.62
Average Daily Emissions (lbs/day) <sup>2</sup>	2.42	18.58	0.87	0.84
Significance Threshold (lbs/day)	54	54	82	54

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Https://adecinnovations.sharepoint.com/sites/PublicationsSite/Shared Documents/Publications/Client (PN-JN)/2085/20850049/ISMND/20850049 Solano County Fairfield Justice Campus Asset Protection and Resiliency Project ISMND\_TRACKS.docx

	Air Pollutants			
Parameter	ROG	NO <sub>x</sub>	PM <sub>10</sub> <sup>1</sup>	PM <sub>2.5</sub> <sup>1</sup>
Exceeds Significance Threshold?	No	No	No	No
lbs = pounds         NOx = oxides of nitrogen         PM10 = particulate matter, including dust,         PM2.5 = particulate matter, including dust,         ROG = reactive organic gases         1       Exhaust only         2       Calculated by dividing the total lbs by Calculations use unrounded totals.         Source: CalEEMod Output (see Appendix	, 2.5 micrometers or the total 23 working	less in diameter	n for the duration of (	construction.

As shown in Table 5, the combined construction emissions from all components of the proposed project are well below the recommended thresholds of significance. The implementation of MM AIR-1 would further reduce fugitive dust emissions from project construction. Therefore, project construction would have a less than significant impact.

#### **Operational Emissions**

The proposed project would generate operational emissions limited to those associated with any increase or maintenance of landscaping and pavement. The following analysis relates to localized and regional criteria pollutant impacts. Emissions resulting from various aspects of the proposed project are discussed separately below.

#### Operations: ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>

The BAAQMD has developed screening criteria whereby an agency can quickly determine whether a given development project has the potential to exceed adopted significance thresholds. If all screening criteria are met by a proposed project, then the lead agency or applicant would not need to perform a detailed air quality assessment of their project's air pollutant emissions. Proposed project operations would be limited to the maintenance of proposed landscaping and pavement, which could generate a nominal number of vehicle trips and resulting emissions from landscaping equipment. However, the proposed project maintenance would result in a minor amount of emissions because of the sporadic nature of this activity. Additionally, project operations would not include other sources of emissions, such as an industrial processing facility or a gas station. Accordingly, operational criteria pollutant emissions would not be anticipated to exceed the recommended thresholds of significance. Therefore, the proposed project's long-term operational impacts would be less than significant.

#### **Operational CO Hotspots**

CO emissions from project-related traffic would not be of concern at the local level. The proposed project would not result in an increase in vehicle trips causing increased traffic. As described

previously, the proposed project maintenance of landscaping and paved areas would be sporadic and the only source of operational emissions.

The BAAQMD recommends a screening analysis to determine whether a project has the potential to contribute to a CO hotspot. The screening criteria identify when subsequent site-specific CO dispersion modeling is necessary.

The BAAQMD considers a project's local CO emissions to be less than significant if one of the following screening criteria is met:

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

The proposed project would not be expected to increase traffic volumes at any affected intersection. Therefore, the proposed project would not exceed the CO screening criteria. Furthermore, the adjacent roadways are not located in an area where vertical or horizontal mixing is substantially limited, such as a tunnel or enclosed highway overpass. Therefore, based on the above criteria, the proposed project would have a less than significant impact related to CO hotspots.

#### c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. The BAAQMD considers a sensitive receptor to be any facility or land use that includes members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. If a project is likely to be a place where people live, play, or convalesce, it would be considered a receptor. It would also be considered a receptor if sensitive individuals are likely to spend a significant amount of time there. Examples of receptors include residences, schools and school yards, parks and playgrounds, daycare centers, nursing homes, and medical facilities. Playgrounds could be play areas associated with parks or community centers. The closest sensitive receptors are multi-family residences located adjacent to the Justice Campus to the west, as well as a school located to the northeast of the project site. The proposed project itself would not contain any sensitive receptors.

The following analysis evaluates whether the proposed project would result in construction or operational-period impacts to sensitive receptors. The following three criteria were applied to determine whether project emissions would result in less than significant impacts to sensitive receptors:

- **Criterion 1:** Construction of the project would not result in localized emissions that, if when combined with background emissions, would result in exceedance of any health-based air quality standard.
- **Criterion 2:** Operation of the project would not result in localized emissions that, if when combined with background emissions, would result in exceedance of any health-based air quality standard.
- **Criterion 3:** Construction of the project would not result in an exceedance of asbestos exposure.

#### **Criterion 1: Project Construction Toxic Air Pollutants**

The proposed project would generate TACs, such as DPM, during construction due to the use of offroad construction equipment. DPM is represented as exhaust emissions of PM<sub>2.5</sub> and PM<sub>10</sub>. As shown in Table 5, project construction would emit at most 0.24 pound per day of each PM<sub>2.5</sub> and PM<sub>10</sub>. As discussed in Impact 2.3(b), emissions during construction would not exceed the BAAQMD's significance thresholds for PM<sub>2.5</sub> and PM<sub>10</sub> and would not be expected to result in concentrations that could exceed ambient air quality standards or contribute substantially to an existing exceedance of an ambient air quality standard. Therefore, construction of the proposed project would not result in significant emissions of TACs. Impacts relating to Criterion 1 would be less than significant.

#### **Criterion 2: Project Operation Localized Emissions**

The proposed project would replace or upgrade existing storm drainage facilities by constructing new drainage improvements, and overland stormwater runoff protections in order to prevent stormwater damage, loss of function, and impairment of operations. The proposed project's land use would not result in substantial localized emissions because the proposed project would not include stationary sources or mobile sources of emissions. Proposed project maintenance of landscaping and paved areas would involve some periodic emissions due to vehicles traveling to and from the site. Furthermore, as discussed previously in Impact 2.3(b), the proposed project would not produce a substantial increase in operational vehicle trips or an increase in traffic volumes such that a CO hotspot would occur. Therefore, the proposed project would not expose sensitive receptors to substantial criteria air pollutant concentrations during operation or result in localized emissions that, when combined with background emissions, would result in exceedance of any health-based air quality standard. Impacts relating to Criterion 2 would be less than significant.

#### **Criterion 3: Asbestos from Demolition**

As discussed in Section 8, Hazards and Hazardous Materials, there is not a potential for asbestoscontaining materials to be present within the project area. Any demolition of existing buildings and structures would be subject to BAAQMD Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing),<sup>11</sup> which is intended to limit asbestos emissions from demolition or renovation

<sup>&</sup>lt;sup>11</sup> Bay Area Air Quality Management District (BAAQMD). 1998. Regulation 11, Rule 2. Website: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-11-rule-2-asbestos-demolition-renovation-andmanufacturing/documents/rg1102.pdf?la=en. Accessed May 11, 2022.

of structure and the associated disturbance of asbestos-containing waste material generated or handled during these activities. By complying with BAAQMD Regulation 11, Rule 2, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality. Impacts relating to Criterion 3 would be less than significant.

#### Summary

The proposed project would not conflict with Criterion 1, 2, or 3 and as a result, would not expose sensitive receptors to substantial pollutant concentrations. Therefore, impacts would be less than significant.

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

**Less than significant impact.** Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor.

Odors can cause a variety of responses. The impact of an odor is dependent on interacting factors such as frequency (how often), intensity (strength), duration (in time), offensiveness (unpleasantness), location, and sensory perception. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

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

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

Two circumstances have the potential to cause odor impacts:

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

Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in Table 6 below, would not likely result in a significant odor impact.

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile

#### **Table 6: Odor Screening Distances**

clean-air-plan/attachment-a\_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed May 11, 2022.

#### Project as an Odor Generator

Land uses typically considered associated with odors include wastewater treatment facilities, waste disposal facilities, or agricultural operations. The proposed project would develop stormwater improvement and flood barrier protection and is not expected to produce any offensive odors that would result in odor complaints.

#### Project Construction

Diesel exhaust and ROGs would be emitted during construction of the proposed project, which are objectionable to some; however, emissions would disperse rapidly from the project site and only last 11-months. Therefore, the proposed project would not create objectionable odors affecting a substantial number of people. As such, construction odor impacts would be less than significant.

#### **Project Operation**

The proposed project would develop stormwater improvement and flood barrier protection. These types of land uses would not generate odors once the proposed project is complete, such as those shown in Table 6. Therefore, the proposed project would not generate substantial amounts of odors during construction or operation.

#### Project as a Receptor

The proposed project would not include land uses that could introduce new sensitive receptors because it would only include stormwater improvements. Therefore, impacts would be less than significant.

# **Mitigation Measures**

#### MM AIR-1 Implement BAAQMD Best Management Practices During Construction

During construction activities, the project applicant and construction contractor shall implement the following:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered with non-potable water two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks shall be paved as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM] Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The Bay Area Air Quality Management District (BAAQMD) phone number shall also be visible to ensure compliance with applicable regulations.

	Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.4	Biological Resources Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?				
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?				
c)	Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?				
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?				

# **Environmental Evaluation**

#### Setting

This section evaluates potential effects on biological resources that may result from the proposed project implementation. An on-site assessment of biological resources was completed by qualified FirstCarbon Solutions (FCS) Biologist, Robert Carroll, on February 11, 2022. Prior to the field survey, an FCS Biologist reviewed the California Department of Fish and Wildlife (CDFW) California Natural

Diversity Database (CNDDB), a special-status species and plant community account database; the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system; and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California database for the Fairfield South, California, USGS 7.5minute Topographic Quadrangle Map and the eight surrounding quadrangles (Appendix B). The entire 17-acre site project site currently consists of the Downtown Fairfield Justice Campus and associated facilities. The project site is bound by dense residential and commercial development to the north and west. An unnamed off-site channel is located to the east and south of the project site. A list of vegetation communities are described below.

# Urban/Developed

The habitat present within the entire 17-acre project site can be categorized as Urban/Developed. This habitat type encompasses areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported and retains no soil substrate. Developed land is characterized by permanent or semi-permanent structures, pavement, or hardscape, and landscaped areas that often require irrigation. The project site is situated in a highly developed area and currently contains a courthouse, the Justice Center Detention Facility, a University of California Cooperative Extension building, public safety buildings, and surface parking. The project site also contains various ornamental trees and planters commonly found in business parks. Vegetation observed within this area included coast redwood (Sequoia sempervirens), pear (Pyrus sp.), and palm (Roystonea regia).

# **Unnamed Channel**

An unnamed channel is adjacent to (just outside of) the eastern and southern project boundary. The channel has no direct hydrological connection to the project site and is located across Clay and Delaware Streets. The channel has an average width of approximately 25 feet (top of bank) and an average ordinary high water mark (OHWM) that is approximately 10 feet wide. The segment of the channel adjacent to the project site is devoid of woody riparian vegetation (e.g., willows, cottonwoods, oaks, etc.), and emergent vegetation observed within the wetted portion of the channel was desiccated. Vegetation within the channel area included herbaceous grasses and forbs, predominantly non-native and ruderal and invasive species. Vegetation observed included wild oats (Avena sp.), whitestem filaree (Erodium moschatum), Italian thistle (Carduus pycnocephalus), sow thistle (Sonchus oleraceus), wild radish (Raphanus raphanistrum), cheeseweed (Malva parviflora), and harding grass (Phalaris aquatica).

Would the project:

Have a substantial adverse effect, either directly or through habitat modifications, on any species a) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Less than significant with mitigation incorporated.

# Special-status Plant Species Potentially Occurring Within the Project Site

The potential for plant species to occur on the project site was evaluated based on the presence of suitable habitats, soil types, and occurrences recorded by the CNPS and CNDDB listings in the generally vicinity of the site, as well as a site survey conducted by a qualified Biologist. The Special Status Plant Species Evaluated Table (Table 1; Appendix B) provides a summary of the listing status, habitat requirements, and the potential for occurrence of other sensitive plant species that have been documented within the *Fairfield South, California*, USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles. A total of 26 special-status plant species were evaluated for their potential to occur within the project site.

The 26 species require specific habitat conditions that are not present within the project site (e.g., vernal pools, riparian scrub, marshes and swamps, or valley and foothill grasslands). Because of existing development, no special-status plant species have potential to occur within the project site; therefore, no special-status plant species would be impacted by the proposed project.

#### Special-status Wildlife Species Potentially Occurring Within the Project Site

The potential for wildlife species to occur on the project site was evaluated based on the presence of suitable habitats, and occurrences recorded by the CNDDB in the generally vicinity of the site, as well as a site survey conducted by a qualified Biologist. The Special Status Wildlife Species Evaluated Table (Table 2; Appendix B) provides a summary of the listing status, habitat requirements, and the potential for occurrence of other sensitive wildlife species that have been documented within the *Fairfield South, California,* USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles. A total of 25 special-status wildlife species were evaluated for their potential to occur within the project site. Of the 25 species evaluated, four species, (Townsend's big-eared bat [*Corynarhinus townsendii*], white-tailed kite [*Elanus leucurus*], American peregrine falcon [*Falco peregrinus anatum*], and western pond turtle [*Emys marmorata*]) have the potential to occur within the project site. These species are discussed in further detail below.

#### Townsend's Big-eared Bat and Other Roosting Bats

Townsend's big-eared bat is a California Species of Special Concern. This species roosts in caves, cliffs, rock ledges, and is also found in man-made structures (e.g., tunnels, buildings, etc.). The nearest recorded occurrence is approximately 4.2 miles north of the project site.<sup>12</sup> This species was found within riparian habitat at the I-80 bridge at Soda Springs Creek in September 2011. No bats were observed during the field survey.

The project site lacks suitable foraging habitat; however, the site contains marginal roosting habitat in the form of man-made structures and trees on-site. Sections 2000 and 4150 of the Fish and Game Code state that it unlawful to take or possess a number of species, including bats, without a license or permit as required by Fish and Game Code Section 3007. Potential direct and indirect impacts could occur to roosting bats during project construction due to removal of potential roosting habitat,

FirstCarbon Solutions
Https://adecinnovations.sharepoint.com/sites/PublicationsSite/Shared Documents/Publications/Client (PN-JN)/2085/20850049/ISMND/20850049 Solano County Fairfield Justice Campus Asset Protection and Resiliency
Project ISMND\_TRACKS.docx

<sup>&</sup>lt;sup>12</sup> California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed March 22, 2022.

these impacts would be considered significant under CEQA Guidelines. These activities could potentially subject bats to risk of death or injury, and they are likely to avoid using the area until such construction activities have dissipated or ceased. Relocation, in turn, could cause hunger or stress among individual bats by displacing them into adjacent territories belonging to other individuals.

Implementation of MM BIO-1a, which requires the project applicant to conduct a pre-construction survey and to implement further avoidance and minimization measures (if bats are present), would reduce potential impacts to roosting bats to a less than significant level under CEQA Guidelines.

### White-tailed Kite, American Peregrine Falcon, and Other Nesting Birds

The white-tailed kite is listed by the State of California as "fully protected." The preferred habitat of this species includes rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. This species typically forages in open grasslands, meadows, or marshes and is often found perching and nesting in isolated, dense-topped trees. The project site contains planted trees that provide marginal nesting habitat. The general vicinity of the project site is developed and lacks general habitat for foraging. No white-tailed kite or other raptor nests were observed during the field survey. The nearest recorded occurrence is 4.5 miles west of the project site associated with Suisun Creek where two adults and two juveniles were observed in oak woodland habitat in May 2004.<sup>13</sup>

The American peregrine falcon is listed by the State of California as "fully protected." This species is found near wetlands, lakes, and rivers; on cliffs, banks, and dunes; and also on made-made structures. The project site contains man-made structures that provide marginal nesting habitat. The general project vicinity is developed and lacks general habitat for foraging. There are two recorded occurrences within 5 miles of the project site.<sup>14</sup>

The trees and man-made structures present on the project site may provide suitable habitat for a variety of species of nesting birds, including white-tailed kite and American peregrine falcon. Construction activities that occur during the avian nesting season (generally February 1 to August 31) could disturb nesting sites for bird species including special-status species such as the white-tailed kite and American peregrine falcon, as well as birds protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Wildlife Code. Given the potential for these species to occur on or near the project site, implementation of MM BIO-1b would reduce potential impacts to white-tailed kite, American peregrine falcon, and other nesting birds to less than significant by requiring pre-construction surveys and implementation of nest protection buffers to avoid disturbance of any active nests.

# Western Pond Turtle

Western pond turtle is a California Species of Special Concern. This species is aquatic and is found in ponds, marshes, rivers, streams, and irrigation ditches with rocks and logs for basking. This species

<sup>&</sup>lt;sup>13</sup> California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed March 22, 2022

<sup>&</sup>lt;sup>14</sup> Ibid.

only leaves aquatic habitat to reproduce and overwinter. This species requires basking sites and suitable (grassy open fields) upland habitat for egg-laying. Eggs are buried in nests that are usually found within 250 meters of water. The closest occurrence is approximately 4.5 miles south of the project site associated with Chadbourne slough, Where one individual was observed in habitat consisting of *Typha spp* and *Distichlis spicata*.<sup>15</sup>

The project site lacks suitable upland habitat for reproduction. The segment of the unnamed channel adjacent to the project site lacks suitable basking sites; is generally separated from suitable habitat by culverts, dense industrial, and residential developments; and is bounded on all sides by highly trafficked roads and high-use traffic corridors including SR-12 that limit wildlife movement through the project site. No turtles were observed during the survey, but out of an abundance of caution it is recommended that the applicant implement MM BIO-1c to fully avoid potential impacts to western pond turtle during construction activities.

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

**No impact.** The project site is developed and contains urban/developed land cover. The project site does not contain riparian habitat or other sensitive natural communities identified in local or regional plans, policies, and regulations or by the CDFW or USFWS and no impacts would occur from the proposed project.

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

Less than significant with mitigation incorporated. The unnamed channel is located adjacent to the project site and flows into the Suisun Marsh, which empties into the San Pablo Bay, a traditional navigable water of the United States. The proposed project would not result in direct impacts to areas below the OHWM or the top of bank. While the project site does not contain State or federally protected wetlands, construction of the proposed flood control wall has the potential for indirect (temporary) adverse impacts to the aquatic habitat of the channel. Potential temporary indirect impacts during construction include pollutant loading, increased erosion and sedimentation, and debris dispersal into the channel. Implementation of MM BIO-2a through MM BIO-2c would reduce potential indirect adverse impacts to the aquatic habitat of the channel during construction to less than significant levels through avoidance and minimization measures.

<sup>&</sup>lt;sup>15</sup> California Department of Fish and Wildlife (CDFW). 2022. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed March 22, 2022

#### d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

**Less than significant impact.** Dense residential and commercial developments are generally located to the north, east, and west of the project site while the Amtrack Capital Corridor rail line and SR-12 are located to the south/southwest. Moreover, the project site is bounded on all sides by highly trafficked roads. These factors within the general project vicinity limit wildlife movement through the project site. Additionally, the project site is not part of or within a wildlife movement corridor. As such, the proposed project would not substantially interfere with the movement of wildlife, and impacts would be less than significant.

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

**No impact.** The proposed project is expected to remove 60 trees located on County property. Consistent with Solano County Code Chapter 31, the proposed project's grading plan would be required to include a report showing the extent and manner of tree cutting and vegetation clearing and disposal, as well as provisions for stockpiling topsoil to be used in revegetation of the site, plans for replacement of trees that have been cut, and plans for temporary and final revegetation of the site.<sup>16</sup> As such, the proposed project would be implemented in compliance with County Code Chapter 31, and there would be no conflicts with any local policies or ordinances protecting biological resources.

# f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

**Less than significant impact.** At the time this document is being written, the Solano Habitat Conservation Plan (HCP) has not yet been formally adopted by the County. The HCP would provide a framework for complying with State and federal endangered species regulations while allowing for covered activities such as new development/conversion of covered specific habitat for urban uses and flood control. Covered activities also include habitat restoration, monitoring, and relocation of covered species. A total of 36 species are covered under the plan, including Swainson's hawk and burrowing owl. Based on the above, the proposed project would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or State HCP. Therefore, the proposed project would result in a less than significant impact.

<sup>&</sup>lt;sup>16</sup> Solano County Department of Resource Management. Chapter 31: Grading, Drainage, Land Leveling, and Erosion Control. Website: https://www.solanocounty.com/SubApp/countycode/chap31.pdf. Accessed April 22, 2022.

#### **Mitigation Measures**

#### MM BIO-1a Roosting Bats

- A qualified wildlife Biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine whether bat species are roosting near the work area no more than 7 days prior to beginning ground disturbance and/or construction. Survey methodology may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (Anabat, etc.).
- Visual surveys shall include trees within 100 feet of project construction activities. Not more than two weeks prior to the initiation of project construction, the applicants for development shall ensure that a qualified Biologist (i.e., one familiar with the identification of bats and signs of bats) survey trees proposed for removal for the presence of roosting bats or evidence of bats. If no roosting bats or evidence of bats are found in the trees, removal may proceed. If the Biologist determines or presumes bats are present, individuals shall be humanely evicted from suitable spaces as directed by the Biologist to ensure no "take" would occur as a result of tree removal. Tree removal shall only commence after the Biologist verifies 7 to 10 days later that the exclusion methods have successfully prevented bats from returning. To avoid impacts on non-volant (i.e., nonflying) bats, the Biologist shall only conduct bat exclusion and eviction from September 1 through March 31. Exclusion efforts shall be restricted during periods of sensitive activity.

#### MM BIO-1b Migratory and Nesting Birds

- If possible, construction work should occur outside the nesting season (nesting season is generally between February 1 and August 31). If construction (including tree and building removal) cannot be conducted outside the nesting season, preconstruction surveys shall be conducted no more than 5 days before the start of work to determine whether or not active nests are present.
- If an active nest is located during pre-construction surveys, a qualified Biologist shall determine an appropriately-sized avoidance buffer based on the species and anticipated disturbance level. Based on input from the Biologist, the project applicant shall delineate the avoidance buffer using Environmentally Sensitive Area fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities shall be allowed within the avoidance buffer(s).
- The qualified Biologist shall periodically monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project, until the young have fledged.

#### MM BIO-1c Wildlife Exclusion Fencing

 Wildlife Exclusion Fencing (WEF) shall be constructed between all construction activities and the unnamed drainage to prevent wildlife (including dispersing western pond turtle) from entering the work area. A qualified Biologist shall be on-site to monitor the installation of WEF. WEF shall be in place and regularly maintained during project implementation. Fencing shall be removed within 72 hours of completion of work, and temporarily impacted areas shall be restored to pre-project conditions.

#### MM BIO-2a No work within Channel Banks or Bed

 No work (including vegetation removal) shall take place within this area unless specifically permitted by California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), or United States Army Corp of Engineers (USACE)

#### MM BIO-2b Erosion Control

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

#### MM BIO-2c Prevention of Toxic Substances/Pollution

• No substances toxic to fish and wildlife shall be discharged or allowed to leach into the channel. Reasonable precautions to protect aquatic habitats of the channel from pollution with harmful materials (e.g., fuels, oils, lubricants, and solvents) shall be implemented. Specifically, all potentially hazardous materials shall be controlled, cleaned up, and properly disposed of in accordance with the project's water quality control permits and plans. Materials deleterious or toxic to fish and wildlife including, but not limited to, asphalt, tires, concrete, construction materials, treated wood, and creosote containing materials shall not be stockpiled within 150 feet of the channel. Refueling and maintenance areas for equipment shall be limited to areas 150 feet from the channel.

	Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.5	5 Cultural Resources and Tribal Cultural Resources Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?				
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				
c)	Disturb any human remains, including those interred outside of formal cemeteries?		$\boxtimes$		
	Would the project cause a substantial adverse change defined in Public Resources Code Section 21074 as eit geographically defined in terms of the size and scope cultural value to a California Native American tribe, a	her a site, fea of the landsco	ture, place, cult	ural landscap	e that is
d)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or				
e)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.				

# **Environmental Setting**

This section describes the cultural resources setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on information provided by the California Native American Heritage Commission (NAHC), Northwest Information Center (NWIC), National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Built Environment Resource Directory (BERD) for Solano County.

#### **Northwest Information Center**

A records search and literature review were conducted on August 19, 2021, at the NWIC, affliated with Sonoma State University located in Rohnert Park, for the project site and a 0.5-mile radius surrounding it. The results from the NWIC indicated that seven historic-era resources are recorded within 0.5-mile radius of the project site, no recorded resources are within the project boundaries. In

addition, 16 survey reports are on file witihin the NWIC for the 0.5-mile search radius. Of the 16 reports, three survey reports (S-012752, S-022817, and S-035529) partially address the project site indicating that the project site has not entirely been surveyed for cultural resources. A records search map, identifying the project boundaries and the 0.5-mile search radius, along with relevant non-confidential records search results can be found in Appendix C.

#### **Pedestrian Survey**

On January 7, 2022, an FCS Senior Archaeologist conducted a pedestrian survey for the presence of any unrecorded cultural resources within the project boundary. The project site is almost entirely hardscaped, consisting of multiple government buildings, parking and storage facilities, sidewalks, and paved thoroughfares. Visible soils accounted for less than 5 percent of the total study area, and appear to consist of highly disturbed, imported soils used in landscaping elements. Observed soils consisted of medium brown silt (Munsell 10YR 3/1) interspersed with small (2-3 centimeters) stones composed of schist, quartz, and basalt.

During the survey, all areas of the exposed ground surface were examined for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, or features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). All areas of proposed development were inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. No prehistoric cultural resources or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert, etc.) were observed over the course of the pedestrian survey. Several buildings within the project site, however, are more than 45 years in age, and had not previously been evaluated for potential historic significance under CEQA. These buildings were noted and photographed as part of the survey, and were evaluated in a subsequent report. Pedestrian survey photographs can be found in Appendix C.

#### **Historic Built Environment Assessment**

On May 6, 2022, South Environmental prepared a historic built environment assessment report for the project site. The purpose of this report was to determine whether the proposed project would result in impacts to historic built environment resources located within or adjacent to the project site. This report was prepared in conformance with the requirements of CEQA Guidelines Section 15064.5 for historical resources, and the City of Fairfield Chapter 25, Article XIII, Historic Preservation Ordinance.

Three properties more than 45 years in age that have not been previously evaluated for historical significance were identified within the project site: the Solano County Hall of Justice complex (500 and 600 Union Avenue and 501 Texas Street); the General Services, Communications, and Office of Emergency Services grouping of buildings (500, 510-512, and 530 Clay Street); and the Solano County Fleet building (447 Texas Street). All remaining buildings within the project site were found to be less than 45 years old. The three identified properties more than 45 years old were recorded and evaluated for historical significance on the appropriate set of California Department of Parks and

Recreation (DPR) Forms in consideration of CRHR and City designation criteria and integrity requirements. All three properties were found not eligible under all State and local designation criteria due to a lack of significant historical associations, architectural merit, and integrity. A copy of the assessment can be found in Appendix C.

#### **Native American Herritage Commission**

On October 22, 2021, FCS sent a request to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File (SLF) for the project site. A response was received on December 7, 2021, indicating that the SLF search failed to locate the presence of Tribal Cultural Resources (TCRs) within the project site. The NAHC included a list of 11 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that could be affected by implementation of the proposed project are addressed, a letter containing project information and requesting additional information was sent to each tribal representative on December 8, 2021. One repsonse was received on December 14, 2021, from The Confederated Villages of Lisjan, stating that the Tribe has no further information to provide regarding the proposed project. The Tribe requested to be notified if any cultural resources or burial site are discovered during the construction-related ground disturbance. No additional responses have been received to date. NAHC correspondence and copies of NAHC letters can be found in Appendix C.

# **Environmental Evaluation**

#### **Cultural Resources**

Would the project:

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

**No impact.** CEQA Guidelines Section 15064.5 defines "historical resources" as resources listed in the CRHR, a local register, determined significant by the lead agency, or determined to be eligible by the California State Historical Resources Commission for listing in the CRHR. The criteria for eligibility are generally set by the National Historic Preservation Act of 1966, which established the NRHP and which recognizes properties that are significant at the federal, State, and local levels. To be eligible for listing in the NRHP and CRHR, a district, site, building, structure, or object must possess integrity of location, design, setting, materials, workmanship, feeling, and association relative to American history, architecture, archaeology, engineering, or culture.<sup>17</sup> In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible.

The records search conducted at the NWIC for the project site determined that seven historic-era resources are located within 0.50 mile of the project site, none of which are located within the project site. Three properties over 45 years old that have not been previously evaluated for historical significance were identified within the project site: the Solano County Hall of Justice complex (500

<sup>&</sup>lt;sup>17</sup> National Register of Historic Places. 2020. Publications of the National Register of Historic Places. Website: https://www.nps.gov/subjects/nationalregister/publications.htm. Accessed May 1, 2022.

and 600 Union Avenue and 501 Texas Street); the General Services, Communications, and Office of Emergency Services grouping of buildings (500, 510-512, and 530 Clay Street); and the Solano County Fleet building (447 Texas Street). All three properties were evaluated found ineligible under all State and local designation criteria due to a lack of significant historical associations, architectural merit, and integrity. The project site does not contain any buildings, structures, or objects that could potentially qualify as historical resources under CEQA Guidelines, nor are there any nearby historic resources that will be adversely impacted by the project. Therefore, there would be no impacts to historic resources.

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

**Less than significant impact with mitigation incorporated.** Section 15064.5 of the CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources, as discussed above, or resources that constitute unique archaeological resources. A project-related significant adverse effect could occur if a project were to affect archaeological resources that fall under either of these categories.

Results from the NWIC indicate that there are no archaeological resources have been recorded within 0.50-mile radius of the project site. Given the fully developed nature of the site, as well as the fact that improvements involving ground disturbance will largely take place within previously disturbed soils, the potential for the project to impact a previously unidentified archaeological resource is considered low. However, it is always possible that earthmoving activities associated with project construction could encounter previously undiscovered archaeological resources. Archaeological resources can include but are not limited to stone, bone, wood, or shell artifacts or features, including hearths and structural elements. Damage or destruction of these resources would be a potentially significant impact. MM CUL-1 sets forth the steps to be taken should any significant cultural resources be discovered during construction activities. Implementation of MM CUL-1 would ensure that potential impacts on archaeological resources are reduced to a less than significant level.

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

**Less than significant impact with mittigation incorporated.** As noted above, the project site has been significantly disturbed and developed. Therefore, the potential for the disturbance of any human remains is considered low. While it is highly unlikely that human remains exist within or near the project site, there is always a possibility that subsurface construction activities associated with the proposed project, such as grading or trenching, could potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 must be followed. MM CUL-2 further specifies the procedures to follow in the event human remains are uncovered. Along with compliance with required guidelines and statutes, implementation of MM CUL-2 would reduce potential impacts on human remains to a less than significant level.

### **Tribal Cultural Resources**

Would the project cause a substantial adverse change in the significance of a TCR, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

**Less than siginificant impact with mitigation incorporated.** A review of the CRHR, local registers of historic resources, a records search conducted at the NWIC, an NAHC SLF search did not identify any listed TCRs that may be adversely affected by the proposed project. As such, no known eligible or potentially eligible TCRs would be adversely affected. Should any undiscovered TCRs be encountered during project construction, MM CUL-1 and MM CUL-2, which address the inadvertent discovery of archaeological resources and human remains, would be implemented, and would reduce potential impacts on TCRs to less than significant level.

e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Less than significant impact with mitigation incorporated. Outreach to the NAHC and tribal representatives conducted by FCS did not result in the identification of any additional TCRs within the project boundary. Tribal consultation efforts conducted by Solano County pursuant to Assembly Bill (AB) 52 was initiated on July 25, 2022. A response was received on August 19, 2022, from the Yocha Dehe Wintun Nation indicating that the proposed project is within the Tribe's aboriginal territories and the Tribe expressed their concerns that the proposed project could impact unknown cultural resources. Yocha Dehe Wintun Nation requested and scheduled a site visit for September 21, 2022, to evaluate the Tribe's cultural concerns. As a result of the site visit, Yocha Dehe Wintun Nation determined that the Tribe is not aware of any known cultural resources near the project site and a Cultural Monitor is not needed. However, the Tribe did recommend cultural sensitivity training for pre-project construction personnel and a Cultural Monitor shall spot check the foundation of the retaining wall. To date, Solano County has also not identified any additional significant TCRs meeting the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Should any undiscovered TCRs be encountered during project construction, MM CUL-1 and MM CUL-2, which address the inadvertent discovery of archaeological resources and human remains, would be implemented, and would reduce potential impacts on TCRs to less than significant level.

# **Mitigation Measures**

MM CUL-1 Inadvertent Discovery of Cultural Resources. In the event that significant archaeological resources are discovered during construction activities, operations shall stop within a 100-foot radius of the find and an Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for archaeology shall be

consulted to evaluate the potential resource, and determine whether it requires further study. The lead agency shall require the standard inadvertent discovery clause to be included on the grading plans to inform contractors of this requirement. Potentially significant archaeological resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. The qualified Archaeologist shall make recommendations to the lead agency concerning appropriate measures that shall be implemented to protect the discovered resources, including but not limited to excavation and evaluation of the finds in accordance with CEQA Guidelines, Section 15064.5. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA Guidelines.

- MM CUL-2 Accidental Discovery of Human Remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. During the course of project development, if there is accidental discovery or recognition of any human remains, the following steps shall be taken:
  - 1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for appropriate treatment and disposition of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98.
  - 2. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance:
    - The NAHC is unable to identify a MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission.
    - The descendant identified fails to make a recommendation.
    - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:

When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project site, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may develop a plan for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC.

Environmental Issues 2.6 Energy Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?			$\boxtimes$	

# **Environmental Evaluation**

#### Setting

Energy use, especially through fossil fuel consumption and combustion, relates directly to environmental quality since it can adversely affect air quality and generate GHG emissions that contribute to climate change. Electrical power is generated through a variety of sources, including fossil fuel combustion, hydropower, wind, solar, biofuels, and others. Natural gas is widely used to heat buildings, prepare food in restaurants and residences, and fuel vehicles, among other uses. Fuel use for transportation is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes such as auto, carpool, and public transit; and miles traveled by these modes, and generally based on petroleum-based fuels such as diesel and gasoline. Electric vehicles may not have any direct emissions but do have indirect emissions via the source of electricity generated to power the vehicle. Construction and routine operation and maintenance of transportation infrastructure also consume energy.

Would the project:

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

**Less than significant impact.** A discussion of the proposed project's energy use is presented below. Energy calculations and supporting information are included as part of Appendix A.

#### Construction

During construction, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. No natural gas would be utilized as part of construction. Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during demolition, grading, paving, and building

construction activities. The types of equipment could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, front-end loaders, forklifts, and cranes. Other equipment could include electrically driven equipment such as pumps and other tools.

Based on California Emissions Estimator Model (CalEEMod) estimates for the proposed project, (see modeling output files in Appendix A), construction-related vehicles would consume an estimated 616,487 gallons of diesel and gasoline combined and construction-related equipment would consume an estimated 95,064 gallons of diesel and gasoline combined during project construction. Additionally, single-wide mobile office trailers, generally ranging in size from 160 square feet to 720 square feet, are commonly used in construction staging areas. The use of a 720-square-foot construction trailer would consume approximately 15,072 kilowatt-hours (kWh) during the construction schedule (see Appendix A for calculations).

Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations Title 13, Sections 2449(d)(3) and 2485 limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. In addition, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Because of the temporary nature of construction and the financial incentives for developers and contractors to implement energy-efficient practices, project construction activities would not result in wasteful, inefficient, and unnecessary consumption of energy. Therefore, the construction-related impact related to fuel and electricity consumption would be less than significant.

# Operation

#### Electricity and Natural Gas

Because of the nature of the proposed project, there are no proposed building operations. Therefore, the proposed project is not anticipated to result in wasteful, inefficient, or unnecessary electricity consumption. Moreover, the proposed project would not consume natural gas. Therefore, there would be no operational impact related to building electricity and natural gas.

#### Fuel

Long-term operational energy consumption related to fuel consumption would be very minimal because the proposed project would not produce an increase in vehicle trips. Any periodic trips to the project site due to maintenance would consume fuel but would be limited. Therefore, the proposed project would not result in the inefficient or wasteful use of energy and impacts would be less than significant.

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

**Less than significant impact.** A discussion of the proposed project's potential to conflict with or obstruct a State or local plan for renewable energy or energy efficiency is presented below.

#### Construction

As described above, construction activities would involve energy consumption in various forms and would be limited by California regulations such as California Code of Regulations Title 13, Sections 2449(d)(3) and 2485 which limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would be required to comply with these regulations. There are no renewable energy standards applicable to construction activities for the proposed project.

Thus, it is anticipated that construction of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, impacts would be less than significant.

### Operation

Additionally, the proposed project would not consume electricity delivered by a California utility during operation. According to Senate Bill (SB) 100, California's Renewables Portfolio Standard (RPS) requires that 100 percent of electricity retail sales in California be sourced with renewable energy sources by 2045. PG&E would provide the delivery of electricity to the proposed project through the existing grid. SB 32 mandates a Statewide GHG emissions reduction goal to 40 percent below 1990 levels by the year 2030. Further, Executive Order B-55-18 establishes a new Statewide goal to achieve carbon neutrality by 2045 at the latest and maintain net negative emissions after 2045.<sup>18</sup> Therefore, the proposed project would receive electricity from a utility company that meets California's RPS requirements as well as the State requirements through 2045.

In addition, the proposed project would be designed and constructed in accordance with the applicable State's Title 24 energy efficiency standards. Part 11, Chapter 4 and 5 of the State Title 24 energy efficiency standards establishes mandatory measures for nonresidential buildings, including material conservation and resource efficiency. The proposed project would be required to comply with these mandatory measures and would be constructed in accordance with County standards. Thus, the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Thus, impacts would be less than significant.

# **Mitigation Measures**

No mitigation required.

<sup>18</sup> State of California. Edmund G. Brown. September 10, 2018. https://www.ca.gov/archive/gov39/wpcontent/uploads/2018/09/9.10.18-Executive-Order.pdf. Accessed May 11, 2022.

	Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.7	Geology and Soils Would the project:				
a)	Directly or indirectly cause potential substantial adver involving:	se effects, ind	cluding the risk	of loss, injury	, or death
	<ul> <li>Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</li> </ul>				
	ii) Strong seismic ground shaking?			$\boxtimes$	
	<ul><li>iii) Seismic-related ground failure, including liquefaction?</li></ul>			$\boxtimes$	
	iv) Landslides?			$\boxtimes$	
b)	Result in substantial soil erosion or the loss of topsoil?			$\boxtimes$	
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				
d)	Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				

# **Environmental Evaluation**

#### Setting

Information in this section is based, in part, on the Geotechnical Design Report written by Cal Engineering and Geology (CG&E) dated September 3, 2021 (Appendix D).<sup>19</sup>

Would the project:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

**Less than significant impact.** According to the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist, the project site is not located within an Alquist-Priolo Earthquake Fault Zone.<sup>20</sup> No active faults have been mapped on the project site. The closest mapped fault to the project site, the Great Valley Fault (Pittsburg-Kirby Hills section), can produce a magnitude 6.6 earthquake.<sup>21</sup> However, the proposed project would comply with the California Building Standards Code (CBC) Title 24 regulations to reduce substantial adverse effects caused by the rupture of an earthquake fault. Furthermore, the proposed project includes the construction of new drainage and security improvements, a new ADA-compliant plaza which serves as the public square and entry to the Hall of Justice, and new landscaping. These proposed features would not result in a land use change or substantial increased use of the project site. As such, the proposed project would not expose substantial numbers of people or structures to significant risk of loss, injury, or death due to a rupture of a known fault. Therefore, impacts would be less than significant.

#### ii) Strong seismic ground shaking?

**Less than significant impact.** The project site is located in Northern California, which is a seismically active region where strong seismic ground shaking can be expected to occur. There are several faults in the regional area that have the potential to cause moderate to large earthquakes. Although the project site is not located in an Alquist-Priolo Earthquake Fault Zone, the project site is located in seismically active California and could experience strong ground shaking from a large earthquake along one or more of the nearby active faults during the design lifetime of the project. A large magnitude earthquake on any of these faults or other active fault systems in the greater Bay Area has the potential to cause significant ground shaking at the site.<sup>22</sup> Compliance with applicable

<sup>&</sup>lt;sup>19</sup> Cal Engineering and Geology (CG&E). September 3, 2021. Geotechnical Design Report. Fairfield Justice Campus Asset Protection Project.

<sup>&</sup>lt;sup>20</sup> California Department of Conservation. 2019. California Earthquake Hazards Zone Application ("EQ Zapp"). Website: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed February 24, 2022.

<sup>&</sup>lt;sup>21</sup> Cal Engineering and Geology (CG&E). September 3, 2021. Geotechnical Design Report. Fairfield Justice Campus Asset Protection Project.

<sup>&</sup>lt;sup>22</sup> Ibid.

seismic design parameters including the CBC, Title 24, Part 2 and the California Public Resources Code, Division 2, Chapter 7.8 (the Seismic Hazards Mapping Act),<sup>23</sup> as well as applicable local regulations, would ensure that the potential adverse impacts from seismic ground shaking are minimized. Furthermore, the proposed project includes the construction of new drainage and security improvements, a new ADA-compliant plaza, and new landscaping. These proposed features would not result in a land use change or substantial increased use of the project site. Therefore, impacts would be less than significant.

### iii) Seismic-related ground failure, including liquefaction?

**Less than significant impact.** Earthquake-induced soil liquefaction can be described as a significant loss of soil strength and stiffness caused by an increase in pore water pressure resulting from cyclic loading during shaking. Liquefaction is associated primarily with loose (low density), saturated, fine-to medium-grained, cohesionless soils below the groundwater table, but can also occur in non-plastic to low-plasticity finer-grained soils. The potential consequences of liquefaction to engineered structures include loss of bearing capacity, buoyancy forces on underground structures, ground oscillations, or "cyclic mobility," increased lateral earth pressures on retaining walls, liquefaction settlement, and lateral spreading or "flow failures" in slopes.

The project site is in an area mapped as having medium liquefaction susceptibility. However, CG&E's assessment of the project site determined that the potential for liquefaction at the project site is low to nil due to the presence of generally stiff cohesive soils with no significant loose natural granular soils. As such, the proposed project would not cause adverse impacts related to seismic ground failure, including liquefaction. Impacts would be less than significant.

#### iv) Landslides?

**Less than significant impact.** The risk of landslides is typically associated with hillsides and steep slopes. The project site is relatively flat, and the surrounding area does not have steep slopes or hillsides that could pose a risk of landslides on the project site. Furthermore, the project site and its surroundings are developed. Therefore, the proposed project would not be expected to cause adverse impacts related to landslides. Thus, impacts would be less than significant.

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

**Less than significant impact.** The project site is entirely developed. The proposed project would require ground-disturbing activities such as grading, excavation, and other earthmoving activities prior to and during construction. However, the soils on the project site have already been disturbed.

Furthermore, projects that disturb one of more acres of soil are required to obtain the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit), issues by the California State Water Resources Control Board (State Water Board). The

<sup>&</sup>lt;sup>23</sup> California Public Resources Code. 1991. Chapter 7.8 – Seismic Hazards Mapping. April. Website: https://casetext.com/statute/california-codes/california-public-resources-code/division-2-geology-mines-and-mining/chapter-78seismic-hazards-mapping. Accessed May 11, 2022.

Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list BMPs that the proposed project would implement to control erosion and prevent the conveyance of sediments off-site. With the implementation of the conditions of the Construction General Permit, erosion impacts resulting from project construction would remain less than significant.

The proposed project would comply with the CBC and with required erosion control measures, outlined in Chapter 31 of the Solano County Code.<sup>24</sup> The proposed project would include new drainage improvements, and overland stormwater runoff protections in order to prevent stormwater damage, loss of function, and impairment operations. This would reduce soil erosion resulting from runoff. Impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

**Less than significant impact.** As discussed in Impact 2.7(a)(iii) and Impact 2.7(a)(iv), the proposed project would not result in risks associated with seismically induced liquefaction or from landslides. Compliance with the CBC, which requires that a site-specific ground motion study be performed in accordance with American Society of Civil Engineers (ASCE) 7-16 Section 11.4.8, would ensure that the soil would be stable. Furthermore, CE&G performed a qualitative assessment of the liquefaction potential of the soils encountered beneath the project area. The liquefaction Test (SPT) blow counts, and fines content from our boring logs and laboratory testing. Based on the apparent absence of granular materials in the borings, the liquefaction potential is deemed to be low to nil due to the presence of generally stiff cohesive soils. Impacts would be less than significant.

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

**Less than significant impact with mitigation incorporated.** Near-surface soils are moderately to highly expansive. The shrink/swell effects of expansive soils are most common on pavements and lightly loaded slabs, as opposed to more heavily loaded foundations or mats. The site is underlain by expansive soils to depths of up to about 4 to 5 feet below the existing grade. Some of the proposed structures would be supported on the existing artificial fill and/or native soils that are potentially expansive. However, the impacts of expansive soils can be mitigated/reduced to below a level of significance by proper moisture conditioning during site preparation and grading, and by placing non-expansive fill over the potentially expansive soils. This is incorporated as MM GEO-1a and MM GEO-1b. Impacts would be less than significant with incorporation of mitigation.

<sup>&</sup>lt;sup>24</sup> Solano County. 2021. Solano County Code. Chapter 31. Grading, Drainage, Land Leveling, and Erosion Control. Website: https://www.codepublishing.com/CA/SolanoCounty#!/html/SolanoCounty3100.html. Accessed February 24, 2022.

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

**No impact.** The proposed project would connect to an existing wastewater facility and sanitary sewer system and therefore would not use septic tanks or alternative wastewater disposal systems. No septic tanks or alternative wastewater disposal systems are proposed. Therefore, no impacts would occur as a result of the capacity of the soils on the project site to support septic tanks or alternative wastewater disposal systems.

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

**Less than significant with mitigation incorporated.** Paleontological records search results were provided by Kenneth L. Finger, PhD through the University of California Museum of Paleontology (UCMP) databased Natural History Museum (Appendix D). The entire project site is on Holocene alluvium (Qa,Qal). The surrounding 0.5-mile search area (dashed outline) also has Holocene bay mud (Qbm) extending from the south and late Pleistocene alluvium (Qoa) extending from the northeast. Holocene deposits are too young to be fossiliferous and therefore have no paleontological potential or sensitivity; hence, the paleontological record search for this project focused on the late Pleistocene deposits of Solano County. The exposure of the late Pleistocene 0.75- mile away suggests that its depth at the site is greater than all planned excavations. Therefore, paleontological monitoring of project-related earth-disturbing activities is not recommended.

Because the proposed project would require ground-disturbing activities such as grading and excavation, the potential exists for previously unknown paleontological resources to be uncovered during excavations of the project site. This creates a potentially significant impact. In the unlikely event that the Pleistocene layer is impacted and significant paleontological resources are unearthed, construction activities would be diverted at least 15 feet away from the discovery until a professional paleontologist has assessed the find for possible salvage. This is incorporated as MM GEO-2. Impacts would be less than significant with mitigation incorporated.

# **Mitigation Measures**

#### MM GEO-1a Site Preparation

After site preparation and before placement of compacted fills, the excavation bottom shall be observed and approved by the geotechnical engineer or their representative. After approval, the subgrade shall be scarified to a minimum depth of 8 inches, moisture conditioned to at least 3 percent of optimum moisture content, and compacted to between 88 and 92 percent of the maximum dry unit weight as measured by American Society of Testing and Materials (ASTM) D1557. Prepared soil subgrades shall be non-yielding when proof-rolled by a fully-loaded water truck or equipment of similar weight. Moisture conditioning of subgrade soils shall consist of adding water if the soils are too dry and allowing the soils to dry if the soils are too wet. If unstable, wet, or soft soil is encountered, the soil shall require processing before compaction can be achieved. When the construction schedule does not allow for air-drying, other means such as lime or cement treatment, over-excavation, and replacement, geotextile fabrics, etc. shall be employed to help stabilize the subgrade. The method to be used shall be determined at the time of construction based on the actual site conditions.

#### MM GEO-1b Engineered Fill Placement and Compaction

All import fills shall be approved by the project geotechnical engineer, before delivery to the site, by providing representative samples of proposed import fills to the engineer for evaluation.

Engineered fill shall be placed in horizontal lifts each not exceeding 8 inches in thickness and mechanically compacted to appropriate moisture content. Relative compaction or compaction is defined as the in-place dry density of the compacted soil divided by the laboratory maximum dry density as determined by American Society of Testing and Materials (ASTM) Test Method D1557, latest edition, expressed as a percentage. Moisture conditioning of soils shall consist of adding water to the soils if they are too dry and allowing the soils to dry if they are too wet. Engineered fills consisting of on-site soils and imported soils shall be compacted to a minimum of 90 percent relative compaction with moisture content at least 2 percent above the laboratory optimum value. In pavement areas, the upper 12 inches of subgrade soil and the full section of aggregate base shall be compacted to a minimum of 95 percent relative compaction with moisture content slightly above the optimum walue. Aggregate base in vehicle pavement areas shall be compacted at slightly above the optimum moisture content to a minimum of 95 percent relative compaction with moisture content slightly above the optimum moisture content to a minimum of 95 percent relative compaction areas shall be compacted at slightly above the optimum moisture content to a minimum of 95 percent relative compaction to a minimum of 95 percent relative content to a minimum of 95 percent relative compaction.

**MM GEO-2** In the event that the Pleistocene layer is impacted, and significant paleontological resources are unearthed, construction activities shall be diverted at minimum of 15 feet away from the discovery until a professional Paleontologist has assessed the find for possible salvage. Recovered fossils shall be deposited in an appropriate repository, such as the University of California Museum of Paleontology (UCMP), as determined by a professional Paleontologist, for their curation and availability for future research.

Environmental Issues 2.8 Greenhouse Gas Emissions	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				

# **Environmental Evaluation**

Would the project:

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

**Less than significant impact.** The proposed project is located in the San Francisco Bay Area Air Basin, which is regulated by the BAAQMD. Projects generate GHG emissions during construction and operation (e.g., mobile emissions, emissions from generation of electricity for operations, and emissions of from the manufacturing and transport of building materials). The BAAQMD's project-level significance thresholds for operational GHG emissions were deemed appropriate to use when determining the proposed project's potential GHG impacts. The thresholds suggested by the BAAQMD for project-level operational GHG generation are as follows:

- Compliance with a qualified GHG Reduction Strategy,
- 1,100 metric tons carbon dioxide equivalent (MT CO<sub>2</sub>e) per year, or
- 4.6 MT CO<sub>2</sub>e per service population (residents + employees) per year.

The BAAQMD's recommended thresholds of significance listed above were established based on meeting the 2020 GHG reduction targets set forth in the AB 32 Scoping Plan.<sup>25</sup> AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020; however, in 2016, SB 32 extended California's GHG reduction programs beyond 2020. SB 32 contains language to authorize the ARB to achieve a Statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. ARB approved the 2017 California's Climate Change Scoping Plan Update,<sup>26</sup>

<sup>&</sup>lt;sup>25</sup> California Air Resources Board (ARB). 2008. Climate Change Scoping Plan. December. Website: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/document/adopted\_scoping\_plan.pdf. Accessed February 16, 2022.

<sup>&</sup>lt;sup>26</sup> California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. Website: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping\_plan\_2017.pdf. Accessed February 16, 2022.

which outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels.

Because the proposed project would be constructed after 2020, the BAAQMD quantitative thresholds of significance listed above was adjusted to a "substantial progress" threshold that was calculated based on the SB 32 target of 40 percent below 1990 levels (i.e., 60 percent of 1990 levels). Therefore, the mass emission threshold of significance applied in this analysis is  $660 \text{ MT CO}_2 \text{e per}$ year (1,100 x 0.60 = 660). If operation of the proposed project would generate GHG emissions that exceed this significance threshold, the proposed project would be considered to have a significant impact related to GHG emissions.

Lastly, the BAAQMD does not have a recommended threshold of significance for constructionrelated GHG emissions, which are short-term emissions and therefore would not significantly contribute to the long-term cumulative GHG emissions impacts of the proposed project. To account for construction-related GHG emissions, construction emissions are converted to an average annual emissions amount by amortizing them over the anticipated service life of a building. For buildings in general, it is reasonable to look at a 30-year time frame, since this is a typical interval before a new building requires the first major renovation.<sup>27</sup>

In general, this analysis is restricted to GHGs identified by AB 32, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Construction and operation of the proposed project are addressed separately below.

#### **Construction GHG Emissions**

During project construction, GHGs would be generated by construction activities such as site clearing, operation of heavy-duty construction vehicles, materials and debris hauling, paving, and construction worker vehicle trips. These emissions would be considered short-term in duration. The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions; however, the BAAQMD does recommend that lead agencies quantify, disclose, and provide a significance determination for construction-related GHG emissions. Therefore, the construction emissions presented herein are averaged over a 30-year anticipated lifetime for the project and added to the proposed project's operational GHG emissions.

Construction emissions were estimated using CalEEMod (Version 2020.4.0). Construction assumptions used to estimate GHG emissions are consistent with those used to estimate air pollutant emissions, as described under Impact 2.3(b). Table 7 shows that GHG emissions generated by project construction were estimated to be approximately 1,039 MT  $CO_2e$ , which is equal to 35 MT  $CO_2e$  per year for the 30-year anticipated lifetime of the proposed project.

According to applicant-provided information, project construction is anticipated to occur from April 1, 2022, through February 28, 2023. Although this date of construction has since passed, the construction schedule used in the analysis represents a "worst-case" analysis scenario since emission

<sup>&</sup>lt;sup>27</sup> International Energy Agency (IEA). 2008, July. Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings.

factors for construction equipment decrease as the analysis year increases, due to improvements in technology and compliance with more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years. Thus, this conservative analysis evaluates the worst-case scenario.

Construction Phase	Total MT CO₂e/year			
Demolition	115			
Site Preparation	14			
Grading	74			
Flood Barrier Construction	605			
Paving/Roadway/Floodgates	177			
Architectural Features 2022	27			
Architectural Features 2023	26			
Total	1,039			
Amortized over 30 Years	35			
Notes: CO <sub>2</sub> e = carbon dioxide equivalent MT = metric tons Because of rounding, total MT CO <sub>2</sub> e may be marginally different from CalEEMod Output. Source: CalEEMod Output (Appendix A).				

### **Table 7: Construction GHG Emissions**

#### **Operational GHG Emissions**

Operational or long-term GHG emissions occur over the life of the proposed project. Sources for operational emissions include:

- **Motor Vehicles:** These emissions refer to tailpipe exhaust from the cars and trucks that would travel to and from the project site.
- **Indirect Electricity:** These emissions refer to those generated by off-site power plants to supply electricity required for the proposed project.
- Water Transport: These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- **Waste:** These emissions refer to the GHG emissions produced by decomposing waste generated by the proposed project.

Operational emissions were not estimated because the proposed project would not involve land uses that generate operational emissions. For example, the proposed flood barriers and stormwater

improvements would only involve construction activity and once the project is completed would not result in sources of GHG emissions. Motor vehicle, water, and waste sources of GHG emissions would be negligible during operation. Operations for the proposed project would be limited to the maintenance and addition of landscaping and pavement. The proposed project would not generate additional vehicle trips and resulting GHG emissions. Therefore, the proposed project would not generate substantial GHG emissions and impacts would be less than significant.

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

Less than significant impact.

#### Solano County Climate Action Plan Consistency

The County of Solano adopted the Climate Action Plan (CAP)<sup>28</sup> in June 2011 to address climate change and reduce the community's GHG at the local level. The CAP organizes measures and actions to reduce GHGs into five sectors: Agriculture, Transportation and Land Use, Energy Use and Efficiency, Water Use and Efficiency, and Waste Reduction and Recycling. The Plan sets forth the following objectives relevant to GHG emissions:

- Agriculture: Promote sustainable and economically viable agricultural practices.
- Energy Efficiency Objective: Minimize energy consumption, increase energy efficiencies, and transition to clean renewable energy sources.
- **Transportation and Land Use Objective**: Support a transportation system and land use pattern that promotes carpooling, walking, biking, and using public transit.
- Waste Reduction and Recycling Objective: Develop a zero-waste to achieve 75 percent diversion.
- Water Conservation: Promote efficient management and use of water.

Table 8 summarizes the proposed project consistency with applicable CAP measures.

Solano County CAP Measure	Project Consistency
<b>E-M1:</b> Reduce total energy consumption in County facilities cost-effectively by 20 percent by 2020.	<b>Consistent.</b> The prospect project would redevelop a site that experience frequent flooding and would not introduce new land uses that would consume energy during operation. Additionally, the proposed project would prevent inefficient energy use by preventing flooding and flood damage from occurring.

# Table 8: Solano County CAP Consistency

<sup>&</sup>lt;sup>28</sup> County of Solano Climate Action Plan, https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=10080. Accessed February 16, 2022.

Solano County CAP Measure	Project Consistency		
<b>LU-3:</b> Protect oak woodlands and heritage trees and encourage the planting of native tree species in new developments and along road rights-of- way. Require the planting of shade and roadside trees in development projects.	<b>Consistent.</b> The proposed project would include 22,118 square feet of landscaping, which would include native plant species.		
<b>W-2:</b> Adopt a Construction and Demolition Ordinance to require 65 percent of construction and demolition debris to be recycled or reused by 2020	<b>Consistent.</b> The proposed project would be required to comply with demolition debris recycling requirements adopted by the County.		
<b>WC-3:</b> Increase water-efficiency requirements for major (>2,500 square feet) landscape projects in new construction and remodels.	<b>Consistent.</b> The proposed project would include 22,118 square feet of new landscaping and would provide water efficient irrigation and native plant species that require low water demand.		
<b>WC-M1:</b> Reduce water in County buildings and landscape irrigation.	<b>Consistent.</b> The proposed project would reduce water demand by including water efficient irrigation and low water demand plant species native to California.		
Source: County of Solano. 2011. Climate Action Plan. Website: https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=10080. Accessed March 8, 2022.			

As shown in Table 8, the proposed project would be consistent with the Solano County CAP because it would include low water demand landscaping and would not include new sources of energy consumption.

The 2017 Clean Air Plan is also applicable to the proposed project because the project site is located within the BAAQMD planning area. As described in Impact 2.3(a), none of the control measures contained in the 2017 Clean Air Plan are applicable to the operation of the project. As discussed in Impact 2.3(b), the proposed project would implement all BMPs for construction activities and would be consistent with the assumptions in the AQP after implementation of MM AIR-1. Furthermore, the proposed project would not include any special features that would disrupt or hinder implementation of the AQP control measures.

# SB 32 2017 Scoping Plan Update

The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017.<sup>29</sup> Table 9 provides an analysis of the proposed project's consistency with the 2017 Scoping Plan Update measures. As shown in Table 9, these measures are more focused at the Statewide implementation level and are not as applicable to local, project-level developments. Nevertheless, this analysis provides a description of each measure and if the measures are applicable to the proposed project.

<sup>&</sup>lt;sup>29</sup> California Air Resources Board (ARB). 2017. The 2017 Climate Change Scoping Plan Update, the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. January 17. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp\_pp\_final.pdf. Accessed February 16, 2022.

2017 Scoping Plan Update Reduction Measure	Project Consistency
<b>SB 350: 50 Percent Renewable Mandate.</b> Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	<b>Not applicable.</b> This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from PG&E subject to the SB 350 Renewable Mandate.
<b>SB 350: Double Building Energy Efficiency by</b> <b>2030.</b> This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	<b>Not applicable.</b> This measure applies to existing buildings. The proposed project proposes to construct new stormwater and flood protection improvements on the project site.
<b>Low Carbon Fuel Standard.</b> This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	<b>Not applicable.</b> This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the proposed building at the project site would benefit from the standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The Strategy includes a goal of having 4.2 million Zero- Emission Vehicles (ZEVs) on the road by 2030 and increasing numbers of ZEV trucks and buses.	<b>Not applicable.</b> This measure is not applicable to the proposed project; however, vehicles accessing the project site would benefit from the increased availability of cleaner technology and fuels.
<b>Sustainable Freight Action Plan.</b> The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero- emission operation and maximize near zero- emission freight vehicles and equipment powered by renewable energy by 2030.	<b>Not applicable.</b> This measure applies to owners and operators of trucks and freight operations. The proposed project would develop stormwater improvements and flood barriers, which would not operate or increase freight operations.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The Strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	<b>Consistent.</b> The proposed project would not result in major sources of black carbon because it would develop stormwater improvements and flood protection and would have not have any operational impacts related to black carbon. The proposed project would not include sources of black carbon, such as industrial uses or generation of significant amounts vehicle trips. In addition, proposed landscaping would sequester minimal amounts of $CO_2$ and black carbon. Therefore, the proposed project would not include major sources of black carbon.
<b>SB 375 Sustainable Communities Strategies.</b> Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita VMT.	<b>Not applicable.</b> The proposed project does not include the development of a Regional Transportation Plan.

### Table 9: Consistency with SB 32 2017 Scoping Plan Update

2017 Scoping Plan Update Reduction Measure	Project Consistency
Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade	<b>Not applicable.</b> The proposed project is not a major source and is not targeted by the cap-and-trade system regulations. Therefore, this measure does not apply to the proposed project.
working in coordination with several other agencies	<b>Not applicable.</b> The proposed project is in an urbanized area and would not be considered natural or working lands.

Source: California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November. Website: https://ww3.arb.ca.gov/cc/scopingplan/scoping\_plan\_2017.pdf. Accessed February 16, 2022.

The proposed project would not conflict with the policies, regulations, or guidelines in the Solano County CAP, County's General Plan, Bay Area Clean Air Plan, or any other applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, as discussed in Impact 2.7(a), the proposed project would not generate substantial GHG emissions during construction or operation. Therefore, this impact would be less than significant. The implementation of MM AIR-1 would further reduce GHG emissions from vehicles utilized during project construction.

# **Mitigation Measures**

Implement MM AIR-1.

2.9	Environmental Issues Hazards and Hazardous Materials Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				
g)	Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?				

# **Environmental Evaluation**

### Setting

Information in this section is based in part on a Phase I Environmental Site Assessment (Phase I ESA) conducted by Ninyo & Moore on March 4, 2022, and is included as Appendix E of this Draft IS/MND.

Would the project:

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

**Less than significant impact.** Recognized Environmental Conditions (RECS) are defined as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." A Controlled REC (CREC) is "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls."

The following RECs are identified in the Phase I ESA:

• The RWQCB has files related to a leaking underground gasoline storage tank that affected the non-potable groundwater beneath the site. The case was closed in 1998 after remediation. No additional information about the location, investigation, or remediation completed at the site for this case is available. The lack of information pertaining to the location, investigation, or remediation completed at the site for the October 1988 leaking gasoline underground storage tank (UST) is considered a REC.

The following CRECs are identified in the Phase I ESA:

 According to the RWQCB Geotracker website, four USTs were removed from the project site in 1989. Following the removal, soil and groundwater samples detected elevated levels of total petroleum hydrocarbons (TPH). The Solano County Department of Environmental Management (SCDEM) concluded that the impacted soil and groundwater appeared to be isolated to the UST excavation, and the groundwater hydrocarbon plume was stable and decreasing, so the site presented no significant risk to the environment or human health for the current and future use as a commercial site. The SCDEM issued a site closure letter in September 2003. Ninyo & Moore compared the 2002 contamination levels at the site to the 2019 RWQCB Commercial Environmental Screening Levels (ESLs) and all of the concentrations were below their respective ESLs. The historical contamination and present land use limitations from the four USTs removed from the Solano County Fleet Services building, is considered a CREC.

Although records pertaining to the UST removal contained limited information and additional records could not be located, the project site was remediated to the satisfaction of the RWQCB and site closure was granted. Based on closure of the site by a regulatory agency, the Phase I ESA does

not make recommendations and did not suggest further investigation. Therefore, these conditions would not exacerbate risks resulting from the transport or disposal of hazardous materials.

Construction activities would potentially require the routine transport, use, and disposal of small amounts of hazardous materials such as fuels, paints, or solvents, which are required during construction. The proposed project would be required to comply with all applicable local, State, and federal safety codes and regulations related to transporting, using, or disposing hazardous materials, including Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); federal Clean Air Act; and the Occupational Safety and Health Administration (OSHA) that regulates worker safety hazards. Construction activities that involve hazardous materials would be governed by several agencies, including California Environmental Protection Agency (Cal/EPA), California Department of Transportation (Caltrans), California Division of Occupational Safety and Health (Cal/OSHA), Department of Toxic Substances Control (DTSC), as well as applicable local regulations. Compliance with the provisions of these agencies would ensure that the transport, use, or disposal of hazardous materials during construction does not create a significant hazard to the public. In operation, the proposed stormwater improvements would not involve the use of hazardous materials. Therefore, impacts would be less than significant.

#### b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

**Less than significant impact.** As described above, the project site has one REC and one CREC. Although records pertaining to the UST removal contained limited information and additional records could not be located, the project site was remediated to the satisfaction of the RWQCB and site closure was granted. As a result, the Phase I ESA did not make recommendations and did not suggest further investigation. Therefore, these conditions would not exacerbate risks of upset and accident conditions involving the release of hazardous materials into the environment.

Furthermore, construction activities would potentially require the transport, use, and disposal of small quantities of hazardous materials. The proposed project would be required to comply with all applicable local, State, and federal safety codes and regulations related to transporting, using, or disposing hazardous materials, including RCRA; CERCLA; federal Clean Air Act; and OSHA that regulates worker safety hazards. Construction activities that involve hazardous materials would be governed by several agencies, including Cal/EPA, Caltrans, Cal/OSHA, DTSC, as well as applicable local regulations. Compliance with the provisions of these agencies would reduce risks of reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. In operation, the proposed stormwater improvements would not involve the use of hazardous materials. Therefore, impacts would be less than significant.

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

**Less than significant impact.** Armijo High School is located directly northeast of the project site. Construction of the proposed project may use small quantities of hazardous materials. As described above, compliance with federal, State, and local safety codes related to the use of hazardous materials would reduce risks of emitting hazardous materials. The proposed project would include new drainage improvements, overland stormwater runoff protections, security improvements, and an ADA-compliant plaza. Therefore, operation of the proposed project would not involve the use of hazardous materials. Impacts would be less than significant.

# d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

**No impact.** The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.<sup>30</sup> No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

**No impact.** Nut Tree Airport is located approximately 12 miles to the northeast of the project site. Therefore, the proposed project is not located within 2 miles of a public airport and would not result in a safety hazard or excessive noise. No impact would occur.

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

**No impact.** Currently, site access is provided by Washington Street and a driveway along Delaware Street. Vehicles driving south on Washington Street can turn east to enter a parking lot. An access restricted cul-de-sac is located at the end of Washington Street. Construction of the proposed project could result in temporary access point closures that may alter emergency vehicle access. However, this would be limited to the 11-month construction period. Washington Street is approximately 30-feet-wide and the driveway along Delaware Street is approximately 20-feet-wide. Both access points exceed width requirements in the Solano County Code.<sup>31</sup> These access points would not be altered as part of the proposed project. No impact would occur.

<sup>&</sup>lt;sup>30</sup> California Department of Toxic Substances Control (DTSC). Envirostor. 2021 Hazardous Waste and Substances Site List. Website: https://www.envirostor.dtsc.ca.gov/public/search.asp?page=1&cmd=search&business\_name=&main\_street\_name=&city=&zip=&c ounty=&status=ACT%2CBKLG%2CCOM&branch=&site\_type=CSITES%2COPEN%2CFUDS%2CCLOSE&npl=&funding=&reporttitle=HAZ ARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&reporttype=CORTESE&federal\_superfund=&state\_response=&voluntary\_cleanup= &school\_cleanup=&operating=&post\_closure=&non\_operating=&corrective\_action=&tiered\_permit=&evaluation=&spec\_prog=&n ational\_priority\_list=&senate=&congress=&assembly=&critical\_pol=&business\_type=&case\_type=&searchtype=&hwmp\_site\_type= &cleanup\_type=&ocieerp=&hwmp=False&permitted=&pc\_permitted=&inspections=&inspectionsother=&complaints=&censustract =&cesdecile=&school\_district=&orderby=upper%28business%5Fname%29. Accessed March 11, 2022.

<sup>&</sup>lt;sup>31</sup> Solano County. Solano County Code. Chapter 28 Zoning Regulations. Article IV Site Development and Other Standards. Website:

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

**No impact.** A State Responsibility Area (SRA) is an area of the State in which the financial responsibility of preventing and suppressing fires has been determined by CAL FIRE pursuant to Public Resources Code Section 4125, to be primarily the responsibility of the State. The proposed project is not located in an SRA.<sup>32</sup> A Local Responsibility Area (LRA) is an area designated by CAL FIRE pursuant to Government Code Section 51178 that is not within an SRA and is managed at the local level. The project site is located in an LRA and is not located in a Fire Hazard Severity Zone (FHSZ).<sup>33</sup> The project site is in a relatively flat and in an urbanized area. The proposed project would not alter the land uses on the project site. Therefore, no impact would occur.

## **Mitigation Measures**

<sup>&</sup>lt;sup>32</sup> California Department of Forestry and Fire Protection (CAL FIRE). 2009. Contra Costa County: Very High Fire Hazard Severity Zones in LRA As Recommended By CAL FIRE. Website: https://osfm.fire.ca.gov/media/6660/fhszl\_map7.pdf. Accessed March 4, 2022.

<sup>&</sup>lt;sup>33</sup> California Department of Forestry and Fire Protection (CAL FIRE). 2008. Draft Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6819/fhszl06\_1\_map48.pdf. Accessed March 4, 2022.

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

Would the project:

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

**Less than significant impact.** Areas of 1 acre or more of disturbance are subject to preparing and implementing a SWPPP for the prevention of runoff during construction. The proposed project

would disturb approximately 4.6 acres of the 17-acre site. Therefore, the proposed project would be subject to National Pollutant Discharge Elimination System (NPDES) requirements and would be required to prepare and implement an SWPPP in accordance with applicable federal and State requirements. The SWPPP would identify BMPs that are intended to prevent erosion during construction activity. The proposed storm drainage improvements are designed in accordance with applicable State and local laws and regulations in order to reduce peak runoff volume, prevent inundating downstream waterways, and reduce pollutant loads. The proposed project would add 22,118 square feet of landscaping, increasing the amount of pervious surfaces within the project site. Furthermore, the proposed project would construct low barrier walls, hydraulic gates, landscaped berms, and additional storm drains and pump capacity that would preserve water quality by reducing polluted runoff. These construction and operational features would ensure the proposed project would not violate water quality standards. Therefore, impacts would be less than significant.

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

**No impact.** The proposed project would include new drainage improvements, overland stormwater runoff protections, security improvements, and an ADA-compliant plaza. The addition of 22,118 square feet of landscaping improvements would increase pervious surfaces on the project site and would not create an additional demand for water or groundwater. Therefore, no impact would occur.

- c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - (i) result in substantial erosion or siltation on- or off-site;

**Less than significant impact.** Areas of 1 acre or more of disturbance are subject to preparing and implementing a SWPPP for the prevention of runoff during construction. The proposed project would disturb 4.6 acres. Therefore, the proposed project is subject to NPDES requirements and would be required to prepare and implement an SWPPP in accordance with applicable federal and State requirements that implements BMPs.

Furthermore, the proposed project would construct low barrier walls, hydraulic gates, landscaped berms, and additional storm drains and pump capacity. The addition of 22,118 square feet of landscaping improvements would result in an increase in pervious surfaces. These improvements would control stormwater flows such that runoff and resulting erosion and siltation would be reduced. Therefore, impacts would be less than significant.

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

**Less than significant impact.** Past winter storms have damaged County buildings, causing loss of function and extended impairment of operations at the project site. The project site and the surrounding area is located in a Special Flood Hazard Area. The eastern portion of the project site is

located in a 100-year flood zone, which is subject to inundation by the 1 percent annual chance flood event.<sup>34</sup> The remainder of the project site is located in a flood zone with a 0.2 percent annual chance flood event.<sup>35</sup> The proposed project would construct low barrier walls, hydraulic gates, landscaped berms, and additional storm drains and pump capacity. The addition of 22,118 square feet of landscaping improvements would result in an increase in pervious surfaces and would increase storm drainage capacity, which would control flood flows and reduce risks from flooding. Therefore, impacts would be less than significant.

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

**Less than significant impact.** The proposed project would construct additional storm drains and pump capacity. This would reduce impacts resulting from polluted runoff. Therefore, impacts would be less than significant.

#### (iv) impede or redirect flood flows?

**Less than significant impact.** As described above, past winter storms have damaged County buildings, causing loss of function and extended impairment of operations at the project site. The project site and the surrounding area is located in a Special Flood Hazard Area. The eastern portion of the project site is located in a 100-year flood zone, which is subject to inundation by the 1 percent annual chance flood event.<sup>36</sup> The remainder of the project site is located in flood zone with a 0.2 percent annual chance flood event.<sup>37</sup> The proposed project would construct low barrier walls, hydraulic gates, landscaped berms, and additional storm drains and pump capacity. The addition of 22,118 square feet of landscaping improvements would result in an increase in pervious surfaces and would increase storm drainage control and capacity, which would reduce risks from flooding. Therefore, impacts would be less than significant.

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

**Less than significant impact.** As described above, the proposed project is located in a Flood Hazard Zone. However, the proposed project would reduce impacts of flood hazards from current conditions with the construction of low barrier walls, hydraulic gates, landscaped berms, and additional storm drains and pump capacity. Furthermore, the project site is not located near the coast and would not be subject to tsunami or seiche risks. Therefore, impacts would be less than significant.

<sup>37</sup> Ibid.

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3 FirstCarbon Solutions Https://adecinnovations.sharepoint.com/sites/PublicationsSite/Shared Documents/Publications/Client (PN-JN)/2085/20850049/ISMND/20850049 Solano County Fairfield Justice Campus Asset Protection and Resiliency Project ISMND\_TRACKS.dock

<sup>&</sup>lt;sup>34</sup> Federal Emergency Management Agency (FEMA). October 2020. National Flood Hazard Layer FIRMette.

<sup>&</sup>lt;sup>35</sup> Ibid.

<sup>&</sup>lt;sup>36</sup> Ibid.

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

Less than significant impact. Solano County does not have a water quality control plan. The Solano Subbasin Groundwater Sustainability Plan was submitted to the California Department of Water Resources in January 2022.

As described above, the proposed project would be required to prepare an SWPPP containing BMPs for project construction. The proposed project would include increase stormwater management infrastructure and increased stormwater capacity that would reduce polluted runoff, which would prevent impacts to water quality.

The proposed project would include stormwater improvements, security improvements, landscaping, and an ADA-compliant plaza which would not change the use of the existing facility. Therefore, the proposed project would not increase the use of groundwater or conflict with a sustainable groundwater management plan. Impacts would be less than significant.

## **Mitigation Measures**

Environmental Issues 2.11 Land Use and Planning Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?			$\boxtimes$	
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating ar environmental effect?				

Would the project:

#### a) Physically divide an established community?

Less than significant impact. The project site and its vicinity are entirely urbanized. The project site is surrounded by Old Solano Courthouse, and Armijo High School to the north; two auto repair shops, an oil change service, an upholstery shop, a spa, and a towing service to the east; an auto repair shop, a vacant building, and a food and liquor store to the south; and County buildings and a parking garage to the west. The proposed project would include the construction of new drainage and security improvements, a new ADA-compliant plaza, and new landscaping. The proposed project is not large enough or otherwise configured in such a way that would create a physical barrier within an established community. A typical example of such a barrier would be a project that involved a continuous right-of-way, such as a roadway, which would divide a community and impede access between parts of the community. Therefore, implementation of the proposed project would not disrupt the surrounding land uses or divide the physical arrangement of the established communities to the north, south, and east of the project site. None of these features would change the land use or any Solano Justice Campus features that would contribute to the physical division of an established community. Impacts would be less than significant.

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

**Less than significant impact.** According to the General Plan, the land use designation for the project site is Public/Quasi-Public. The Public/Quasi-Public land use designation allows for airports, schools, solid waste facilities, hazardous waste facilities, and other public and quasi-public facilities. The existing Solano Justice Campus is consistent with this land use designation. The proposed project would include the construction of new drainage and security improvements, a new ADA-compliant plaza, and new landscaping. These proposed improvements would not alter the existing land use. Therefore, impacts would be less than significant.

# **Mitigation Measures**

	Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.:	<b>12 Mineral Resources</b> Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				$\boxtimes$

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

**No impact.** Figure RS-4 in the General Plan illustrates the locations of mineral resources throughout Solano County.<sup>38</sup> The figure illustrates that the project site does not contain known mineral resources. Therefore, no impact would occur.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

**No impact.** Figure RS-4 in the General Plan illustrates the locations of mineral resources throughout Solano County.<sup>39</sup> The figure illustrates that the project site does not contain a locally important mineral resources recovery site. Therefore, no impact would occur.

#### Mitigation Measures

<sup>&</sup>lt;sup>38</sup> Solano County. 2008. Solano County General Plan. Chapter 4: Resources. Figure RS-4 Mineral Resources. Website: https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=6494. Accessed February 25, 2022.

<sup>&</sup>lt;sup>39</sup> Ibid.

2.13 No Wa	Environmental Issues oise Yould the project result in:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
inci pro ger	neration of a substantial temporary or permanent crease in ambient noise levels in the vicinity of the oject in excess of standards established in the local neral plan or noise ordinance, or applicable andards of other agencies?				
-	neration of excessive groundborne vibration or bundborne noise levels?			$\boxtimes$	
airs pla put pro	r a project located within the vicinity of a private strip or an airport land use plan or, where such a an has not been adopted, within two miles of a blic airport or public use airport, would the oject expose people residing or working in the oject area to excessive noise levels?				

#### Setting

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. Noise is typically generated by transportation, specific land uses, and ongoing human activity.

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

Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was derived to relate noise to the sensitivity of humans, it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L<sub>dn</sub>) and the Community Noise Equivalent Level (CNEL), both of which represent how humans are more sensitive to sound at night. In addition, the equivalent continuous sound level (L<sub>eq</sub>) is the average sound

energy of time-varying noise over a sample period and the L<sub>max</sub> is the maximum instantaneous noise level occurring over a sample period.

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. When assessing annoyance from groundborne noise, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 microinch per second. To distinguish vibration levels from noise levels, the unit is written as vibration in decibels (VdB). Human perception to vibration starts at levels as low as 67 VdB and sometimes lower. Annoyance due to vibration in residential settings starts at approximately 70 VdB. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. Construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). Typical vibration source levels from construction equipment are shown in Table 10.

<b>Construction Equipment</b>	PPV at 25 Feet (inches/second)	rms VdB at 25 Feet
Water Trucks	0.001	57
Scraper	0.002	58
Bulldozer–small	0.003	58
Jackhammer	0.035	79
Concrete Mixer	0.046	81
Concrete Pump	0.046	81
Paver	0.046	81
Pickup Truck	0.046	81
Auger Drill Rig	0.051	82
Backhoe	0.051	82
Crane (Mobile)	0.051	82
Excavator	0.051	82
Grader	0.051	82
Loader	0.051	82
Loaded Trucks	0.076	86
Bulldozer–large	0.089	87
Caisson drilling	0.089	87
Vibratory Roller–small	0.101	88
Compactor	0.138	90
Clam shovel drop	0.202	94

## **Table 10: Vibration Levels of Construction Equipment**

FirstCarbon Solutions
Https://adecinnovations.sharepoint.com/sites/PublicationsSite/Shared Documents/Publications/Client (PN-JN)/2085/20850049/ISMND/20850049 Solano County Fairfield Justice Campus Asset Protection and Resiliency
Project ISMND\_TRACKS.docx

Construction Equipment	PPV at 25 Feet (inches/second)	rms VdB at 25 Feet
Vibratory Roller–large	0.210	94
Pile Driver (impact-typical)	0.644	104
Pile Driver (impact-upper range)	1.518	112
Notes: PPV = peak particle velocity rms = root mean square VdB = vibration in decibels Source: Compilation of scientific and academic lin Federal Highway Administration (FHWA).	terature, generated by the Federal Tra	ansit Administration (FTA) and

Propagation of vibration through soil can be calculated using the vibration reference equation of:

Where:

PPV = reference measurement at 25 feet from vibration source

D = distance from equipment to property line

N = vibration attenuation rate through ground

According to Section 6.3 of the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual,<sup>40</sup> an "n" value of 1.5 is recommended to calculate vibration propagation through typical soil conditions.

The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment Manual. The FTA guidelines include thresholds for construction vibration impacts for various structural categories, as shown in Table 11.

Table 11: Federal Transit Administration Construction Vibration Impact Criteria
---

Building Category	PPV (in/sec)	Approximate VdB
I. Reinforced—Concrete, Steel or Timber (no plaster)	0.5	102
II. Engineered Concrete and Masonry (no plaster)	0.3	98
III. Non-Engineered Timber and Masonry Buildings	0.2	94
IV. Buildings Extremely Susceptible to Vibration Damage	0.12	90

<sup>&</sup>lt;sup>40</sup> Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

Building Category	PPV (in/sec)	Approximate VdB
Notes: PPV = peak particle velocity		
VdB = vibration in decibels Source: Federal Transit Administration (FTA). 2018. Transit Noise an	d Vibration Impact Assessme	ent Manual. September.

#### **Regulatory Framework**

The project site is located within the City of Fairfield, in eastern Solano County. The proposed project would replace or upgrade existing storm drainage facilities by constructing new drainage improvements, and flood overland stormwater runoff protections, and security enhancements. Therefore, the only associated noise impacts would be construction related and temporary. While the project site is located on County land, the surrounding properties are all located within the City of Fairfield. Solano County does not have any quantitative noise thresholds related to construction noise or vibration impacts. In addition, the potential construction-related noise and vibration impacts would primarily impact off-site uses that are located within the City of Fairfield. Therefore, for purposes of this analysis the City's applicable noise regulations are used to determine potential impact significance. The City of Fairfield addresses noise in the Noise Element of the General Plan and in the Noise Ordinances of the Municipal Code.<sup>41</sup>

#### City of Fairfield General Plan

As noted previously, the proposed project would replace or upgrade existing storm drainage facilities by constructing new drainage improvements, and flood overland stormwater runoff protections, and security enhancements. As such, the following are the only noise policies that are directly applicable to the proposed project.

- Policy HS 9.3 Non-transportation noise: Noise created by new non-transportation noise sources shall be mitigated so as not to exceed the interior and exterior noise level standards of Table HS-2 [Table 12 below]. Where proposed non-transportation noise sources are likely to produce noise levels exceeding the performance standards of Table HS-2 [Table 12 below], an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
- **Policy HS 9.11** The City shall require all development projects to mitigate noise impacts associated with construction activities.

<sup>&</sup>lt;sup>41</sup> City of Fairfield.2021. Fairfield Municipal Code. Website: https://www.codepublishing.com/CA/Fairfield/. Accessed February 14, 2022.

		Exterior Noise L (Applicable at F	Interior Noise Level Standard		
Land Use	Noise Level Descriptor	Daytime (7:00 a.m.– 10:00 p.m.)	Nighttime (10:00 p.m.– 7:00 a.m.)	Daytime (7:00 a.m.– 10:00 p.m.)	Nighttime (10:00 p.m.– 7:00 a.m.)
Residential	L <sub>eq</sub>	50	45	40	35
	L <sub>max</sub>	70	65	60	55
Transient lodging, hospitals,	L <sub>eq</sub>	_	_	40	35
nursing homes	L <sub>max</sub>	_	-	60	55
Theaters, auditoriums, music halls	L <sub>eq</sub>	_	_	35	35
Churches, meeting halls	L <sub>eq</sub>	_	_	40	40
Office buildings	L <sub>eq</sub>	_	_	45	_
Schools, libraries, museums	L <sub>eq</sub>	_	_	45	-
Playgrounds, parks	L <sub>eq</sub>	65	_	_	_

#### **Table 12: Non-transportation Noise Standards**

Notes:

dB = decimal

L<sub>eq</sub> = equivalent sound level

L<sub>max</sub> = maximum noise/sound level

• Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or recurring impulsive noises.

Source: City of Fairfield General Plan. 2004. Health and Safety Element. October.

#### City of Fairfield Municipal Code

The City of Fairfield also addresses noise in Municipal Code, Article X, Noise Regulations.<sup>42</sup> Specifically, Section 25.1403, Noise Standards, reiterates the City's non-transportation noise standards outlined in Table 12 above. Noise Regulations Section 25.1404, Specific Prohibitions, Construction Activities, prohibits the operation of any tools or equipment used in construction, grading, or demolition works between the hours of 10:00 p.m. and 7:00 a.m. except by written permission of the Director of Public Works.

## **Environmental Evaluation**

Would the project result in:

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

<sup>&</sup>lt;sup>42</sup> City of Fairfield.2021. Fairfield Municipal Code. Website: https://www.codepublishing.com/CA/Fairfield/. Accessed February 14, 2022.

#### **Short-Term Construction Noise Impacts**

**Less than significant impact with mitigation incorporated.** While the project site is located on County land, the surrounding properties are all located within the City of Fairfield. Solano County does not have any quantitative noise thresholds related to construction noise or vibration impacts; therefore, the thresholds from the City of Fairfield are used to evaluate the potential significance of project impacts. A significant impact would occur if the proposed project resulted in the exposure of persons to or generation of noise levels that exceed the construction noise standards established in the City of Fairfield Municipal Code,<sup>43</sup> Section 25.1404, Specific Prohibitions, which restricts the operation of any tools or equipment used in construction, grading or demolition works between the hours of 10:00 p.m. and 7:00 a.m. except by written permission of the Director of Public Works.

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the project site (vehicle engine noise, the sound of vehicle doors shutting, etc.). Although there would be a relatively high single event noise exposure potential causing intermittent noise nuisance, the effect on longerterm (hourly or daily) ambient noise levels would be small. Therefore, short-term, constructionrelated impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction noise levels are rarely steady in nature and often fluctuate depending on the type and number of equipment being used at any given time. In addition, there could be times where large equipment is not operating and noise would be at or near normal ambient levels. Construction is completed in discrete steps, each of which has its own mix of equipment and its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

A characteristic of noise is that each doubling of the sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during the loudest phase of construction, the site preparation phase, would be 90 dBA L<sub>max</sub> at a distance of 50 feet from the

<sup>&</sup>lt;sup>43</sup> City of Fairfield.2021. Fairfield Municipal Code. Website: https://www.codepublishing.com/CA/Fairfield/. Accessed February 14, 2022.

acoustic center of construction activity (where multiple pieces of construction equipment are operating all at 50 feet from a single point). This would result in a reasonable worst-case hourly average of 87 dBA L<sub>eq</sub>. The acoustic center reference is used, because construction equipment must operate at some distance from one another on a project site, and the combined noise level as measured at a point equidistant from the sources would (acoustic center) be the worst-case maximum noise level. The effect on sensitive receptors is evaluated below.

The closest residential receptor to the project construction footprint is the single-family residence located at the northwest corner of Delaware Street and Jefferson Street. This receptor is located approximately 470 feet from the nearest project construction footprint. At this distance, relative worst-case maximum construction noise levels would attenuate to below 71 dBA  $L_{max}$ , with relative worst-case hourly average construction noise levels attenuating to below 68 dBA  $L_{eq}$  at this receptor.

Although there could be a relatively high single event noise exposure potential causing an intermittent noise nuisance, the effect of construction activities on longer-term (hourly or daily) ambient noise levels would be small but could result in a temporary increase in ambient noise levels in the project vicinity that could result in annoyance or sleep disturbance of nearby sensitive receptors. However, compliance with the City's permissible hours of construction would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in nighttime annoyance or sleep disturbance of nearby sensitive receptors. Therefore, implementation of MM NOI-1, requiring compliance with the City's permissible hours of construction techniques and practices, would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result and practices. With implementation of MM NOI-1, temporary construction noise impacts would be less than significant.

#### **Operation Noise Impacts**

**No impact.** The proposed project would replace or upgrade existing storm drainage facilities by constructing new drainage improvements, and flood overland stormwater runoff protections, and security enhancements. As such, there would be no permanent operational noise sources associated with implementation of the project. Therefore, there would be no impact related to any permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

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

**Less than significant impact.** A significant impact would occur if the proposed project would generate groundborne vibration or groundborne noise levels in excess of established standards. The City of Fairfield has not established a standard for excessive groundborne vibration levels resulting from construction activities. However, the FTA has established industry accepted standards for vibration impact criteria and impact assessment in its Transit Noise and Vibration Impact Assessment

Manual.<sup>44</sup> The FTA guidelines include thresholds for construction vibration impacts for various structural categories.

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

**Short-term Construction Vibration Impacts.** Of the variety of equipment that would be used during construction, front-end loaders and backhoes would produce the greatest groundborne vibration levels. As shown in Table 1, front-end loaders and backhoes can produce groundborne vibration levels ranging up to 0.051 inches per second (in/sec) PPV at 25 feet from the operating equipment. Impact equipment (e.g., pile drivers) is not expected to be used during construction of the proposed project.

For the construction of the new drainage improvements, the heaviest construction equipment could potentially operate as close as 10 feet from nearest structure. At this distance, groundborne vibration levels from operation of the heaviest piece of construction equipment anticipated to be used (front-end loaders and backhoes) would attenuate to 0.2 in/sec PPV. This is below the FTA's Construction Vibration Impact Criteria of 0.3 PPV for the adjacent structures, which are buildings of engineered concrete and masonry construction. Therefore, the impact of short-term groundborne vibration associated with construction would be less than significant.

**Operational Vibration Impacts.** Implementation of the proposed project would not include any permanent sources that would generate groundborne vibration levels that could be perceptible without instruments at any land use in the project vicinity. There are no existing significant permanent sources of groundborne vibration in the project vicinity to which the proposed project would be exposed. Therefore, project-related operational groundborne vibration level impacts would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

**No impact.** A significant impact would occur if the proposed project would expose people residing or working in the project area to excessive noise levels for a project located in the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

<sup>&</sup>lt;sup>44</sup> Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

The closest airport to the proposed project is the Nut Tree Airport, located approximately 9.4 miles northeast of the site. This proposed project would be located outside the Airport's 65 dBA CNEL noise contours. No impact would occur.

# **Mitigation Measures**

- **MM NOI-1 Construction Noise Control.** Implementation of the following multi-part mitigation measure is required to ensure reduction of potential construction noise impacts:
  - The construction contractor shall limit construction activities on the project site to the hours of 7:00 a.m. to 10:00 p.m. except with written permission of the Director of Public Works.
  - The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers that are in good condition and appropriate for the equipment.
  - The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
  - The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
  - At all times during project grading and construction, the construction contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from adjacent residences.
  - The construction contractor shall ensure that the construction staging areas shall be located to create the greatest feasible distance between the staging area and noise-sensitive receptors nearest the project site.
  - The construction contractor shall control noise from construction workers' radios to a point where they are not audible at existing residences in the project vicinity.

2.:	Environmental Issues 14 Population and Housing Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				$\boxtimes$

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

**No impact.** Implementation of the proposed project would not include the development of any residential dwelling units or new roads and infrastructure that could induce substantial population growth. Nor would the project result in any businesses or new permanent employment opportunities. Additionally, the proposed project does not include the development of any infrastructure that would induce unplanned population growth. Because there are no residential units or new employment opportunities proposed, buildout of the proposed project would not contribute to or exceed the County's projected population numbers. Therefore, the proposed project would not induce unplanned population growth either directly or indirectly. Thus, no impact would occur.

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

**No impact.** The project site does not contain any residential structures; therefore, the proposed project would not result in any displacement of people or housing. No impact would occur.

## **Mitigation Measures**

	Potentially Significant	Less than Significant Impact with Mitigation	Less than Significant	No
Environmental Issues	Impact	Incorporated	Impact	Impact

#### 2.15 Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?		$\boxtimes$
b) Police protection?		$\boxtimes$
c) Schools?		$\bowtie$
d) Parks?		$\boxtimes$
e) Other public facilities?		$\bowtie$

## **Environmental Evaluation**

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- a) Fire protection?
- b) Police protection?
- c) Schools?
- d) Parks?
- e) Other public facilities?

**No impact.** The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. These project features would not induce population growth and, thus, would not increase the demand for public services. Therefore, no impact would occur.

#### **Mitigation Measures**

2.1	Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

**No impact.** The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. These project features would not induce population growth and, thus, would not increase the use of existing recreational facilities. Therefore, no impact would occur.

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

**No impact.** The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. These project features would not induce population growth and, thus, would not require the construction or expansion of recreational facilities. Therefore, no impact would occur.

## **Mitigation Measures**

2.1	Environmental Issues I <b>7 Transportation</b> Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities?				$\boxtimes$
b)	Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				$\square$
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				
d)	Result in inadequate emergency access?				$\boxtimes$

Would the project:

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

**No impact.** The preparation of a transportation study is not required for the proposed project because the proposed project consists only of project site improvements and is not a traffic generating project.

Currently, site access is provided by Washington Street and a driveway along Delaware Street. Vehicles driving south on Washington Street can turn east to enter a parking lot. An access restricted cul-de-sac is located at the end of Washington Street. Pedestrian walkways are located throughout the project site and would be improved as part of the proposed project. The proposed project includes improvements to surrounding sidewalks. Additionally, a new walkway along the outside of the Sheriff's Office parking lot is proposed.

Nominal traffic increases from construction vehicles, as well as road closures, could occur during the construction of the proposed improvements. However, these changes would be temporary and limited to the 11-month construction period. Construction vehicles would be required to utilize designated truck routes. Furthermore, per Chapter 17 of the Solano County Code, traffic control devices such as construction signs would be required in accordance with the State of California and the latest manual on Uniform Traffic Control Devices for Streets and Highways published by the

United States Department of Transportation (USDOT).<sup>45</sup> The proposed project would also be required to comply with the 2019 Solano County Congestion Management Program.<sup>46</sup>

The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. Therefore, the proposed project would not alter the existing circulation system and would not have any operational impacts. No impact would occur.

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

**No impact.** Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of Vehicle Miles Traveled (VMT) attributable to a project is the most appropriate measure of transportation impacts. The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. As such, the proposed project is not a VMT-generating project. No impact would occur.

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

**No impact.** The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. The proposed project would not alter existing geometric design features such as intersections or alter uses on the project site. Therefore, no impact would occur.

#### d) Result in inadequate emergency access?

**No impact.** Currently, site access is provided by Washington Street and a driveway along Delaware Street. Vehicles driving south on Washington Street can turn east to enter a parking lot. An access restricted cul-de-sac is located at the end of Washington Street. Construction of the proposed project could result in temporary access point closures that may alter emergency vehicle access. However, this would be limited to the 11-month construction period. Washington Street is approximately 30-feet-wide and the driveway along Delaware Street is approximately 20-feet-wide. Both access points exceed width requirements in the Solano County Code.<sup>47</sup> These access points would not be altered as part of the proposed project. No impact would occur.

# **Mitigation Measures**

<sup>&</sup>lt;sup>45</sup> Solano County. Solano County Code. Chapter 17. Website:

https://www.codepublishing.com/CA/SolanoCounty/#!/html/SolanoCounty1700.html. Accessed March 1, 2022.

<sup>&</sup>lt;sup>46</sup> Solano Transportation Authority. 2019. 2019 Solano County Congestion Management Program Website: https://sta.ca.gov/wpcontent/uploads/2015/12/STA\_CMP\_Final\_11-19-19.pdf. Access March 1, 2022.

<sup>&</sup>lt;sup>47</sup> Solano County. Solano County Code. Chapter 28 Zoning Regulations. Article IV Site Development and Other Standards. Website:

	Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.1	8 Utilities and Service Systems Would the project:				
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				
c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				
e)	Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?				

Would the project:

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

**No impact.** The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. The proposed project would not alter the existing land uses of the project site, meaning it would not create an increased demand for potable water, wastewater treatment, electric power, natural gas, or telecommunications facilities. The proposed drainage improvements would increase storm drainage control and capacity and, therefore, would improve stormwater flows. No impact would occur.

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

**No impact.** The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. The proposed project would not alter the existing land uses of the project site, meaning it would not create an increased demand for potable water. No impact would occur.

# c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

**No impact.** The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. The proposed project would not alter the existing land uses of the project site, meaning it would not create an increased demand for wastewater treatment. No impact would occur.

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

**Less than significant impact.** Solid waste services would be provided by Republic Services. Residential, commercial, and industrial construction or demolition projects in the City of Fairfield over 1,000 square feet must complete a Construction and Demolition Waste Reduction and Recycling Plan prior to beginning construction.<sup>48</sup> The proposed project would generate construction waste which would be transported to Potrero Hills Landfill consistent with solid waste disposal in Solano County. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Potrero Hills Landfill had approximately 13,872,000 cubic yards of remaining capacity as of 2006. The expected cease operation date is 2048.<sup>49</sup>

The proposed project would construct new drainage improvements, overland stormwater runoff protections, pedestrian and vehicle ramps, security protections, an ADA-compliant plaza, and new landscaping. The proposed project would not alter the existing land uses of the project site, meaning it would not generate additional solid waste in its operation. Therefore, impacts would be less than significant.

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

<sup>&</sup>lt;sup>48</sup> City of Fairfield. Construction and Demolition (C&D) Debris. Website: https://www.fairfield.ca.gov/government/citydepartments/public-works/solid-waste-and-recycling/commercial-and-industrial-services-old/construction-and-demolition-debris. Accessed March 2, 2022.

<sup>&</sup>lt;sup>49</sup> California Department of Resources Recycling and Recovery (CalRecycle). SWIS Facility/Site Activity Details Potrero Hills Landfill (48-AA-0075). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591. Accessed May 11, 2022.

**Less than significant impact.** As described above, the proposed project is required to complete a Construction and Demolition Waste Reduction and Recycling Plan prior to beginning construction.<sup>50</sup>

The proposed project would not alter the existing land uses of the project site, meaning it would not generate additional solid waste in its operation. The project site would continue to comply with federal, State, and local regulations. Therefore, impacts would be less than significant.

#### **Mitigation Measures**

<sup>&</sup>lt;sup>50</sup> City of Fairfield. Construction and Demolition (C&D) Debris. Website: https://www.fairfield.ca.gov/government/citydepartments/public-works/solid-waste-and-recycling/commercial-and-industrial-services-old/construction-and-demolition-debris. Accessed March 2, 2022.

	Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.	<b>19 Wildfire</b> If located in or near State Responsibility Areas				

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

a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?		
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?		$\boxtimes$
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?		
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?		

# **Environmental Evaluation**

Would the project:

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

**No impact.** Currently, site access is provided by Washington Street and a driveway along Delaware Street. Vehicles driving south on Washington Street can turn east to enter a parking lot. An access restricted cul-de-sac is located at the end of Washington Street. Construction of the proposed project could result in temporary access point closures that may alter emergency vehicle access. However, this would be limited to the 11-month construction period. Washington Street is approximately 30-feet-wide and the driveway along Delaware Street is approximately 20-feet-wide. Both access points exceed width requirements in the Solano County Code.<sup>51</sup> Implementation of the proposed project would not impair an adopted emergency response plan or emergency evacuation plan. These existing access points would not be altered as part of the proposed project and currently meet the width requirements in the Solano County Code. Thus, no impact would occur.

<sup>&</sup>lt;sup>51</sup> Solano County. Solano County Code. Chapter 28 Zoning Regulations. Article IV Site Development and Other Standards. Website:

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

No impact. An SRA is an area of the State in which the financial responsibility of preventing and suppressing fires has been determined by CAL FIRE pursuant to Public Resources Code Section 4125, to be primarily the responsibility of the State. The proposed project is not located in an SRA.<sup>52</sup> An LRA is an area designated by CAL FIRE pursuant to Government Code Section 51178 that is not within an SRA and is managed at the local level. The project site is located in an LRA and is not located in an FHSZ.<sup>53</sup> The project site is in a relatively flat and in an urbanized area. The proposed project would not alter the land uses on the project site. Moreover, the proposed project includes additional features that would reduce fire susceptibility, such as the new sidewalk and drought resistant landscaping. Therefore, no impact would occur.

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

No impact. As described above, the project site is not located in a FHSZ. The project site is developed, and the proposed project would not alter the current land use on-site. Existing utilities infrastructure serving the project site would remain the same. No impact would occur.

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

No impact. As described above, the project site is not located in a FHSZ. As described in Section 2.10, Hydrology and Water Quality, the proposed project is located in a Flood Hazard Zone.<sup>54</sup> However, the proposed drainage improvements would increase storm drainage control and capacity and, therefore, would reduce impacts from flooding. No impact would occur.

## **Mitigation Measures**

<sup>&</sup>lt;sup>52</sup> California Department of Forestry and Fire Protection (CAL FIRE). 2009. Contra Costa County: Very High Fire Hazard Severity Zones in LRA As Recommended By CAL FIRE. Website: https://osfm.fire.ca.gov/media/6660/fhszl\_map7.pdf. Accessed March 4, 2022.

<sup>&</sup>lt;sup>53</sup> California Department of Forestry and Fire Protection (CAL FIRE). 2008. Draft Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6819/fhszl06\_1\_map48.pdf. Accessed March 4, 2022.

<sup>&</sup>lt;sup>54</sup> Federal Emergency Management Agency (FEMA). October 2020. National Flood Hazard Layer FIRMette.

Environmental Issues 2.20 Mandatory Findings of Significance	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
<ul> <li>a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?</li> </ul>				
<ul> <li>b) Does the project have impacts that are individually limited, but cumulatively considerable?</li> <li>("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</li> </ul>				
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

**Less than significant impact with mitigation incorporated.** A significant impact could occur if a project would have an identified potentially significant impact for any of the above issues. Based on the discussion provided in Section 2.4, Biological Resources, the proposed project's impacts related to both special-status species and a nearby channel would be less than significant with mitigation incorporated. Because of the potential for special-status wildlife species to occur on the project site (Townsend's big-eared bat, white-tailed kite, American peregrine falcon, and western pond turtle), MM BIO-1a through MM BIO-1c would be implemented. Furthermore, due to the potential for the proposed project to result in pollutant loading, increased erosion and sedimentation, and debris dispersal into the channel, MM BIO-2a though 2d would be implemented. Implementation of MM BIO-1a through MM BIO-1c, and MM BIO-2a through MM BIO-2d would reduce impacts to special-status species and the neighboring channel to a less than significant level.

With mitigation, the proposed project would not eliminate a plant or animal community, nor would it substantially reduce the number or restrict the age range of a rare or endangered plant or animal. Therefore, potential impacts to biological resources would be less than significant with mitigation incorporated.

Based on the discussion provided in Section 2.5, Cultural Resources, the proposed project would not cause a substantial adverse change in the significance of a historical or archaeological resource. However, there is a low potential that ground-disturbing activities associated with project construction could result in the discovery of previously undiscovered archaeological resources. Implementation of MM CUL-1 would ensure that potential impacts on archaeological resources are reduced to a less than significant level. Additionally, there is a low potential that subsurface construction activities such as grading or trenching could potentially damage or destroy previously undiscovered human remains. MM CUL-2 specifies the procedures to follow in the event human remains are uncovered. Along with compliance with required guidelines and statutes, implementation of MM CUL-2 would reduce potential impacts on human remains to a less than significant level. Implementation of MM CUL-1 and MM CUL-2 would also reduce any impacts on TCRs.

Based on the discussion provided above, with implementation of the mitigation measures, the proposed project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, impacts would be less than significant with incorporation of MM BIO-1a through MM BIO-1c, MM BIO-2a through MM BIO-2d, as well as MM CUL-1 and MM CUL-2.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

**Less than significant impact with mitigation incorporated.** A significant impact could occur if a project, in conjunction with other related projects in the area of the project site, would result in impacts that are less than significant when viewed separately, but would be significant when viewed together. The analysis presented in this Draft IS/MND included a review of proposed project's potential impacts related to air quality, biological resources, cultural resources, noise, and transportation, among other environmental issue areas. As presented throughout this Draft IS/MND, the proposed project's cumulative impacts would be either less than significant or there would be no impacts.

Based on the discussion provided in Section 2.3, Air Quality, the proposed project could have a significant impact related to compliance with the BAAQMD 2017 Clean Air Plan and a cumulatively considerable net increase of a criteria pollutant. However, incorporation of MM AIR-1 would reduce

the proposed project's impacts to less than significant and, therefore, the proposed project would have a less than significant contribution to any cumulative impact.

There is no identified cumulative impact to biological resources. Based on the discussion provided in Section 2.4, Biological Resources, the proposed project's impacts related to both special-status species and a nearby channel would be less than significant with mitigation incorporated. Because of the potential for special-status wildlife species to occur on the project site (Townsend's big-eared bat, white-tailed kite, American peregrine falcon, and western pond turtle), MM BIO-1a through MM BIO-1c would be implemented. Furthermore, due to the potential for the proposed project to result in pollutant loading, increased erosion and sedimentation, and debris dispersal into the channel, MM BIO-2a though 2d would be implemented. Implementation of MM BIO-1a through MM BIO-1c and MM BIO-2a through BIO-2d would reduce impacts to special-status species and the neighboring channel to a less than significant level and, therefore, the proposed project would have a less than significant contribution to any cumulative impact.

Based on the discussion provided in Section 2.7, Geology and Soils, the proposed project could have a significant impact related to expansive soils and paleontological resources. This could contribute to a potential cumulative impact, however the geographic scope for analyzing potential cumulative impacts to geology and soils is limited to the areas immediately surrounding the project site due to the localized nature of the impact. However, incorporation of MM GEO-1a, MM GEO-1b, and MM GEO-2 would reduce the proposed project's impacts to less than significant and, therefore, the proposed project would have a less than significant contribution to any cumulative impact.

Based on the discussion provided in Section 2.13, Noise, the proposed project could generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, incorporation of MM NOI-1 would reduce the proposed project's impacts to less than significant and, therefore, the proposed project would have a less than significant contribution to any cumulative impact.

Implementation of MM AIR-1, MM BIO-1a through MM BIO-1c, MM BIO-2a through MM BIO-1d, MM CUL-1, MM CUL-2, MM GEO-1a, MM GEO-1b, MM GEO-2, and MM NOI-1 would reduce the proposed project's impacts to less than significant. No additional mitigation measures would be required to reduce cumulative impacts. Therefore, with implementation of the specified mitigation measures, the proposed project would not have a cumulatively considerable contribution to any significant cumulative impacts.

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

**Less than significant impact with mitigation incorporated.** Based on the discussion provided in the Project Description and the responses to Sections 2.1 through 2.19 of this Draft IS/MND, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly, because the proposed project's potential impacts would be mitigated to a less than

significant level. Therefore, with implementation of MM AIR-1, MM BIO-1a through MM BIO-1c, MM BIO-2a through 2d, MM CUL-1, MM CUL-2, MM GEO-1a, MM GEO-1b, MM GEO-2, and MM NOI-1, the proposed project would not result in substantial adverse effects on human beings. Impacts would be less than significant with mitigation incorporated.

## **Mitigation Measures**

Implement MM AIR-1, MM BIO-1a, MM BIO-1b, MM BIO-1c, MM BIO-2a, MM BIO-2b, MM BIO-2c, MM BIO-2d, 2d, MM CUL-1, MM CUL-2, MM GEO-1a, MM GEO-1b, MM GEO-2, and MM NOI-1.

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