DRAFT INITIAL STUDY FOR THE SDG COMMERCE 217 DISTRIBUTION CENTER PROJECT

(PL20-0008)

Prepared for:

Community Development Department
4381 Broadway, Ste. 201
American Canyon, CA 94503

Prepared by:

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7008 Bristol Drive
Berkeley, CA 904705

Date: December 2020

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Initial Study for the SDG Commerce 217 Distribution Center Project

ENVIRONMENTAL DETERMINATION

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	X	Hazards and Hazardous Materials		Public Services
	Agriculture Resources	X	Hydrology/Water Quality		Recreation
	Air Quality		Land Use/Planning		Tribal Cultural Resources
X	Biological Resources		Mineral Resources	X	Transportation/ Traffic
X	Cultural Resources	X	Noise	X	Utilities/Service Systems
X	Geology/Soils		Population/Housing		Mandatory Findings of Significance
	Greenhouse Gas Emissions		COVID-19		

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 would be prepared.	
I find that although the proposed project could have a significant effect on the environment, there would 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.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Brent Cooper 12/15/20

Brent Cooper, Community Development Director **Date**

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TABLE OF CONTENTS

APPENDICES

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ADWF	average dry weather flow
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CARB	California Air Resources Board
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO2E	carbon dioxide equivalent
CWA	Clean Water Act
District	American Canyon Fire Protection District
DPR	California Department of Parks and Recreation
ESA	Environmental Site Assessment
GHG	greenhouse gas
gpd	gallons of wastewater per day
LOS	level of service
MBTA	Migratory Bird Treaty Act
MDL	most likely descendant
mgd	million gallons per day
NAHC	Native American Heritage Commission
NCALUCP	Napa County Airport Land Use Compatibility Plan
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSD	Napa Sanitation District
NWIC	Northwest Information Center
O_3	ozone
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SO_x	sulfur dioxide
SR-29	State Route 29
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
UWMP	Urban Water Management Plan
VOC	volatile organic compound
WWTP	Wastewater Treatment Plant

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INITIAL STUDY FOR THE

SDG COMMERCE 217 DISTRIBUTION CENTER PROJECT (PL20-0008)

This Initial Study (IS) has been prepared by the City of American Canyon, Community Development Department, 4381 Broadway, Ste. 201, American Canyon, CA 94503, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations).

The Draft Initial Study is circulated on December 18, 2020 for a 30-day review period closing on January 19, 2021. Comments received on this document will be addressed in the Final IS.

Organization of the Initial Study

This Initial Study is organized into the following sections:

SECTION I – SUMMARY: Provides summary background information about the project.

SECTION II – PROJECT DESCRIPTION: Includes project background and detailed description of the proposed project and required permits.

SECTION III – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION IV – INITIAL STUDY CHECKLIST AND DISCUSSION: Reviews the proposed project for potentially significant environmental effects, and identifies mitigation measures to reduce potentially significant impacts to less-than-significant levels, where feasible.

SECTION V – MANDATORY FINDINGS OF SIGNIFICANCE: Determines whether environmental effects associated with development of the proposed project are significant, including cumulative impacts.

SECTION VI – REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

SECTION VII – REPORT PREPARERS: Identifies persons preparing the study.

APPENDICES - Includes applicable technical studies, comments and responses on the Draft Initial Study, and Mitigation Monitoring and Reporting Program (MMRP).

I. SUMMARY

Project Name and File Number:	SDG Commerce 217 Distribution Center Project (Application PL20-0008)
Project Location:	Commerce Court in the City of American Canyon. APN 058-030-065 (partial)
Project Applicant:	SDG Commerce 217 LLC Brian Doswald, Project Manager 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 bdoswald@icc-stravinski.com
Project Planner:	William He, Associate Planner; Brent Cooper, AICP, Community Development Director City of American Canyon 4381 Broadway, Ste. 201 American Canyon, CA 94503 (707) 647-4336
Property Owner:	SDG Commerce 330 LLC 413 W. Yosemite Ave, Suite 105 Madera, CA 93637 (559) 674-0906 (phone) (559) 908-6363 (fax)
General Plan Designation:	Commercial Recreation (CR)
Zoning:	Recreation (REC)
Project Approvals:	Conditional Use Permit for 217,294 sq. ft. wine distribution center on a 10.39-acre parcel
Date Initial Study Completed:	December 18, 2020

II. PROJECT DESCRIPTION

Project Location

The project site is located at 1075 Commerce Court in the City of American Canyon, due north of the City of American Canyon Clarke Ranch open space/recreation area (see Figure 1, Project Location Map). It is on the west side of Commerce Court and just south of the City's Utility Access Easement No. 2002-31363 and 1155 Commerce Blvd. The property is generally trapezoidal in shape, approximately 10.39 acres, and is the north parcel of a recently approved tentative parcel map. Access to the project site is from SR-29 via Green Island Road to Commerce Court.

The project site was previously part of a 35.85-acre parcel (APN: 058-030-065). A tentative parcel map was adopted by the City of American Canyon on February 28, 2019, that split the 35.85-acre parcel into three parcels. The 15.24-acre south parcel was previously approved for an approximately 330,000 square-foot wine distribution center, which is nearing completion. Commerce Court was improved along the property frontage, with work completed October 13, 2020. The remaining middle parcel is approximately 10.17 acres in size; there are no current plans for development of that parcel.

Site Conditions

Since 1937 the site was occupied by a planted crop of trees and at some time after that but before the late 1950's a eucalyptus grove was planted. Until 2001 the site remained relatively unchanged. Then in 2001 until around 2012 the northwest corner of the site was used as a paintball field (Sherwood Forest Paintball Area) with the eucalyptus trees remaining in place. In 2004 a warehouse was built directly to the north of the site which included Commerce Court cul-de-sac road Improvements on the northeast corner of the site. Also in 2004, the City of American Canyon installed underground utilities and a rock-paved access road through the middle of the eucalyptus grove adjacent to the east side of this site. This work also included installation of a sanitary sewer force main that bisects the northeast corner of the site. In 2012 the site was cleared and grubbed of the eucalyptus trees and shrubs, and is currently a gently sloping open site covered primarily with ruderal vegetation. A new Wine Distribution Center Project (SDG Commerce 330 Distribution Center) with bike path improvements along the eastern frontage is nearing completion on the southerly Commerce Court parcel (15.24 acres).

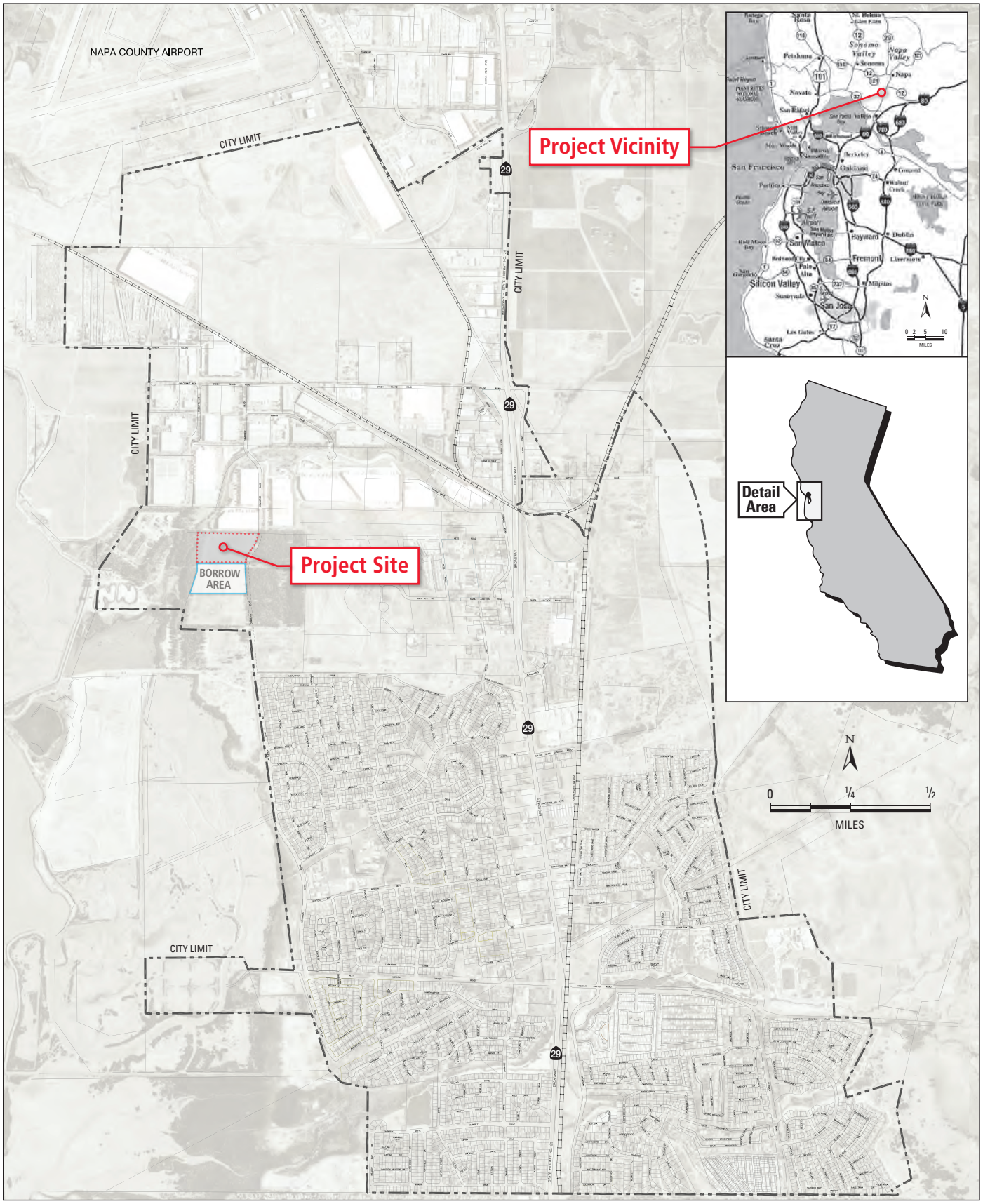

Figure 1

Project Location

Source: City of American Canyon General Plan

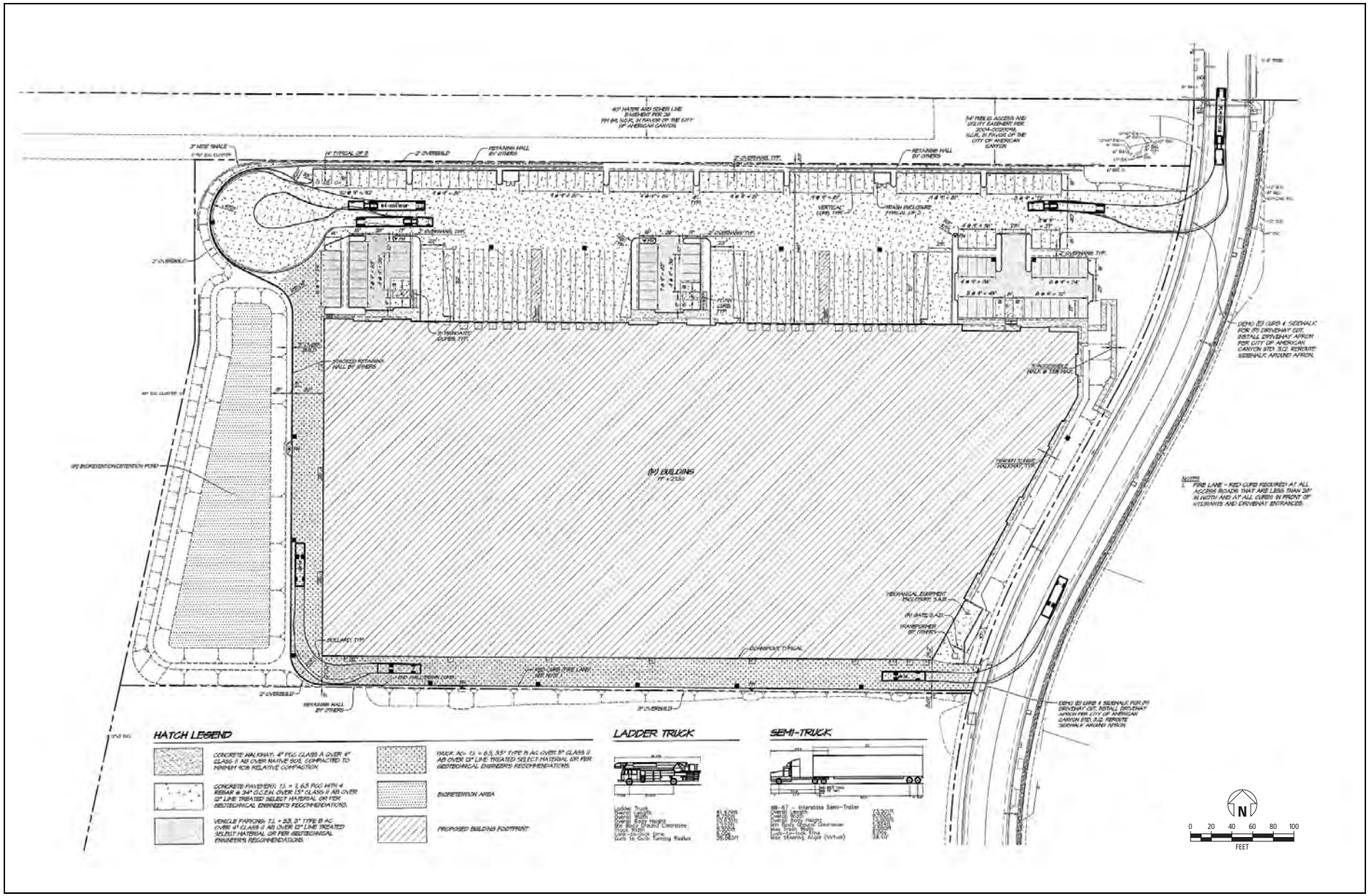

Figure 2

Site Plan

Source: RSA+ Consulting Civil Engineers

Surrounding Land Uses

The project is bounded on the north by a row of eucalyptus trees and the City Access Road within its Utility Access Easement. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus tree grove and a wire fence; on the south is a 10.17-acre unimproved parcel of native grasses; to the east is Commerce Court with underground sewer, water, reclaimed water, sewer force lines, and PG&E underground power with vaults. On each side of Commerce Court is a 5-foot-wide Public Utility Easement; to the east of this easement is a 40-acre parcel owned by the Couch Family which has a mobile home, dirt/gravel roads, accessory structures and wire fences.

Current Zoning and General Plan Designations

The General Plan designates the site as Commercial Recreation (CR) and the Zoning Map designates the site as Recreation (REC). The City's Municipal Code, Chapter 19.15.020 permits Wineries and non-winery uses with a conditional use permit in the Recreation Zoning District. A Conditional Use Permit is applied for in the attached Entitlement Application Form. It is anticipated that the distribution center would be used for "Winery" work in conjunction with viticulture related activities such as bottling, storage logistics, distribution, wine-packing, and wine related services.

An Avigation and Hazard Easement Deed extending over the whole of the property was recorded by Napa County on July 26, 2019.

Proposed Development

As discussed above, the project applicant proposes to develop a 217,294 sq. ft. wine distribution center on the northern 10.39-acre parcel, which represents a 48% building coverage (0.48 FAR). The assumed 4,350 square feet of office space is an estimate as exact office build-outs would be determined in the future and reviewed by the City during the tenant-improvement phase of the project. The proposed development is described below. The proposed site plan is shown in Figure 3.

<u>Distribution Center Building</u>

The proposed building would be approximately 324 feet deep from north to south, and average 658 feet wide from east to west. It would have perimeter concrete tilt wall panels with varying parapet heights and accent spandrel glass/metal canopy features around offices and corners of the buildings

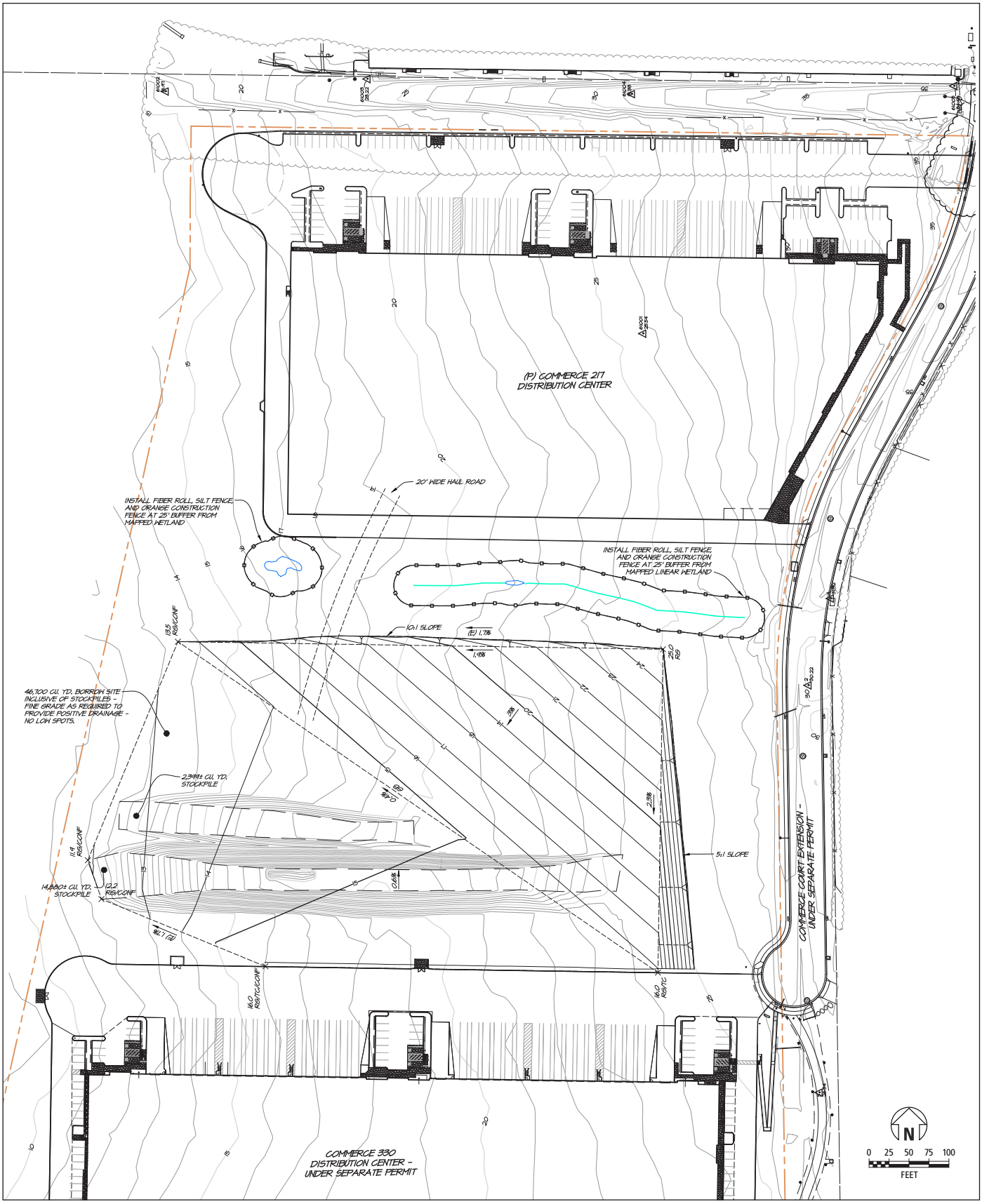

Figure 3

Project Site and Borrow Area

Source: RSA+ Consulting Civil Engineers

to provide additional modulation. The average roof height of the building would be approximately 35 feet and exterior walls would have various heights (33-37 feet) to provide architectural relief. The building would have earth-tone colors and style matching the SDG Commerce 330 Distribution Center building to the south. Building elevations are shown on Figure 4.

The building has the potential of accommodating multiple tenants with provisions for up to three offices. It is anticipated that the distribution center would be used for wine storage and other wine-related storage, distribution, and warehousing activities (i.e. bottles, corks, barrels, etc.).

The building would have architecturally screened and covered trash enclosures for solid waste dumpsters for service by private waste haulers.

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated, making it suitable for storage of wine and related products at approximately 58 degrees Fahrenheit. The microclimate of the area would allow cool night air to be brought in with intake louvers and fans, thereby reducing the amount of refrigeration necessary.

Access, Parking, and Circulation

A total of 134 car and 21 truck dock parking spaces would be provided. Six of the parking stalls would be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building would have 21 truck loading docks. The developer would construct ADA accessible walkways between the ADA accessible stalls and the entrances to the offices to allow for pedestrian access on-site. Emergency ingress and egress would be provided around the full perimeter of the building. Site circulation has been evaluated including fire truck movements and in-bound/out-bound turning movements at the Commerce Court entrance. This is discussed in the Transportation section of this Initial Study.

The proposed distribution center would be accessed from Commerce Court. Commerce Court was recently extended this same length as a two-lane road (44 feet wide) with concrete curb and gutter on the east and west sides. A steel fire access gate has been installed just south the new cul-de-sac at the north end of the new Class 1 bike path improvements. Commerce Court has a 5-foot wide sidewalk and landscaping on the west side, and streetlights (both sides) in accordance with City Standards. The east and west sides of Commerce Court have a Class 1 bike path.

Figure 4

Building Elevations

Source: Ward Architects, Inc.

Bicycle Facilities

Each office within the building would have a bike rack to accommodate up to 4 bicycles, which totals 5 more than the required 7 bicycle stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

Lighting

The proposed project would include exterior lighting on the building and on the north side parking lot poles. Parking lot lighting would meet City of American Canyon standards. The dimmable LED 30-foot "shoebox" light fixtures will reduce glare to surrounding properties by directing light toward the ground. A photometric study has been prepared to analyze the light pole spacing to maximize light coverage and eliminate off-site light spillage and is available for review at the City Community Development Department (See Appendix A).

Signage

One monument sign is proposed, (approximately 8-foot wide by 5 -foot tall) at the project entry from Commerce Court. The applicant would submit a separate Sign Permit application for City approval of the monument sign, as this proposed sign is not submitted with this application.

Grading and Drainage

Grading of the property would consist of cuts of approximately five feet and fills of approximately nine feet. Approximately 38,000 cubic yards of fill would be placed on the site, with about 17,000 cubic yards from an existing soil stockpile on the abutting parcel to the south, and about 21,000 cubic yards to be excavated from a borrow area on that adjacent parcel. The boundaries of this borrow area are shown on Figure 3. Grading on the adjacent parcel would avoid the mapped wetlands with a 25-foot buffer area from those wetlands.

Retaining walls that range in height from about 2 to 7 feet to accommodate the grade differential will be constructed along the north, west and partial south sides of the site. These precast concrete block system engineered walls would meet the California Building Code requirements. Excavations and fills to protect adjoining property would comply with Chapter 33 of the California Building Code. The Applicant would ensure adequate erosion protection (see Hydrology discussion).

As part of the proposed project, storm drain pipes would direct storm water runoff into a newly created detention/bioretention pond. The storm water detention/bioretention pond is designed to treat the storm water in conformance with federal, state, and regional requirements. Roof drains will connect to the proposed detention/bioretention pond. Down spouts on the exterior of the building would be painted to blend-in with the building façade.

Landscaping

The project would have approximately 62,000 square feet (+/- 1.42 acres) of landscaping. Landscaping will be provided around the site perimeter building setbacks and in parking islands. Mechanical equipment will be placed on the east side of the building. behind a landscaped 6' high color slatted chain link fence. The irrigation system will use reclaimed water thus eliminating potable water for landscape purposes.

Utilities

Major utility services (sewer, water, electricity, phone, etc.) are available from Commerce Court. The building would have a 6" domestic sewer service stubbed to each office and a sewer pump lift station near the middle office parking area that ties into the existing City sewer main line in Commerce Court.

Domestic water service, fire water service and reclaimed water service would be brought to the east side of the building from existing City mains in Commerce Court. Gas service can be tied into the existing gas stub in the Commerce Court to the north. Electric and telephone service are available along the project frontage on the Commerce Court. Electric and telephone service would be extended underground within the subject property to the southeast corner of the building.

Building Energy Efficiency

The building will be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand.

Interior lighting would meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the building would be promoted. Features such as motion-sensor lighting would be installed for areas within the building. This reduces heat generate inside, further reducing the energy demands to cool the building. The most current Marin Clean Energy incentives would be investigated and all attempts to incorporate them into the design would be made.

The Building's roof structure is designed to accommodate solar panels and the building electrical infrastructure is designed to accept solar generation, all in compliance with applicable codes. The building tenants would be responsible for paying for all of their electrical energy consump8on have the option and may elect to install solar power facilities to offset their electrical usage.

Construction Activities and Schedule

Construction of the proposed project would occur in one phase. This includes site grading and underground utilities stubbed to the building pad. The detention/bioretention pond, treatment swales and Storm Water Pollution Prevention Measures (SWPPP) for the site would be completed during initial construction phases. It is anticipated that approximately 9.5 months would occur from commencement of initial grading start on March 1, 2021 to building construction completion. The grading component would be about 9 weeks.

Project construction hours would occur from 7:00am to 6:00pm Monday through Friday except for the concrete building slab pour, wall panel and large concrete paving pours. These are required during nighttime hours starting no earlier than 12:00am. Pre-notification of these night pour dates and times will be provided to the City and nearby residents that expressed concerns during the SDG 330 nighttime concrete pours, as well as all property owners within 300 feet of the project site. The project is anticipated to have approximately 5 concrete night pours for the building slab, 4 for the large concrete paving, and 6 for the tilt-up walls. Pours would start between 12am - 2am and continue into daytime hours. Maximum noise levels at the nearest residential receptor would be less than 53 dBA (See section XIII, Noise, for a complete discussion of concrete pour noise impacts). Nighttime pours are not optional due to cooler ambient nighttime temperatures, volume of concrete poured, morning traffic congestion that can prevent concrete trucks from arriving at the site on time, and concrete vendor conflict with other customers needing concrete during the day.

Typical construction equipment used at the site include self-loading dirt scraper, bulldozer, motor grader, compactor, roller, water truck, backhoe, excavator, trencher, drilling auger, front end loader, paving machine, laser screed, concrete finishing trowels, tractor, crane, forklift, generator, man lift, scissor lift, welding machine, and light tower. During the construction phase, it is typical for 12 to 24 workers on- site but can equal up to 80 workers, and a minimum of one worker.

Proposed Building Uses

It is anticipated that the building will operate 12-18 hours per day in up to 3 overlapping shifts during the peak season. During this time, up to 32 full-time employees and 18 part-time employees may work on-site at the same time. The employment estimates are approximations as there is no specific user identified with the application; however, they are substantiated with similar uses. The proposed uses for the building can be estimated that approximately 2 to 4 trips per day would be from clients or visitors to the site and will likely be during off-peak or normal working hour times.

The building is designed to accommodate three tenants. Office space within the building is incidental to the distribution center operation and usually occupies less than two percent of the building. Hours of operation are normally 6 AM to 6 PM Monday thru Friday and 6 AM to 12 PM Monday thru Friday during peak seasonal

months, typically June through November.

Proposed Access Improvements

The Project would be accessed from the recently completed Commerce Court off of Green Island Road. Commerce Court has landscaping on the west side and street lights (both sides) in accordance with City Standards. The east side of Commerce Court has a five-foot wide sidewalk to match Commerce Boulevard to the north, and a Class 2 bike path in the roadway. The east side frontage to the south of the *cul-de-sac* has a class 1 bike path on the west side, with the widened rock maintenance road.

Land Use Entitlements and other Agency Approvals

City of American Canyon

The applicant is requesting a Conditional Use Permit and Design Permit approval from the City of American Canyon for the project.

Other Agency Approvals

The project would require the following approvals from other agencies:

- Regional Water Quality Control Board, San Francisco Bay Region, Stormwater Pollution Prevention Plan and Permit.

III. INITIAL STUDY CHECKLIST

The initial study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed project on the physical environment.

I. Aesthetics

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized 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?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

Background

The project site is undeveloped open land covered with sparse, weedy vegetation (see Figures 5 and 6). The project is bounded on the north by the developed Green Island Industrial Park, containing large warehouses with parking lots aesthetically similar to the proposed building. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove. To the south is an open field and, beyond, the Commerce 330 Distribution Center (See Figure 5), which is a warehouse similar in general character to the buildings to the north. Further south is a row of mature eucalyptus trees and beyond that is the City-owned 24-acre parcel known as the Clarke Ranch West Open Space. To the east is a 40-acre parcel owned by the Couch Family including a mobile home and various accessory buildings, and a large commercial recreational paintball facility known as American Canyon Paintball Jungle.

The site is visible from Commerce Court, the Bike Path improvement area, as well as from the Couch property and the Paintball Jungle facility. Distant views of the site may be accessed from the crest of the Oat Hill. There are no views of the site from nearby residential neighborhoods as the property is screened from views by a dense stand of eucalyptus trees Clarke Ranch northern property frontage, and is further screened by the Commerce 330 Building and the landscaped bicycle path to the east of the Commerce 330 Building.

Figure 5- View of the Site Looking South towards Commerce 330 Building.

Figure 6 – View from the Northeast Corner of the Site looking Southwest.

Discussion

a, c) The proposed project would replace the existing view of relatively level, undeveloped grassland with views of a new distribution center warehouse and parking area. The project constitutes a visual extension of the existing warehouses on Commerce Boulevard. Overall, the project would change the visual character of the site from one of a large, undeveloped field to a new landscaped warehouse with articulated walls, parapets and earth tone wall colors. While this change would be substantial, the number of viewers affected would be small. Views from the residential area from the south would be obstructed by the Commerce 330 building and intervening trees and vegetation. Therefore, the proposed project would not substantially degrade the visual character of the project site or its surroundings. Impacts to a scenic vista or existing visual character of the site would be ***less than significant***.

b) The project site is located in the City of American Canyon, west of SR-29. Highway SR-29 is designated as an Eligible State Scenic Highway by Caltrans. The City's General Plan specifies that the SR-29 corridor provides opportunities for enhancing the City's visual quality and includes a policy to preserve significant views from areas along major arterial roadways (City of American Canyon 1994, as amended through July 2020). The project site is about 5,000 feet west of the SR-29 highway and is fully shielded from any views by intervening hillside terrain.

Because the proposed project would not be visible in views from that highway, it would have ***no impact*** to vistas from a state scenic highway.

The project would not remove any existing trees, historic buildings or rock outcroppings that would be considered scenic resources. Because there are no city-designated scenic vistas or scenic resources on this site or nearby that the project could adversely affect, development of this site would result in ***no impact*** on these resources.

d) The proposed project includes exterior lighting. Project lighting would include building lights and lights in the parking lot areas which would increase artificial light in the project area and potentially generate glare. On-site lighting would be shielded and designed to cast light downward, thereby reducing spillover light and glare on adjacent properties. The applicant has prepared a photometric plan showing that project lighting spillover beyond the project site would be minimal (Bosley Electric, 2020). The lighting would be required to adhere to the City of American Canyon's performance standards for street lighting and glare. In reviewing the Conditional Use Permit application for the proposed project, the City would consider the proposed outdoor lighting prior to approval. The building design would not introduce a source of glare associated with large expanses of glass. Therefore, impacts from light or glare would be ***less than significant***.

The project would include an approximately 5-foot by 8-foot entry sign. The applicant would be required to submit a sign program (indicating location of any lighted signs) to the City for review and approval. The project applicant would be required to implement the sign program, as approved by the City. Visual impact from signage would be ***less than significant***.

II. Agricultural and Forestry Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Discussion

a-e) The project site is undeveloped and located adjacent to a developed area of the City of American Canyon. The site has been rough graded and stripped of trees. It is designated Recreation in the City's General Plan. Although portions of the site may have historically been used for small-scale agriculture, no such uses have occurred since at least the 1950s, when the site was planted with a eucalyptus grove. The project site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or active agricultural operations. The most recent California Department of Conservation Important Farmland Maps for Napa County designates the site as Urban and Built

Up Land (California Department of Conservation, California Important Farmland Finder, accessed July 23, 2020 https://maps.conservation.ca.gov/DLRP/CIFF/). In addition, this site is located within the municipal boundaries of the City of American Canyon. There are no Williamson Act lands on the site. The proposed project would not involve any changes that could result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use or loss of forest land.

There are no forest lands on the site, nor is the site designated or zoned for timberland resources. Therefore, implementation of the project would not involve the loss of any forest land.

Therefore, there would be ***no impact*** to agricultural or forestry resources.

III. Air Quality

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

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Background

An air quality analysis was performed using methodologies and assumptions recommended in the Bay Area Air Quality Management District's (BAAQMD) *CEQA Air Quality Guidelines* (May 2017). This section describes existing air quality, and air pollutant construction and operational impacts.

Air pollutants evaluated are carbon monoxide (CO), reactive organic compounds (ROG), nitrogen oxides (NO_x), particulate matter equal to or less than 10 micrometers (coarse particulates or PM10), and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM2.5). Greenhouse gas (GHG) emissions are addressed in GHG Emissions section of this Initial Study.

The project site is located in the San Francisco Bay Area Air Basin (Air Basin), which is under the jurisdiction of the BAAQMD. The BAAQMD is the agency responsible for the administration and enforcement of state and federal air quality regulations for the Air Basin. The Air Basin is designated "nonattainment" for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Air Basin is designated "attainment" or "unclassifiable"

with respect to the other ambient air pollutant standards. Additional information regarding the existing air quality setting is found in Appendix B.

Discussion

a) The BAAQMD's Clean Air Plan (2017 CAP) is the regional air quality plan for the Air Basin. The 2017 CAP updates the 2010 CAP, pursuant to air quality planning requirements defined in the California Health and Safety Code. The 2017 CAP provides a comprehensive strategy to improve air quality, protect public health, and protect the climate, utilizing all the tools and resources available to the BAAQMD. The BAAQMD recommends that the agency approving a project where a CAP consistency determination is required analyze a project with respect to the following questions. If the first two questions are concluded in the affirmative and the third question concluded in the negative, the BAAQMD considers the project consistent with air quality plans prepared for the Air Basin. Thus, the following criteria are used for determining the proposed project's consistency with the 2017 CAP:

Criterion 1: Does the proposed project support the primary goals of the 2017 CAP?

The primary goals of the 2017 CAP are to:

- Protect air quality and health at the regional and local scale
- Protect the climate

As discussed in this section and the GHG Emissions section of this Initial Study, all air quality and GHG emissions impacts would be less than significant after implementation of MM AQ-1 through AQ-2. Therefore, the proposed project supports the primary goals of the 2017 CAP.

Criterion 2: Does the proposed project include applicable control measures from the 2017 CAP?

The 2017 CAP's control strategy includes 85 control measures designed to reduce ozone precursors in order to fulfill ozone planning requirements, protect public health by reducing emissions of ozone precursors, particulate matter and toxic air contaminants, and to serve as a regional climate protection strategy by reducing GHG emissions across a full range of economic sectors. The proposed project would include features that support applicable control measures such as water conservation, green buildings, and bicycle access/facilities. Therefore, the proposed project includes applicable control measures from the 2017 CAP.

Criterion 3: Does the proposed project disrupt or hinder implementation of any 2017 CAP control measures?

The BAAQMD provides examples of how a project may cause the disruption or delay of control measures. Examples include a project that precludes an extension of a transit line or bike path, or

proposes excessive parking requirements. The proposed project would not cause a disruption or delay of the 2017 CAP's control measures.

The proposed project with mitigation measures would support the primary goals of the 2017 CAP and would be consistent with applicable 2017 CAP control measures, and would not disrupt or hinder implementation of any 2017 CAP control measures. Therefore, the proposed project would have a ***less than significant impact***.

b) Construction activities were assumed to commence in the first quarter of 2021 with site preparation and grading. Paving, building construction, and architectural coating would follow and construction would be complete at the end of 2021. The proposed project would be constructed in a single phase estimated to require approximately 9.5 months.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. Air quality calculation details and CalEEMod output worksheets are included in Appendix B.

Table AQ-1 provides the estimated short-term construction emissions that would be associated with the proposed project and compares those emissions to the BAAQMD's thresholds for construction exhaust emissions. As the construction phases (i.e., grading, paving, building construction, etc.) are sequential, the average daily construction period emissions (i.e., total construction period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds. All construction-related emissions would be below the BAAQMD significance thresholds. The air quality analysis includes use of paint compliant with BAAQMD Regulation 8, Rule 3 for architectural coatings. Regulation 8, Rule 3 limits the VOC content of the paint.

Table AQ-1. Estimated Daily Construction Emissions (pounds/day)

Construction Year	ROG	NO_x	PM10 (exhaust only)	PM2.5 (exhaust only)	CO
Proposed Project Unmitigated Emissions					
2021	**13.6**	**24.6**	**1.0**	**0.9**	**19.5**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM10 and PM2.5. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local meteorological conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. Nearby receptors could be adversely affected by dust generated during construction activities.

The BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant if best management practices are employed to reduce these emissions. The BAAQMD requires the following best management practices (BMPs) to reduce emissions of dust and particulates:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered 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 vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- A publicly visible sign shall be posted with the telephone number and person to contact at the Site Superintendent regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District's phone number and Lead Agency contact information shall also be visible to ensure compliance with applicable regulations.

The following measures also are required by regulation:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of 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 mechanic and determined to be running in proper condition prior to operation.

The implementation of these BMPs would reduce fugitive dust and combustion exhaust emissions per BAAQMD's *CEQA Air Quality Guidelines*.

Project construction emissions are less than the significance thresholds (See Table AQ-1) and the proposed project would also include BMPs required per BAAQMD's *CEQA Air Quality Guidelines*. Therefore, project impacts from construction emissions would be ***less than significant***.

Following the completion of construction activities, the proposed project would generate air pollutant emissions from mobile and stationary sources, including on-road vehicles, off-road warehouse equipment (electric forklifts) and area sources (space heating, water heating, maintenance of the buildings and landscaping). Complete details of the emissions calculations are provided in Appendix B.

Estimated maximum daily and annual operational emissions that would be associated with the proposed project are presented in Tables AQ-2 and AQ-3 and are compared to BAAQMD's thresholds of significance. As indicated, the estimated operational emissions that would be associated with the proposed project would be below the BAAQMD's significance thresholds and would be ***less than significant***.

Table AQ-2. Estimated Daily Operational Emissions (pounds/day)

Condition	ROG	NO_x	PM10	PM2.5	CO
Proposed Project Emissions					
Summer	7.2	14.1	3.0	1.3	19.3
Winter	7.1	14.3	3.0	1.3	19.4
Maximum Proposed Project	**7.2**	**14.3**	**3.0**	**1.3**	**19.4**
BAAQMD Significance Threshold	*54*	*54*	*82*	*54*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

Table AQ-3. Estimated Annual Operational Emissions (tons/year)					
	ROG	**NO_x**	**PM10**	**PM2.5**	**CO**
Proposed Project Emissions					
Area	1.0	<0.1	<0.1	<0.1	<0.1
Mobile	0.1	0.5	0.3	0.1	1.0
Off-Road Equipment (Forklifts)	0.1	1.4	0.1	0.1	1.5
Total Proposed Project	**1.2**	**1.9**	**0.4**	**0.2**	**2.5**
BAAQMD Significance Threshold	*10*	*10*	*15*	*10*	--
Threshold Exceeded?	**No**	**No**	**No**	**No**	--

Source: CalEEMod Version 2016.3.2

The BAAQMD has identified preliminary screening criteria for determining whether CO emissions would be exceeded. The screening criteria provide a conservative indication of whether the implementation of a project would result in CO emissions that are potentially significant. This methodology includes the following:

- 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, below-grade roadway).

Based on the size of the proposed project (367 trips per day) and the anticipated resultant traffic volumes, the additional traffic would be well below the screening criteria. Therefore, impacts that would be associated with long-term operational CO exhaust emissions would be ***less than significant***.

The BAAQMD *CEQA Air Quality Guidelines* recommend that cumulative air quality effects from criteria air pollutants also be addressed by comparison to the BAAQMD's mass daily and annual significance thresholds. As shown in Tables AQ-1 through AQ-3, proposed project-related emissions would be below the thresholds. Therefore, the proposed project would not be cumulatively considerable and cumulative impacts would be ***less than significant***.

c) The significance of impacts to sensitive receptors is dependent on the chance of contracting cancer from exposure to Toxic Air Contaminants (TACs) such as DPM or of having adverse health effects from exposure to non-carcinogenic TACs. A project is considered to be significant if the incremental cancer risk at a receptor exceeds 10 in a million. Health risk is evaluated for sensitive receptors within a 1,000-foot radius of a project site. There is one residence about 1,000 feet east of the site (on the Couch property) as well as other single-family residences approximately 2,300 feet from the project site boundary (to the southeast). In addition, a new elementary school is under construction, with its nearest edge about 1,500 feet southeast of the project site.

Construction activities would occur intermittently for approximately 9.5 months and the vast majority of construction activities would be well beyond 1,000 feet from the nearest residence and 1,500 feet from the school. Some construction activities during the approximately nine weeks of site preparation and grading for the project could be within 1,000 feet of the school property boundary, however, site preparation and grading activities are planned for March 2021 and the school is set to begin instruction in Fall 2021. Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would therefore not warrant a health risk evaluation and would be considered less-than-significant by the BAAQMD.

A Health Risk Assessment was prepared for the SDG 330 project in February 2019. The SDG 330 project is south of the proposed project and is much closer to existing residences and the future school. The SDG 330 project is also a larger project generating more vehicle trips than the proposed project. The Health Risk Assessment concluded that all construction and operational impacts from the SDG 330 project resulted in less-than-significant health impacts on residential and school receptors without mitigation.

The dominate wind direction in the project area is from the south/southwest. Wind direction plays a major role in the transport and dispersion of air pollutants. TAC emissions from the project would generally be dispersed in the dominant wind direction away from sensitive receptors and towards industrial land uses north/northwest of the project site. Therefore, health impacts associated with the proposed project would be ***less than significant***.

d) The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project[1]. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant

[1] The confirmation process for odor complaints involves odor testing with a dynamic olfactometer. The BAAQMD considers if the odor is still detectable when diluted with 4 parts of odor-free air. "Minimal" odors are less than the 4 dilution/threshold (D/T) standard used in BAAAQMD Rule 7-301 (General Limit on Odorous Substances)

impact. With respect to the proposed project, diesel-fueled construction equipment exhaust would generate some odors. However, these emissions typically dissipate quickly and would be unlikely to affect the residential neighborhood or the school under construction to the southeast of the site (scheduled to open in Fall 2021). Post-construction odors would be solely from truck exhausts, and would not be perceptible to nearby sensitive receptors. Therefore, odor impacts associated with construction and operation of the proposed project would be ***less than significant***.

IV. Biological Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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 native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Background

A Biological Resource Analysis (BRA) was prepared by Monk & Associates (Monk & Associates 2020) that provides a description of existing biological resources on the project site and identifies potentially significant impacts that could occur to sensitive biological resources from the construction of the proposed project site.

An addendum memo was prepared by Monk & Associates to address potential impacts to the adjacent parcel to the south from the proposed grading activities associated with the proposed soil borrow. The reports are included as Appendix C to this IS. Biologist Jake Schweitzer of Vollmar Natural Lands Consulting (VNLC) peer-reviewed the Monk & Associates reports and conducted a site visit on August 10, 2018 to confirm the biological conditions of the project site as described in the biological documentation prepared for the project.

The approximately 10-acre project site is approximately 1000 feet northwest of a large eucalyptus grove with a mobile home and accessory structures, as well as the "Paintball Jungle" recreation area. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space, large warehouses and distribution centers occurs north of the project site. The Couch Family owns an approximate 10-acre parcel with eucalyptus trees to the west. Further west, is the American Canyon Wastewater Treatment Plant and treatment ponds is located west of the project site. The Napa River and associated marshes occur greater than 300 feet west of the project site. A large distribution center, known as the SDG Commerce 330 Distribution Center, is nearing completion immediately to the south of the project site. Clark Ranch, Wetlands Edge Park, and salt marsh and mudflat habitats associated with the Napa River, are further to the south of the project site. The Napa Valley Unified School District is constructing the Napa Junction Elementary School to the southeast, along Eucalyptus Drive.

The 10.39-acre project site and the adjacent borrow pit area to the south are part of a larger 35.85-acre parcel that is comprised of a highly disturbed, ruderal (weedy) plant community, that was graded and leveled after removal of a grove of blue gum eucalyptus (*Eucalyptus globulus*) trees in 2012.

The project site and the borrow excavation area on the adjacent site to the south are dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native coyote brush (*Baccharis pilularis*), a plant that responds to land disturbances, such as have occurred on the project site, is also common on the parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), among others, all of which have been observed on the project site. Redshouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that surround the project site to the west, north and south. Chestnut-backed chickadee (*Poecile rufescens*), brown creeper (*Certhia americana*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus*

polyglottos), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*) and western gray squirrel (*Sciurus griseus*) were also observed in the immediate project vicinity.

Discussion

a) Special-status plant species documented by the California Natural Diversity Database (CNDDB 2018) within approximately 3 miles of the project site are shown in Figure 7. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB and CNPS' rare plant *Inventory*, a total of eight special-status plant species are known to occur in the region of the project site (Monk & Associates 2020). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Bark and leaf debris collect on the ground beneath the trees, and very few plants will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017, 2018, and 2019, special-status plants are not likely to be found onsite (Monk & Associates 2020). Therefore, impacts to special-status plants would be ***less-than-significant***.

Special-status wildlife species documented by the California Natural Diversity Database (CNDDB 2020) within approximately 3 miles of the project site are shown in Figure 7. No special-status wildlife records have been mapped on or adjacent to the project site. However, a total of 18 special-status wildlife species are known to occur in the region of the project site (Monk & Associates 2020). Due to the disturbed nature of the project site, and its past history as a eucalyptus grove, there is a very low likelihood of special-status wildlife species occurring onsite (Monk & Associates 2020). However, due to the sensitivity of four of the special-status wildlife species known to occur in the area and/or potential habitat on the site, these species are further discussed below. Additional information regarding these special-status species, as well as species known from the region but for which no suitable habitat occurs on or in areas to be impacted by the proposed project, is provided in Table 4 from the Biological Resource Analysis prepared for the project site by Monk & Associates (2020); (Appendix C).

California red-legged frog (*Rana draytonii*) is federally listed as threatened and is a state species of special concern. The project site is located outside USFWS designated critical habitat for the species, but designated critical habitat occurs approximately 1.7 miles to the east. In the American Canyon/Napa area, there are no records for the California red-legged

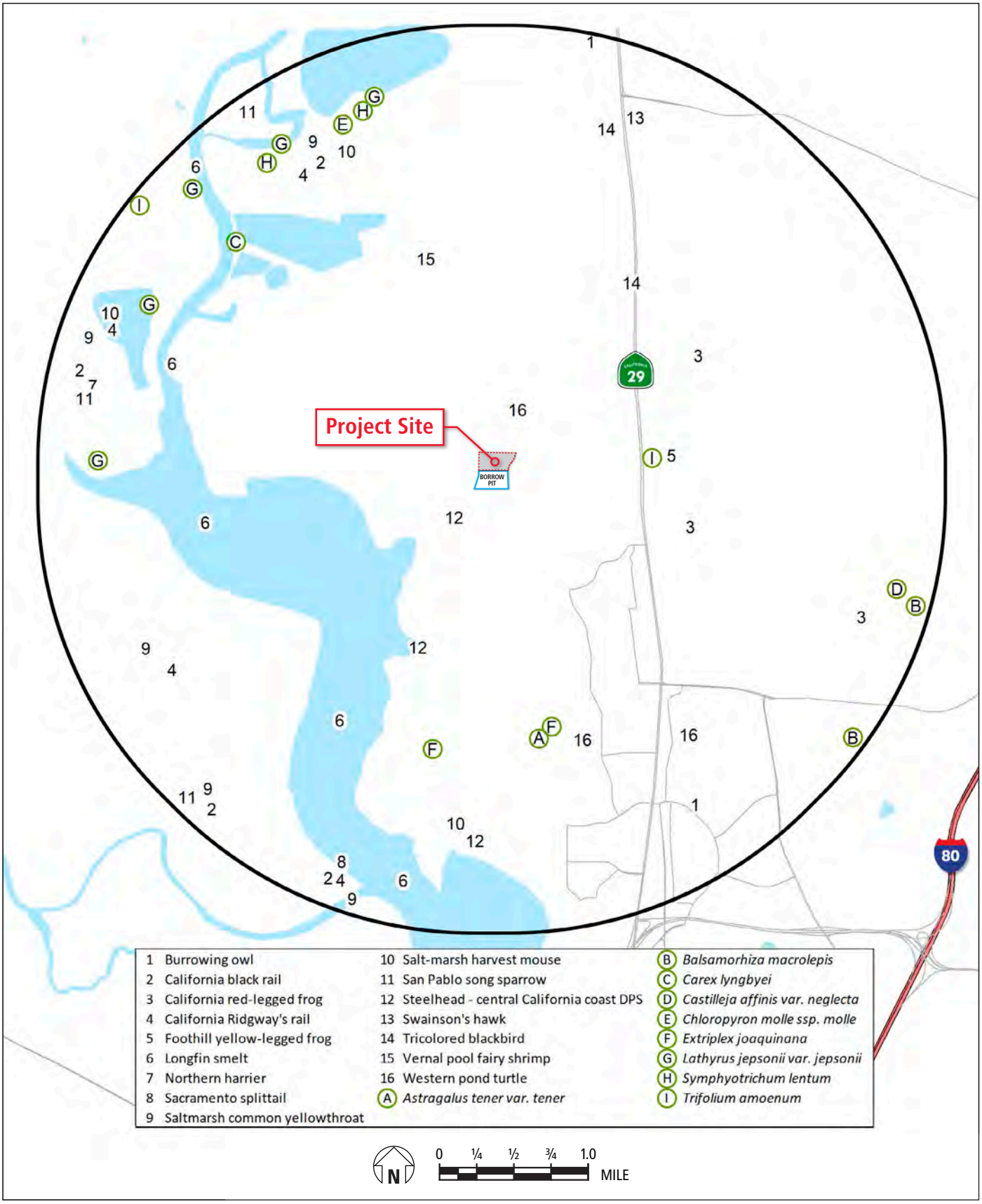

Figure 7

CNDDB Special Status Species within 3 miles of Project Site

Source: Monk & Associates

frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes a geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site (Monk & Associates 2020). There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. The highly disturbed conditions on the project site (due to prior grading and tree removal activities) and the other factors discussed above, result in this species being unlikely to occur on the project site. Therefore, impacts to California red-legged frog would be ***less-than-significant***.

Western burrowing owl (*Athene cunicularia*) is a California species of special concern. Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.6 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; ground squirrel burrows are few and of recent origin (Monk & Associates 2020). The mobility of the western burrowing owl enables the species to colonize the recent burrows. Monk & Associates (2020) did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys. However, the project site provides marginal nesting habitat for the western burrowing owl. Should burrowing owls occur on or near the project site, nesting activities and/or individual owls could be harmed by construction activities. Therefore, impacts to western burrowing owl could be ***potentially significant***. Mitigation Measure BIO-1 would reduce this impact to a ***less-than-significant*** level.

Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species afforded protection pursuant to the California Endangered Species Act (CESA). While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800). The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that

Swainson's hawks could nest near the project site in future years and that nesting could be disturbed by construction activities.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code.

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be ***potentially significant***. Implementation of Mitigation Measure BIO-2 (preconstruction surveys and buffers) would ensure that any potentially significant impacts are reduced to a ***less-than-significant*** level.

The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat; there are extensive foraging opportunities around the nesting location 2.6 miles north of the site and between this nesting location and the project site; and as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks.

Northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). The closest CNDDB record was documented 2.8 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. However, the project site provides marginal nesting habitat for the northern harrier (Monk & Associates 2020). Should northern harrier nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to northern harrier could be ***potentially significant***. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat.

Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting northern harriers to a ***less-than-significant*** level.

White-tailed kite (*Elanus leucurus*) is a state Fully Protected species. It inhabits grasslands, agriculture fields, oak woodlands, savanna and riparian habitats in rural and urban areas. The species typically nests in trees surrounded by open foraging habitat. The trees on and bordering the project site provide potential nesting habitat. Should white-tailed kite nest on or near the project site, nesting activities could be disrupted by construction activities. Therefore, impacts to white-tailed kite would be potentially significant. The loss of foraging habitat associated with the project is not considered substantial as the entire project site consisted of a eucalyptus grove until 2012, and thus did not historically provide potential foraging habitat. Mitigation Measure BIO-3 would be implemented to reduce potential impacts to nesting white-tailed kites to a ***less-than-significant*** level.

Other Raptors and Passerine Birds. In addition to the above special-status bird species, construction of the proposed project has the potential to affect species protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (§3503), such as tree or ground nesting raptors or nesting passerine birds. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project could cause nest abandonment and death of eggs or young.

Passerine birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Similar to the raptors, construction activities could disturb or directly affect passerine birds, their eggs, and/or young. Therefore, impacts to nesting raptors and passerines are potentially significant, and Mitigation Measures BIO-3 and BIO-4 would reduce the impact to a ***less-than-significant*** level.

Special-status bats. Although there are several species of special-status bats in the project area, the project site contains no roosting or besting habitat because it has no trees, rock faces, structures, or cliffs. Therefore, there would ***no impact*** from the project to special-status bat species.

b) There is no riparian habitat at the project site, and no Streambed Alteration Agreement from CDFW would be necessary. Additionally, there are no sensitive plant communities on the project site. The project site is separated from the Napa River and associated marsh habitats by greater than 300 feet and by a dense eucalyptus grove. Therefore, related impacts are ***less than significant***. Wetlands are discussed below under c).

c) A formal wetland delineation for the larger 35-acre parcel of which the project site is the northern 10.39 acres was performed by Monk & Associates in in 2016, and was verified by the Army Corps of Engineers (Corps) on May 16, 2018. Based on the verified wetland delineation, there are no wetland features under the jurisdiction of the Corps on the 10.39-acre project parcel. There are two wetland

features on the parcel to the south that is proposed for soil borrow. However, the proposed grading for the borrow area would avoid these two features and incorporate a 25-foot buffer area from these wetlands. These buffers, along with sediment-control measures identified in the geology and hydrology sections of this IS/MND, would eliminate the potential for the project to affect these wetlands. Therefore, the project would have ***no impacts*** to wetlands or waters of the US.

d) Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated. All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project would not substantially interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paint ball facility located immediately to the southeast and construction of the SDG Commerce 330 facility to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife, and these areas would not be impacted by the proposed project. Therefore, the proposed project would not substantially affect wildlife movement and related impacts would be ***less than significant***

e) The City of American Canyon's Tree Ordinance (Ord. 18.40.110) specifies that:

A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.

B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

The mature eucalyptus trees along the northern and western project boundaries would not be removed by the project. The site itself does not support any trees. Therefore, the project would have ***no impacts*** to protected trees***.***

f) There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other habitat conservation plans that include the proposed project site. Therefore, the project would have ***no impact*** to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

Mitigation Measure BIO-1: A preconstruction survey for burrowing owls shall be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further actions to protect burrowing owl would be necessary.

1) Burrowing owl surveys shall be conducted by walking the entire project site. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be seven meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 50 meters (approximately 160 feet) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons.

2) If burrowing owls are detected on the site, the following restricted activity dates and setback distances recommended per CDFW's Staff Report (2012) shall be implemented:
   - From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high disturbance activities should have a 500-meter buffer from occupied nests.
   - From October 16 through March 31, low disturbance activities shall have a 50- meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities should have a 500-meter buffer from occupied nests.
   - No earth-moving activities or other disturbance should occur within the aforementioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls are found in the project area, a qualified biologist shall delineate the extent of burrowing owl habitat on the site.

3) If burrowing owls are present outside of the nesting season, burrowing owls may be passively relocated from the project site using CDFW-approved methods so that construction can proceed. Any required passive relocation of burrowing owls would require CDFW approval.

4) If the survey determines that the project site is actively being used by burrowing owls, then compensatory habitat mitigation shall be provided in accordance with the guidance provided in the Staff Report on Burrowing Owl Mitigation prepared by the California Department of Fish and Game (2012). The habitat mitigation/compensation plan would be subject to approval of the CDFW. If burrowing owls are observed during surveys, notification shall also be submitted to the CNDDB.

Mitigation Measure BIO-2: Pre-construction surveys for nesting Swainson's hawks shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to a project's initiation. The surveys shall be conducted in accordance with CDFW's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (CDFG 2000), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW shall be conducted. The size of the nest protection buffer shall be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Mitigation Measure BIO-3: To ensure that impacts to tree or ground nesting raptors are avoided, the following mitigation measures shall be implemented:

1) In order to avoid impacts to nesting raptors, a preconstruction nesting survey shall be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey shall be conducted within the 30-day period prior to site disturbance. The raptor nesting surveys shall include examination of all trees and ruderal habitat or grassland within 200 feet of the project site.

2) If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site shall be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site shall be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. The size of

the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and shall be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers shall be maintained in place through the month of August and work within the buffer can commence on September 1st.

3) If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) shall be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer shall remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey shall be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer shall remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Mitigation Measure BIO-4: To ensure that impacts to nesting passerine birds are avoided, a nesting survey shall be conducted within 15 days prior to commencing construction/ grading or tree removal activities if this work would commence between March 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. Many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until September 1 unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If

buffers are removed prior to September 1, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before September 1.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Background

A cultural resources investigation of the project area was undertaken by Solano Archaeological Services (SAS) which consisted of a record search conducted through the Northwest Information Center (NWIC) of the California Historical Resources Information System, a field survey, outreach to the Native American community, and study documentation (SAS, Cultural Resources Technical Memorandum, SDG Commerce 217 Distribution Center Project, September 1, 2020). The NWIC research indicates that sixteen previous cultural resources investigations were conducted within or in the vicinity of the project area between 1975, and 2009, and in 2018 as part of the Commerce 330 project. None of these studies or other research identified any prehistoric or historic-era sites, features, or artifacts within the project area. One site (CA-NAP-727H), a historic period ranch complex, was identified approximately 200 meters south of the project area. Additional archival research and a field survey conducted by SAS also did not identify the locations of any potential cultural or historical resources in the project area.

The field survey encountered an historic-era dispersed trash disposal area comprised mostly of glass fragments, on the northwest corner of the project site. This was evaluated by the SAS archaeologists and determined not to eligible for the California Register of Historic Resources (SAS 2020).

The Native American Heritage Commission (NAHC) conducted a search of Sacred Lands File the results of which indicate that no Native American historical resources or other culturally sensitive properties are known to be present within or near the project area. Outreach to tribal organizations and individual representatives in August 2020 per a contacts list provided by the NAHC also did not result in the identification of properties or locations possessing cultural significance to the Native American community.

Archival research, outreach to the Native American community, and a field survey did not identify the present of any historical resources within the project area. However, field surveys cannot always identify the presence of sub-surface cultural remains that could be significant per CEQA criteria. As a result, presently unidentified historical resources could be present within the project area.

Discussion

a) As described above, project grading and land disturbance could affect unknown cultural resources. This impact is ***potentially significant***. Mitigation Measure CUL-1, below, would reduce any impacts to presently unidentified historical resources to a ***less-than-significant*** level.

b) As described in a), above, an NWIC record search, archival research, NAHC and Native American community input, and a field survey did not identify any prehistoric or historic-era cultural sites, features, artifacts, or culturally significant properties within the project area. However, there remains a possibility that project ground-disturbing activities could uncover evidence of Native American or early historic period use and/or occupation of the project area. Mitigation Measure CUL-1, below, would reduce any impacts to such resources to a ***less-than-significant*** level.

c) Archival research, Native American community outreach, an NWIC record search, and a field survey did result in the documentation of any known human remains within the project area However, the possibility exists that subsurface construction activities may encounter previously undiscovered human remains. Mitigation Measure CUL-2 would reduce this impact to a ***less-than-significant*** level.

Mitigation Measures

***Mitigation Measure CUL-1*:** Archaeological deposits are defined as any historic-era resource (e.g., bottle dump, refuse scatter) or prehistoric resource that may be intact and/or retain qualities that satisfy criteria for eligibility for the California Register of Historical Resources. If potentially significant historic resources are encountered during subsurface excavation activities for the project area, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites.

If the resource is determined to be significant under CEQA (i.e., a "historical resource") the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation

in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

***Mitigation Measure CUL-2*:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Napa County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the 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, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

VI. Energy

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	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?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Background

SB 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety. The *2019 Integrated Energy Policy Report* (CEC,2020) is the most recent update. The State's energy system includes energy extraction, transport, conversion (such as combusting natural gas in power plants to generate electricity or producing gasoline and diesel from crude oil in refineries), and consumption for services (such as electricity for lighting, natural gas use in homes and buildings for space and water heating, pumping water to communities and crops, and gasoline and diesel to fuel cars and trucks), as well as electricity from out-of-State plants serving California.

California's electricity generation capacity is composed of multiple fuel sources, including coal, hydroelectric, natural gas, nuclear, oil, petroleum coke, waste heat, biomass, geothermal, solar photovoltaic, solar thermal, and wind. In 2019, the State system generated 200,475 gigawatt hours (GWh) of electrical power. Renewable resources accounted for approximately 34 percent of the State's electricity used in 2018 (CEC, 2020). In 2018, the State consumed approximately 15.5 billion gallons of ethanol and gasoline and approximately 3.7 billion gallons of diesel.

The City of American Canyon adopted an *Energy Efficiency Climate Action Plan (EECAP)* in 2013 (City of American Canyon, 2013). The *EECAP* provides feasible strategies to cost-effectively reduce energy use

and energy-related GHG emissions both in municipal operations and in the community. Successful implementation of the plan will reduce utility bills, reduce water usage, increase home and building values and support local jobs.

Discussion

a) Construction of the proposed project would require consumption of gasoline and diesel fuel by construction worker vehicles travelling to and from the site, by haul trucks delivering construction materials and supplies to the site, and by onsite construction equipment. Once the construction is completed and the proposed project is occupied, gasoline and diesel fuel would continue to be consumed by motor vehicles from employees, deliveries and visitors. Electricity would be consumed for lighting, space and water heating, and landscape maintenance (i.e., electricity to control irrigation equipment), as well as the operation of typical office and warehouse equipment such as computers and electric forklifts.

The air quality modeling (CalEEMod) described in detail in the air quality section of this Initial Study, utilized standard fuel consumption estimates to determine that project construction activities would require approximately 42,500 gallons of diesel fuel.[2] For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be quantified at this time, it is anticipated to be relatively minor compared to normal building operations. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. Natural gas would not be used during construction.

During construction of the proposed project, the building contractor would be required by Mitigation Measure AQ-2 (see air quality section) to limit idling time of equipment and vehicles to 5 minutes or less and maintain construction equipment and vehicles in optimal working condition. These requirements would benefit air quality and would also prevent wasteful or inefficient consumption of fuel during project construction. The building contractor would also be required to comply with the 2019 California Green Building Standards Code (codified in Title 24 of the California Code of Regulations (CCR)) Section 5.408 Construction Waste Reduction, Disposal and Recycling, which requires the recycling or salvaging for reuse of a minimum of 65 percent of the nonhazardous construction and demolition waste. Compliance with the 2019 California Green Building Standards Code would reduce consumption of energy associated with transport, processing, and disposal of solid waste at landfills.

[2]Fuel usage is estimated using the CalEEMod output for CO_2, and a $kgCO_2$/gallon conversion factor, as cited in the *U.S. Energy Information Administration Voluntary Reporting of Greenhouse Gases Program* https://www.eia.gov/environment/pdfpages/0608s(2009)index.php.

The proposed project's electricity consumption was based upon actual electricity usage from two nearby and almost identical warehouse buildings and was estimated to be approximately 652,000 kilowatt-hours (kWh) of electricity per year (See Appendix B for details). The proposed project would not require the use of natural gas. The daily weekday vehicle trip rate of 1.69 weekday trips per 1,000 square feet was used to estimate mobile vehicle emissions (367 weekday vehicle trips). Based on air quality modeling (CalEEMod), the estimated annual vehicle miles traveled for the proposed project would be approximately 765,788 miles, requiring approximately 35,000 gallons of gasoline per year. Additional information regarding the energy calculation details are found in Appendix B.

The Project would not result in wasteful, inefficient, or unnecessary consumption of energy, because it would include several energy efficiency features. The building would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the Refrigeration system. This greatly reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process. The energy-saving climate feature is one of the reasons the project is located in the City of American Canyon.

Interior lighting would be designed to meet at minimum Title 24 standards; in addition, measures to increase efficiency and reduce excess energy usage inside the distribution center would be promoted. Features such as motion-sensor lighting would be installed for areas within the building. This reduces heat generated inside, further reducing the energy demands to cool the building. The most current PG&E incentives would be investigated and all attempts to incorporate them into the design would be made. Furthermore, the proposed project would be required to comply with the 2019 California Green Building Standards Code codified in Title 24. Therefore, this impact would be **less than significant.**

The proposed project would not conflict with or obstruct the City's EECAP. Therefore, the project would not conflict with a local plan for energy efficiency

b) Because the CEC's *2019 Integrated Energy Policy Report* is intended to reduce GHG emissions by transitioning the State's energy portfolio to more renewable energy sources, it can also be viewed as a plan for renewable energy and energy efficiency on the Statewide level. As discussed in a) above, the proposed project would be required to comply with a variety of building and appliance energy efficiency standards, which would maximize its energy efficiency. Therefore, the project would not conflict with a State plan for energy efficiency. Therefore, this impact would be **less than significant.**

VII. Geology and Soils

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				X
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located in a geological 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?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?			X	

Background

A Geotechnical Investigation of the project site was prepared by Krazan and Associates, Inc. (Krazan 2019), included as Appendix D in this IS. Krazan's geologists performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling 24 borings to depths ranging from about 10 to 50 feet, followed by laboratory testing. Results of the Krazan study are summarized in responses to specific checklist questions below. The full report is available for review at the City Community Development Department.

Discussion

a.i, ii, iii, iv) The project site is located in a seismically active region associated with the San Andreas Fault System. It is in close proximity to several major faults including the West Napa, Green Valley, Hayward-Rogers Creek, Mount Diablo Thrust, Calaveras, and San Andreas Faults (see Table GEO-1). Data presented by the Working Group on California Earthquake Probabilities (2008) estimates the chance of one or more large earthquakes (Magnitude 6.7 or greater) in the San Francisco Bay region between 2007 and 2036 to be approximately 63 percent. Therefore, future seismic shaking should be anticipated at the site. It would be necessary to design and construct the proposed distribution center and parking lot in strict adherence with current standards for earthquake-resistant construction.

Although the site is in close proximity to several faults, it is not within the mapped California Earthquake Fault Zone or Alquist-Priolo Earthquake Fault Zone (Krazan 2019). It is approximately 3,200 feet west of the West Napa fault and 600 feet west of the California Earthquake Fault Zone for the West Napa Fault zone. Therefore, the risk of fault rupture at the site is low.

Table GEO-1. Active Fault Proximity to the Project Site

Fault	Direction from Site	Distance from Site (miles)
San Andreas	W	30
Hayward-Rogers Creek	W	11
Mt. Diablo Thrust	S	24
Green Valley	E	8
West Napa	W	0.6
Calaveras	NW	29

For the West Napa Fault, the maximum credible earthquake on this fault is approximately 6.5 moment magnitude[3] based on empirical data and the length of the fault. The 2014 South Napa earthquake was located to the south of Napa and to the northwest of American Canyon on the West Napa Fault. It had a magnitude of 6.0 on the moment magnitude scale, and with a maximum Mercalli intensity of VIII (Severe); the event was the largest in the San Francisco Bay Area since the 1989 Loma Prieta earthquake.

Liquefaction is a 'liquefying' of the ground under strong seismic shaking. Liquefaction occurs in water-saturated, loose, granular soils (such as sandy soils). Because of active faults near the site and high acceleration the site may be subject to liquefaction hazards. Krazan evaluated the site's liquefaction potential and determined that soils above a depth of 9 feet below the ground surface have no liquefaction potential because of an absence of groundwater; soils below 9 feet below the ground surface were determined to have a slight to very low liquefaction potential due to predominantly dense/stiff top very dense/hard clayey soils. Total and differential seismic-induced ground settlement were calculated not to exceed 1 inch and 0.66-inch, respectively (Krazan 2019). This level of settlement would be addressed in the foundation design.

Lateral spreading (or lurching) is another type of ground failure that is generally caused by liquefaction. It involves movement of large surficial blocks of soil as a result of subsurface liquefaction. Lateral spreading can occur where continuous layers of liquefiable soil extend to a free face, such as a creek bank. There are no significant free faces in the vicinity of the site. Therefore, the potential for liquefaction-induced lateral spreading at the site is low.

Impacts associated with seismic shaking and associated ground failure issues can be reduced to a ***less-than-significant*** level by proper engineering and construction in accordance with the provisions of the Uniform Building Code and with other site stabilization, drainage, and, foundation design methods, as detailed in the Krazan report.

The project site is nearly flat, so landslide hazards would be minimal.

b) The proposed project would require site stripping, grading and excavation/re-compaction of soils on the site and on the adjacent parcel to the south (for borrow pit construction and stockpile removal), therefore, construction of the proposed project could result in soil erosion or loss of topsoil. All construction practices would be in accordance with the State of California UBC Title 24, and measures to control soil erosion found in the general construction activities non-point source storm-water

[3] "The **moment magnitude scale** (a successor to the Richter scale), is used by seismologists to compare the energy released by earthquakes. The constants in the equation are chosen so that estimates of moment magnitude roughly agree with estimates using other scales such as the Richter magnitude scale. One advantage of the moment magnitude scale is that, unlike other magnitude scales, it does not saturate at the upper end. For this reason, moment magnitude is now the most often used estimate of large earthquake magnitudes. The USGS does not use this scale for earthquakes with a magnitude of less than 3.5. (Wikipedia, 2015)

permit (See Hydrology section of this IS). The RWQCB requires that Best Management Practices be incorporated into projects to reduce wind and water erosion (see Mitigation Measure GEO-2). This impact would be reduced to ***less than significant with mitigation***.

c) See responses to items aii, iii, and iv, above.

d) The upper soils on the site are alternating layers of silty clays, clayey sands, and sandy clays. The clayey soils have a moderate-to-high potential for expansion. Mitigation Measure GEO-3, below, would reduce hazards associated with potentially expansive soils to a level that is ***less than significant***.

e) The project would not use septic tanks or other on-site land disposal systems. ***No impac***t would occur.

f) A review of the University of California Museum of Paleontology (UCMP) on-line database indicates that very few paleontological specimens have been collected from Napa County. Only one specimen, an example of *Magnoliposida* (a flowering plant) was found in the general vicinity (City of Napa) approximately six miles north of the project area (UCMP 2018). In addition, according to the Geologic Map of the Cuttings Wharf 7.5' Quadrangle (Bezore et al. 2002), the project area is located solely within late Quaternary alluvial fan deposits. Quaternary alluvium is often devoid of fossil remains due to its high-energy depositional regime, and the subaerial nature of that deposition which generally precludes rapid burial. Organic remains are left exposed to the elements and degrade rapidly before they can be buried. Given the lack of previous paleontological discoveries in and near the project area and the low sensitivity of the landform, it is unlikely that significant paleontological remains or unique geological features would be encountered during project ground-disturbing activities. Therefore, this impact would be ***less than significant*.**

Mitigation Measures

Mitigation Measure GEO-1: The applicant shall comply with all of the site preparation and foundation/building design recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project construction and grading plans (i.e., site preparation and grading, site drainage improvements, and design parameters for foundations, retaining walls, street pavement, and driveway) to ensure that their recommendations have been properly incorporated. The results of the plan review shall be summarized by the applicant's geotechnical engineer in a letter to be submitted to the City Engineer and Building Official for review and approval prior to the issuance of grading, encroachment, and building permits.

Mitigation Measure GEO-2: Prior to issuance of building permits and site grading, the applicant/developer shall submit to the Public Works Department a Stormwater Pollution Prevention

Plan using Best Management Practices to limit erosion and stormwater pollution during construction of the project. Because the project is constructed in phases, the project developer shall ensure that more permanent measures such as landscaping are used to prevent soil erosion. Measures would include but not be limited to:

- Hydroseeding and/or establishment of appropriate plant materials/landscaping
- Placement of straw wattles along slope contours and drainages
- Lining of drop inlets with filter fabric/geotextile
- Establishment of a single destination "wash-out" for construction subcontractors
- Use of siltation fences
- Use of sediment basins

Mitigation Measure GEO-3: **T**he applicant shall comply with all recommendations in the Krazan & Associates Geotechnical Engineering Investigation for the site (Krazan 2019). Krazan recommends that the upper 30 inches of soils within the slab-on-grade foundation site and adjacent flatwork areas consist of non-expansive engineered fill. As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting slab areas can consist of lime-treated clayey soils (Kazan 2019).

VIII. Greenhouse Gas Emissions

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Background

The BAAQMD *CEQA Air Quality Guidelines* identify a project specific threshold of either 1,100 metric tons of carbon dioxide-equivalents[4] (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development) as resulting in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion. Additional information regarding the existing GHG emissions setting is found in Appendix B.

Discussion

a) GHG emissions are associated with proposed project construction activities, as well as long-term operations associated with energy usage, area sources (landscape maintenance), water/wastewater conveyance, solid waste collection, off-road mobile equipment (forklifts) and motor vehicles. GHG emissions calculation details are found in Appendix B.

The estimated construction GHG emissions are 431 metric tons of CO_2e in 2021 (see Table GHG-1). The BAAQMD does not recommend a threshold for GHG emissions from construction, so this analysis (similar to many other analyses prepared in the Air Basin) amortizes the construction emissions over the lifetime of the proposed project (30 years) and adds amortized construction emissions to the

[4] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

annual operational emissions. The 30-year amortized annual construction related GHG emissions would be approximately 14 metric tons of CO_2e.

Table GHG-1 also provides the estimated operational GHG emissions that would be associated with the proposed project. The GHG emissions from construction (amortized) plus operational emissions would be approximately 590 metric tons of CO_2e per year, which is below the BAAQMD threshold of 1,100 metric tons and thus, would be a ***less-than significant*** impact.

Table GHG-1. Estimated Annual Construction Greenhouse Gas Emissions

Emission Source	GHG CO_2e Metric Tons Per Year
Construction (30-year amortized)	14
Operations	
Area	<1
Energy	87
Mobile	312
Off-Road Equipment (Forklifts)	176
Solid Waste	1
Water/Wastewater	<1
Total Emissions (including Construction)	**590**
BAAQMD Significance Threshold	1,100
Potentially Significant?	**No**

Source: CalEEMod Version 2016.3.2

b) The City of American Canyon has not adopted a Climate Action Plan regarding the mandatory reduction of GHG emissions. The applicable plan, policy or regulation adopted for the purpose of reducing the GHG emissions is SB 32, which extends AB 32 and requires that GHG emissions are reduced 40% below the 1990 levels by 2030 (as written into Executive Order B-30-15), and other State regulations with post-2020 goals such as Executive Order S-3-05. The proposed project would result in a significant impact if it would be in conflict with the goals of these State regulations. The assumption is that SB 32 and associated regulations will be successful in reducing GHG emissions and reducing the cumulative GHG emissions Statewide to meet 2030 goals and post-2030 goals. The State has taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHG emissions. The proposed project has been reviewed relative to SB 32 and the State's *Climate Change Scoping Plan* and it has been determined that the proposed project would not conflict with the goals of SB 32 and other State regulations. Therefore, the proposed project would result in a ***less-than-significant*** impact.

IX. Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	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?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?			X	
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 for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Background

A Phase I environmental site assessment (ESA) was conducted by ATC in June 2018 (ATC 2018). That ESA

summarized the previous ESA's on the property conducted by Environmental Science Associates (October 2004), Kleinfelder (July 2005; December 2009), and ICES (April 2010). Those previous reports focused on the larger 106-acre Couch Property, of which the proposed development site of about 10.39 acres. The 2018 ATC study also conducted additional site interviews, database reviews, and a new site reconnaissance. ATC subsequently prepared a Limited Phase II ESA to address potential impacts of underground storage tanks on the larger property (March 25, 2019). The results of the two ATC studies are summarized in responses to Item d), below.

Discussion

a, b) Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the project applicant would be required to implement a Stormwater Pollution Prevention Plan and a Spill Prevention Plan during construction activities minimize the hazard of contamination from construction materials. Therefore***, no significant impacts*** would occur during construction activities.

The site was historically used for agricultural purposes and was occupied by a crop of planted Eucalyptus trees since sometime before circa late 1950's. Up until 2001 the site remained relatively unchanged. From 2001 until around 2012 the northwest corner of the site was used recreationally as a paintball field with the eucalyptus trees remaining in place. In 2012 the property was cleared and grubbed of the eucalyptus trees and shrubs.

The proposed project would not entail the large quantity storage or usage of hazardous materials on the site, other than cleaning supplies and materials that are typical of warehousing and distribution center land use. Small quantities of these hazardous materials would likely be used on site, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (which are included in many cleaners), disinfectants, chlorine (pool), and fertilizers. These substances would be containerized in small quantities within secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are limited primarily to the immediate vicinity of the materials. With proper use they do not pose a health hazard to the people using them or occupants of the site. Any transport of these materials would be required to comply with various federal and state laws regarding hazardous materials transportation.

The City of American Canyon Fire Protection District and Napa County Sheriff would be the first responders in the event of a train derailment or spill. Fire and police are trained in how to address

hazardous materials spills or fires and in emergency evacuation procedures in the event of a major emergency.

In summary, the proposed project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Impacts would be ***less than significant.***

c) The proposed project site is located approximately 0.8 miles from existing Napa Junction Elementary School. That school is proposed to be relocated to a new campus south of Commerce Court, approximately 0.34 miles southeast of the site. This new school is under construction and scheduled for occupancy in the fall of 2021[5]. Implementation of the proposed project would not result in emission of hazardous materials or wastes that would pose a serious health risk to school activities. There are no significant or extraordinary conditions associated with the project that would result in the release of hazardous or acutely hazardous materials, substances, or waste. The project would not result in emission of hazardous materials or wastes that would pose a serious health risk to activities at that new school. Therefore, the impact would be ***less than significant*.**

d) Given the historical use of the property for agricultural purposes, it may have been subject to past use of pesticides, herbicides and fertilizers. If these materials were stored, used and applied according to industry standards, they should not have significantly impacted the property. Evidence of large-scale use or disposal of pesticides, herbicides or fertilizers, such as mixing tanks, chemical storage areas, sprayers, etc. was not observed on the property. Evidence for the overuse of these materials, such as stressed vegetation or soil discoloration was not observed. The property has not been used for agricultural purposes since sometime prior to 2012. Therefore, ATC concluded that the historical use of the property for agricultural purposes and any potential residual pesticides, herbicides and fertilizers in the property soil does not represent a recognized environmental condition to the property (ATC 2018).

The eastern portion of the overall Couch property, to the east of the project site, where some past contamination had been noted, is buffered from the project parcel by the paved extension of Commerce Court. and about 70 feet of utility easements. The ATC report noted that contaminant generating land uses operated in the past in the eucalyptus groves in the area of the Couch Property. These uses generate hazardous wastes including phosphine gas, solvent, benzene, chloroform and thionyl chloride. The ATC report did not note any stressed vegetation or soil staining at the 10-acre site of proposed development that would indicate a potential environmental condition from these chemicals of concern.

[5] (http://www.njes-nvusd-ca.schoolloop.com/cms/public_news?d=x&group_id=1295706633895&news_group_id=1295706633895&return_url=1302484043084)

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. ATC considered the nature and extent of on-site and nearby sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the review of regulatory agency database information. Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, distance from the property, potential pathways, and soil type, et al, no potential subsurface vapor migration sources were determined to represent a recognized environmental condition to the property.

The property is not listed within the Napa County Leaking Underground Storage Tank (LUST) database, and was not found in further database searches. However, a Site Assessment was performed by Napa County in 1990 and the presence of underground storage tanks (USTs) was recorded (ATC 2018). The USTs are on the Eastern 40-acre parcel owned by the Couch Family. The property was reported to have three USTs sitting on the top of the ground in 2004, in an assessment by Environmental Science Associates. A Phase II soil investigation was conducted by Kleinfelder in July 2005, but groundwater sampling was not administered. The soil investigation found no hazards in concentrations above 2005 environmental screening levels except chromium. The 130 milligrams per kilogram chromium concentration is within new standards set by February 2016 environmental screening levels and thus constitutes a historical recognized environmental concern (ATC 2018).

ATC subsequently conducted a limited phase II soil investigation (ATC March 25, 2019). Two borings were conducted and soils and groundwater were sampled for total petroleum hydrocarbons and volatile organic compounds, as well as a suite of heavy metals.

The results of the analysis of the soil samples indicated the following:

- Concentrations of TPH as gasoline, diesel, and motor oil were not detected above the laboratory method detection limits.
- Concentrations of VOCs were not detected above the laboratory method detection limits.
- Arsenic was detected at a maximum concentration of 11 milligrams per kilogram (mg/kg) which is above the ESL of 0.067 mg/kg. It should be noted that the maximum concentration of background levels of arsenic in California soils is 11 mg/kg as indicated in a study entitled Background Concentrations of Trace and Major Elements in California Soils by Bradford dated March 1996.
- The remaining metals were either detected at concentrations below the ESLs or below the laboratory method detection limits.

The report concluded that in order for potential impacts from the Couch property to impact the subsurface of the subject property the following conditions would have to be satisfied:

1. The potential contaminants would have to be released and the release would have to migrate to the subsurface,
2. The impacts would then have to travel through the soil column to groundwater which is at a depth below 40 feet bgs,
3. The contaminants would then have to migrate in the groundwater in the direction of the subject property, and
4. The contaminants would have to arrive beneath the property in sufficient concentrations to be a concern.

Although a degree of uncertainty exists, ATC concluded that, based on these enumerated factors taken altogether, it is unlikely that contamination from the Couch property could impact the subject property. Therefore, this impact is considered ***less than significant***.

e) The Napa County Airport is located approximately 1.5 miles mile to the north of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the General Plan, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan, with a small part of the southern end of the site potentially in Zone E. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine distribution center would be an acceptable use with appropriate easement, which has been granted by the County. Zone E is less restrictive, and allows all of the uses allowed in Zone D, plus certain additional uses.

An Avigation and Hazard Easement Deed extending over the whole of the property was recorded by Napa County on July 26, 2019.

Therefore, the proposed project would not create aviation safety hazards for persons residing or working in the project vicinity, and impacts would be ***less than significant***.

f) The project is not located in the vicinity of a private airstrip. Therefore, there would ***be no impact*** associated with safety hazards from such airstrips.

g) The development of a wine distribution center on a 10.39-acre site on Commerce Court does not include any facilities or uses that would interfere with the City's emergency response or evacuation plans. The roadway extension has been developed per City standards. The project would be designed to facilitate emergency traffic through and around the site, in accordance with the City's Fire Protection District development standards. During construction, emergency routes would remain open and emergency response plans would not be affected. The impact would be ***less than significant*.**

h) The project site is surrounded by parcels containing industrial and warehouse development, and open spaces with ruderal (weedy) vegetation, with marshlands to the south and west. These areas are not subject to wildlands fires. Development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors). These systems would be designed in accordance with the latest requirements of the California Fire Code and would be considered adequate to provide fire suppression to the project site.

There is a potential for the dry vegetation on this undeveloped site to catch fire during grading. Equipment could create sparks that would ignite vegetation. Standard construction practices, such as installation of spark arresters on equipment, would reduce the likelihood of fire to a ***less-than-significant*** level.

The American Canyon Fire Protection District would provide fire protection to the proposed project. The District indicated in an email that mitigation fees would cover needs for fire services or facilities to serve the proposed project (Weeks 2020). Therefore, the proposed project would not create or expose people or structures to significant wildland fire risks, and impacts would *be* ***less than significant***.

X. Hydrology and Water Quality

Would the project:

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

Background

A Hydrology Report, and a Stormwater Control Plan were prepared for the proposed project by RSA+ (2019a; 2019b). The project site is relatively flat with gentle slopes draining toward the west. Runoff from the property flows over the surface of the site to the western property line, then continues westward, where is ultimately conveyed to the Napa River (RSA+ 2019a). Downstream, the Napa River discharges into the San Pablo Bay through the Napa- Sonoma Marsh.

Discussion

a, c, e) Under Section 402 of the Clean Water Act, the U.S. EPA has established regulations through the National Pollution Discharge Elimination System (NPDES) Stormwater program to control Stormwater discharges, including those associated with construction activities. Authority for NPDES permitting has been delegated by the federal government to the California State Water Resources Control Board (SWRCB), which has nine regional boards; the San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in the project area, which is in Napa County. The NPDES Stormwater permitting program regulates Stormwater quality from construction sites. The State Construction General Permit (CGP) requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP for Discharges of Stormwater Associated with Construction Activity (CGP Order 2009-0009DWQ).

Development of the proposed project would require clearing ruderal vegetation and grading of the approximately 10.39-acre proposed development site as well as clearing and excavation a major portion of the parcel to the south for soil stockpile transfer to the site, as well as for creation of a borrow pit to provide additional fills for the proposed project. In addition, a new distribution center building, and associated paved areas would be constructed; landscaping would be installed; and bioretention facilities would be created.

During construction activities there would be a potential for surface water to carry sediment from on-site erosion and small quantities of pollutants into the City's Stormwater system and local waterways. Soil erosion may occur on the project site and parcel to the south (soil stockpile and borrow pit areas) during construction. Small quantities of pollutants have the potential to be washed into the storm drainage system, ultimately entering the Napa River, thereby potentially degrading water quality.

Construction of the proposed project also would require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would likely be utilized during construction. On-site portable toilets could leak or tip over and spill, releasing sanitary waste, bacteria, solids, nutrients, and pathogens. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The proposed project would exceed the NPDES one-acre threshold; therefore, the project proponents would be required to comply with the CGP. The project applicant would be required to develop and implement a SWPPP that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of storm water runoff generated from the project site. The SWPPP would identify the risk level for erosion and sedimentation and how much monitoring of potential pollutants is required. Implementation of a SWPPP as required would ensure that the construction of the proposed project would not violate any water quality standards or waste discharge requirements and reduce potential impacts to a less-than-significant level, as described in Mitigation Measure HYD-1, below.

As required under State Water Resources Control Board Order No. 2013-001 DWQ, the City of American Canyon requires regulated projects, such as this one to prepare a Stormwater Management Program (NPDES Permit No. CAS 612007). As one element of the program, the City requires regulated projects to address post-construction stormwater quality. More specifically, the City of American Canyon requires regulated projects, such as this one, to prepare a Stormwater Control Plan (SWCP) in accordance with the Bay Area Stormwater Management Agencies Associated Post-Construction Manual. The SWPC must include post-construction stormwater treatment measures such as bio-retention facilities and source controlled BMPs. The SWMP must also address ongoing maintenance of those facilities.

The project site and adjacent soils stockpile and borrow area have no impervious surfaces. Development of the proposed project would increase impervious surface coverage on the project site through construction of the distribution center building, parking areas, internal roadways and driveways, and sidewalks. The increase in impervious surface coverage would create the potential for discharge of urban pollutants into downstream waterways. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff

transported to receiving waters. Runoff from the proposed landscaped areas may also contain residual pesticides and nutrients.

A Stormwater Control Plan has been prepared for the proposed project in accordance with the Bay Area Stormwater Management Agencies Association's (BAASMA) Post Construction Manual. The proposed project would incorporate low-impact development design strategies. An approximately 21,000 sq. ft. bioretention pond would be designed with biotreatment and constructed on the western side of project site (that would treat runoff from much of the project site as well as a small portion of Commerce Court). A pervious area would be installed along the east side of the proposed building, which would allow infiltration/treatment of additional runoff (RSA+ 2019b).

The proposed project's stormwater control and treatment system would result in a net decrease in peak stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 72.7 cubic feet per second (cfs) to approximately 58.6 cfs with the proposed project. Potential impacts related to compliance with post-construction runoff would be would be reduced to ***less-than-significant*** with implementation of Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, below, which assure proper design, construction, and long-term maintenance of the stormwater facilities.

The project proposes to use recycled water for landscape irrigation. Improper use or discharge of recycled water represents a threat to the quality of waters of the state and to human health and the environment. The City, as the purveyor of recycled water, is required to comply with the State Water Resources Control Board's (SWRCB) General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water. Coverage under the State's General Waste Discharge Requirements (WDRs) for Recycled Water Use (Water Quality Order 2009-006-DWQ) is limited to treated municipal wastewater for non-potable uses. The General Permit establishes requirements to manage recycled water for landscape irrigation uses in a manner that is protective of public health and the environment. The City is responsible for overseeing the recycled water system and compliance with specific BMPs set forth by the SWRCB which include implementation of operations and a management plan that provides for detection of leaks, and correction either within 72 hours of learning of a leak, or prior to the release of 1,000 gallons; proper design and operation of sprinkler heads; refraining from application during precipitation events; and management of any impoundment such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater. In the event of an unauthorized discharge, the Executive Officer of the appropriate Regional Water Board shall be notified. In addition, as part of the site maintenance, the recycled water system is inspected monthly to verify there are no leaks

or runoff from the landscaped area. The recycled water is managed by the City of American Canyon, and use of the recycled water by the proposed project would be a ***less-than-significant*** impact.

b) The proposed project would be served with potable water supplied by the City of American Canyon, and no new groundwater wells or other groundwater supplies would be required. Therefore, the proposed project would not contribute to depletion of groundwater supplies. The project's on-site drainage systems would consist of a detention pond and a vegetated detention swale. These features of the development would contribute to replenishing the groundwater supply. Therefore, the development of the proposed project would not interfere with groundwater recharge. As such, impacts would be ***less than significant***.

d) The Federal Emergency Management Agency's Flood Insurance Rate Map No. 06055C0617F, Panel 617 out of 650 indicates that the project site is not located within a 100-year flood hazard area and is in an area of minimal flood hazard. The project site is not located in a dam failure inundation zone, as depicted in the American Canyon General Plan (City of American Canyon 1994, as amended through January 2018). The project site is east of the Conn and Miliken Dams, Rector Reservoir, and Summit Reservoir inundation areas. The project site is not protected by any levees. These conditions preclude the possibility of the project site being inundated by floodwaters as a result of levee or dam failure. Seiches and tsunamis are seismically induced large waves of water. The project site is distant from any water bodies that could result in a seiche or tsunami. Similarly, mudflows are not a concern in this area of the City.

Therefore, the proposed project would have ***no impact*** to water quality from inundation by flooding, dam failure, seiche, tsunami or mudflow.

Mitigation Measures

Mitigation Measure HYD-1: Prior to the issuance of grading permits or building permits (whichever occurs first), the project applicant shall obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The City of American Canyon shall confirm that the applicant has prepared a SWPPP and obtained coverage under the general permit prior to issuance of grading or building permits. The SWPPP shall identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall address both

the project site and adjacent parcel where soils stockpiles would be removed and the borrow pit would be created to provide fill for the project site. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment shall be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- Discharge from the storm water system shall be diffused in such a way as to mimic existing overland flow conditions.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

***Mitigation Measure HYD-2*:** Prior to the issuance of grading permits for the proposed project, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site and the soils stockpile and borrow pit areas on the parcel immediately south of the project site. The plan shall be implemented to the satisfaction of the City of American Canyon prior to building occupancy.

Mitigation Measure HYD-3: Prior to issuance of grading permits for the proposed project, the project applicant shall submit a final drainage plan as prepared by a qualified civil engineer to

the City of American Canyon for review and approval. The approved plan shall be incorporated into the project design and constructed to the satisfaction of the City.

Mitigation Measure HYD-4: The project sponsor (or successors-in-interest/owner) shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan to be agreed upon with the City of American Canyon. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.

Mitigation Measure HYD-5: The proposed bio-retention basin shall be maintained on a regular basis by the project sponsor (or successors-in-interest). Inspections of the basin shall be conducted at least once a year between July 1st and September 1st. During the dry periods of the year when minor storm events are insufficient to fully transport sediment and debris, accumulations may occur in detention basins. Therefore, basin and storm water inlet maintenance shall be done prior to the rainy season and during other extended dry spells, which will reduce the concentration of sediment and debris that typically collects in the bottom of inlets during storms. An annual inspection and maintenance report shall be prepared by the property owner and submitted to the Public Works Director by October 15 of each year, at the property owner's expense.

XI. Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion

a) The project site is undeveloped open land covered mostly with ruderal vegetation, with some small wetland areas. The project is bounded on the north by existing warehouse uses. To the west is an 11.23-acre parcel owned by the Couch Family, which remains unimproved with a eucalyptus grove; on the south is the under-construction Commerce 330 distribution Center building and, beyond that, the City-owned 24-acre Clarke Ranch West Open Space, which is partially covered eucalyptus trees, and includes horse-riding facilities operated by Spirit Horse Riding Center; to the east is a 64-foot wide City Public Access and Utility Easement; on each side of this 68-foot easement is a 5-foot-wide Public Utility Easement; to the east of these easements is a 40-acre parcel owned by the Couch Family including a mobile home and accessory structures, and a large commercial recreation facility (Paintball Jungle). Farther north on Commerce Blvd. are other warehouses similar to the proposed project. South of Eucalyptus Drive is a residential neighborhood. A public school is under construction just southeast of the site, to the south of the paintball center, at the northeast corner of Eucalyptus Drive and Wetlands Edge Road. The nearest established residential community is south of Commerce Court, which is not accessible by motor vehicle. Therefore, the project would have no potential to divide any such community and there would be ***no impact*.**

b) The City's General Plan designates the site as Commercial Recreation (CR) and the Zoning Map indicates that the site as Recreation (REC). The General Plan describes typical permitted used in the

CR land use category as: *Recreation vehicle parks, interpretative nature centers and conference facilities, and similar uses*. (General Plan Land Use Element, Land Use Schedule Table, p. 1-9). The City Attorney has reviewed the allowed uses in the Recreation zone (which includes the proposed Distribution Center use) and determined they are consistent with the Commercial Recreation Land Use in the General Plan (email from Jeff Ballantine, Contract Project Planner, City of American Canyon, to Richard Grassetti, GECo, August 8, 2018).

A Recreation Zoning District Code Amendment (Ordinance No. 2018-01) was adopted by the City Council on January 16, 2018. The Ordinance that was adopted was "to make winery uses more feasible". The City's Municipal Code, Chapter 19.15.020 identifies the Recreation District as an area for Wineries as a conditionally permitted use. The Zoning Ordinance defines "Winery" as including viticulture-related activities such as bottling, storage, logistics, distribution, wine packing, and wine-related services. Zoning Ordinance (No. 2018-01) was granted by the City Council on Dec. 19th, 2017, expanding the Zoning to "allow limited non-winery uses with a conditional use permit". The project complies with the City's Zoning Code standards, with approval of a minor variation to height standards to allow a 37-foot height.

The following City General Plan land use policies applicable to the project are noted below.

Policy 1.2.2: Establish as a priority the development of projects that are contiguous with and infill the existing pattern of development, avoiding leap-frog development, except for large scale master-planned projects that are linked to and planned to be extensions of existing development and for which infrastructure and services are in place or funded.

> **Consistent:** The proposed project would be adjacent to, and become part of, the developed existing Green Island industrial/warehouse area. Therefore, the project would be generally consistent with this policy.

Policy 1.3.4: Limit the total additional new development that can be accommodated in the City and its Urban Limit Line to the following provided that the highway improvements stipulated by the Circulation Element are implemented. Industrial development within the City is limited to 1,560,195 sq. ft., and within the Urban Limit Line the limit would be 5,778,500 sq. ft.

Policy 1.3.5 of the GP provides some flexibility in implementing Policy 1.3.4: Consider increases in development capacity when it can be demonstrated that additional transportation improvements have been implemented or are funded, or demands have been reduced (based on highway level of service and vehicle trips), and such increases are consistent with community needs and desires. (I 1.9 and I 1.10)

Consistent: The project would contribute its fair share to traffic improvements that would assure that appropriate transportation improvements would be implemented. See Transportation/Traffic section of this IS for additional discussion.

Policy 1.22.3: 1.22.3 Permit development according to the following standards:

a. Labor-intensive uses: a maximum floor area ratio of 0.5.

b. Low labor uses (such as warehousing): a maximum floor area ratio of 0.7.

Consistent: The proposed project would have a floor area ratio of 0.48.

Policy 1.22.4: Require that development be designed to achieve a high level of quality and compatibility with existing uses including the consideration of the following:

1. architectural treatment of all building elevations;
2. use of extensive landscape along the primary street frontages and parking lots; and
3. enclosure of storage areas visible from principal highways (including Highway 29) and peripheral residential and commercial districts with decorative screening or other elements. (I 1.1, I 1.4-I 1.7, I 1.11, and I 1.14)

Consistent: The project includes architectural treatments consistent with nearby warehouse developments. It includes a landscape plan for the street frontage, site perimeter, and storage areas.

Policy 1.27.1: Require that development comply with the land use and development conditions stipulated in the Napa County Airport Land Use Plan (ALUP).

Consistent: The project site is located within ALUP Compatibility Zone D. The proposed project use (warehousing/distribution) would comply with the conditions of the ALUP. Therefore, the project would be consistent with this policy.

Policy 1.27.2: Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones “A” through “E” for compliance with the appropriate use and development conditions.

Consistent: The proposed project site is mostly located within Zone D; a small part of the site may be in Zone E. Wine distribution uses are permitted in these zones. In addition, the applicant has obtained an Avigation Easement for the property. Therefore, the project would be consistent with this policy.

Policy 1.32.1: Require adherence to the *Design and Development Principles* prescribed in the General Plan and the City's Design Review Guidelines, which shall be updated periodically.

> **Consistent:** The project has been designed to adhere to the *Design and Development Principles* prescribed in the General Plan as well as the City's Design Review Guidelines. Therefore, the project would be consistent with this policy.

Policy 1.32.2: Require that development projects subject to discretionary review submit and implement a landscape plan.

> **Consistent:** Landscaping would be provided throughout the parking lot areas and along project site boundaries. Therefore, the project would be consistent with this policy.

Policy 1.32.4: Require developers to incorporate mature and specimen trees and other significant vegetation, which may exist on a site into the design of a development project for that site.

> **Consistent:** The project includes a landscaping plan, which includes trees and other plants. There are no mature or specimen trees on the project site that can be incorporated as part of the project.

Policy 1.32.5: Require the use of drought-tolerant species in landscape design in accordance with the provisions of the Water Conservation and Landscape Act.

> **Consistent:** Vegetative species included in the project landscape plan are generally native to California and are drought-tolerant where appropriate. Therefore, the project would be consistent with this policy.

Policy 1.32.6: Require that commercial, industrial, and multi-family residential development incorporate adequate drought-conscious irrigation systems and maintain the health of the landscape.

> **Consistent:** The proposed project would incorporate drought-conscious irrigation systems and maintain the health of the landscape consistent with Policy 1.32.6. Therefore, the project would be consistent with this policy.

Policy 1.32.7: Require that all commercial, industrial, multi-family, and common area landscape be adequately irrigated with automatic irrigation systems.

> **Consistent:** The proposed project would include the use of automatic irrigation systems. Therefore, the project would be consistent with this policy.

Policy 1.32.8: Promote the use of reclaimed water for the irrigation of public and private landscape, as available.

> **Consistent:** The proposed project would include an on-site irrigation system that would use recycled irrigation water. Therefore, the project would be consistent with this policy.

Policy 1.33.1: Require that all structures be constructed in accordance with the requirements of the City's building and other pertinent codes and regulations; including new, adaptively reused, and renovated buildings.

> **Consistent:** The proposed project would be constructed in accordance with the City's building and other pertinent codes. Therefore, implementation of the proposed project would be consistent with this policy.

Policy 1.33.3: Require that all development be designed to provide adequate space for access, parking, supporting functions, open space, and other pertinent elements.

> **Consistent:** The project would provide sufficient space for access, parking, and open space consistent with Policy 1.33.1. Therefore, the project would be consistent with this policy.

Policy 4.9.3: Require that sufficient and secure bicycle parking be provided in all parking areas.

> **Consistent:** Bicycle parking in excess of City requirements is provided as part of the project. Therefore, the project would be consistent with this policy.

Policy 5.5: In order to reduce light and glare, ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) is designed using City engineering standards and/or Best Management Practices to prevent artificial lighting from illuminating adjacent private property in residential neighborhoods and/or natural areas. If isolated areas are identified as having excessive spillover post construction, specific mitigations shall be implemented, e.g. installation of glare shields.

> **Consistent:** The proposed project includes lights in the parking lot and on the building. The lighting has been designed to minimize spillover light, per City requirements. A lighting study has been prepared by the applicant's lighting engineers showing minimal spillover lighting.

Policy 6.4.1: Continue to implement an ordinance requiring built-in fire protection for most building types, including single- and multi-family residential, to:

- minimize the potential for loss of life and property
- allow for the provision of a high level of fire protection services while reducing the needs for additional staff and equipment.

Consistent: The proposed project would be constructed to meet City and State fire code requirements. The proposed project would not require additional fire staff or equipment.

Policy 6.9.2: Require that landscaping in proximity to commercial, industrial, multi-family, and public structures be sited to allow for security surveillance.

Consistent: Landscaping would be planted in accordance with City standards to allow for security surveillance.

Policy 11.2.9: Require the utilization of site and architectural design features in conjunction with noise barriers to mitigate impacts on sensitive land uses. Design techniques capable of mitigating potential noise impacts include:

- Site Design
  - Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
  - Locating uses and orienting buildings that are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise-sensitive areas and uses;
  - Placing noise tolerant land uses, such as parking areas, between noise sources and receivers;
  - Using noise tolerant structures, such as garages or carports, to shield noise-sensitive areas;
  - Clustering office, commercial, or multiple family residential structures to reduce interior open space noise levels; and,
  - All truck docks and truck traffic noise on the north side facing away from south residential areas.

Consistent: The proposed project would incorporate design features to help mitigate noise impacts to nearby receptors (See Section XII, Noise).

Napa County Airport

The Napa County Airport Land Use Commission regulates land use around the Napa County Airport by requiring compliance with the Napa County Airport Land Use Compatibility Plan (NCALUCP). The City of American Canyon's General Plan and Zoning Ordinance were found to be consistent with the

NCALUCP. The project is consistent with the City's General Plan. The project site is located in Zones D and E of the Airport's land use compatibility map, which permit development of warehouse/distribution center uses. Please see a comprehensive discussion of this issue in response to Item VIII e), above.

The project has been designed consistent with all applicable City land use and planning documents adopted to avoid or mitigate an environmental effect, as discussed throughout this Initial Study. Therefore, the impact is ***less than significant*.**

c) The project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the project would not conflict with any habitat plans and there would be ***no impact***.

XII. Mineral Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
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?				X

Discussion

a, b) The project site is designated Commercial Recreation in the City's General Plan and consists of a vacant parcel. The site and adjacent borrow area site to the south are not identified in the City's General Plan as a site containing locally important mineral resources that would be of local, regional, or statewide importance; therefore, the project is not considered to have any impacts on mineral resources. The project does not propose to excavate the site for mineral resources; therefore, no impacts related to mineral resources would result from construction of the project. The project site does not contain any known mineral deposits or active mineral extraction operations. Therefore, there would be ***no impact*** to mineral resources.

XIII. Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project within the vicinity of a private airstrip, or 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?				X

Background

Existing Noise Levels and Sensitive Receptors

Noise-sensitive receptors (land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise) include residential developments, schools, health care facilities, and libraries. Noise-sensitive receptors in the project vicinity include one residence about 1,000 feet east of the site (on the Couch property) as well as other single-family residences approximately 2,300 feet from the project site boundary (to the southeast). In addition, a new elementary school is under construction, with its nearest edge about 1,500 feet southeast of the project site.

To quantify existing ambient noise levels at the project site and surrounding area, one long-term (72-hour) and several short-term (10-minute) noise measurements were conducted at and near the project site. The long-term meter was placed on the row of eucalyptus trees at the northern project site boundary and measured existing 24-hour noise levels. The short-term measurements were conducted at several locations on the project site to measure traffic noise from Commerce Court and Highway 29, and noise from adjacent properties.

The main source of noise in the project vicinity is aircraft noise from Napa County Airport. Secondary noise sources included traffic on Commerce Court, construction noise and pedestrians flying drones in the project

vicinity. The noise measurements are summarized in Table Noise-1, below. The Noise Appendix (Appendix E) includes noise measurement site locations, 24-hour noise plots and additional sound level data.

Table Noise-1: Existing Noise Levels in the Project Area[6]

Location	Time Period	Noise Levels (dB[7])	Noise Sources
Site 1. North property line of the project site along Eucalyptus grove.	Tuesday August 4, 12:00 a.m. through Thursday August 6, 11:59 p.m., 2020 72-hour measurement	Hourly Leq[8]s ranged from: 44-54 Ldn[9] s: 53, 52, 52 Hourly Lmax[10]s ranged from: 44-76	Unattended noise measurements do not specifically identify noise sources
Site 1. North property line of the project site along Eucalyptus grove.	Monday August 3, 2020 11:47-11:57 a.m.	5-minute Leqs: 58, 45 5 minute Lmaxs: 75, 60	Jet overhead was 74 dB. Quieter noises included traffic, winds, & distant construction.
Site 2. North area of the project site.	Monday August 3, 2020 12:01-12:10 p.m.	5-minute Leqs: 43, 45 5 minute Lmaxs: 52, 60	Distant construction was 45 dB. Traffic on Commerce Blvd was 43 dB. Quieter noises included wind & birds.
Site 3. Northwest edge of the project site.	Monday August 3, 2020 12:14-12:24 p.m.	5-minute Leqs: 43, 42 5 minute Lmaxs: 54, 50	Drones flying in north area of the project site was 50 dB. Quieter noises included birds, wind & distant construction.
Site 4. Southeast edge of the project site.	Monday August 3, 2020 12:26-12:36 p.m.	5-minute Leqs: 41, 44 5 minute Lmaxs: 55, 57	Distant aircraft was 55 dB. Quieter noises birds, wind & distant construction.
Site 5. Western edge of the project site, 50 feet east of centerline of Commerce Court.	Monday August 3, 2020 11:21-11:31 a.m.	5-minute Leqs: 59, 52 5 minute Lmaxs: 75, 64	Large delivery trucks up to 65 dB. Quieter noises included distant construction & horns.

[6] Source: RCH Group, 2020

[7] A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report would be A-weighted unless noted otherwise.

[8] The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[9] Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[10] Lmax is the instantaneous maximum noise level for a specified period of time.

Regulatory Framework

The City of American Canyon addresses construction noise in Section 8.12.080 of the American Canyon Municipal Code. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties would not exceed those listed in Table Noise-2.

Policy 11.7.1 of the City's General Plan Noise Element limits construction activities adjacent to noise-sensitive uses to daylight hours between 6:30 a.m. and 8:00 p.m. The Noise Element also requires construction activities to employ practical techniques and practices that minimize the generation of adverse and/or excessive noise impacts on adjacent land uses (Policy 11.7.2). Policy 11.2.4 of The Noise Element requires new industrial, commercial and related land uses to demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65dB in areas containing housing, schools, health care facilities, or other noise-sensitive land uses.

Table Noise-2: Noise Limits for Construction Activities (Lmax)

Timeframe	Residential	Commercial	Industrial
Daily: 7 a.m. to 7 p.m.	75 dB	80 dB	85 dB
Daily: 7 p.m. to 7 a.m.	60 dB	65 dB	70 dB

Source: American Canyon Municipal Code, Chapter 8.12

Discussion

a) Construction and operational noise impacts are addressed below.

Construction Noise

The project could result in temporary, short-term increases in noise levels during project construction. Noise-sensitive receptors near the project site include single-family residences (to the southeast). Residents in those homes could experience short-term increases in noise levels during construction of the project.

The maximum noise levels for various types of construction equipment that would be required to build the project are provided in Table Noise-3, below. Maximum noise levels generated by construction equipment used for the project would range from 74 to 85 dB at a distance of 50 feet. Table Noise-4 shows the maximum estimated noise levels at the nearest residence that could occur during construction.

As shown in Table Noise-4, site preparation, grading and paving activities for the warehouse would take place approximately 1,000 feet from the nearest residence and would generate

maximum noise levels of approximately 53 dB. Hauling of stockpile material and grading of the borrow area within the parcel to the south would take place approximately 500 feet from the nearest residence and would generate maximum noise levels of approximately 60 dB. The construction of the warehouse would take place approximately 1,100 feet from the nearest residence and would generate maximum noise levels of approximately 52 dB. Noise levels would be lower than these estimates most of the time, and maximum levels would only occur for a short duration when the construction equipment is at its closest point to the residence. Thus, noise levels resulting from project construction would be far below the 75 dB daytime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code.

Table Noise-3: Typical Noise Levels from Construction Equipment (Lmax)

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Auger Drill Rig	84
Backhoe	78
Bulldozer	82
Compactor (ground)	83
Crane	81
Excavator	81
Front End Loader	79
Generator	81
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Slurry Trenching Machine	80
Tractor	84
Welder/Torch	74

Source: *Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide,* 2006.

Table Noise-4: Estimated Maximum Construction Noise Level at Nearest Residence

Construction Activity	Approximate Distance to Residence (feet)	Noise Level (dB, Lmax) at Residence
Site Preparation, grading, and paving	1,000	53
Material stockpile hauling and borrow area grading	500	60
Warehouse construction	1,100	52

Note: Noise levels were estimated using a reference noise level of 85 dB at 50 feet and attenuation rate of 7.5 dB per doubling of distance due to soft-site conditions at the project site.
Source: RCH Group 2020

Project construction would require approximately 15 days of nighttime construction activities for pouring concrete for the building slab, wall panel, and additional large paving due to the scale of the pour requiring that the plant and trucks being dedicated to it for the pour duration. Previous nighttime concrete pours occurred for the construction of the SDG Commerce 330 Distribution Center building approximately 1,000 feet south of the project. The City received a few calls from the residents to the southeast (the neighborhood southeast of the Eucalyptus Drive/ Wetlands Edge Road intersection) inquiring about nighttime construction noise. Once the pre-notification of nighttime construction dates and times were submitted to the City, the residents to the southeast were notified and understood the nature and timing of nighttime construction and submitted no further noise inquiries (Doswald, 2020). The concrete pours would occur during nighttime hours starting no earlier than 12:00 a.m.

Concrete pouring activities would occur approximately 1,000 feet from the existing residence and 2,300 feet from the residential neighborhood. In addition, the existing SDG Commerce 330 Distribution Center building to the south would work as a noise barrier to the residences approximately 2,300 to the southeast. As shown in Table Noise-4, the maximum noise levels generated at 1,000 feet would be approximately 53 dB. This would be below the 60-dB nighttime noise limit for residential land uses contained in section 8.12.080 of the American Canyon Municipal Code. Similar to previous construction for the SDG Commerce 330 Distribution Center building, pre-notification of these night pour dates and times would be provided to the City of American Canyon and to residents that expressed concern with nighttime noise during the Commerce 330 Distribution Center construction.

A portion of the project construction activities could occur when the new elementary school that is currently under construction is in-session. Project construction activities would be limited to the project site (1,500 feet away) when school is in-session during Fall 2021 and would not exceed any noise standards.

The implementation of Mitigation Measures NOISE-1 and NOISE-2 would reduce potentially significant impacts from temporary construction noise to ***less than significant***.

Operational Noise

Operational noise from the project would include automobile and truck traffic travel to and from the site, loading dock activities, and parking lot activities. All truck and automobile activity would be on the north side of the building, so that the building would shield residential areas to the south from that noise. The warehouse building's cooling system would bring in cool night air with intake louvers and fans. Cooling equipment would be located greater than 1,000 feet from the nearest residence to

the southeast and the noise from the operation of mechanical equipment would not be audible at the residence over ambient noise levels in the project vicinity.

Noise from parking lot activities would occur at the project site intermittently when warehouse employees arrive at the beginning of a shift and leave at the end of a shift. Representative parking activities such as employees conversing and doors slamming generate maximum noise levels of 60-70 dB at 50 feet (LSA Associates, 2012). The project includes parking spaces on the north side of the project. Parking spaces would be approximately 1,400 feet from the nearest residence to the east and, given this distance, parking lot noise would attenuate to a level below ambient noise levels before reaching the nearest residence.

The loudest noise generated from project operations would be traffic noise from trucks traveling to and from the warehouse as well as loading and unloading at the project site. Trucks would travel between the site and Highway 29 via Commerce Court and Green Island Road. The existing average traffic noise levels measured at Commerce Court (Site 5) were 52 to 59 dB Leq. Typically, traffic volumes need to double in order to result in a perceptible change in noise levels (i.e., 3-5 dB). The project is estimated to generate approximately 367 trips per day during weekdays with 35 AM peak-hour trips and 28 PM peak-hour trips, which would be less than one trip per minute during the peak hour traffic (GHD, 2020). Project traffic would not result in a doubling of traffic and would have a less than 3 dB increase and would have a minimal effect upon ambient noise levels in the project vicinity.

Loading dock activities would include heavy trucks stopping (infrequent air brakes), backing into the loading docks (back up alarms), and pulling out of the loading docks (revving engines). The trucks would be unloaded from the inside of the warehouse and most of the unloading noise would be contained within the building and truck trailer. Noise would occur periodically for several minutes at a time during each delivery/pickup at the warehouse.

The loading docks would be located on the north side of the warehouse building. At the nearest residence (to the southeast), noise levels from the project's loading dock and semi-truck movements would be far below ambient noise levels due to the large distance between source and receptor (approximately 1,400 feet) and additional shielding from the warehouse building and residential noise barrier. In addition, interior noise levels would be approximately 25 dB less inside the residence (Bollard, 2005; Bum, 1994).

Noise from project operation would not exceed the 65 dB Ldn exterior noise standard for residential land uses contained in the City of American Canyon General Plan at the nearest residence. Operational noise generated by the project would be ***less than significant***.

b) Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment are summarized in Table 4 of the Noise Appendix. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (ppv) threshold of 0.5 inch per second or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a threshold of 0.5 ppv for residential and commercial structures, 0.25 ppv for historic buildings and archaeological sites, and 0.2 ppv for non-engineered timber and masonry building (FTA 2006).

The project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration (i.e., pile drivers). Project construction would involve the use of a roller and a bulldozer, which could produce vibration levels of 0.210 and 0.089 ppv at 25 feet. Ground vibration generated by construction operations would be primarily associated with on-site trucks and excavation equipment and would result in vibration levels of less than 0.1 ppv at 25 feet. Construction activities would occur as close as approximately 1,000 feet from the nearest structure and the predicted vibration levels at the nearest structure would not exceed the 0.5 ppv threshold for residential and commercial structures. Therefore, vibrational impacts would be ***less than significant***.

c) The project site is not located within the vicinity of a private airstrip. There are no private airstrips located in the City of American Canyon or near the city limits. The project site is located in Zone D of the Napa County Airport Land Use Compatibility Plan. Warehousing is listed in the American Canyon General Plan Noise Element as one of the uses that is normally acceptable in this zone. The project would not exceed the maximum density specified in the General Plan for Zone D and would be consistent with the land use designation in the Airport Land Use Plan and the General Plan's airport vicinity land use compatibility criteria. The project would not expose people working on the project site to excessive noise levels. This impact would be considered ***less than significant***.

Mitigation Measures

Mitigation Measure NOISE-1: Construction activities shall be limited to daylight hours between 7:00 a.m. and 7:00 p.m., except for required nighttime construction for concrete pours onsite that would comply with the City of American Canyon's Noise limits for construction activities. All

property owners within 300 feet of the site and all residents who have expressed concern over nighttime construction noise during construction of the Commerce 330 project, or otherwise have requested notification regarding project construction, also shall be notified by the applicant. The City also shall be pre-notified of nighttime construction.

Mitigation Measure NOISE-2: All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

XIV. Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial 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)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

Discussion

a) The proposed warehouse development would not directly increase the population because there is no housing component, but it would introduce new businesses to the area. As part of the Commerce 330 project, infrastructure at the site was expanded. This infrastructure includes Commerce Court, which is an approximately 1100-foot-long paved roadway extension and widening of an existing rock-surfaced road, water and sewer main tie-ins, a sewer lift station, gas line extension, storm drainage facilities, and recycled water service. These improvements serve the proposed project, the Commerce 330 project, and, if developed in the future, the intervening parcel. The project could induce similar warehouse development on the remaining undeveloped parcel between it and the Commerce 330 development. However, the number of new employees at that facility would be similar to the project's employment (32 full-time employees and up to 18 part-time employees). Therefore, this impact would be considered ***less than significant***.

b, c) The project site is vacant and development of the proposed project would not displace existing housing or people. Therefore, there would be ***no impact*** associated with displacements.

XV. 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 following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?			X	
d) Parks?				X
e) Other public facilities?				X

Discussion

a) As a light industrial/warehouse/distribution center development, the proposed project would not directly increase the residential population of the City of American Canyon. The General Plan for the City evaluated impacts related to increased industrial development (City of American Canyon. 1994, as amended through June 2020).

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The ACFPD's goal is to respond to 90 percent of their calls in five minutes or less. The response time from this fire station is around five minutes, but may be longer depending on traffic and other variables. In 2019, the ACFPD responded to 72 incidents in the Green Island Industrial area. In 30 percent of the incidents, response time of the first fire vehicle was within five minutes to this area. Therefore, the proposed development may exceed the District's target response time.

The City provides fire service and facilities through two different fees. The first fee, a Fire Mitigation Fee is a one-time assessment of new development, which is $0.5474 per square foot for industrial properties. The second fee is the Fire Service Fee, which is an annual assessment for each parcel based on a formula which includes structure construction type, the fire flow area (square feet), proximity of other structures, the type of occupancy, and the presence of fire protection devices. The ACFPD may need additional resources to address increased call volume and fire flow needed for the proposed project in the form of additional facilities, apparatus, and staffing. With payment of the required Fire Service Fee, this impact would be reduced to a ***less-than-significant*** level (email from Chief Glen Weeks, July 23, 2020).

b) The City of American Canyon contracts with the Napa County Sheriff's Office for staffing the American Canyon Police Department to provide police services. The California Highway Patrol is responsible for traffic related enforcement. The police headquarters are located at 911 Donaldson Way East, which is the same location as the fire district, approximately 2.1 miles from the project site. The Police Department has a force of 24 full-time sworn officers, two police technicians, and an administrative clerk. Additionally, the Napa County Sheriff's Office investigations Bureau has a Lieutenant, a Sergeant, and 7 Detectives. These Detectives carry a significant ACPD case load for follow-up investigations. (City of American Canyon Police Department 2019 Annual Report).

Staff and equipment required to provide service to the proposed project would depend on the occupants of the building. The Police Department generally does not require additional police personnel for warehouse projects. Such businesses typically provide some self-monitoring, such as video cameras in parking lots, which reduces police calls. The applicant would be responsible for mitigation/impact fees for the police station in accordance with the City of American Canyon's Mitigation Impact Fee schedule. With payment of the Mitigation Fee, the project would result in a ***less-than-significant impact*** on the City's police services.

c) The City of American Canyon is within the Napa Valley Unified School District (NVUSD). The proposed project would not affect schools, parks or other public facilities because this warehouse project would not directly increase the population. However, industrial developments in the City of American Canyon are required to pay school fees and a Civic Facilities Fee, in accordance with the City's Master Fee Schedule. With payment of the mitigation fees this potential impact would *be* ***less than significant***.

d) The proposed industrial project would not result in an increase in residents and therefore, would not increase demand for any parks facilities. Pursuant to the City's General Plan Policy 7.1.1, the City has a minimum parkland standard of 5.0 acres per 1,000 residents. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. Therefore, the project would have ***no impacts*** to parks and recreation facilities**.**

e) No other public facilities would be required by the proposed project. Therefore, the project would have ***no impacts*** to any such facilities**.**

XVI. Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	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 physical deterioration of the facility would occur or be accelerated?				X
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?				X

Discussion

a, b) The proposed distribution center project would not result in demand for any parks facilities and does not include any such facilities. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. The project would be on land designated for recreation, but would not affect any such uses or facilities. Therefore the project would have ***no impact*** to recreational facilities.

XVII. Transportation/Traffic.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadways, pedestrian and bicycle facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				X
c) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Background

A traffic impact analysis (TIA) was conducted for the project by GHD (May 8, 2020), included as Appendix F to this IS. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[11] The TIA addressed the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

The following study intersection was identified and analyzed for this project:

[11] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this intersection:

- Existing Conditions
- Existing Plus Approved
- Existing Plus Approved Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

Existing traffic volumes for this analysis are based on daily and peak hour traffic volume data collected during the first week of October 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road.

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the heavy vehicles (trucks) traffic was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

The Green Island Road/Commerce Boulevard intersection is operating at acceptable LOS during both peak hours (LOS A and B in AM and PM Peak Hours, respectively).

A Vehicle Miles traveled (VMT) analysis was conducted for the project by GHD (GHD November 19, 2020). GHD reviewed available literature, guidance, and documentation from Napa Valley Transportation Authority and the City of American Canyon to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding thresholds, GHD presumed a reduction of 15% from baseline work-based VMT, consistent with OPR guidance for work-based projects. Baseline VMT is established utilizing journey-to-work data and trip lengths from available data sources. The site is undeveloped so generates no VMT at the present time.

Discussion

a) Although CEQA no longer considers traffic congestion, by itself, to be a potentially significant

impact, the City of American Canyon established the following guidelines for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

> *"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."*

Trip Generation and Distribution

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak-hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[12] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities.

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400 ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving at different times prior to and in between the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

The average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf, respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak hour the average rates for the two-day counts were 0.12 trips/ksf and 0.13 trips/ksf resulting in an overall average PM peak hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily trip generation would be 367 trips, with 35 AM peak-hour trips (21 in and 14 out) and 28 PM peak-hour trips (10 in

[12] Omni-Means, Ltd., Trip Generation Rates--Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

and 18 out).

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Additionally, northbound left traffic based on General Plan volumes do not appear to increase for the Northbound Left from Commerce Boulevard to Green Island Road. Based on these factors, it is estimated that 100% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard).

Existing Plus Approved Conditions

The GHD report evaluated LOS for the intersection of Commerce Boulevard and Green Island Road for existing plus approved projects, including the Commerce 330 distribution center. That report projected a small increase in delay with no change in LOS in either the AM peak hour (LOS A) or PM peak hour (LOS B). The intersection would continue to operate acceptably.

Existing Plus Approved Plus Project Conditions

The GHD report evaluated LOS for the intersection of Commerce Boulevard and Green Island Road for existing plus approved projects plus the proposed project. That report projected a small increase in delay with a reduction in the AM peak hour from LOS A to LOS B. There was no change in the PM peak hour (LOS B). The intersection would continue to operate acceptably.

Cumulative Conditions with Project

The GHD report evaluated LOS for the intersection of Commerce and Green Island Road for cumulative projects plus the proposed project. That report projected a reduction in the AM peak hour to LOS C. The PM peak-hour LOS would decline from LOS B to LOS D. These would be the same with both cumulative baseline conditions and cumulative-plus-project conditions. The City's target LOS is D, so the intersection would continue to operate acceptably.

Signal Warrant Analysis

The signal warrants were evaluated for Existing Plus Approved Development Trips (Without Project) and Existing Plus Approved Development Plus Project Trips Conditions.

Three warrants are based on vehicle volumes and none of the three are met for Existing Plus Approved Development or Existing Plus Approved Development Plus Project volumes. These include

"8-hour volumes" (Warrant 1), "4-hour volumes" (Warrant 2), and "peak hour volumes" (Warrant 3). The multi-hour approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

The warrant for pedestrian crossing volumes (Warrant 4) was also applied to the study intersection. Although there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road, there are no pedestrian crosswalks at this intersection. At the Green Island Road/Commerce Boulevard intersection during the AM and PM peak periods a maximum of two pedestrians were observed and only one pedestrian crossed north-south on Green Island Road. Therefore, no pedestrian warrants are met at this time.

The crash experience warrant (Warrant 7) was evaluated for the Green Island Road/Commerce Boulevard intersection. The crash history was obtained from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for the last three calendar years (2017-2019). The crash experience warrant requires at least five collisions within a twelve-month period at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). There was one recorded collision over the previous three-year period which occurred (in 2019). It was described as a head-on collision between an eastbound vehicle proceeding straight and a southbound left-turning vehicle, and consisted of property damage only. The lack of a significant crash history indicates that vehicle-to-vehicle conflicts are not an immediate cause for concern at this location. Additionally, the lack of significant pedestrian and bicyclist volumes at this location does not warrant signalization for safety reasons.

The forecast Cumulative No Project and Cumulative Plus Project peak hour volumes were applied to the peak-hour volume warrant for signalization (Warrant #3). The peak hour warrant consists of two parts (Part A and Part B); either one may be satisfied. Part A consists of three sub-parts which are based on vehicle delays in proportion to the intersection volumes. Part B is based solely on volume threshold levels. Part A of the peak hour warrant is met for both cumulative without project and cumulative with project conditions. Part B is not met for cumulative without project conditions nor cumulative plus project conditions.

Specifically, under cumulative without project conditions Part A of the peak hour warrant is met during the PM peak hour. The combination of PM peak hour delays and volumes is satisfied for all 3 parts of Part A. However, the AM peak hour is not met. Part B is not met for either the AM or PM peak hours, as the volumes are lower than the required threshold volumes.

Under cumulative plus project conditions, the findings are the same as without project conditions. The Part A warrant is met for all three parts during the PM peak hour. (During the AM peak hour, two

out of the three sub-parts of Part A are met, but the vehicle delay is less than the required threshold level.) The Part B warrant is not met for either AM or PM peak hours, as volumes with the project remain less than the required threshold levels.

Right-Turn Lane Warrant Analysis

The northbound Commerce Boulevard approach to the Green Island Road intersection has been evaluated to assess whether the number of right-turn movements warrant an exclusive right-turn lane. Based on the Existing AM and PM turning movement count data at the intersection, almost all turning movements from northbound Commerce Boulevard onto Green Island road are right-turn movements. For existing plus approved development conditions without the project, 49 out of 57 northbound approach volumes are right-turns during the AM peak hour and 195 out of 207 approach volumes are right-turns during the PM peak hour. With proposed project traffic added, these movements are calculated to increase to 63 AM right-turns and 213 PM right-turns (see Appendices, Right-Turn Lane Warrants).

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane is warranted at the intersection during the PM peak hour for existing plus approved conditions without the project and with the added project trips. Mitigation TRA-1, which recommends installation of a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under Existing Plus Project and Cumulative Plus Project conditions during the PM peak hour (worst case). Therefore all intersection impacts would be reduced to a ***less-than-significant level with mitigation***.

b) As noted above, a VMT analysis was completed for the project to determine consistency with CEQA Guidelines Section 15064.3, subdivision (b), which requires a 15% reduction in VMT compared with current regional VMT generation for similar uses. This analysis is included as part of Appendix F in this IS. Countywide average daily VMTs for employees and visitors are 11.7 and 31.3 miles, with an average of 17.4 daily VMT. Based on these factors, average daily project trip length has been calculated to be 17.3 miles, with a total daily 2355 VMT. The baseline threshold (15% reduction from County average) would be a daily average of 1354VMT. Therefore the proposed project would need to reduce its daily travel by at least 1001 VMT to meet this threshold. The VMT analysis determined that completing the bike path from the current terminus at 330 Commerce Court, to connect with a proposed bike path to be constructed as part of the new school 300 feet south of the site, would achieve a reduction of 1119 daily VMT, and thus reduce this impact to a ***less-than-significant level with mitigation***. The bike path extension is described in Mitigation Measure TRA-2, below.

c) The Napa County Airport is located approximately one mile northwest of the project site. The Napa County Airport Land Use Commission establishes land use policies for areas located within the flight path surrounding Napa County airports. The Airport is a subdivision under the Public Works Department of Napa County. The Napa County Airport Land Use Compatibility Plan (ALUCP) (Napa County 1991, revised 1999) identifies a series of zones with associated recommendations in relation to the proximity to aircraft over-flight paths. This information is also included in the City of American Canyon General Plan. As indicated in the ALUCP, most of the project site is located within Zone D of the Napa County Airport Land Use Compatibility Plan. Zone D prohibits residential uses and requires overflight easements or deed notices for other uses. Most non-residential uses are normally acceptable in this zone, but large retail buildings, hotels/motels, restaurants, and assembly halls are normally not acceptable. The proposed wine warehouse would be an acceptable use with appropriate easements. A small portion of the site may be in Zone E, which is less restrictive than Zone D, and would allow the proposed project use.

An Avigation and Hazard Easement Deed extending over the whole of the property has been approved by the Napa County Board of Supervisors.

Therefore, the proposed project would not create aviation safety hazards for air traffic. Impacts would be ***less than significant***.

d, e) The project circulation plan complies with standard traffic design standards and would not present any traffic hazards. The project's location on Commerce Court assures that traffic into and out of the site would not conflict with any other traffic movements. Internal circulation within the proposed project's parking and loading dock areas would consist of two-way aisles. Parking is proposed along the drive aisles at 90-degree angles. This design allows for efficient two-way circulation on all aisles. A truck turn-around area is included in the internal circulation plan. The project design does not include any features that would create a hazardous condition. A sidewalk exists along the project site's Commerce Court frontage. Impacts of the proposed project would be ***less than significant***.

The circulation plan has been designed to allow 40-foot fire trucks to access all sides of the building. The access point to the project site from Commerce Court would be a minimum of 30 feet wide, which would provide sufficient width for large emergency vehicles (e.g., fire engines).

A total of 134 car and 21 truck dock parking spaces will be provided for the building. Of these parking stalls, 6 will be designated for handicap access with 2 stalls designated for van accessibility and 4 stalls for Clean Air Vehicle parking. The building will have a total of 21 truck loading docks. The developer will construct ADA accessible walkways between the ADA accessible stalls and the entrances to their respective offices to allow for pedestrian access on-site. Emergency ingress and egress will be provided around the full perimeter of the building.

CSG Consultants, contractor to the City of American Canyon Fire Protection District, who conducts plan check and inspection has reviewed and approved the single access design. Semi-trucks would not be allowed on the east, west and south sides of the Building. Only cars and Fire trucks would be allowed. Signage and the truck turnaround at the west end of the truck docks would assure these limitations on truck access are implemented. The Public Works Engineering Division has also reviewed the single access design with the applicant and has no comments.

f) The City of American Canyon and Napa County adopted a Bicycle Plan into its General Plan in 2020 (City of American Canyon and Napa County Transportation Authority, American Canyon Bicycle Plan, January 2020). That plan (p. 222) shows a proposed Class I Bicycle Route on Green Island Road connecting to other areas of the City to the east and wetland and open space areas to the west and south.

The proposed project has been designed to encourage and support public transit as well as bicycle and pedestrian access to the site. Each of the three office areas would have a bike rack to accommodate up to 4 bicycles, 5 more bicycles than the required 7 stalls per the City's Zoning Ordinance Chapter 19.14.090 (A), Bicycle Parking Requirements.

The site plan and nearby off-site improvements appear to be compatible with walking, bicycling, and transit use and do not appear to create additional conflicts with intersections, streets, and highways near the site. Therefore, the project would not conflict with any adopted plans, policies or programs that address alternative transportation and this impact would be ***less than significant***.

Mitigation Measures

Mitigation Measure TRA-1: As described above, Commerce Boulevard would meet the minimum PM peak hour volumes for installation of a separate right-turn lane with Existing Plus Project volumes (the proposed project would add to the existing warrant). Therefore, the applicant shall contribute its fair share to widening and/or re-striping northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7%.

Mitigation Measure TRA-2: The project shall construct a Class I bike path to fill in the approximately 300-foot gap in bike infrastructure between the cul-de-sac at the terminus of Commerce Court and the northern school driveway of the under-construction elementary school at the northeast corner of Eucalyptus Drive and

Wetlands Edge Road, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.

XVIII. Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) 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				X
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a) I, ii. A Sacred Lands File search and SB-52 contact information request was forwarded to the Native American Heritage Commission (NAHC) on behalf of the City. The NAHC stated that there were no Tribal Cultural Resources (TCRs) or other potentially significant properties known to be present within or in the vicinity of the project area.

SAS emailed a letter and a map depicting the SDG Commerce 330 Warehouse Project area to the Native American Heritage Commission (NAHC) on July 29, 2020. On behalf of the City of

American Canyon, the letter requested a Sacred Land File (SLF) search of the project area, and a list of Native American community representatives who should be contacted about the Project under AB-52. On July 30, 2020, Ms. Sarah Fonseca, Cultural Resources Analyst for the NAHC, replied in an emailed letter that the Sacred Lands File search was completed with positive results and specifically noted the Mishewal-Wappo Tribe of Alexander as the main point-of-contact regarding this finding. Ms. Fonseca also provided a list of local Native American contacts. On August 3, 2020, SAS mailed letters to the following Native American representatives identified by the NAHC (see Appendix G):

- Charlie Wright, Chair - Cortina Rancheria – Klestal Dehe Band of Wintun Indians
- Jose Simon III, Chair - Middletown Rancheria of Pomo Indians
- Merlene Sanchez, Chair - Guidiville Indian Rancheria
- Scott Gabaldon, Chair - Mishewal-Wappo Tribe of Alexander Valley
- Anthony Roberts, Chair - Yocha Dehe Wintun Nation

On August 17, 2020, SAS contacted each of the above-listed individuals by phone and/or email as provided by the NAHC. On August 17, Sally Peterson from Middletown Rancheria emailed SAS stating that the information request would be forwarded to the THPO department and provided updated contact information which SAS forwarded to the NAHC. On August 22, SAS received an email from Mr. Ryan Peterson, Admin and Projects Coordinator of Guideville Indian Rancheria, stating that the project area was outside the Rancheria's area of concern and suggested that SAS contact Mr. Scott Gabaldon of the Mishewal Wappo. SAS contacted Mr. Gabaldon as part of the August 17 emails and phone calls but no responses have been received as of this report. If any other substantive contacts are made with the Native American community regarding the proposed project, an addendum to this report may be developed.

Archival research, coordination with the NAHC, an archaeological field survey, and outreach to the Native American community did not result in the identification of any TCRs within or near the project area. Consequently, the project would have ***no impact*** on Tribal Cultural Resources

XIX. Utilities and Service Systems

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the waste water 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?				X
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?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Background

This analysis is based on the City of American Canyon Will Serve Water Application for the project dated April 17, 2020 (See Appendix H).

Discussion

a, b, c) *Wastewater:* The City of American Canyon would provide wastewater collection, treatment, and disposal services for the proposed project. Wastewater from the City's service area is treated at the American Canyon Wastewater Treatment Plant on Mezzetta Court. This secondary/tertiary treatment plant handles domestic and industrial wastewater flows, and employs a Membrane Bio Reactor and ultraviolet light disinfection to produce a very high- quality effluent exceeding the standards set by the discharge permit (City of American Canyon 2017, 2018c). The facility, which was commissioned in 2002, has the capacity to treat 2.5 mgd with a 5.0 mgd wet weather peak flow. American Canyon's current average dry and wet weather daily flows are estimated at 1.3 and 2.7 million gallons, respectively. These daily flow amounts represent 52 percent and 54 percent of the treatment plant's design capacities (Ambrose, email communication). Based on the calculations for the Commerce 330 Distribution Center project, the proposed project would have an estimated domestic sewer demand of about 0.35 AFY (270 gallons/day average), or peak sewer demand of about 9,000 gallons per day, which would be less than 0.7% of plant capacity. The domestic sewer demand exceeds potable water demand because a portion of the wastewater would be reclaimed water used for toilets and urinals.

To the south of the treatment plant, 20 acres of constructed wetlands hold effluent from the wastewater plant prior to discharge into the Napa River, which has been designated by the Regional Water Quality Control Board (RWQCB) as an impaired waterway. During the wet season from November 1 through April 30, effluent is discharged to North Slough, a tributary to the Napa River. Effluent can be discharged to constructed freshwater wetlands all year round, which eventually overflows to the North Slough. Year round, a portion of the effluent is available as recycled water for industrial, agricultural, landscaping, and other uses. Currently approximately 17% of total City inflow, (282 AFY) is recycled, and the rate of use of recycled water is increasing. There were no water quality violations from the reclaimed water system in 2019[13]. The Wastewater Treatment Plant complies with the California Department of Public Health requirements for tertiary recycled water.

A six-inch sanitary sewer line will connect the office locations within the distribution center to a sewer-pump lift-station located near the northeast corner of the building tying into the existing City sewer main line in Commerce Court.

The proposed project's domestic discharge (no industrial discharge is proposed) would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require the construction of new wastewater treatment facilities or expansion or upsizing of existing facilities. Therefore this impact would be ***less than significant.***

[13] City of American Canyon, Recycled Water Annual Report 2019, March 18, 2020

Stormwater: Stormwater runoff from the project site would be directed into a bioretention pond that would be constructed as part of the proposed project. The proposed project's stormwater control and treatment system would result in a net decrease in peak stormwater (100-year, 24-hour storm event) runoff rates from the existing approximately 72.7 cubic feet per second (cfs) to approximately 58.6 cfs with the proposed project. New storm drainage facilities are described in the Hydrology and Water Quality section based on a Hydrology Report (RSA 2019a), and Stormwater Control Plan (RSA 2019b) prepared for the proposed project. With the project's proposed storm drainage/detention facilities and Mitigation Measures HYD-2, HYD-3, HYD-4, and HYD-5, the impact to storm water facilities would be reduced to a ***less-than-significant*** level.

Water supply infrastructure is adequate to serve project needs, which are discussed below in Item b.

b) The City of American Canyon would provide water service to the site. The City receives water from the following sources:

- State Water Project (SWP);
- Permit (raw) water from the City of Vallejo;
- Treated water from the City of Vallejo;
- Emergency (raw) water from the City of Vallejo, and
- Recycled water from the City of American Canyon's wastewater treatment plant and Napa Sanitation District (City of American Canyon 2016a).

The amount of water delivered to the City of American Canyon from each of these sources can vary from year to year. For instance, deliveries from the SWP have varied between five percent (in 2014) and 100 percent (last occurring in 2006) of the contracted amount (City of American Canyon 2016a).

The City of American Canyon has two water treatment plants: a conventional sedimentation and filtration plant that was commissioned in 1976 and a membrane filtration plant, which has pores small enough to filter out contaminants, such as microorganisms, and that has been in use since 2004 (City of American Canyon 2020). Together the two plants produce up to 5.5 million gallons of potable water per year. The proposed project's net water demand of less than 1.2 acre-feet of water per year (AFY) could be supplied by the existing water treatment plants.

California Water Code requires that water purveyors, such as the City of American Canyon, develop an Urban Water Management Plan (UWMP) and update it every five years. The City's 2015 UWMP estimated an available year 2020 water supply of 5287 AFY, and a demand of 4412 AFY (City of American Canyon 2015). The City's 2020 UWMP is not yet available.

The Public Works Department of the City of American Canyon manages the City's water supply. As required by the City, the applicant has submitted a Will-Serve Water Application to the Public Works Department for the proposed project.[14] As part of that application, a Water Supply Report has been prepared for the proposed project in accordance with the City's Methodology for Determining Zero Water Footprint and Developing Water Supply Reports. the proposed project is estimated to have an average potable water daily demand of 142 gallons/day (gpd), and a peak daily demand of 560 gpd. This is less than three percent of the UWMP's projected use at the site, and represents approximately equivalent water demand to a one single-family house in American Canyon (274 gpd for single family dwelling and 242 gpd for the proposed warehouse use. In addition, it will use about 541 gpd of recycled water. (Stravinski Development Group 2020). Implementation of mitigation measures UTIL-1 through UTIL-5, below would reduce the project impacts to *a **less-than-significant*** level.

d, e) During project construction and operation, the project would generate solid waste requiring disposal. Recology American Canyon provides solid waste and recycling collection services to the commercial and residential customers in American Canyon. Solid waste from American Canyon is delivered by Recology American Canyon to the Devlin Road Transfer Station located at 889 Devlin Road in American Canyon. The transfer station is permitted to receive 1,440 tons of waste per day. From the Devlin Road Transfer Station, solid waste is sent to Keller Canyon Landfill in Pittsburg, CA. Keller Canyon Landfill has a maximum daily throughput of 3,500 tons/day and remaining capacity of 63.4 million cubic yards, which is 84 percent of the landfill's maximum permitted capacity. The anticipated closure date for the landfill is 2030 (CalRecycle 2020[15]). Construction and demolition waste accepted at Keller Canyon Landfill is sorted for recyclable material, such as wood, plastics, and metal, which further helps to alleviate the amount of solid waste going to the landfill.

The warehouses project would produce small quantities solid waste, approximately equivalent to that produced by one or two houses. If significant amounts of recyclables, such as cardboard boxes, are generated, the tenant/operators would bale this waste and have it picked up separately from other solid wastes and removed by Recology American Canyon.

Green waste from landscape maintenance is minimal because there are no cultivated grass areas that would need to be mowed. Green wastes would be removed from the site. Natural areas would be left in their native state. If required for fire abatement purposes, high weeds would be cut and left to decompose on-site. Solid waste impacts would be ***less than significant***.

[14] Richard Kaufman, Public Works Director, City of American Canyon, letter to Peter Stravinski, SDG, April 17, 2020.
[15] https://www2.calrecycle.ca.gov/swfacilities/Directory/07-AA-0032

Mitigation Measures

Mitigation Measure UTIL-1: The project applicant shall demonstrate compliance with the City's Zero Water Footprint Policy by mitigating all new potable water demands with "wet-water" offsets by one or more of the following options to ensure the project results in a net zero increase in demand for potable water:

- Reducing existing potable water demands onsite
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would Increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used and/or
- Purchase new water supplies from other water providers

The Applicant's agreement with the City's April 17, 2020 Will-Serve letter would assure compliance with these requirements.

Mitigation Measure UTIL-2: The project shall be designed and constructed with purple irrigation pipe so that reclaimed water may be used for landscape irrigation purposes. The project shall connect to existing recycled water pipelines for irrigation, toilets, and urinals prior to occupancy.

Mitigation Measure UTIL-3: Prior to issuance of a building permit, the applicant shall pay water capacity fees in accordance with the City's Municipal Code to provide funding for the City to acquire water resources and develop its treatment and distribution system. This would allow for the City to exercise additional options for potable water capacity and would also provide for maintenance of the recycled water system.

Mitigation Measure UTIL-4: Should additional project water be required, the project shall comply with the City's Ordinances and regulations in effect at the time of authorization for additional water use. In addition, such changes in project use would trigger a new City Discretionary Review process, which, in turn, would trigger re-evaluation of the project's water supply impacts.

Mitigation Measure UTIL-5: Prior to issuance of building permits, the project applicant shall submit landscaping plans to the City of American Canyon for review and approval demonstrating that landscaping would comply with the requirements in the City's Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plan shall identify outdoor irrigation water conservation measures such as, but not limited to:

- Drought-resistant vegetation
- Irrigation systems employing the following features:
  - Drip irrigation

    - Low-precipitation-rate sprinklers
    - Bubbler/soaker systems
    - Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities (ET Smart Controller)
    - Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system
    - Conservative sprinkler spacings that minimize overspray onto paved surfaces
    - Hydrozones that keep plants with similar water needs in the same irrigation zone
- Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration
- Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.

XX. Wildfire Hazards

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
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?				X
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?				**X**
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?				**X**

Background

California PRC 4201 - 4204 and Govt. Code 51175-89 direct the California Department of Forestry and Fire Protection (CAL FIRE) to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires. CAL FIRE is remapping Fire Hazard Severity Zones (FHSZ) for State Responsibility Areas (SRA) and Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRA) to provide updated map zones, based on new data, science, and

technology. The Project site and surrounding area are classified Local Responsibility Areas and are mapped as in a "non-very high fire hazard zone[16].

The American Canyon Fire Protection District (ACFPD) provides fire protection and emergency medical services for the project site. The ACFPD station is located at 911 Donaldson Way East, approximately 3 miles driving distance from the project site. The Project would not require the provision of or need for new or physically altered facilities to continue to serve the Project site.

Discussion

a, b, c) The Project would construct a large warehouse-style building and paved parking on the grassy site in a non-very-high-fire-hazard area. The building would be constructed in accordance with current fire codes. No expansion of fire response facilities is required. Therefore, the Project would have a **less-than-significant impact** with respect to wildfire hazards, associated hazards, and equipment/infrastructure needs.

[16] https://osfm.fire.ca.gov/media/6732/fhszl_map28.pdf

XXI. COVID-19 Hazards

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially affect the spread of Covid-19			X	

Discussion

On March 4, 2020, Governor Gavin Newsom proclaimed a State of Emergency to exist in California as a result of the threat of the COVID-19. Governor Newsom and other state and local agencies have issued various orders, directives, and policies to address the COVID-19 pandemic and the health, safety and welfare of California residents, including a stay at home mandate and provisions intended to provide for the continued delivery of necessary goods and services.

Executive Order N-33-20, which includes the stay at home mandate, provided that residents working in 13 critical infrastructure sectors identified by the federal government may continue working, because of the importance of these sectors to California's health and well-being. The State Public Health Officer has identified the following sectors as essential critical infrastructure with essential workers who should continue reporting to work as normal: communications and information technology; chemical; critical manufacturing; defense industrial base; emergency services; energy; financial services; food and agriculture; hazardous materials; healthcare/public health; community-based government operations and essential functions; transportation and logistics; and water and wastewater. These sectors have been identified as critical infrastructure to allow state, local, tribal, and industry partners to work to protect communities and ensure continuity of functions critical to public health and safety as well as economic and national security.

Under this Order, local governments, including the City of American Canyon and Napa County, have continued to provide critical functions and services to the public. Many critical workers are allowed to continue working under the Order. These functions and services include, among others, law enforcement, fire protection, public safety, emergency management, emergency medical technicians, public works, health care, and transportation. Additionally, local government agencies have emergency plans that provide appropriate procedures and actions to implement during emergency situations such as the COVID-19 pandemic. These plans address many of the concerns associated with the consequences of the pandemic, such as the continued provision of emergency and essential services.

Private sector businesses also continue to provide critical infrastructure functions and services such as food and transportation among many others. Firms that enable logistics operations, including cooling storage, packaging and distributing products for wholesale or retail sale or use are identified as essential. Roadways are considered part of the essential transportation system sector.

The COVID-19 pandemic and the related orders and policies have resulted in certain social and economic impacts. Whether these social and economic impacts will result in any significant, adverse physical environmental impacts has not been documented and it would be speculative to make such determinations as there is no valid, reliable evidence available to the City at this time. A number of federal, state, and local programs (e.g., state unemployment, expansion of workers covered by the unemployment program, the federal supplement for unemployment benefits, the CARE Act, pandemic relief for migrant workers, and various locally-enacted residential and commercial rent relief) are available to assist individuals and businesses with funding to offset the economic impacts of the stay at home mandate.

Certain physical impacts resulting from the stay at home Order have been beneficial, including a substantial reduction in traffic and related impacts such as noise reduction and vehicle air quality and greenhouse gas emission reductions. Additionally, the continued provision of critical infrastructure functions and services, including emergency services, ensure that no significant adverse impacts would occur from the COVID-19 pandemic with respect to public services, safety, or utilities. The COVID-19 pandemic and stay at home Order would not adversely affect resources related to geology, hydrology, hazards, cultural resources, aesthetics, land use, biology, energy, and other topics, because the pandemic has not necessitated significant construction activities.

Since September, the state and local jurisdictions have been implementing phased reopening plans for certain employment and recreation sectors subject to implementation of appropriate protocols to reduce the potential for spreading the virus. It is expected that a COVID-19 vaccine will be available in the foreseeable future. Buildout of the Project and full occupancy of the site is not expected until after the current state of emergency has expired.

If construction is initiated prior to the availability of a COVID-19 vaccine, construction activities would be subject to various safety measures necessary to reduce the potential for the spread of the virus. These measures will be addressed in a project construction site safety plan and could include, among other measures, social distancing requirements, masks for all workers, daily worker screening for potential symptoms, disinfecting protocols for all shared surfaces, avoidance of tool sharing, and provision of sufficient hand sanitizer for all workers. The applicant has prepared a draft Covid-19 Exposure Control Plan, which is included as Appendix I to this Initial Study. With implementation of this plan, potential impacts would be less than significant.

XXII. MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issue	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to 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 an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?		X		
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)?			X	
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion

a) The proposed project could affect special-status habitat or seasonal wetlands, as discussed above in Section IV. Biological Resources. Although the site does not contain any known historic resources or prehistoric resources, unknown resources could potentially be affected by project implementation, as discussed above in Section V. Cultural Resources. Compliance with the mitigation measures for the unearthing of any unknown cultural resources as well as mitigation required for biological resources would ensure all potential impacts associated with biological and cultural resources would be reduced to ***less than significant with mitigation***.

b) A number of cumulative projects are proposed or under construction in the project area (City of American Canyon, Active Planning Projects, July 2020[17]. The 330,000 sq. ft. Commerce 330 Distribution Center building is just south of the proposed project site. Copart Auto applied for a Conditional Use Permit to store vehicles at 1578 and 1660 Green Island Road. A new elementary school is under construction just southeast of the site at Commerce Blvd. and Eucalyptus Road. The only other large project planned is an approximately 200,000 sq. ft. logistics center at 300 Boone Drive, near the Napa Airport, about a mile north of the site. It is unlikely that impacts of those projects other than the school would overlap those of this project, with the exception of regional air quality (addressed in this IS) and traffic along SR 29, which is addressed in the City's General Plan. It is possible that construction impacts from the new school could overlap those of the proposed project, however they are likely to be accessed from opposite ends of Commerce Court, so overlap of noise and traffic would be minimal. Construction on the Commerce 330 Distribution Center has been completed, so construction impacts would not overlap with those of the 217 Commerce project. The cumulative effects of the proposed project would therefore be ***less than significant*.**

With respect to cumulative biological resources, over the past few decades the City of American Canyon has been transitioning from agricultural use to residential development. However, there are many open space preserves and parks that have become established to preserve and protect open space habitats within the City limits and in this region, as illustrated in Exhibit A of the Monk letter. The Jack & Bernice Newell Wilderness Preserve (Newell Preserve), the Lynch Canyon Preserve, Canyon Estates Preserve (proposed) and the CDFW California Red-Legged Frog Preserve represent over 2,000 acres of permanently protected contiguous open space east of the project site. The Wetlands Open Space, Napa River Bay Trail, Clark Ranch and the Napa Plant Site Restoration Project represent several hundred additional acres of preserved open space and valuable wildlife habitats that will be preserved in perpetuity.

Implementation of the proposed project would result in cumulative impacts to ruderal habitats and less than significant impacts to common plant and animal species. While the project-related impacts would be considered cumulative with other projects in the region, the mitigation measures prescribed in the Mitigated Negative Declaration would offset cumulative impacts to special-status species and plant communities/wildlife habitats to levels regarded as less than significant. Therefore, conversion of 10.39 acres of ruderal habitat on the project site to commercial development would have a less-than-significant (not cumulatively considerable) cumulative impact in this regional context.

It is possible that the remaining parcel between the project site and the Commerce 330 site would be developed with project similar to that proposed for the project site. Development of those sites could add to cumulative traffic, noise, biological resources, and air quality impacts of the proposed

[17] https://www.cityofamericancanyon.org/government/community-development/projects

project, as with the project impacts. No projects are currently proposed for that site, Therefore assessment of those impacts would be speculative at this time. Environmental review of that project would be required to also consider the proposed project, if approved.

c) The proposed project would generate an increase in air pollutant emissions and greenhouse gasses associated with project construction and operation. These emissions would not be considered great enough to directly or indirectly have an adverse effect on residents living in the area. Hazards associated with any soil contamination would be mitigated on site. The project's hazards would be less than significant, as described in this IS. The impact is considered ***less than significant*.**

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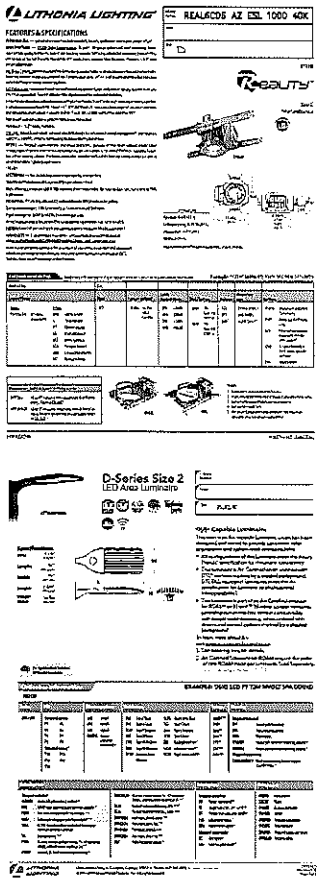
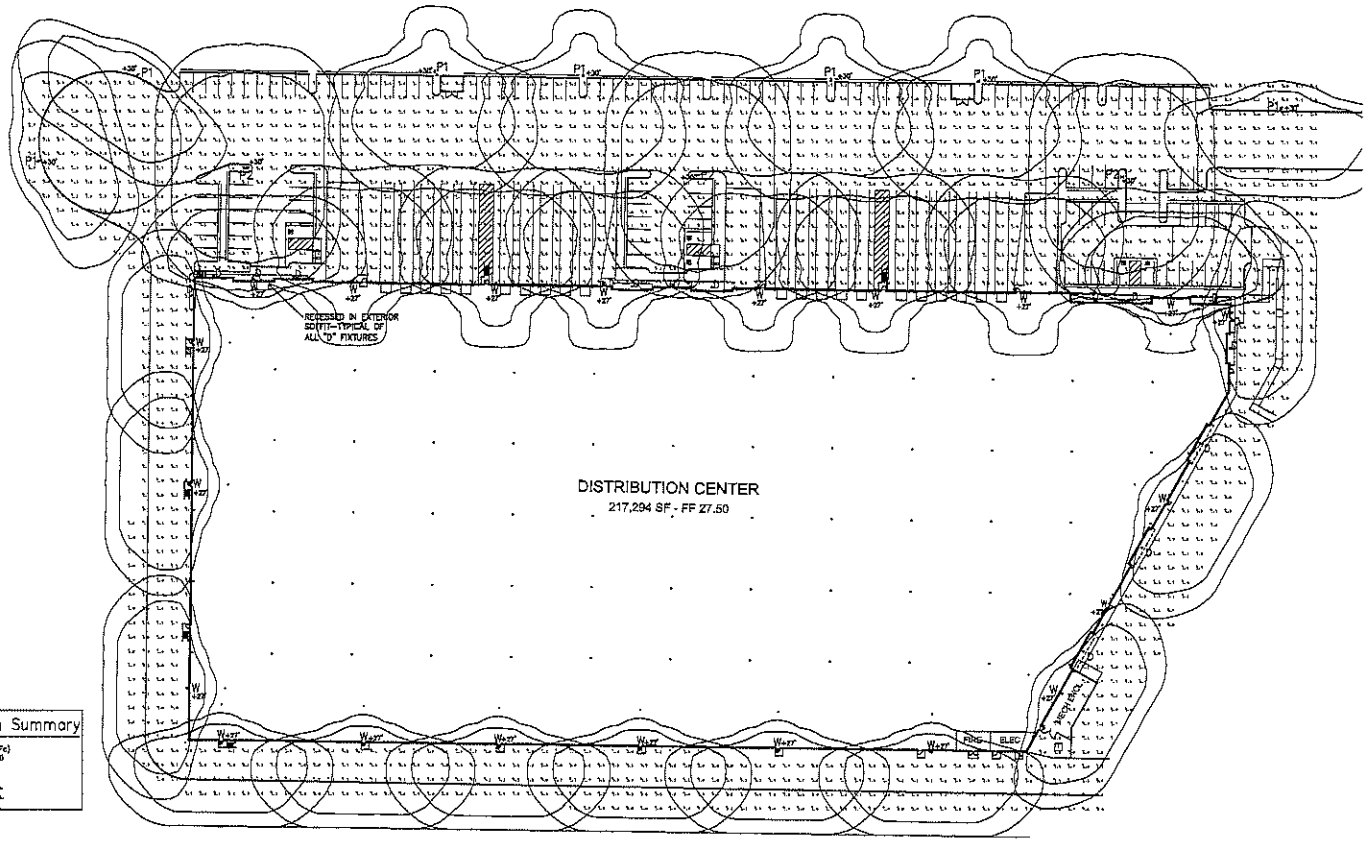
Appendix A

Lighting Studies





Summary by Label	
Label	Total
D —recessed	19
W —wall, (mark)	21
P1 —pole mount	7
P2 —pole mount	3

Calculation Summary
Illuminance (Fc)
Average: 2.34
Maximum: 6.4
Minimum: 0.0
Avg/Min: N.A.
Max/Min: N.A.

SITE PHOTOMETRIC

SCALE: 1" = 40'-0"

Bosley Electric COMPANY

COMMERCIAL AND INDUSTRIAL ELEVATOR AND CONTRACTING

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Project
SDG COMMERCE 217
DISTRIBUTION CENTER
AMERICAN CANYON, CA

No.	Revision	Date

Client

Sheet title
SITE
PHOTOMETRIC

Date 12-12-19	Project No.
Drawn by KC	Sheet No. E-1.1
Checked by	

Appendix B

Air Quality Model Output Data

Appendix B

Air Quality and GHG Emissions Data and Supporting Information

B-1: Air Quality Setting

B-2: Air Quality Calculations

B-3: CalEEMod Output Files

B-4: Greenhouse Gas Setting

Appendix B-1

Air Quality Setting and Regulatory Context

The project site is located within the San Francisco Bay Area Air Basin (Air Basin), which encompasses Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa Counties, and the southern portions of Solano and Sonoma Counties. The Air Basin is characterized by complex terrain which distorts normal wind flow patterns, consisting of coastal mountain ranges, inland valleys, and bays.

Regional Meteorology

Air quality is affected by the rate, amount, and location of pollutant emissions and the associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions, including wind speed, wind direction, stability, and air temperature, in combination with local surface topography (i.e., geographic features such as mountains, valleys, and San Francisco Bay), determine the effect of air pollutant emissions on local air quality.

The climate of the greater San Francisco Bay Area, including Napa County, is a Mediterranean-type climate characterized by warm, dry summers and mild, wet winters. The climate is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the west coast of North America. In winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, air emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as sulfates and nitrates.

The proposed project site lies in the Napa Valley climatological sub-region of the Bay Area. The Napa Valley is between the Mayacamas Mountains to the west and the Vaca Mountains to the east. These mountains, with an average ridge line height of about 2,000 feet, are effective barriers to the prevailing northwesterlies. The valley is 27 miles long with Napa and Calistoga defining its southern and northern ends, respectively. [1]

An upvalley wind frequently develops during warm summer afternoons drawing from air flowing through the San Pablo Bay. During the evening, especially in the winter, downvalley drainage flow can occur. The prevailing winds are upvalley, southwest through south southeasterly, and occur approximately 50 percent of the time. The second most common winds are down valley drainage winds, north northwesterly through northeasterly, which occur approximately 25 percent of the time. Wind speeds are low with almost 50 percent of the winds between calm and four miles per hour (mph) and an average speed of about five mph. Only five

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[1] BAAQMD. Climate, Physiography, And Air Pollution Potential – Bay Area and Its Subregions http://hank.baaqmd.gov/dst/papers/bay_area_climate.pdf

percent of the winds are between 16 and 18 mph which represent strong summer time up valley winds and winter storm winds. Summer average maximum temperatures at the southern end of the valley are in the low 80's with extremes in the high 80's, and at the northern end are in the low 90's with extremes in the high 90's. Winter high temperatures are in the high 50's and low 60's with low temperatures in the high to mid-30's. Sunshine is plentiful and annual average precipitation is 24 inches at Napa.

Summer and fall prevailing winds can transport non-local and locally generated ozone precursors northward where the valley narrows, effectively trapping and concentrating the pollutants under stable conditions. The local upslope and downslope flows setup by the surrounding mountains may also recirculate pollutants adding to the total burden. Also, the high frequency of light winds and associated stable conditions during the late fall and winter, contributes to the buildup of particulates and carbon monoxide (CO) from automobiles, agricultural burning, and fireplace burning.

Local Air Quality

The Bay Area Air Quality Management District (BAAQMD) maintains a network of monitoring stations within the Air Basin that monitor air quality and compliance with applicable ambient standards. The monitoring station closest to and most representative of the project site is in Napa (Jefferson Street), approximately ten miles north of the proposed project site; where levels of ozone (O_3), particulate matter less than 10 micrometers (coarse or PM10), particulate matter less than 2.5 micrometers (fine or PM2.5), CO, and nitrogen dioxide (NO_2) are recorded. In April 2018, the Napa (Jefferson Street) monitoring station was discontinued and air monitoring began at Napa Valley College. Thus, 2018 data shown in **Table 1** is from the Napa Valley College monitoring station (and annual average data is not available for 2018).

Table 1 summarizes the most recent three years of data (2016 through 2018) from the Napa (2016-2017) and Napa Valley College (2018) air monitoring stations. No State or federal standards were exceeded in 2016. The State ozone standard (24-hour) was exceeded once in 2017 and the federal ozone standard (8-hour) was exceeded twice in 2017. The federal PM2.5 24-hour standard was exceeded 13 times in 2017 and 12 times in 2018. The state annual average PM2.5 standard was exceeded in 2017. No other State or federal air quality standards were exceeded during the three-year period.

The Bay Area is currently designated “nonattainment” for state and national (1-hour and 8-hour) ozone standards, for the state PM10 standards, and for state and national (annual average and 24-hour) PM2.5 standards. The Bay Area is designated “attainment” or “unclassifiable” with respect to the other ambient air quality standards.

Table 1
Air Quality Data Summary (2016 through 2018)

Pollutant	Standard[a]	Monitoring Data by Year 2016	2017	2018
Ozone				
Highest 1 Hour Average (ppm)[b]	0.09	0.080	**0.098**	0.083
Days over State Standard		0	**1**	0
Highest 8 Hour Average (ppm)[b]	0.070	0.067	**0.084**	0.068
Days over National Standard		0	**2**	0
Nitrogen Dioxide (NO_2)				
Highest 1 Hour Average (ppm)[b]	0.180	0.039	0.053	0.043
Days over State Standard		0	0	0
Annual Average (μg/m³)[b]	0.030/0.053	0.007	0.007	--
Carbon Monoxide (CO)				
Highest 1 Hour Average (ppm)[b]	9.0	2.2	5.6	1.4
Days over State Standard		0	0	0
Highest 8 Hour Average (ppm)[b]	20	1.5	4.7	1.1
Days over State Standard		0	0	0
Coarse Particulate Matter (PM10)				
Highest 24 Hour Average (μg/m³)[b]	50	33	--	26
Days over State Standard		0	0	0
State Annual Average (μg/m³)[b]	20	16.6	--	--
Fine Particulate Matter (PM2.5)				
Highest 24 Hour Average (μg/m³)[b]	35	24.3	**199.1**	**117.9**
Days over National Standard		0	**13**	**12**
State Annual Average (μg/m³)[b]	12	8.5	**13.7**	--

*NOTES: Values in **bold** are in excess of at least one applicable standard.*
Generally, state standards and national standards are not to be exceeded more than once per year.
ppm = parts per million; μg/m³ = micrograms per cubic meter.
PM10 is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year. A "—" denotes no information available.

Source: BAAQMD, Air Quality Summary Reports, May 24, 2019. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor air toxics in the Bay Area. Based on findings of the latest report, diesel particulate matter (DPM) was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed four percent of the cancer risk-weighted emissions, and benzene contributed three percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for

CARB's diesel regulations. Overall, cancer risk from toxic air contaminants (TAC) dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for state diesel regulations and other reductions.[2]

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. Peak modeled risks were found to be located east of San Francisco, near West Oakland, and the maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area:

- Western Contra Costa County and the cities of Richmond and San Pablo.
- Western Alameda County along the Interstate 880 corridor and the cities of Berkeley, Alameda, Oakland, and Hayward.
- San Jose.
- Eastern side of San Francisco.
- Concord.
- Vallejo.
- Pittsburgh and Antioch.

The proposed project is within the city of American Canyon, which is not part of the seven CARE program impacted communities in the Bay Area. The health impacts in the Bay Area, as determined both by pollution levels and by existing health vulnerabilities in a community, is approximately 160 cancer risk per million persons, while in American Canyon, the health impact is approximately 98 cancer risk per million persons.[3]

Nearby Sensitive Receptors

BAAQMD considers the relevant zone of influence for an assessment of air quality health risks to be within 1,000 feet of a project site. The project site is generally bound by a warehouse to the north, a eucalyptus tree grove to the west, a vacant parcel and the Commerce 330 warehouse to the south, and a 68-foot wide City Public Access and Utility Easement to the east. There is one residence approximately 1,000 feet from the project site boundary (to the southeast) and a residential neighborhood approximately 2,000 feet from the project site boundary (to the southeast). There are no schools or daycare centers within 1,000 feet of the proposed project.

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[2] BAAQMD. Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program (CARE) Retrospective & Path Forward (2004 – 2013). April 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/CARE_Retrospective_April2014.ashx?la=en

[3] BAAQMD. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area. March 2014. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en

Air Quality Significance Thresholds

The significance of potential impacts was determined based on State CEQA Guidelines, Appendix G, and the BAAQMD *CEQA Air Quality Guidelines*. Using Appendix G evaluation thresholds, the proposed project would be considered to have significant air quality impacts if it were to:

A. Conflict with or obstruct implementation of the applicable air quality plan;

B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;

C. Expose sensitive receptors to substantial pollutant concentrations; or

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

The air quality analysis follows the methodology presented in the BAAQMD 2017 CEQA Guidelines. The thresholds of significance applied to assess project-level air quality impacts are:

- Average daily construction exhaust emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10;
- Average daily operation emissions of 54 pounds per day of ROG, NO_x, or PM2.5 or 82 pounds per day of PM10; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM2.5 or 15 tons per year of PM10;
- Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in one million, (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers; or
- Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Assessment of a significant cumulative impact if it would result in:

- Exposure of persons, by siting a new source or a new sensitive receptor, to substantial levels of TACs during either construction or operation resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 $\mu g/m^3$.

The BAAQMD air quality significance thresholds are found in **Table 2**.

The BAAQMD *CEQA Air Quality Guidelines* identify a project-specific threshold of either 1,100 metric tons of carbon dioxide equivalent (CO_2e) per year or 4.6 metric tons of CO_2e per year per service population (i.e., the number of residents plus the number of employees associated with a new development), which is also considered a cumulatively considerable contribution to the

global GHG burden and, therefore, a significant cumulative impact. This analysis applies the 1,100 metric tons of CO_2e per year significance criterion to proposed project GHG emissions.

Table 2

BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Daily Operational Thresholds	Annual Operational Thresholds
Criteria Air Pollutants			
Reactive Organic Compounds (ROG)	54	54	10
Nitrogen Oxides (NOx)	54	54	10
Coarse Particulate matter (PM10)	82	82	15
Fine Particulate Matter (PM2.5)	54	54	10
Carbon Monoxide (CO)	NA	9.0 ppm (8-hour) and 20.0 ppm (1-hour)	
Fugitive Dust	Best Management Practices	NA	
Project Health Risk and Hazards			
Excess Cancer Risk	10 per million	10 per million	
Chronic Hazard Index	1.0	1.0	
Acute Hazard Index	1.0	1.0	
Incremental Annual Average PM2.5	0.3 $\mu g/m^3$	0.3 $\mu g/m^3$	
Cumulative Health Risk and Hazards			
Excess Cancer Risk	100 per million	100 per million	
Chronic Hazard Index	10.0	10.0	
Acute Hazard Index	10.0	10.0	
Incremental Annual Average PM2.5	0.8 $\mu g/m^3$	0.8 $\mu g/m^3$	
Greenhouse Gas Emissions			
Annual Emissions	1,100 metric tons or 4.6 metric tons per capita		

SOURCE: BAAQMD *2017 CEQA Guidelines*

Appendix B-2

Air Quality Calculations

Construction Activities

Construction activities are expected to commence in March 2021 with site preparation and grading occurring for approximately nine weeks. Paving, building construction and architectural coating would follow through the end of 2021. The proposed project would be constructed in a single phase estimated to require approximately nine and one half months. **Table 3** provides the estimated construction schedule for each phase:

Table 3

Estimated Construction Schedule

Phase	Description	Start	End	Working Days
1	Site Preparation	03/01/2021	03/12/2021	10
2	Grading	03/13/2021	04/30/2021	35
3	Paving	05/01/2021	05/28/2021	20
4	Building Construction	05/28/2021	11/25/2021	130
5	Architectural Coating	11/26/2021	12/16/2021	15

SOURCE: CalEEMod Version 2016.3.2.

Project construction would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2016.3.2) was used to quantify construction-related pollutant emissions. CalEEMod output worksheets are included in **Appendix B-3**.

The estimated construction equipment associated with the proposed project along with the number of pieces of equipment, daily hours of operation, horsepower (hp), and load factor (i.e., percent of full throttle) are shown in **Table 4**.

Table 4

Estimated Project Construction Equipment Usage

Phase	Equipment	Amount	Daily Hours	HP	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

SOURCE: CalEEMod Version 2016.3.2.

Based on CalEEMod, a total of 4,750 haul truck one-way trips (based on a 16 cubic yard haul truck capacity) were estimated as a result of the 38,000 cubic yards of soil import required for grading/earthwork, however all soil import would come from the existing stockpile and grading of the parcel adjacent to the south of the project site (estimated trip length of 0.25 mile). Based on CalEEMod, a total of approximately 60 vendor truck one-way trips were estimated during building construction. During the construction, approximately 12 to 24 workers would be at the site, with a maximum near 80 workers. **Table 5** provides a list of the expected trips and trip lengths by construction phase of vendors and construction workers.

Table 5

Construction Trips and Trip Lengths

Phase	Worker Trips	Vendor Trips	Haul Truck Trips	Worker Trip Length (mile)	Vendor Trip Length (mile)	Haul Trip Length (mile)
Site Preparation	18	0	0	10.8	7.3	20.0
Grading	15	0	4,750	10.8	7.3	0.25
Building Construction	155	60	0	10.8	7.3	20.0
Paving	15	0	0	10.8	7.3	20.0
Architectural Coating	31	0	0	10.8	7.3	20.0

SOURCE: CalEEMod Version 2013.2.2.

The emissions generated from these construction activities include:

- Dust (including PM10 and PM2.5) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as material handling and travel on unpaved surfaces;
- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, PM10, and PM2.5) primarily from operation of heavy off-road construction equipment and construction worker automobile trips (primarily gasoline-operated); and
- VOC emissions from coating.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM10 concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM10, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of over 50 percent due to daily watering and other measures (e.g., limiting vehicle speed to 15 mph, management of stockpiles, screening process controls, etc.) was estimated. Based on CalEEMod, one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 55 percent, and three water applications per day reduces fugitive dust by 61 percent.

Operations

The proposed project would consist of a 217,294 square foot wine storage warehouse on the 10.39-acre project site. It is anticipated that the proposed project would have approximately 32 full-time employees and up to 18 part-time employees and operate 12 to 18 hours a day during the peak season. Approximately 2 to 4 vehicles trips per day would be from clients or visitors to the site.

A total of 134 car and 21 truck dock parking spaces would be provided for the building. Of these parking stalls, 4 stalls would be designated for Clean Air Vehicle parking. The project's traffic demands would be 367 weekday daily project trips (1.69 trips per 1,000 SF).[1]

Because the building is proposed for warehousing and distribution of wine and/or other wine related products it would be heavily insulated and refrigerated. The proposed project would be installed with a night-air cooling system to capture the cold air from outside during the night, which reduces the demand to use the refrigeration system. This reduces the building's electricity demand and is a unique trait of the Napa Valley climate to allow such a cooling process.

In many climates, night temperatures are cool even when daytime temperatures exceed economizer limits. Taking advantage of this resource, the air handler and economizer can flush the building with night air to cool down the building mass. The cool mass then acts as a heat sink the following day.

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[1] GHD. *Traffic Impact Analysis Memorandum*. May 8, 2020.

Setting controls for night precooling can save a significant amount of energy, depending on location. Studies indicate cost savings range from five percent in Phoenix, Arizona, to 18 percent in Denver, Colorado, for a typical office building. Night precooling also reduces peak demand. Simulation analyses show that precooling a 100,000 square foot three-story building in Sacramento, California, would reduce energy use by 12.6 percent and cause a peak demand reduction of 31.3 percent.[2]

Interior lighting for the proposed project would be designed to meet Title 24 standards; however, measures to increase efficiency and reduce excess energy usage inside the warehouse would be promoted. Features such as motion sensor lighting for areas within the warehouse would be installed. This is beneficial as it reduces energy bills and reduces heat generate inside, further reducing the energy demands to cool the warehouse. The most current Pacific Gas & Electric incentives would be investigated and all attempts to incorporate them into the design would be made.

The fork lifts (estimated at 10) used within the warehouse would be powered by electricity instead of the typical natural gas powered fork lifts. This reduces the GHG emitted by the fork lift and is more efficient and less impactful on the air within the building. The building would have bike racks to accommodate up to a total of 12 bicycles, five more than the required seven stalls.

CalEEMod default electrical usage was adjusted to be consistent with the SGE 258 Warehouse Project[3] but scaled down to 217,294 square feet. The SGE 258 Warehouse Project energy use of was estimated using actual electrical usage from two nearby and almost identical buildings. Both buildings are insulated and refrigerated to the same degree as the proposed project.

CalEEMod default natural gas usage was adjusted to zero, although available in the street the proposed project would not bring it on site as there is no need. The proposed project would, instead, use electric water heaters and heat pump for the offices.

GHG emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric's projected 2020 (year in which project becomes operational) CO_2 intensity rate. This intensity rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641 pounds of CO_2 per megawatt of electricity produced. The Pacific Gas & Electric's projected 2020 CO_2 intensity rate is 290 pounds of CO_2 per megawatt of electricity produced.[4]

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[2] Energy Star Building Upgrade Manual, Chapter 9, Revised January 2008, https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/comprehensive-approach/energy-star

[3] City of American Canyon. Initial Study for the SDG Green Island 258 Warehouse Project (PL 15-0019). January 25, 2016.

[4] Greenhouse Gas Emission Factors: Guidance for PG&E Customers, November 2015.

Appendix C

Biological Resources Reports

Revised
BIOLOGICAL RESOURCE ANALYSIS
SDG COMMERCE 217 DISTRIBUTION CENTER
CITY OF AMERICAN CANYON, CALIFORNIA

March 2, 2020

Prepared for

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TABLE OF CONTENTS

FIGURES
(At Back of Report)

TABLES
(At Back of Report)

ATTACHMENTS
(At Back of Report)

1. INTRODUCTION

Monk & Associates, Inc. (M&A) has prepared this biological resource analysis for the proposed SDG Commerce 217 Distribution Center project site (herein referred to as the project site) located in the City of American Canyon, California (Figures 1 and 2). The purpose of our analysis is to provide a description of existing biological resources on the project site and to identify potentially significant impacts that could occur to sensitive biological resources from the construction of a distribution center and associated parking on the project site.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations, including the California Native Plant Society (CNPS). Biological resources also include waters of the United States and State, as regulated by the U.S. Army Corps of Engineers (Corps), California Regional Water Quality Control Board (RWQCB), and CDFW. Our analysis includes a formal delineation of "waters of the U.S." that was confirmed in 2012 and reverified by the Corps in 2017.

This biological resources analysis also provides mitigation measures for "potentially significant" impacts that could occur to biological resources. Whenever possible, upon implementation, the prescribed mitigation measures would reduce impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq). Accordingly, this report is suitable for review and inclusion in any review being conducted by the City of American Canyon for the proposed project pursuant to the CEQA.

2. PROPERTY LOCATION AND SETTING

The approximately 10-acre project site is located at 1075 Commerce Court, American Canyon, Napa County, California (Figures 1 and 2). The project site is bordered to the southeast by Jungle Paintball, a 40-acre paintball park. To the east is located a large eucalyptus grove with scattered mobile homes. Further to the east is Oat Hill, a geographically prominent hill west of Highway 29. A mix of open space, large warehouses and distribution centers occurs north of the project site. The American Canyon Wastewater Treatment Plant and treatment ponds is located west of the project site. The Napa River and associated marshes occur greater than 300 feet west of the project site. A large distribution center, known as the SDG Commerce 330 Distribution Center, is currently under construction occurs immediately to the south of the project site. Clark Ranch, Wetlands Edge Park, and salt marsh and mudflat habitats associated with the Napa River, occur further to the south of the project site. The Napa Valley Unified School District is constructing the Napa Junction Elementary School to the southeast, along Eucalyptus Drive. Figure 3 provides an aerial photograph that shows the project site features and the surrounding land use.

The 10.39-acre project site is part of a larger 35.85-acre parcel (formerly known as Lot 3) that is comprised of a highly disturbed, ruderal (weedy) plant community, that was recently graded and leveled. This site formerly was occupied by a grove of blue gum eucalyptus (*Eucalyptus globulus*) trees that were removed in 2012.

3. PROPOSED PROJECT

The applicant proposes to construct a 217,294-square foot distribution center with associated parking areas and a detention/bioretention pond on the 10.39-acre project site. Access to the distribution center will be provided by the Commerce Court extension, as illustrated on the Preliminary Site Plan (see attached Sheet A1).

4. ANALYSIS METHODS

Prior to preparing this biological resources analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database, RareFind 5 application (CNDDB 2018) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of affect.

M&A biologists have a long history of field surveys associated with the approximately 35-acre parcel. M&A biologists conducted site surveys on the parcel on March 1 and April 27, 2006, June 14, 2011, February 14, March 21, and June 12, 2012, May 18, 2017, and on March 30, 2018, December 19 and December 27, 2019. In 2006, and again in 2011, M&A conducted a wetland delineation on the entire parcel. This delineation of "waters of the U.S." was confirmed by the Corps in 2012 and reverified by this agency in 2017. The Corps Confirmed Reverification of Aquatic Resources Delineation Map is provided as Sheet 2.

During the site surveys and wetland delineations, M&A biologists recorded biological resources and assessed the likelihood of resource regulated areas on the project site. In addition to the wetland delineations, the survey involved searching all habitats on the site and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species. The results of our literature research and field reconnaissance are provided in the sections below.

5. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

5.1 Topography

The project site is relatively flat with elevations ranging from 8 to 20 feet above sea level. The ground is undulating due to past land use disturbances including eucalyptus tree removal in 2012. The site slopes gently to the west towards North Slough and the Napa River.

5.2 Hydrology

There are no drainages on the project site. There are no indicators of hydrology on the 10-acre project site (Sheet 2).

5.3 Plant Communities and Associated Wildlife Habitats

A complete list of plant species observed on the project site is presented in Table 1. Nomenclature used for plant names follows *The Jepson Manual* Second Edition (Baldwin 2012) and changes made to this manual as published on the Jepson Interchange Project website (http://ucjeps.berkeley.edu/interchange/index.html). Table 2 is a list of wildlife species observed on the project site during multiple years of surveys at the project site. Nomenclature for wildlife follows CDFW's *Complete list of amphibian, reptile, bird, and mammal species in California* (CDFW 2016) and any changes made to species nomenclature as published in scientific journals since the publication of CDFW's list.

5.3.1 Ruderal herbaceous vegetation

A complete list of plant species observed within the project site is presented in Table 1. The project site is dominated by ruderal vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, such as is found on the project site, is also common on this parcel.

Typically, ruderal communities provide habitat for those animal species adapted to humans. Examples of animals associated with these communities include wild turkey (*Meleagris gallopavo*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*), among others, all of which have been observed on the project site. Red-shouldered hawk (*Buteo lineatus*), tree swallows (*Tachycineta bicolor*), Nuttall's woodpecker (*Picoides nuttallii*), and northern flicker (*Colaptes auratus*), among others, likely nest in the eucalyptus trees that surround the project site to the west, north and south. Chestnut-backed chickadee (*Poecile rufescens*), brown creeper (*Certhia americana*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*) and western gray squirrel (*Sciurus griseus*) were also observed in the immediate project vicinity.

5.4 Wildlife Corridors

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible

to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not interfere with the movement of native wildlife. The project site has a history of disturbance associated with eucalyptus tree removal in 2012, and continued disturbance associated with the paintball facility located immediately to the southeast and construction of the SDG Commerce 330 Distribution Center distribution center to the south. The eucalyptus grove and the marshes associated with the Napa River to the west of the project site provide a more valuable wildlife corridor for terrestrial wildlife.

6. SPECIAL-STATUS SPECIES DEFINITION

6.1 Definitions

For purposes of this analysis, special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the CNPS). Special-status species are defined as:

- plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 *et seq*.; 14 CCR §670.1 *et seq.*) or the FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);

- plants and animals that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);

- plants and animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;

- Plants occurring on Ranks 1A, 1B, 2A, 2B, 3, and 4 of CNPS' electronic *Inventory* (CNPS 2017). The California Department of Fish and Wildlife (CDFW) recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001) (CNPS 2017). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information (more on CNPS Rank species below);

- migratory nongame birds of management concern listed by U.S. Fish and Wildlife Service (Migratory Nongame Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);

- animals that are designated as "species of special concern" by CDFW (2018);

- Animal species that are "fully protected" in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

- Bat Species that are designated on the Western Bat Working Group's (WBWG) Regional Bat Species Priority Matrix as: "RED OR HIGH." This priority is justified by the WBWG as follows: "Based on available information on distribution, status, ecology, and known threats, this designation should result in these bat species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment."

In the paragraphs below we provide further definitions of legal status as they pertain to the special-status species discussed in this report or in the attached tables.

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under the FESA is protected from unauthorized "take" (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a Federal listed Endangered or Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the take.

State Threatened Species. A species listed as Threatened under the state Endangered Species Act (§2050 of California Fish and Game Code) is protected from unauthorized "take" (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to "take" a state listed Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFW prior to initiating the "take."

California Species of Special Concern. These are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, pursuant to the CEQA Guidelines (14 CCR §15380), some species of special concern could be considered "rare." Pursuant to its rarity status, any unmitigated impacts to rare species could be considered a "significant effect on the environment" (§15382). Thus, species of special concern must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

CNPS Rank Species. The CNPS maintains an "Inventory" of special status plant species. This inventory has four lists of plants with varying rarity. These lists are: Rank 1, Rank 2, Rank 3, and Rank 4. Although plants on these lists have no formal legal protection (unless they are also state or federal listed species), CDFW requests the inclusion of Rank 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. The Rank 1 and 2 species are defined below:

- Rank 1A: Presumed extinct in California;
- Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere;
- Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere.

All of the plants constituting Rank 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the Fish and Game Code, and are eligible for state listing (CNPS 2001). Rank 2 species are rare in California, but more common elsewhere. Ranks 3 and 4 contain species about which there is some concern, and are reviewed by CDFW and maintained on "watch lists."

Additionally, in 2006 CNPS updated their lists to include "threat code extensions" for each list. For example, Rank 1B species would now be categorized as Rank 1B.1, Rank 1B.2, or Rank 1B.3. These threat codes are defined as follows:

- .1 is considered "seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)";
- .2 is "fairly endangered in California (20-80% of occurrences threatened)";
- .3 is "not very endangered in California (less than 20% of occurrences threatened or no current threats known)."

Under the CEQA review process only CNPS Rank 1 and 2 species are considered since these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to Rank 3 and 4 species are not regarded as significant pursuant to CEQA.

Fully Protected Birds. Fully protected birds, such as the white-tailed kite and golden eagle, are protected under California Fish and Game Code (§3511). Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time.

6.2 Potential Special-Status Plants on the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within 3 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status plants have been mapped on or adjacent to the project site. However, according to the CDFW's CNDDB, a total of eight special-status plant species are known to occur in the region of the project site (Table 3). Most of these plants occur in specialized habitats such as marshes, foothill grasslands, and vernal pools, none of which occur onsite. In the recent past, blue gum eucalyptus trees covered the majority of the project site dating back for several decades; these trees emit allelopathic (growth inhibiting) chemicals from their leaves, acorns and bark that prevent other plants from growing under them. Once bark and leaf debris accumulate on the ground beneath the trees, nearly nothing will grow there. Based on the negative findings during the multiple surveys conducted on this site in 2006, 2011, 2012, 2017, 2018 and 2019, special-status plants are not likely to be found onsite and mitigation for special-status plants should not be warranted.

6.3 Potential Special-Status Animals in the Project Site

Figure 4 provides a graphical illustration of the known records for special-status species within three miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status animal records have ever been mapped on or adjacent to the project site. However, a total of 18 special-status animal species are known to occur in the region of the project site (Table 4). Due to the disturbed nature of the project site and its history as a eucalyptus grove, there is a very low likelihood of special-status species occurring onsite. Regardless, due to the sensitivity of four of the special-status wildlife species known to occur in the area, we further discuss these species below.

6.3.1 California red-legged frog

The California red-legged frog (*Rana draytonii*) was federally-listed as threatened on May 23, 1996 (Federal Register 61: 25813-25833) and as such is protected pursuant to the Federal Endangered Species Act. On March 16, 2010 the USFWS issued the final designation for California red-legged frog Critical Habitat (USFWS 2010). *The project site does not fall within mapped critical habitat, although it is adjacent* (see Figure 5).

The California red-legged frog is also a state "species of special concern." While the state designation "species of special concern" does not provide any legally mandated protection, species of special concern must be considered in any project undergoing a CEQA review.

The California red-legged frog is typically found in ponds, slow-flowing portions of perennial and intermittent streams that maintain water in the summer months. This frog is also found in hillside seeps that maintain pool environments or saturated soils throughout the summer months. Populations probably cannot be maintained if all surface water disappears (i.e., no available surface water for egg laying and larval development habitat). Larval California red-legged frogs require 11-20 weeks of permanent water to reach metamorphosis (i.e., to change from a tadpole into a frog), in water depths of 10 to 20 inches (USFWS 2002). Riparian vegetation such as willows and emergent vegetation such as cattails are preferred red-legged frog habitats, though not necessary for this species to be present. Populations of California red-legged frog will be reduced in size or eliminated from ponds supporting non-native species such as bullfrog, Centrarchid fish species (such as sunfish, bluegill, or large-mouth bass), and signal and red swamp crayfish (*Pacifastacus leniusculus* and *Procambarus clarkii*, respectively), all of which are known California red-legged frog predators. However, the presence of these non-native species does not preclude the presence of the California red-legged frog.

California red-legged frogs also use upland habitats for migration and dispersal. The USFWS *Recovery Plan for the California Red-Legged Frog* states that frog overland excursions via uplands can vary between 0.25-mile up to 3 miles during the wet season, and that frogs "have been observed to make long-distance movements that are straight-line, point to point migrations rather than using corridors for moving in between habitats" (USFWS 2002). The information presented in the USFWS' Recovery Plan was taken from a publication by Bulger et al. (2003) that recounts a study in coastal redwoods in Santa Cruz area. M&A believes that such overland straight-line migrations are primarily limited to periods of heavy rainfall or during periods when ambient conditions exhibit high moisture levels such as in fog belts along the coast. Working in

Point Reyes National Seashore on the coast of California, Fellers and Kleeman (2007) found approximately 31 percent of California red-legged frogs moved more than 30 meters from their breeding sites and about 69 percent moved less than 30 meters from their breeding site during seasonal movement periods. Similarly, Bulger et al. (2003) found that 60 percent of their radio tagged frogs stayed within 30 meters of their breeding sites.

In locations that are characterized by hot and seasonally dry climates, the California red-legged frog is inclined to stay closer to its aquatic environments or will not migrate. Tatarian (2005) who studied an inland population of California red-legged frogs in eastern Contra Costa County where the climate is far drier than the coastal environment, found that all movements started after the first 0.5 cm of rain in the fall, with more terrestrial movements being made in the fall pre-breeding season (57%) than in the winter breeding season (32%) or spring post-breeding season (11%). Tatarian (op. cit.) also found that California red-legged frogs moved greater average distances aquatically (84.6 m) than terrestrially (27.7 m). Greater terrestrial distances were moved in the pre-breeding season (35.2 m) than in the breeding season (15.5 m) or post-breeding season (16.3 m) with the majority of movements occurring for only one of the 3-4 day survey periods. The majority of frogs (57%) were position faithful within a pool, indicating they did not migrate at all. These data suggest that long forays across the landscape found in coastal populations are less likely in dry inland locations.

The USFWS *Recovery Plan for the California Red-Legged Frog* states that populations are "most likely to persist where multiple breeding areas are embedded within a matrix of habitats used for dispersal." "The primary constituent elements for California red-legged frogs are aquatic and upland areas where suitable breeding and non-breeding habitat is interspersed throughout the landscape and is interconnected by unfragmented dispersal habitat" (USFWS 2002).

In the American Canyon/Napa area, there are no records for the California red-legged frog west of State Route 29 where the project site is located. The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog at this location was found in a dry cement tank adjacent to a large quarry pond that supported bullfrogs (*Lithobates catesbeiana*). State Route 29 is located between this closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity over any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Similarly, the surrounding parcels with dense eucalyptus groves do not provide suitable habitat. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. *Therefore, the proposed project will not impact the California red-legged frog and mitigation should not be warranted.*

6.3.2 SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species, protected pursuant to the California Endangered Species Act (CESA), and Title 14 of the California Code of Regulations. While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their active nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

Swainson's hawk inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands (Kochert 1986). It nests almost exclusively in trees and will nest in almost any tree species that is at least 10 feet tall (Schmutz et. al. 1984). Nests are constructed in isolated trees that are dead or alive along drainages and in wetlands, or in windbreaks in fields and around farmsteads (Palmer 1988). Swainson's hawks occasionally nest in shrubs, on telephone poles, and on the ground. In the Central Valley of California, the majority of Swainson's hawk nests and territories are associated with riparian systems and nests are commonly found in cottonwoods and oaks (Schlorff et. al. 1984). They have also been documented nesting in eucalyptus (*Eucalyptus* spp.), black walnut (*Juglans hindsii*), black locust (*Robinia pseudoacacia*), almond (*Prunus dulcis*), Osage orange (*Maclura pomifera*), Arizona cypress (*Cupressus arizonica*), and pine (*Pinus* spp.).

Foraging habitats include grasslands, alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture, and rice land when not flooded (CDFG 1994). The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. Its primary prey in the Central Valley is California meadow vole (*Microtus californicus*). Agricultural areas are often preferred over more natural grassland habitats due to larger prey populations. In addition, agricultural practices (planting, maintenance, harvesting, disking) allow for access to prey, and very likely increase foraging success of Swainson's hawks by flushing prey (personal observations of G. Monk). During the nesting season Swainson's hawks usually forage within two miles of the nest. Swainson's hawk does not require habitats that contain many perches because it most often searches for prey aerially, therefore it can occupy habitats with few or no perches except the nest tree (James 1992).

Swainson's hawks are regular summer visitors and breeders throughout the western states. In the fall months, most Swainson's hawks migrate to Argentina before returning to the United States to breed in the late-spring (typically April). For decades, Argentina farmers were spraying insecticides over habitats that included gregarious night roosts of the Swainson's hawk, killing many thousands of these hawks. This practice was halted in the last 10 years and the Swainson's hawk population appears to be dramatically responding in California. While in the 1970s through 1990s there were only two relatively small populations of Swainson's hawks that remained resident in California year-round in the Davis area and in the Sacramento River Delta, resident and migrant populations of the Swainson's hawks are now dramatically expanding their nesting distribution in California since insecticide use over Argentinian wintering grounds was halted (G. Monk, personal observations). For example, Swainson's hawks were never recorded nesting in the Napa County area until relatively recently.

The closest known record for nesting Swainson's hawk is 2.6 miles northeast of the project site (CNDDB Occurrence No. 2744). No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's project site surveys. However, the nesting population appears to be increasing throughout its nesting range in northern California (recent CNDDB records and G. Monk general observations) and the eucalyptus trees growing adjacent to the project site provide suitable nesting habitat. Therefore, there is the possibility that Swainson's hawks could nest near this project site in future years. *Hence, prior to earth-disturbance or construction, nesting surveys must be conducted that confirm or negate this species' presence as a nesting bird on or adjacent to the project site. Accordingly, impacts to Swainson's hawk are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.3 WESTERN BURROWING OWL

The western burrowing owl (*Athene cunicularia hypugaea*) is a California "species of special concern." Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Finally, based upon this species' rarity status, any unmitigated impacts to rare species would be considered a "significant effect on the environment" pursuant to §21068 of the CEQA Statutes and §15382 of the CEQA Guidelines. Thus, this owl species must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency. When these owls occur on project sites, typically, mitigation requirements are mandated in the conditions of project approval from the CEQA lead agency.

Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often, the burrowing owl utilizes rodent burrows, typically California ground squirrel (*Otospermophilus beecheyi*) burrows, for nesting and cover. They may also on occasion dig their own burrows or use man-made objects such as concrete culverts or rip-rap piles for cover. They exhibit high site fidelity, reusing burrows year after year. Occupancy of suitable burrowing owl habitat can be verified at a site by observation of these owls during the spring and summer months or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (white wash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Since burrowing owls spend the majority of their time sitting at the entrances of their burrows, grazed grasslands seem to be their preferred habitat because it allows them to view the world at 360 degrees without obstructions.

The closest CNDDB record was documented 2.6 miles southeast of the project site in an area that has since been developed (CNDDB Occurrence No. 109). The project site was severely disturbed during the eucalyptus removal in 2012; thus, ground squirrel burrows are few and of recent origin. The mobility of the western burrowing owl enables the species to colonize the recent burrows. M&A did not observe western burrowing owls or any indirect evidence that burrowing owls are using or residing on the project site during any of the site surveys.

Regardless, the project site provides marginal nesting habitat for the western burrowing owl. *In order to confirm or negate the presence of western burrowing owls on site, surveys must be conducted prior to the commencement of earth-moving or construction. Accordingly, impacts to western burrowing owl are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

6.3.4 NORTHERN HARRIER

The northern harrier (*Circus cyaneus*) is a California species of special concern. This raptor is protected under California Fish and Game Code §3503.5 that protects nesting raptors and their eggs/young and is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Northern harriers build grass-lined nests on the ground within dense, low-lying vegetation in a variety of habitats, though they are typically found nesting in grassland or marsh habitats. They usually nest on level to near level ground. This species is particularly vulnerable to ground predators such as coyotes (*Canis latrans*), red fox (*Vulpes vulpes*), and various snake species. Ground nesting birds in general are also subject to disturbance by agricultural practices. Northern harriers may forage over the project site and may nest in the open ruderal habitats onsite that provide suitable nesting habitat for this species. Hence, the proposed project could result in impacts to nesting northern harriers.

The closest CNDDB record was documented 2.8 miles west of the project site (CNDDB Occurrence No. 29). The project site was severely disturbed during the eucalyptus removal in 2012. Regardless, the project site provides marginal nesting habitat for the northern harrier. *In order to confirm or negate the presence of northern harriers on site, surveys must be conducted prior to the commencement of earth-moving or construction. Accordingly, impacts to northern harrier are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

7. REGULATORY FRAMEWORK FOR NATIVE WILDLIFE, FISH, AND PLANTS

This section provides a discussion of those laws and regulations that are in place to protect native wildlife, fish, and plants. Under each law we discuss their pertinence to the proposed development.

7.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) forms the basis for the federal protection of threatened or endangered plants, insects, fish and wildlife. FESA contains four main elements, they are as follows:

Section 4 (16 USCA §1533): Species listing, Critical Habitat Designation, and Recovery Planning: outlines the procedure for listing endangered plants and wildlife.

Section 7 (§1536): Federal Consultation Requirement: imposes limits on the actions of federal agencies that might impact listed species.

Section 9 (§1538): Prohibition on Take: prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies.

Section 10: Exceptions to the Take Prohibition: non-federal agencies can obtain an incidental take permit through approval of a Habitat Conservation Plan.

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the National Marine Fisheries Service (NMFS). The USFWS enforces all other cases. Below, Sections 9, 7, and 10 of FESA are discussed since they are the sections most relevant to the proposed project.

Section 9 of FESA as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under Federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3). A December 2001 decision by the 9th Circuit Court of Appeals (Arizona Cattle Growers' Association, Jeff Menges, vs. the U.S. Fish and Wildlife Service and Bureau of Land Management, and the Southwest Center for Biological Diversity) ruled that the USFWS must show that a threatened or endangered species is present on a project site and that it would be taken by the project activities. According to this ruling, the USFWS can no longer require mitigation based on the probability that the species could use the site. Rather they must show that it is actually present.

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need to obtain a incidental take permit either through a Section 7 Consultation as discussed further below (for federal actions or private actions that are permitted or funded by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for state and local agencies, or individuals, and projects without a federal "nexus").

Section 7(a)(2) of the Act requires that each federal agency consult with the USFWS to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat for listed species. Critical habitat designations mean: (1) specific areas within a geographic region currently occupied by a listed species, on which are found those physical or biological features that are essential to the conservation of a listed species and that may require special management considerations or protection; and (2) specific areas outside the

geographical area occupied by a listed species that are determined essential for the conservation of the species.

The Section 7 consultation process only applies to actions taken by federal agencies that are considering authorizing discretionary projects. Section 7 is by and between the NMFS and/or the USFWS and the federal agency contemplating a discretionary approval (that is, the "federal nexus agency," for example, the Corps or the Federal Highway Administration). Private parties, cities, counties, etc. (i.e., applicants) may participate in the Section 7 consultation *at the discretion of the federal agencies conducting the Section 7 consultation*. The Section 7 consultation process is triggered by a determination of the "action agency" – that is, the federal agency that is carrying out, funding, or approving a project - that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. As part of the formal consultation, the USFWS/NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in "jeopardy" to a listed species or if it could adversely modify designated critical habitat. If the USFWS/NMFS prepares a Biological Opinion, it will contain either a "jeopardy" or "non-jeopardy" decision. If the USFWS/NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (that is, it will issue a jeopardy decision), the nexus federal agency would be most unlikely to authorize its discretionary permit. If the USFWS/NMFS prepares a "non-jeopardy" Biological Opinion, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an "incidental take" permit that allows applicants to "take" federally-listed species while otherwise carrying out legally sanctioned projects.

For non-federal entities, for example private parties, cities, counties that are considering a discretionary permit, Section 10 provides the mechanism for obtaining take authorization. Under Section 10 of FESA, for the applicant to obtain an "incidental take permit," the applicant is required to submit a "conservation plan" to the USFWS or NMFS that specifies the impacts that are likely to result to federally-listed species, and the measures the applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps. Conservation plans under FESA have come to be known as "habitat conservation plans" or "HCPs" for short. The terms incidental take permit, Section 10 permit, and Section 10(a)(1)(B) permit are used interchangeably by the USFWS. Section 10(a)(2)(B) of FESA provides statutory criteria that must be satisfied before an incidental take permit can be issued.

7.1.1 Responsible Agency

FESA gives regulatory authority to the USFWS for federally-listed terrestrial species and non-anadromous fish. The NMFS has regulatory authority over federally-listed marine mammals and anadromous fish.

7.1.2 Applicability to the proposed project

The closest known California red-legged frog occurrence is 1.4 miles east of the project site (CNDDB Occurrence No. 896). The California red-legged frog was found in a dry cement tank

adjacent to a large quarry pond that supported bullfrogs. State Route 29 is located between the closest California red-legged frog record and the project site and constitutes an effective geographic barrier to overland California red-legged frog movements to/from the known record location and other extant California red-legged frog populations to the project site. There is no hydrologic connectivity along any undeveloped migration route between the known records for this species and the project site. Finally, the project site does not provide suitable habitat for the California red-legged frog. Based on all the available information, it can be concluded that the project site does not provide suitable habitat for the California red-legged frog. Owing to the excessively disturbed conditions on the project site due to prior grading and tree removal activities, this species is not expected to occur on the project site. Therefore, the proposed project will not impact the California red-legged frog.

No other federally listed species are expected to occur on the project site. The project site does not provide fisheries habitat as it consists entirely of upland communities*. Therefore, it can be stated with confidence that the proposed project would not impact federally listed plant, animal, or fish species.*

7.2 Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to “take” (kill, harm, harass, shoot, etc.) any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

7.2.1 Applicability to The Proposed Project

Western burrowing owl, northern harrier, Swainson’s hawk, red-shouldered hawk, and red-tailed hawk (*Buteo jamaicensis*), among other raptors (birds of prey) could nest in the eucalyptus grove in the immediate vicinity of the project site. These raptors would be protected by the Migratory Bird Treaty Act. Also, the common songbirds that could forage on the site would be protected pursuant to this Act. As long as there is no direct mortality of species protected pursuant to this Act caused by development of the site, there should be no constraints to development of the site. To comply with the Migratory Bird Treaty Act, all active nest sites would have to be avoided while such birds were nesting. Upon completion of nesting, the project could commence as otherwise planned. Please review specific requirements for avoidance of nest sites for potentially occurring species in the Impacts and Mitigations section below.

7.3 California Endangered Species Act

7.3.1 Section 2081 of the California Endangered Species Act

In 1984, the state legislated the California Endangered Species Act (CESA) (Fish and Game Code §2050). The basic policy of CESA is to conserve and enhance endangered species and their habitats. State agencies will not approve private or public projects under their jurisdiction that would impact threatened or endangered species if reasonable and prudent alternatives are available. Because CESA does not have a provision for "harm" (see discussion of FESA, above),

CDFW considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFW determines that a proposed project could impact a state-listed threatened or endangered species, CDFW will provide recommendations for "reasonable and prudent" project alternatives. The CEQA lead agency can only approve a project if these alternatives are implemented, unless it finds that the project's benefits clearly outweigh the costs, reasonable mitigation measures are adopted, there has been no "irreversible or irretrievable" commitment of resources made in the interim, and the resulting project would not result in the extinction of the species. In addition, if there would be impacts to threatened or endangered species, the lead agency typically requires project applicants to demonstrate that they have acquired "incidental take" permits from CDFW and/or USFWS (if it is a Federal listed species) prior to allowing/permitting impacts to such species.

If proposed projects would result in impacts to a state-listed species, an "incidental take" permit pursuant to §2081 of the Fish and Game Code would be necessary (versus a Federal incidental take permit for Federal listed species). CDFW will issue an incidental take permit only if:

1) The authorized take is incidental to an otherwise lawful activity;
2) the impacts of the authorized take are minimized and fully mitigated;
3) measures required to minimize and fully mitigate the impacts of the authorized take:
    a) are roughly proportional in extent to the impact of the taking on the species;
    b) maintain the project applicant's objectives to the greatest extent possible; and,
    c) capable of successful implementation; and,
4) adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with, and the effectiveness of, the measures.

If an applicant is preparing a habitat conservation plan (HCP) as part of the federal 10(a) permit process, the HCP might be incorporated into the §2081 permit if it meets the substantive criteria of §2081(b). To ensure that an HCP meets the mitigation and monitoring standards in Section 2081(b), an applicant should involve CDFW staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the federal Endangered Species Act, it might also be incorporated into the §2081 permit if it meets the standards of §2081(b).

No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take." These species are listed in several statutes that identify "fully protected" species and "specified birds." *See* Fish and Game Code §§ 3505, 3511, 4700, 5050, 5515, and 5517. If a project is planned in an area where a "fully protected" species or a "specified bird" occurs, an applicant must design the project to avoid all take.

Fish and Game Code §2080.1 allows an applicant who has obtained a "non-jeopardy" federal Biological Opinion pursuant to Section 7 of the FESA, or who has received a federal 10(a) permit (federal incidental take permit) pursuant to the FESA, to submit the federal opinion or permit to CDFW for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFW determines that the federal incidental take permit is consistent

with state law, and that all state-listed species under consideration have been considered in the federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFW determines that the federal opinion or permit is not consistent with CESA, or that there are state-listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state CESA permit under Section 2081(b). Section 2081(b) is of no use if an affected species is state-listed, but not federally-listed.

State and federal incidental take permits are issued on a discretionary basis, and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

7.3.2 Applicability to The Proposed Project

No state-listed plant species would likely occur on the project site due to an absence of habitat. The project site does not support any trees and does not provide nesting habitat for the Swainson's hawk. Suitable nesting habitat for this hawk exists in the eucalyptus trees on the adjacent properties; thus, preconstruction nesting surveys will be necessary to ensure that earth-work or construction does not occur while this raptor is nesting nearby or that if it does, it does not disturb the nesting birds. If the proposed project follows the proposed mitigation measures as detailed in the Impacts and Mitigation section below, *an Incidental Take Permit (ITP) from the CDFW should not be necessary for this project.*

7.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513

California Fish and Game Code §3503, 3503.5, 3511, and 3513 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act).

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under California Fish and Game Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

7.4.1 Applicability to the Proposed Project

Raptors that could be affected by the project include western burrowing owl, northern harrier, Swainson's hawk, red-shouldered hawk and red-tailed hawk. Preconstruction surveys would have to be conducted for these species to ensure that there is no direct take of these birds including their eggs, or young. Any active nests that were found during preconstruction surveys

would have to be avoided by the project. Suitable non-disturbance buffers would have to be established around nest sites until the nesting cycle is complete. More specifics on the size of buffers are provided below in the Impacts and Mitigations section.

7.5 City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals, objectives, and policies relevant to biological resources on the project site. Only those applicable to the proposed project are discussed herein:

7.5.1 Goal 8, Objective 8.1 and Policies 8.1.1 and 8.1.4

- **Goal 8:** Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.
- **Objective 8.1:** Maintain data and information regarding areas of significant biological value within the Planning Area to facilitate resource conservation and the appropriate management of development.
- **Policy 8.1.1:** Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the City and, as appropriate, within the Sphere of Influence and Urban Limit Line.
- **Policy 8.1.4:** Regularly monitor and review developments proposed within the City's Planning Area to assess their impacts on local biological resources and to recommend appropriate mitigation measures that the developer and/or government agency can implement.

7.5.2 Applicability to the Proposed Project

Consistent with General Plan Policies 8.1.1 and 8.1.4, this report provides a detailed assessment of the biological resources present on the project site.

7.5.3 Objective 8.2 and Policy 8.2.1

- **Objective 8.2:** Balance the preservation of natural habitat areas, including coastal saltmarsh, mixed hardwood forest, oak savannah, and wetland and riparian habitats, with new development in the City.
- **Policy 8.2.1:** Land use applications for developments located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, and riparian habitats (see Figure 8-1) [General Plan], or with areas potentially occupied by vernal pools (see Figure 8-2) [General Plan] shall be accompanied by sufficient technical background data to enable an adequate assessment of the potential for impacts on these resources, and possible measures to reduce any identifiable impacts. In addition to examining Figure 8-1 [General Plan] for information on these sensitive habitats, an on-site assessment shall be conducted by a City approved qualified biologist to determine if sensitive habitats exist on-site. In instances where the potential for significant impacts exists, the applicant must submit a Biological Assessment Report prepared by a qualified professional.

7.5.4 Applicability to the Proposed Project

Consistent with General Plan Policy 8.2.1, the project site has been evaluated for the presence of sensitive biological resources. This report represents a Biological Assessment Report documenting findings from background research, and presents the current habitats and species present on the project site.

7.5.5 Objective 8.3 and Policy 8.3.1

- **Objective 8.3:** Protect natural drainages and riparian corridors within the American Canyon Planning Area.
- **Policy 8.3.1:** Review proposed developments in wetlands and riparian habitats to evaluate their conformance with the following policies and standards:
    a. The development plan shall fully consider the nature of existing biological resources and all reasonable measures shall be taken to avoid significant impacts, including retention of sufficient natural open space and undeveloped buffer zones.

7.5.6 Applicability to the Proposed Project

No wetland, natural drainages or riparian habitats are proposed to be impacted, as there are none present on the 10-acre project site.

7.5.7 Policy 8.3.1 b

- **Policy 8.3.1 b:** Development shall be designed and sited to preserve watercourses, riparian habitat, vernal pools, and wetlands in their natural condition, unless these actions result in an unfeasible project, in which case habitat shall be replaced in accord with subsection "g" (below).

7.5.8 Applicability to the Proposed Project

Proposed development on the project site does not impact watercourses, riparian habitat, vernal pools or wetlands.

7.5.9 Policy 8.3.1 e

- **Policy 8.3.1 e:** Development shall incorporate fences, walls, vegetative cover, or other measures to adequately buffer habitat areas, linkages or corridors from built environment.

7.5.10 Applicability to the Proposed Project

Previous disturbance on the project site prohibits presence of land linkages, corridors, or habitat areas. Similarly, because creation of a mitigation site is not necessary for this site, there will be no habitat area or otherwise natural space in need of buffering.

7.5.11 Policy 8.3.1 f

- **Policy 8.3.1 f:** Roads and utilities shall be located and designed such that conflicts with biological resources, habitat areas, linkages or corridors are avoided where feasible.

7.5.12 APPLICABILITY TO THE PROPOSED PROJECT

Consistent with Policy 8.3.1.f, and Policy 8.3.1.g roads and utilities have been designed to avoid conflicts with biological resources on the project site.

7.5.13 POLICY 8.3.1 G

- **Policy 8.3.1 g:** Future development shall utilize appropriate open space or conservation easements in order to protect sensitive species or their habitats.

7.5.14 POLICIES 8.3.5 AND 8.3.6

- **Policy 8.3.5:** Establish a network of open spaces along the City's natural drainages and riparian corridors and link significant biological habitats. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.
- **Policy 8.3.6:** Preserve and integrate the City's natural drainages in new development, as opposed to their channelization or undergrounding, emphasizing opportunities for the development of pedestrian paths and greenbelts along their lengths throughout the City.

7.5.15 APPLICABILITY TO THE PROPOSED PROJECT

There are no drainages on the project site or significant biological habitats onsite; hence, these policies do not apply to the proposed project.

8. CITY OF AMERICAN CANYON –ORDINANCES

8.1 Trees (Ord. 18.40.110)

A. Existing trees shall be preserved on the site unless otherwise approved by the city council as a part of the site development plans.

B. Unless specifically approved by the city council, any tree removed shall be replaced on the site. Replacement trees shall be a minimum size of a twenty-four-inch box of the same species unless specifically approved by the city council. (Ord. 98-10 § 1 (part), 1998).

8.1.1 APPLICABILITY TO THE PROPOSED PROJECT

The project site does not support any trees.

9. REGULATORY REQUIREMENTS PERTAINING TO WATERS OF THE UNITED STATES AND STATE

This section presents an overview of the criteria used by the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, the State Water Resources Control Board, and CDFW to determine those areas within a project area that would be subject to their regulation.

9.1 U.S. Army Corps of Engineers Jurisdiction and General Permitting

9.1.1 SECTION 404 OF THE CLEAN WATER ACT

Congress enacted the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the disposal of dredged or fill material into "waters of the United States" (33 CFR Parts 328 through 330). This requires project applicants to obtain authorization from the Corps prior to discharging dredged or fill materials into any water of the United States.

In the Federal Register "waters of the United States" are defined as, "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

Limits of Corps' jurisdiction:

(a) Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)

(b) Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:

(1) Extends to the mean high tide line, or
(2) When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.

(c) Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:

(1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
(2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
(3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Section 404 jurisdiction in "other waters" such as lakes, ponds, and streams, extends to the upward limit of the ordinary high water mark (OHWM) or the upward extent of any adjacent wetland. The OHWM on a non-tidal water is:

- the "line on shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

Wetlands are defined as: "...those areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation adapted for life in saturated soil conditions" (33 CFR Section 328.8 [b]). Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded) to be regulated by the Corps pursuant to Section 404 of the Clean Water Act.

9.1.1.1 Significant Nexus of Tributaries

On December 2, 2008, the Corps and the Environmental Protection Agency (EPA) issued joint guidance on implementing the U.S. Supreme Court decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (herein referred to simply as "Rapanos") which address the jurisdiction over waters of the United States under the Clean Water Act. In this joint guidance these agencies provide guidance on where they will assert jurisdiction over waters of the U.S.

The EPA and Corps will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (for example, typically three months).
- Wetlands that directly abut such tributaries.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and

- Significant nexus includes consideration of hydrologic and ecologic factors.

9.1.1.2 Isolated Areas Excluded from Section 404 Jurisdiction

In addition to areas that may be exempt from Section 404 jurisdiction, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers (531 U.S. 159 [2001]). Isolated wetlands and waters are those areas

that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.," and do not otherwise exhibit an interstate commerce connection.

9.1.1.3 Permitting Corps Jurisdictional Areas

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to be permitted by the Corps prior to discharging or otherwise impacting waters of the United States. In many cases, the Corps must visit a proposed project area (to conduct a "jurisdictional determination") to confirm the extent of area falling under their jurisdiction prior to authorizing any permit for that project area. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the appropriate permit application that would be filed with the Corps for permitting the proposed impact(s) to "waters of the United States."

Pursuant to Section 404 of the Clean Water Act, the Corps normally provides two alternatives for permitting impacts to the type of "waters of the United States" found in the project area. The first alternative would be to use Nationwide Permit(s) (NWP). The second alternative is to apply to the Corps for an Individual Permit (33 CFR Section 235.5(2)(b)). The application process for Individual Permits is extensive and includes public interest review procedures (i.e., public notice and receipt of public comments) and must contain an "alternatives analysis" that is prepared pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal EPA and thus brings another resource agency into the permitting framework. Both the Corps and EPA take the initial viewpoint that there are practical alternatives to the proposed project if there would be impacts to waters of the U.S., and the proposed permitted action is not a water dependent project (e.g. a pier or a dredging project). Alternative analyses therefore must provide convincing reasons that the proposed permitted impacts are unavoidable. Individual Permits may be available for use in the event that discharges into regulated waters fail to meet conditions of NWP(s).

NWPs are a type of general permit administered by the Corps and issued on a nationwide basis that authorize minor activities that affect Corps regulated waters. Under NWP, if certain conditions are met, the specified activities can take place without the need for an individual or regional permit from the Corps (33 CFR, Section 235.5[c][2]). In order to use NWP(s), a project must meet 27 general nationwide permit conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330, Appendices A and C). It is also important to note that pursuant to 33 CFR Section 330.4(e), there may be special regional conditions or modifications to NWPs that could have relevance to individual proposed projects. Finally, pursuant to 33 CFR Section 330.6(a), Nationwide permittees may, and in some cases must, request from the Corps confirmation that an activity complies with the terms and conditions of the NWP intended for use (*i.e.,* must receive "verification" from the Corps).

Prior to finalizing design plans, the applicant needs to be aware that the Corps maintains a policy of "no net loss" of wetlands (waters of the United States) from project area development. Therefore, it is incumbent upon applicants that propose to impact Corps regulated areas to submit a mitigation plan that demonstrates that impacted regulated areas would be recreated (*i.e.,* impacts would be mitigated). Typically, the Corps requires mitigation to be "in-kind" (i.e., if a

stream channel would be filled, mitigation would include replacing it with a new stream channel), and at a minimum of a 1:1 replacement ratio (i.e., one acre or fraction there of recreated for each acre or fraction thereof lost). Often a 2:1 replacement ratio is required. Usually the 2:1 ratio is met by recreation or enhancement of an equivalent amount of wetland as is impacted, in addition to a requirement to preserve an equivalent amount of wetland as is impacted by the project. In some cases, the Corps allows "out-of-kind" mitigation if the compensation site has greater value than the impacted site. For example, if project designs call for filling an intermittent drainage, mitigation should include recreating the same approximate jurisdictional area (same drainage widths) at an offsite location or on a set-aside portion of the project area. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet mitigation compensation requirements. Mitigation banks have defined service areas and the Corps may only allow their use when a project would have minimal impacts to wetlands.

9.1.2 Applicability to the Proposed Project

M&A originally prepared a preliminary wetland delineation map of the 35 acre parcel in 2006; however, this map was never submitted to the Corps. In 2011, a formal wetland delineation was conducted on July 14th and July 20th by M&A biologists Ms. Hope Kingma and Mr. Tim O'Donnell. The wetland delineation report and map were submitted to the Corps on August 22, 2011, requesting confirmation of the extent of Corps jurisdiction at the American Canyon Flat Lands site. In a letter dated January 31, 2012 the extent of Corps jurisdiction was confirmed, based on a field investigation on September 21, 2011. That jurisdictional determination expired five (5) years from the date of that letter.

M&A biologists Ms. Hope Kingma and Mr. Devin Jokerst conducted another wetland delineation of the entire 35.85-acre parcel (known as Lot 3), which includes this project site, on November 16, 2016 to re-verify the extent of jurisdictional areas on the site. M&A used the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the *Regional Supplement for the Arid West Region*. The jurisdictional determination request and the Draft Aquatic Resources Delineation Map (Sheet 2) were submitted to the Corps in December 2016. Mr. Bryan Matsumoto of the Corps conducted a site verification visit on May 18, 2017. On May 16, 2018 the Corps issued the jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the 35.43-acre parcel. The confirmed Jurisdictional Delineation Map (Sheet 2) and letter are attached. None of the jurisdictional features on that map occur on the 10-acre project site that is the subject of this report. *As such there will be no impacts to the waters of the U.S. for this project.*

9.2 State Water Resources Control Board (SWRCB) / California Regional Water Quality Control Board (RWQCB)

9.2.1 Section 401 of the Clean Water Act

The SWRCB and RWQCB regulate activities in "waters of the State" (which includes wetlands) through Section 401 of the Clean Water Act. While the Corps administers a permitting program that authorizes impacts to waters of the United States, including wetlands and other waters, any Corps permit authorized for a proposed project would be inoperative unless it is an NWP that has been certified for use in California by the SWRCB, <u>or</u> if the RWQCB has issued a project specific

certification of water quality. Certification of NWPs requires a finding by the SWRCB that the activities permitted by the NWP will not violate water quality standards individually or cumulatively over the term of the permit (the term is typically for five years). Certification must be consistent with the requirements of the federal Clean Water Act, the California Environmental Quality Act, the California Endangered Species Act, and the SWRCB's mandate to protect beneficial uses of waters of the State. Any denied (i.e., not certified) NWPs, and all Individual Corps permits, would require a project specific RWQCB certification of water quality.

9.2.2 Applicability to the Proposed Project

The Corps' Confirmed Reverification Aquatic Resources Delineation Map dated May 22, 2017 is provided as Sheet 2. The proposed project will not impact any waters of the State. *Therefore Section 401 of the Clean Water Act is not necessary for this project.*

9.3 California Department of Fish and Wildlife Protections

9.3.1 Section 1602 of California Fish and Game Code

Pursuant to Section 1602 of the California Fish and Game Code: "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur:

(1) CDFW receives written notification regarding the activity in the manner prescribed by CDFW. The notification shall include, but is not limited to, all of the following:
   (A) A detailed description of the project's location and a map.
   (B) The name, if any, of the river, stream, or lake affected.
   (C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
   (D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
   (E) A copy of any other applicable local, state, or federal permit or agreement already issued.
   (F) Any other information required by CDFW" (Fish & Game Code 2014).

Please see Section 1602 of the current California Fish and Game Code for further details.

Please also note that while not stated in the regulations above, CDFW typically considers its jurisdiction to include riparian vegetation (that is, the trees and bushes growing along the stream). Thus, any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, including its riparian vegetation, would require entering into a Streambed Alteration Agreement (SBAA) with CDFW prior to commencing with work in the stream. However, prior to authorizing such permits, CDFW typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts and engineering and erosion control plans.

9.3.2 APPLICABILITY TO THE PROPOSED PROJECT

There are no streams or drainages on the project site that would be regulated by CDFW. *Hence, an SBAA with CDFW would not be necessary for this project*.

10. STATE WATER RESOURCES CONTROL BOARD (SWRCB)/RWQCB – STORM WATER MANAGEMENT

10.1 Construction General Permit

While federal Clean Water Act NPDES regulations allow two permitting options for construction related stormwater discharges (individual permits and General Permits), the State Water Resources Control Board (SWRCB) has elected to adopt only one statewide Construction General Permit at this time that will apply to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (CalTrans).

The Construction General Permit requires all dischargers where construction activity disturbs greater than one acre of land or those sites less than one acre that are part of a common plan of development or sale that disturbs more than one acre of land surface to:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.

2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation. Achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.

3. Perform inspections of all BMPs.

This Construction General Permit is implemented and enforced by the nine California Regional Water Quality Control Boards (RWQCBs). It is also enforceable through citizens' suits and represents a dramatic shift in the State Water Board's approach to regulating new and redevelopment sites, imposing new affirmative duties and fixed standards on builders and developers.

<u>Types of Construction Activity Covered by the Construction General Permit</u>

- clearing,
- grading,
- disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre or more of total land area.

Construction activity that results in soil disturbances to a smaller area would still be subject to this General Permit if the construction activity is part of a larger common plan of development that encompasses greater than one acre of soil disturbance, or if there is significant water quality impairment resulting from the activity.

Construction activity does not include:

- routine maintenance to maintain original line and grade,
- hydraulic capacity, or original purpose of the facility,
- nor does it include emergency construction activities required to protect public health and safety.

The Construction General Permit includes several "post-construction" requirements. These requirements entail that site designs provide no net increase in overall site runoff and match pre-project hydrology by maintaining runoff volume and drainage concentrations. To achieve the required results where impervious surfaces such as roofs and paved surfaces are being increased, developers must implement non-structural off-setting BMPs, such as landform grading, site design BMPs, and distributed structural BMPs (bioretention cells, rain gardens, and rain cisterns). This "runoff reduction" approach is essentially a State Water Board-imposed regulatory requirement to implement Low Impact Development ("LID") design features. Volume that cannot be addressed using non-structural BMPs must be captured in structural BMPs that are approved by the RWQCB.

Improving the quality of site runoff is necessary to improve water quality in impaired and threatened streams, rivers, and lakes (that is, water bodies on the EPA's 303(d) list). The RWQCB prioritizes the water bodies on the 303(d) list according to potential impacts to beneficial uses. Beneficial uses can include a wide range of uses, such as nautical navigation; wildlife habitat; fish spawning and migration; commercial fishing, including shellfish harvesting; recreation, including swimming, surfing, fishing, boating, beachcombing, and more; water supply for domestic consumption or industrial processes; and groundwater recharge, among other uses. The State is required to develop action plans and establish Total Maximum Daily Loads (TMDLs) to improve water quality within these impaired water bodies. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating the applicable water quality standards.

Pursuant to the CWA, the RWQCB regulates construction discharges under the National Pollutant Discharge Elimination System (NPDES). The project sponsor of construction or other activities that disturb more than 1 acre of land must obtain coverage under NPDES Construction General Permit Order 2009-0009-DWQ, administered by the RWQCB[1].

[1] CGP Order 2009-0009-DWQ remains in effect, but has been amended by CGP Order 2009-0014-DWQ, effective February 14, 2011, and CGP Order 2009-0016-DWQ, effective July 17, 2012. The first amendment merely provided additional clarification to Order 2009-0009-DWQ, while Order 2009-0016-DWQ eliminated numeric effluent limits on pH and turbidity (except in the case of active treatment systems), in response to a legal challenge to the original order.

10.1.1 APPLICABILITY TO THE PROPOSED PROJECT

To obtain coverage under the SWRCB administered Construction General Permit, the applicant (typically through its civil engineer) must electronically file a number of permit-related compliance documents (Permit Registration Documents (PRDs), including a Notice of Intent (NOI), a risk assessment, site map, signed certification, Stormwater Pollution Prevention Plan (SWPPP), Notice of Termination (NOT), NAL exceedance reports, and other site-specific PRDs that may be required. The PRDs must be prepared by a Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD) and filed by a Legally Responsible Person (LRP) on the RWQCB's Stormwater Multi-Application Report Tracking System (SMARTS). (QSDs are typically civil engineers, professional hydrologists, engineering geologists, or landscape architects.) Once filed, these documents become immediately available to the public for review and comment. At a minimum, the SWPPP shall identify Best Management Practices (BMPs) for implementation during project construction that are in accordance with the applicable guidance and procedures contained in the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2015).

10.2 RWQCB Municipal Storm Water Permitting Programs

The federal Clean Water Act (CWA) was amended in 1987 to address urban stormwater runoff pollution of the nation's waters. In 1990, the U.S. Environmental Protection Agency (USEPA) promulgated rules establishing Phase 1 of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase 1 program for Municipal Separate Storm Sewer System (MS4s) requires operators that serve populations of 100,000 or greater to implement a stormwater management program to control polluted discharges from these MS4s. While Phase 1 of the municipal stormwater program has focused on large urban areas, Phase 2 of the municipal stormwater program was promulgated by the USEPA for smaller urban areas including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

MS4 permits require the discharger (or dischargers that are permitted by the MS4 permittees) to develop and implement a Storm Water Management Plan/Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct chemical monitoring, though small municipalities are not.

10.2.1 NPDES C.3 REQUIREMENTS

The NPDES C.3 requirements went into effect for any project (public or private) that is "deemed complete" by the City or County (Lead Agency) on or after February 15, 2005, and which will result in the creation or replacement (other than normal maintenance) of at least 10,000 square feet of impervious surface area (roofs, streets, patios, parking lots, etc. Provision C.3 requires the onsite treatment of stormwater prior to its discharge into downstream receiving waters. Note that these requirements are in addition to the existing NPDES requirements for erosion and

sedimentation controls during project construction that are typically addressed through acquisition of coverage under the SWRCB administered Construction General Permit. The C.3 requirements are typically required to be implemented by MS4 permittees (and their constituencies).

Projects subject to Provision C3 must include the capture and onsite treatment of all stormwater from the site prior to its discharge, including rainwater falling on building rooftops. Project applicants are required to implement appropriate source control and site design measures and to design and implement stormwater treatment measures in order to reduce the discharge of stormwater pollutants to the *maximum extent practicable.* While the Clean Water Act does not define "maximum extent practicable," the Stormwater Quality Management Plans required as a condition of the municipal NPDES permits identify control measures (known as Best Management Plans, or BMPs) and, where applicable, performance standards, to establish the level of effort required to satisfy the maximum extent practicable criterion. It is ultimately up to the professional judgment of the reviewing municipal staff in the individual jurisdictions to determine whether a project's proposed stormwater controls will satisfy the maximum extent practicable criterion. However, there are numeric criteria used to ensure that treatment BMPs have been adequately sized to accommodate and treat a site's stormwater. The C3 requirements are quite extensive, and their complete explanation is not provided here. However, the following are minimums that should be understood and adhered to:

- The applicant must provide a detailed and realistic site design *and impervious surface area calculations*. This site design *and calculations* will be used by the Lead Agency (County or City) to determine/*verify* the amount of impervious surface area that is being created or replaced. It should include all proposed buildings, roads, walkways, parking lots, landscape areas, etc., that are being created or redeveloped. If large (greater than 10,000 square feet) lots are being created an effort will need to be made to determine the total impervious surface area that could be created on that parcel. For example, if only a portion of the lot is shown as a "building envelope" then the lead agency will need to consider that a driveway will have to be constructed to access the envelope and that the envelope will then be developed as shown. If the C.3 thresholds are met (creation/redevelopment of 10,000 square feet of impervious surface area), a Stormwater Control Plan (SWCP) (if required by the Lead Agency, or whatever steps for compliance with Provision C3 are required locally) must accompany the application.

- If a SWCP is required by the Lead Agency for the project it must be stamped by a Licensed Civil Engineer, Architect, or Landscape Architect.

10.2.2 Applicability to the Proposed Project

The Water Board issued county-wide municipal stormwater permits in the early 1990s to operators of MS4s. On November 19, 2015, the Water Board re-issued these county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies. Permittees in the San Francisco Bay area are included in a Municipal Regional Permit (MRP), issued to 76 cities, counties and

flood control districts in 2009 and revised in 2015. Each of the Permittee's must file an Annual Report that is comprised of three parts: regional, countywide, and individual. Some requirements of the MRP are being implemented by the Bay Area Stormwater Management Agencies Association (BASMAA) on behalf of all the MRP Permittees. Other elements are being implemented collaboratively by the Permittees through their respective countywide programs. As such, BASMAA and the countywide programs have submitted Annual Report elements on the regional and countywide collaborative tasks, respectively, on behalf of the MRP Permittees and the individual MRP Permittees have also submitted Annual Report elements on the Permit Provisions they have implemented individually.

It is the applicant's responsibility to ensure that the project civil engineer prepares all required Storm Water Planning documents for submittal to the City of American Canyon to comply with its MS4 permit requirements. In addition, if the project includes a requirement to obtain a Clean Water Act Section 401 permit from the RWQCB, the Storm Water Management Plan (or equivalent plan) must be submitted to the RWQCB with the application package submitted for acquisition of a Section 401 permit (aka "water quality certification").

The applicant is proposing to treat all stormwater falling on impervious surfaces in the detention/bioretention basin located on the western edge of the project site (see Sheet UP4). Once treated, stormwater would be conveyed to "level spreader outfalls" that will be installed along the western project site boundary. The level spreader outfalls consist of perforated pipe set on contour that will discharge flows uniformly across a gradual slope covered by riprap, which will mimic sheet flow conditions similar to current project site runoff (see Storm Drain Level Spreader Detail). Accordingly, the project will not violate any water quality standards.

11. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REGULATIONS

A CEQA lead agency must determine if a proposed activity constitutes a project requiring further review pursuant to the CEQA. Pursuant to CEQA, a lead agency would have to determine if there could be significant adverse impacts to the environment from a proposed project. Typically, if within the city limits, the city would be the CEQA lead agency. If a discretionary permit (i.e., conditional use permit) would be required for a project (e.g. an occupancy permit must be issued), the lead agency typically must determine if there could be significant environmental impacts. This is usually accomplished by an "Initial Study." If there could be significant environmental impacts, the lead agency must determine an appropriate level of environmental review prior to approving and/or otherwise permitting the impacts. In some cases, there are "Categorical Exemptions" that apply to the proposed activity; thus, the activity is exempt from CEQA. The Categorical Exemptions are provided in CEQA. There are also Statutory Exemptions in CEQA that must be investigated for any proposed project. If the project is not exempt from CEQA, the lowest level of review typically reserved for projects with no significant effects on the environment would be for the lead agency to prepare a "Negative Declaration." If a proposed project would have only minimal impacts that can be mitigated to a level of no significance pursuant to the CEQA, then a "Mitigated Negative Declaration" is typically prepared by the lead agency. Finally, those projects that may have significant effects on the environment, or that have impacts that can't be mitigated to a level considered less than significant pursuant to the CEQA, typically must be reviewed via an Environmental Impact

Report (EIR). All CEQA review documents are subject to public circulation, and comment periods.

Section 15380 of CEQA defines "endangered" species as those whose survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. "Rare" species are defined by CEQA as those who are in such low numbers that they could become endangered if their environment worsens; or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in FESA. The CEQA Guidelines also state that a project will normally have a significant effect on the environment if it will "substantially affect a rare or endangered species of animal or plant or the habitat of the species." The significance of impacts to a species under CEQA, therefore, must be based on analyzing actual rarity and threat of extinction to that species despite its legal status or lack thereof.

This report has been prepared as a Biology section that is suitable for incorporation into a Mitigated Negative Declaration. This document addresses potential impacts to species that would be defined as endangered or rare pursuant to Section 15380 of the CEQA and can be incorporated by the CEQA lead agency (in this case City of American Canyon) into an initial study or higher levels of CEQA review including incorporation into the biology section of an Environmental Impact Report.

12. IMPACTS ANALYSIS

Below the criteria used in assessing impacts to Biological Resources is presented.

12.1 Significance Criteria

A significant impact is determined using CEQA and CEQA Guidelines. Pursuant to CEQA §21068, a significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment. Pursuant to CEQA Guideline §15382, a significant effect on the environment is further defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. Other Federal, State, and local agencies' considerations and regulations are also used in the evaluation of significance of proposed actions.

Direct and indirect adverse impacts to biological resources are classified as "significant," "potentially significant," or "less than significant." Biological resources are broken down into four categories: vegetation, wildlife, threatened and endangered species, and regulated "waters of the United States" and/or stream channels.

12.1.1 THRESHOLDS OF SIGNIFICANCE

12.1.1.1 Plants, Wildlife, Waters

In accordance with Appendix G (Environmental Checklist Form) of the CEQA Guidelines, implementing the project would have a significant biological impact if it would:

- 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 U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected "wetlands" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- 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 native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

12.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill material into waters of the United States, which includes wetlands, as discussed in the bulleted item above, and also includes "other waters" (stream channels, rivers) (33 CFR Parts 328 through 330). Substantial impacts to Corps regulated areas on a project site would be considered a significant adverse impact. Similarly, pursuant to Section 401 of the Clean Water Act, and to the Porter-Cologne Water Quality Control Act, the RWQCB regulates impacts to waters of the state. Thus, substantial impacts to RWQCB regulated areas on a project site would also be considered a significant adverse impact.

12.1.1.3 Stream Channels

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFW typically considers including riparian vegetation. Any proposed activity that would result in substantial modifications to a natural stream channel would be considered a significant adverse impact.

13. IMPACT ASSESSMENT AND PROPOSED MITIGATION

In this section we discuss potential impacts to sensitive biological resources, including special-status wildlife species. We follow each impact with a mitigation prescription that when

implemented would reduce impacts to the greatest extent possible. This impact analysis is based on the Preliminary Site Plan (Sheet A-1).

13.1 Impact BIO-1. Development of the Project Could Have a Potentially Significant Impact on Nesting Swainson's hawks (Potentially Significant)

The Swainson's hawk is a state listed threatened species. While the Swainson's hawk has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3513, and §3800).

No Swainson's hawk nests have been observed on the site or offsite in the vicinity of the project site during M&A's multiple project site surveys; however, the nesting population appears to be increasing throughout its nesting range in northern California and thus, it could conceivably nest in trees near the project site in the future.

If Swainson's hawks are found to be nesting adjacent to the project site, implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Nest site disturbance which results in: (1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by CDFW as a violation of the Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (CDFG v. ACID, 8 CA App. 4, 41554) (CDFG 1994).

Typically, CDFW requires that any impact to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found adjacent to the project site within an area of influence (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1- September 15 annually)" (CDFG 1994). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required. As such, in the absence of survey results, it must be concluded that impacts to Swainson's hawk from the proposed project would be *potentially significant pursuant to CEQA.* This impact could be mitigated to a level considered less than significant pursuant to CEQA.

The closest known record for nesting Swainson's hawk is 2.6 miles north of the project site (CNDDB Occurrence No. 2744). There are extensive foraging opportunities both around the closest nesting location and between this nesting location and the project site. Considering that the entire project site consisted of a eucalyptus grove until 2012, it did not historically provide potential foraging habitat. Also, as the project site is essentially surrounded by eucalyptus forest, it is not a foraging destination which would likely attract foraging Swainson's hawks. Furthermore, M&A has confirmed that the project site has a low rodent population, therefore development of the project site will not have a significant impact on Swainson's hawk foraging habitat. Therefore, no mitigation for the loss of foraging habitat is warranted for this project.

13.2 Mitigation Measure BIO-1. Mitigation for Potential Impacts to Nesting Swainson's Hawk

Preconstruction surveys shall be conducted for a quarter-mile radius around all project activities and shall be completed for at least two survey periods immediately prior to the project's initiation. The survey period timing and methodology shall be conducted in accordance with CDFW's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (CDFG 1994), which identifies different survey windows throughout the pre-nesting and nesting season (ranging from January 1 through July 30/post-fledging) that have different survey methodologies and requirements.

If Swainson's hawks are found to be nesting on the project site or within a ¼-mile of the project site, consultation with CDFW will be required. The size of the nest protection buffer will be determined during consultation with CDFW but at a minimum there will be a 300-foot non-disturbance buffer around the nest site.

Implementation of this mitigation measure would reduce potential impacts to nesting Swainson's hawk to a level considered less than significant pursuant to CEQA.

13.3 Impact BIO-2. Development of the Project Could Have a Potentially Significant Impact on Western Burrowing Owl (Potentially Significant)

The western burrowing owl is a California Species of Special Concern. This raptor (that is, bird of prey) is also protected under the Migratory Bird Treaty Act (50 CFR 10.13) and its nest, eggs, and young are protected under California Fish and Game Code Sections 3503, 3503.5. While western burrowing owls have not been observed on the project site and their likelihood of presence on the project site is considered to be low, limited suitable nesting habitat occurs on the project site. Since the western burrowing owl is a mobile species that could move onto the project site prior to development, preconstruction surveys would be necessary to determine its presence. Thus, the project may result in impacts to the western burrowing owl; this would be a *potentially significant impact pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.4 Mitigation Measure BIO-2. Mitigation for Potential Impacts to Western Burrowing Owl

Based on the presence of this species in the project vicinity and the potential habitat found on the project site, a preconstruction survey for burrowing owls should be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further regard for the burrowing owl would be necessary.

a. Burrowing owl surveys should be conducted by walking the entire project site. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be 7 meters to 20 meters and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility.

Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows should be avoided by a minimum of 50 meters (approximately 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows should be avoided during all seasons.

b. If burrowing owls are detected on the site, the following restricted activity dates and setback distances are recommended per CDFW's Staff Report (2012).

- From April 1 through October 15, low disturbance and medium disturbance activities should have a 200 meter buffer while high disturbance activities should have a 500 meter buffer from occupied nests.
- From October 16 through March 31, low disturbance activities should have a 50 meter buffer, medium disturbance activities should have a 100 meter buffer, and high disturbance activities should have a 500 meter buffer from occupied nests.
- No earth-moving activities or other disturbance should occur within the afore-mentioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls were found in the project area, a qualified biologist would also need to delineate the extent of burrowing owl habitat on the site.

Implementation of these mitigation measures would reduce potential impacts to burrowing owls to a level considered less than significant pursuant to CEQA.

13.5 Impact BIO-3: Development of the Project Would Have a Potentially Significant Impact on Tree or Ground Nesting Raptors (Potentially Significant)

Tree or ground nesting raptors that could be affected by the project include northern harrier, white-tailed kites, red-shouldered hawk and red-tailed hawk. Nesting raptors are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13). All nesting raptors, their eggs and young are protected pursuant to California Fish and Game Code §3503.5. Specific surveys for nesting raptors have not been conducted. In the absence of survey results indicating otherwise, it is conservatively assumed that implementation of the proposed project may impact nesting raptors which could result in nest abandonment and death of eggs or young. Therefore, impacts to nesting raptors are regarded as *potentially significant pursuant to CEQA***.** This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.6 Mitigation Measure BIO-3: Mitigation for Potential Impacts to Tree or Ground Nesting Raptors

To ensure that impacts to tree or ground nesting raptors are avoided or offset, the following mitigation measures will be implemented:

a. In order to avoid impacts to nesting raptors, a preconstruction nesting survey will be conducted by a qualified raptor biologist prior to commencing with earth-moving or construction work if this work would commence between February 1st and August 31st. The survey should be

conducted within the 30 day period prior to site disturbance. The raptor nesting surveys will include examination of all trees and ruderal habitat within 200 feet of the project site.

b. If nesting raptors are identified during the surveys, the dripline of the nest tree or ground-nesting site must be fenced with orange construction fencing (provided the nest site is on the project site), and a 200-foot radius around the nest tree or nest site must be staked with orange construction fencing. If the tree or nest site is located off the project site, then the buffer should be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist should prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity should occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers should be maintained in place through the month of August and work within the buffer can commence on September 1st.

c. If the preconstruction nesting survey identifies a large stick or other type of raptor nest that appears inactive at the time of the survey, but there are territorial raptors evident in the nest site vicinity, a protection buffer (as described above) should be established around the potential nesting tree until the qualified raptor biologist determines that the nest is not being used. In the absence of conclusive observations indicating the nest site is not being used, the buffer should remain in place until a second follow-up nesting survey can be conducted to determine the status of the nest and eliminate the possibility that the nest is utilized by a late-spring nesting raptor (for example, red-tailed hawk). This second survey should be conducted even if construction has commenced. If during the follow-up late season nesting survey a nesting raptor is identified utilizing the nest, the protection buffer should remain until it is determined by a qualified raptor biologist that the young have fledged and have attained sufficient flight skills to avoid project construction zones. If the nest remains inactive, the protection buffer can be removed and construction and earth-moving activities can proceed unrestrained.

Implementation of these mitigation measures would reduce potential impacts to nesting raptors to a level considered less than significant pursuant to CEQA.

13.7 Impact BIO-4: Development of the Project Would Have a Potentially Significant Impact on Nesting Passerine Birds. (Potentially Significant)

Nesting passerine birds (i.e., perching birds) are protected by the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-711 and 50 CFR 10.13) and by California Fish and Game Code §3503 and §3503.5 which protects nesting birds, their eggs and young. These birds frequently change nesting locations from year to year and thus, past nesting histories are not necessarily indicative of future nesting activities. Accordingly, impacts to nesting passerine birds, their eggs, and/or young resulting from the proposed project are considered potentially significant. *This impact could be mitigated to a level considered less than significant pursuant to CEQA.*

13.8 Mitigation Measure BIO-4: Mitigation for Potential Impacts to Nesting Passerine Birds.

To ensure that impacts to nesting passerine birds are avoided or offset, a nesting survey shall be conducted 15 days prior to commencing construction/ grading or tree removal activities if this work would commence between March 1 and September 1. If common passerine birds or special-status passerine birds are identified nesting on the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers shall be maintained until August 1st unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to August 1st, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of American Canyon Planning Department prior to the time that nest protection buffers are removed if the date is before August 1st.

Implementation of this mitigation measure would reduce potential impacts nesting passerine birds to a level considered less than significant pursuant to CEQA.

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Figure 1. SDG 217 Commerce Distribution Center
Project Site Regional Map
City of American Canyon, California

County: Napa
Map Preparation Date: December 3, 2019

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Figure 2. SDG 217 Commerce Distribution Center
Project Site Location Map
City of American Canyon, California

38.185626, -122.274079
Section: 23, T4N R4W
7.5-Minute Cuttings Wharf quadrangle
HUC08 Watershed CA: San Pablo Bay
Aerial Photograph Source: ESRI
Map Preparation Date: December 3, 2019

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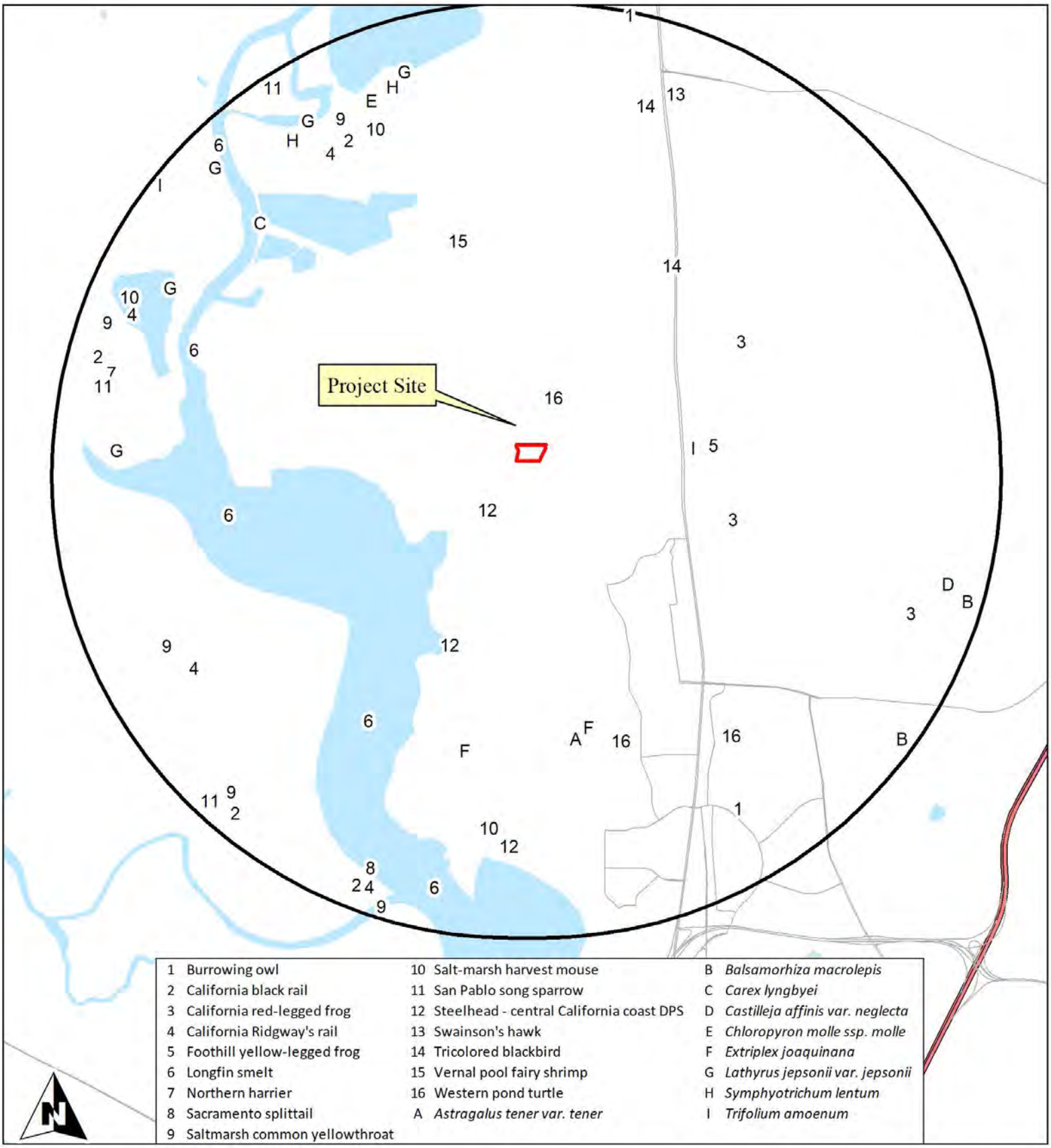
Figure 3. SDG 217 Commerce Project Site
Aerial Photograph
City of American Canyon, California

Aerial Photograph Source: ESRI
Map Preparation Date: December 3, 2019



0 0.25 0.5 1 1.5 2 2.5 3 Miles

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Figure 4. Known CNDDB Records for Special-Status Species Within 3 Miles of the SDG 217 Commerce Project Site

Map Preparation Date: December 3, 2019
3-Mile Radius
Source: CDFW, California Natural Diversity Data Base, 2019

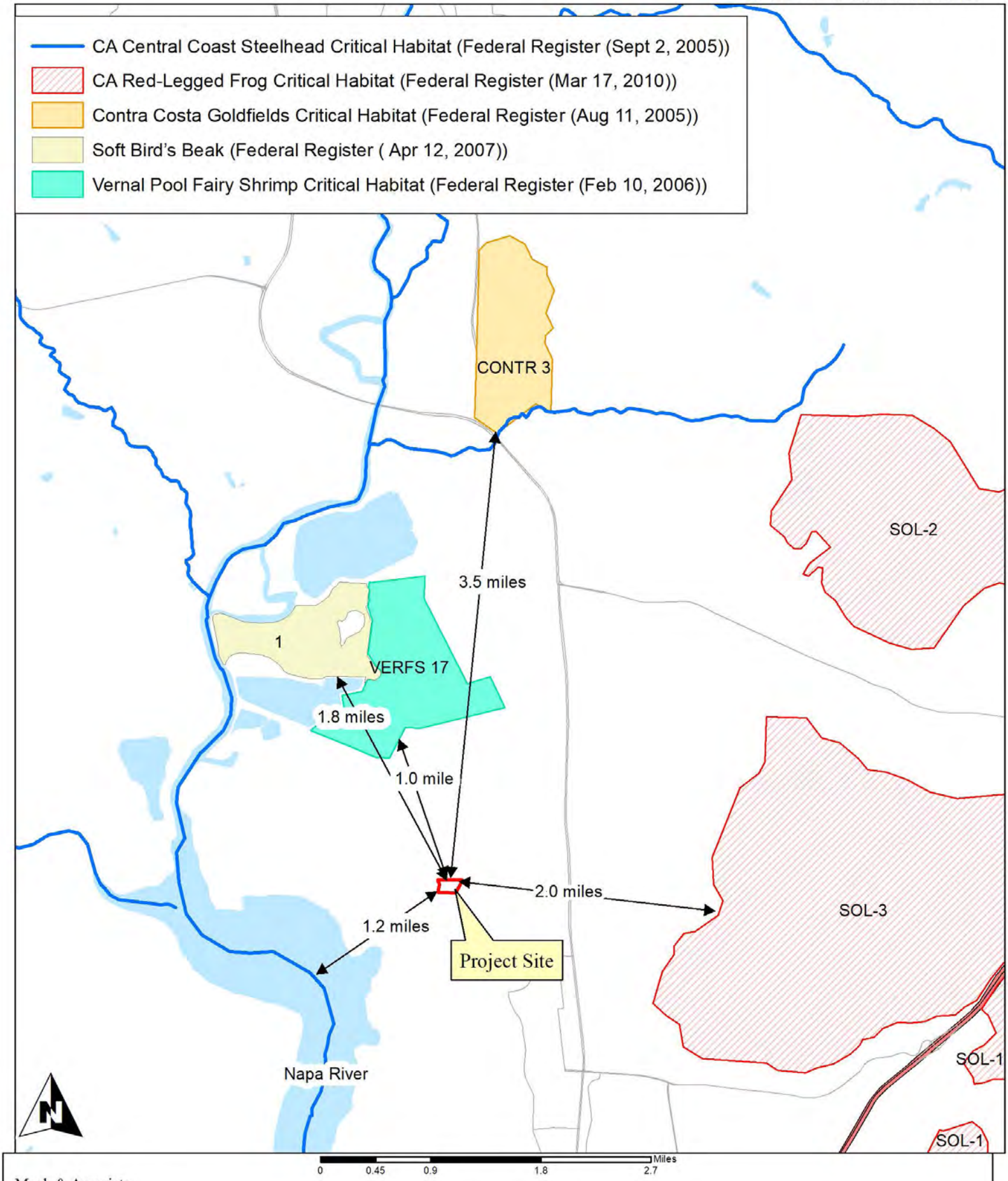

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Figure 5. USFWS Critical Habitat
in the Vicinity of the
SDG 217 Commerce Distribution Center

Source: USFWS
Map Preparation Date: December 20, 2019

Table 1

Plant Species Observed on the SDG 217 Commerce Distribution Center Project Site

Angiosperms - Dicots

Apiaceae	
Torilis sp.	sock destroyer
Asteraceae	
Baccharis pilularis subsp. pilularis	Baccharis
**Carduus pycnocephalus subsp. pycnocephalus*	Italian thistle
**Cirsium vulgare*	Bull thistle
**Dittrichia graveolens*	Stinkwort
**Hypochaeris radicata*	Rough cat's-ear
**Sonchus asper subsp. asper*	Prickly sow-thistle
Brassicaceae	
**Hirschfeldia incana*	Short-podded mustard
**Sinapis alba*	White mustard
Caryophyllaceae	
**Stellaria media*	Common chickweed
Convolvulaceae	
**Convolvulus arvensis*	Bindweed
Fabaceae	
**Medicago polymorpha*	California burclover
**Trifolium repens*	White clover
**Vicia sativa*	Common vetch
Geraniaceae	
**Erodium cicutarium*	Red-stem filaree
**Geranium dissectum*	Cut-leaf geranium
Montiaceae	
Claytonia perfoliata	Miner's lettuce
Myrsinaceae	
**Lysimachia arvensis*	Scarlet pimpernel
Orobanchaceae	
**Parentucellia viscosa*	Yellow glandweed
Papaveraceae	
**Fumaria parviflora*	Fumaria
Plantaginaceae	
**Plantago lanceolata*	English plantain
Polygonaceae	
**Rumex crispus*	Curly dock
Ranunculaceae	
**Ranunculus muricatus*	Spiny-fruit buttercup
Rubiaceae	
Galium aparine	Goose grass

* Indicates a non-native species

Table 1

Plant Species Observed on the SDG 217 Commerce Distribution Center Project Site

Angiosperms -Monocots

Iridaceae

Sisyrinchium californicum	Golden-eyed-grass

Juncaceae

Juncus occidentalis	Slender rush

Poaceae

**Avena barbata*	Slender wild oat
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
Elymus triticoides	Creeping wildrye
**Festuca perennis*	perennial ryegrass
**Hordeum murinum*	Wall barley
Phalaris angusta	Canary timothy grass

* Indicates a non-native species

Table 2
Wildlife Observed on the ICC SDG 217 Commerce Distribution Center Project Site

Amphibians	
Sierran treefrog	*Pseudacris sierra*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*
Birds	
Northern flicker	*Colaptes auratus*
Great blue heron	*Ardea herodias*
Turkey vulture	*Cathartes aura*
Canada goose	*Branta canadensis*
Osprey	*Pandion haliaetus*
White-tailed kite	*Elanus leucurus*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
American kestrel	*Falco sparverius*
Ring-necked pheasant	*Phasianus colchicus*
Wild turkey	*Meleagris gallopavo*
California quail	*Callipepla californica*
Virginia rail	*Rallus limicola*
Eurasian collared-dove	*Streptopelia decaocto*
Mourning dove	*Zenaida macroura*
Barn owl	*Tyto alba*
Anna's hummingbird	*Calypte anna*
Belted kingfisher	*Megaceryle alcyon*
Nuttall's woodpecker	*Picoides nuttallii*
Black phoebe	*Sayornis nigricans*
Say's phoebe	*Sayornis saya*
California scrub jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Common raven	*Corvus corax*
Tree swallow	*Tachycineta bicolor*
Cliff swallow	*Petrochelidon pyrrhonota*
Barn swallow	*Hirundo rustica*
Chestnut-backed chickadee	*Poecile rufescens*
Bushtit	*Psaltriparus minimus*
Brown creeper	*Certhia americana*
Bewick's wren	*Thryomanes bewickii*
Marsh wren	*Cistothorus palustris*
Ruby-crowned kinglet	*Regulus calendula*
Western bluebird	*Sialia mexicana*
American robin	*Turdus migratorius*
Wrentit	*Chamaea fasciata*
Northern mockingbird	*Mimus polyglottos*
European starling	*Sturnus vulgaris*
Yellow-rumped warbler	*Setophaga coronata*
Spotted towhee	*Pipilo maculatus*

Table 2
Wildlife Observed on the ICC SDG 217 Commerce Distribution Center Project Site

California towhee	*Pipilo crissalis*
Savannah sparrow	*Passerculus sandwichensis*
Song sparrow	*Melospiza melodia*
White-crowned sparrow	*Zonotrichia leucophrys*
Dark-eyed junco	*Junco hyemalis*
Red-winged blackbird	*Agelaius phoeniceus*
Brewer's blackbird	*Euphagus cyanocephalus*
Brown-headed cowbird	*Molothrus ater*
Bullock's oriole	*Icterus bullockii*
House finch	*Haemorhous mexicanus*
Lesser goldfinch	*Spinus psaltria*
House sparrow	*Passer domesticus*
Mammals	
Western gray squirrel	*Sciurus griseus*
Black-tailed jackrabbit	*Lepus californicus*
California ground squirrel	*Otospermophilus beecheyi*
Columbian black-tailed deer	*Odocoileus hemionus ssp. columbianus*
Coyote	*Canis latrans*
Raccoon	*Procyon lotor*
Feral cat	*Felis catus*

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Asteraceae					
Balsamorhiza macrolepis Big-scale balsam-root	Fed: - State: - CNPS: Rank 1B.2	March-June	Cismontane woodland; chaparral; valley and foothill grassland; [sometimes serpentinite]. 90 - 1555 meters	Closest record is from 2011 and is 3.0 miles east of the project site (Occurrence No. 7).	None. The project site is highly disturbed. No suitable habitat on the project site.
Symphyotrichum lentum Suisun Marsh aster	Fed: - State: - CNPS: Rank 1B.2	August-November	Marshes and swamps (brackish and fresh water)	Closest record is from 1993 and is 2.5 miles northwest of the project site (Occurrence No. 128).	None. The project site is highly disturbed. No suitable habitat on the project site.
Chenopodiaceae					
Extriplex joaquinana San Joaquin spearscale	Fed: - State: - CNPS: Rank 1B.2	April-October	Chenopod scrub; meadows; valley and foothill grassland; [alkaline].	Closest record is from and is 1.8 miles south of the project site (Occurrence No. 58).	None. The project site is highly disturbed. No suitable habitat on the project site.
Cyperaceae					
Carex lyngbyei Lyngbye's sedge	Fed: - State: - CNPS: Rank 2	May-August	Marshes or swamps (brackish or freshwater)	Closest record is from 2008 and is 2.3 miles northwest of the project site (Occurrence No. 28).	None. The project site is highly disturbed. No suitable habitat on the project site.
Fabaceae					
Astragalus tener tener Alkali milkvetch	Fed: - State: - CNPS: Rank 1B.2	March-June	Playas; mesic grasslands (adobe clay), vernal pools (alkaline).	Closest record is from 1993 and is 1.8 miles south of the project site (Occurrence No. 50).	None. The project site is highly disturbed. No suitable habitat on the project site.

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Lathyrus jepsonii jepsonii Delta tule pea	Fed: - State: - CNPS: Rank 1B.2	May-September	Marshes and swamps (freshwater and brackish).	Closest record is from 1978 and is 2.6 miles northwest of the project site (Occurrence No. 13).	None. The project site is highly disturbed. No suitable habitat on the project site.
Trifolium amoenum Showy Indian clover	Fed: FE State: - CNPS: Rank 1B.1	April-June	Valley and foothill grassland (sometimes serpentinite)	Closest record is from 1952 and is 1.2 miles east of the project site (Occurrence No. 23).	None. The project site is highly disturbed. No suitable habitat on the project site.
Orobanchaceae					
Castilleja affinis neglecta Tiburon paintbrush	Fed: FE State: CT CNPS: Rank 1B.2	April-June	Valley and foothill grassland [serpentinite]	Closest record is from 2013 and is 3.0 miles east of the project site (Occurrence No. 5).	None. The project site is highly disturbed. No suitable habitat on the project site.
Chloropyron molle molle Soft bird's-beak	Fed: FE State: CR CNPS: Rank 1B.2	July-September	Marshes and swamps (coastal salt).	Closest record is from 2010 and is 2.3 miles north of the project site (Occurrence No. 3).	None. The project site is highly disturbed. No suitable habitat on the project site.

Table 3

Special-Status Plant Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CSC - California Species of Special Concern

CNPS:
Rank 1A - Presumed extinct in California
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)
Rank 1B.2 - Fairly endangered in California (20-80% occurrences threatened)
Rank 1B.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

CNPS Continued:
Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 2A - Extirpated in California, common elsewhere
Rank 2B.1 - Seriously endangered in California, but more common elsewhere
Rank 2B.2 - Fairly endangered in California, but more common elsewhere
Rank 2B.3 - Not very endangered in California, but more common elsewhere
Rank 3 - Plants about which we need more information (Review List)
Rank 3.1 - Plants about which we need more information (Review List) Seriously endangered in California
Rank 3.2 - Plants about which we need more information (Review List) Fairly endangered in California
Rank 4 - Plants of limited distribution - a watch list

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Invertebrates				
Vernal pool fairy shrimp *Branchinecta lynchi*	Fed: FT State: - Other:	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabit static rain-filled/vernal pools, small, clear water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression	Closest record is from 2003 and is 1.5 miles north of the project site (Occurrence No. 232).	None. No suitable habitat on the project site.
Fish				
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	Fed: FT State: - Other:	From Russian River south to Soquel Creek, and to Pajaro River. Also found in San Francisco & San Pablo Bay Basins. Spawn in clear, cool, well oxygenated streams greater than 18 cm deep.	Closest record is from 2000 and is 0.39 miles southwest of the project site (Occurrence No. 4).	None. No suitable habitat on the project site.
Longfin smelt *Spirinichus thaleichthys*	Fed: -- State: CT Other:	Endemic to the Sacramento-San Joaquin River system. Inhabits open waters in the Delta and Suisun Bay. After spawning, larvae are carried downstream to brackish nursery areas.	Closest record is from 2012 and is1.2 miles west of the project site (Occurrence No. 26).	None. No suitable habitat on the project site.
Sacramento splittail *Pogonichthys macrolepidotus*	Fed: State: CSC Other:	Endemic to the lakes and rivers of the Central Valley; now confined to the delta, Suisun Bay, and associated marshes. Inhabits slow moving river sections and dead-end sloughs. Needs flooded vegetation for spawning.	Closest record is from 2001 and is 2.9 miles southwest of the project site (Occurrence No. 12).	None. No suitable habitat on the project site.
Amphibians				
California red-legged frog *Rana draytonii*	Fed: FT State: CSC Other:	Occurs in lowlands and foothills in deeper pools and streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Closest record is from 2006 and is 1.4 miles east of the project site (Occurrence No. 896).	None. No suitable habitat on the project site.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Foothill yellow-legged frog *Rana boylii*	Fed: -- State: CC Other:	Found in partially shaded, shallow streams with rocky substrates. Requires perenial pools or flowing water. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	Closest record is from 193X and is 1.2 miles east of the project site (Occurrence No. 2341).	None. No suitable habitat on the project site.
Reptiles				
Western pond turtle ** *Emys marmorata*	Fed: - State: CSC Other:	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying. Occurs in the Central Valley and Contra Costa County.	Closest record is from 2002 and is 0.45 miles northeast of the project site (Occurrence No. 552).	None. No suitable habitat on or adjacent to the project site.
Birds				
Northern harrier *Circus cyaneus*	Fed: - State: CSC Other:	Nests on the ground or in shrubby vegetation typically in grasslands, fallow farm lands, near freshwater and salt water marshes.	Closest record is from 2004 and is 2.8 miles west of the project site (Occurrence No. 29).	Unlikely to nest onsite. Preconstruction surveys will be conducted.
Swainson's hawk *Buteo swainsoni*	Fed: - State: CT Other:	Migratory and resident raptor that breeds in open areas with scattered trees. Prefers riparian and sparse oak woodland habitats for nesting. Requires nearby grasslands, grain fields, or alfalfa for foraging.	Closest record is from 2013 and is 2.6 miles northeast of the project site (Occurrence No. 2744).	Unlikely to nest adjacent to project site. Preconstruction surveys will be conducted.
Ferruginous hawk *Buteo regalis*	Fed: -- State: WL Other:	Winter migrant to California where they prefer grasslands, cultivated fields and arid areas with an abundance of prey species, such as pocket gophers, black-tailed hares, and cottontails.	Closest record is from 1988 and is 3.0 miles north of the project site (Occurrence No. 28).	None. Does not nest in California.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Peregrine falcon *Falco peregrinus*	Fed: - State: - Other:	Nests on high cliffs near wetlands, lakes, rivers, or other water; also nests on human-made structures. Nest consists of a scrape on a depression or ledge in an open site. Was formerly state and federally listed but delisted due to species recovery.	Closest record is from 2015 and is 3.0 miles east of the project site (Occurrence No. 42).	None. No suitable nesting habitat on or near the project site.
California black rail *Laterallus jamaicensis coturniculus*	Fed: -- State: CT Other:	Inhabits salt marshes bordering larger bays. Prefers tidal salt marshes of pickleweed.	Closest record is from 2011 and is 2.5 miles northwest of the project site (Occurrence No. 31).	None. No suitable habitat on the project site.
California Ridgway's rail *Rallus obsoletus obsoletus*	Fed: FE State: CE Other:	Inhabits salt water and brackish marshes with tidal sloughs in San Francisco Bay. Prefers dense pickleweed for cover, but forages for invertebrates along mud-bottomed sloughs.	Closest record is from 1989 and is 2.4 miles northwest of the project site (Occurrence No. 16).	None. No suitable habitat on the project site.
Western burrowing owl *Athene cunicularia hypugaea*	Fed: -- State: CSC Other:	Found in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Closest record is from 1989 and is 2.6 miles southeast of the project site (Occurrence No. 109).	Unlikely to nest on the project site. Preconstruction surveys will be conducted.
Salt marsh common yellowthroat *Geothlypis trichas sinuosa*	Fed: - State: CSC Other:	Resident of freshwater and salt water marshes in the San Francisco Bay region. Requires thick, continuous cover for foraging and tall grasses, tules, or willows for nesting.	Closest record is from 2004 and is 2.5 miles northwest of the project site (Occurrence No. 37).	None. No suitable habitat on the project site.
San Pablo song sparrow *Melospiza melodia samuelis*	Fed: -- State: CSC Other:	More properly known as Samuels Song Sparrow. Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the California marshes; nests in grindelia bordering slough channels.	Closest record is from 2004 and is 2.8 miles west of the project site (Occurrence No. 17).	None. No suitable habitat on the project site.

Table 4

Special-Status Wildlife Species Known Within 3 Miles of the SDG 217 Commerce Distribution Center Project Site

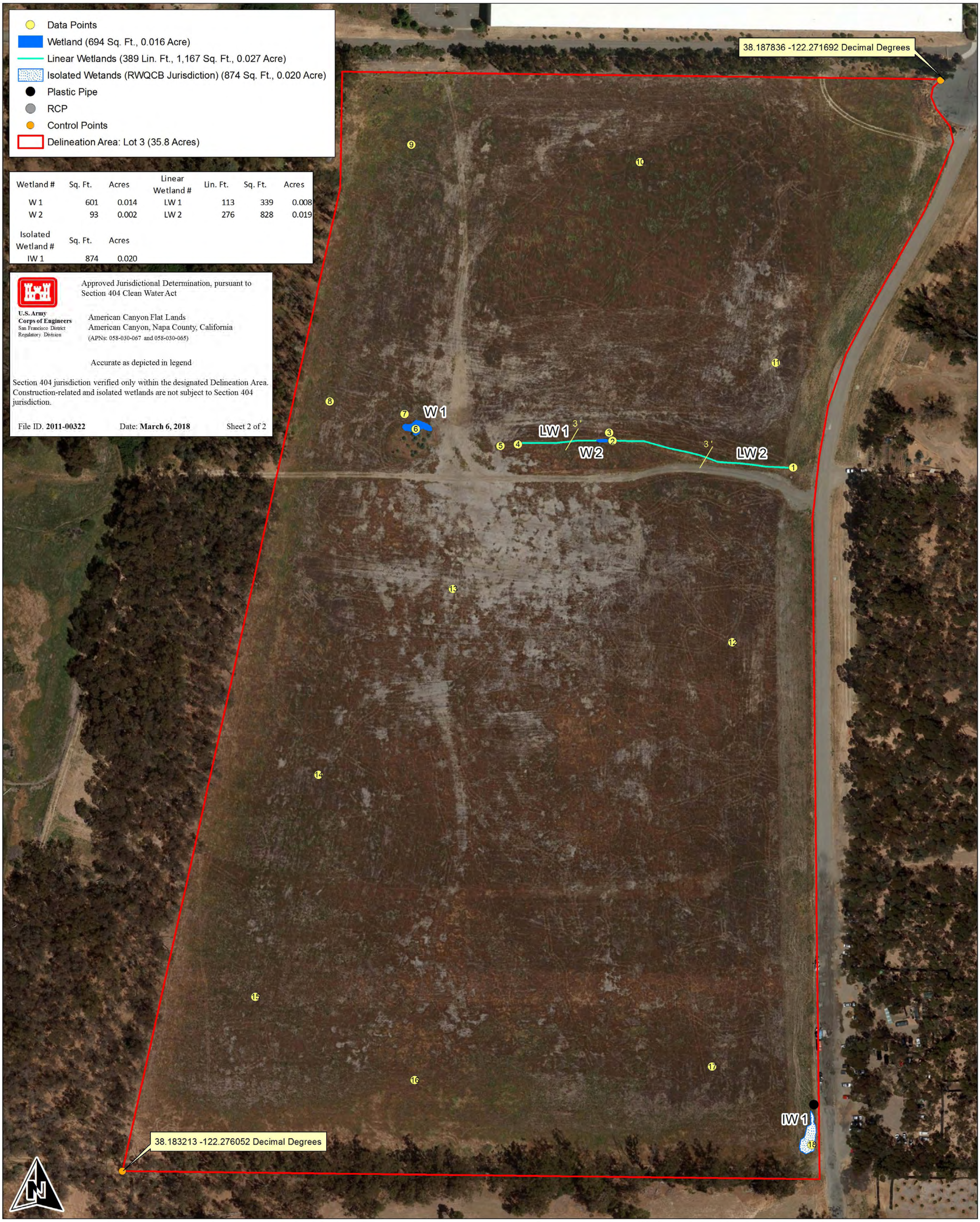
Species	*Status	Habitat	Closest Locations	Probability on Project Site
Tricolored blackbird *Agelaius tricolor*	Fed: - State: CC Other: CSC	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	Closest record is from 2014 and is 1.6 miles northeast of the project site (Occurrence No. 243).	None. No suitable nesting habitat on the project site.
Mammals				
Salt marsh harvest mouse *Reithrodontomys raviventris*	Fed: FE State: CE Other:	Inhabits saline marshes in the San Francisco Estuary. Prefers pickleweed marshes. Requires higher areas for escaping high water.	Closest record is from 1989 and is 2.4 miles south of the project site (Occurrence No. 150).	None. No suitable habitat on the project site.

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate
FPD - Federally Proposed for delisting

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CSC - California Species of Special Concern
FP - Fully Protected
WL - Watch List. Not protected pursuant to CEQA

**The USFWS hopes to finish a 12-month finding for western pond turtle in 2021 but until formally listed, it is not afforded the protections of FESA.



Wetland #	Sq. Ft.	Acres
W 1	601	0.014
W 2	93	0.002

Linear Wetland #	Lin. Ft.	Sq. Ft.	Acres
LW 1	113	339	0.008
LW 2	276	828	0.019

Isolated Wetland #	Sq. Ft.	Acres
IW 1	874	0.020

Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map
American Canyon Flat Lands, Lot 3
City of American Canyon, Napa County, California

Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

September 3, 2020

Industrial and Commercial Contractors, LP
403 W. Yosemite Avenue, Suite 105
Madera, California 93637

Attention: Mr. Brian Doswald

RE: Addendum Letter to CEQA Biology Report Discussing Proposed Borrow Site SDG Commerce 217 Distribution Center, Napa, California APN: 058-030-065-000

Dear Mr. Doswald:

1. INTRODUCTION

Monk & Associates, Inc., (M&A) has prepared this Addendum to our March 2, 2020, *Revised Biological Resource Analysis* (biology report) for the SDG Commerce 217 Distribution Center located in the City of American Canyon, California (the "project site"). Since the time M&A prepared our biology report for the project site, it has been determined that it will be necessary to acquire soil from the adjacent parcel to the south (the "borrow area parcel") and transport this soil for use as clean fill on the project site. M&A has prepared this Addendum to our biology report to address the transportation of soil from the offsite borrow area parcel onto the project site and to analyze any affects this activity could have on mapped jurisdictional waters of the United States/State that lie inbetween the project site and the adjacent borrow area parcel. Mapped waters of the United States are shown on the attached exhibits.

2. DESCRIPTION OF THE PROJECT SITE AND ADJACENT BORROW AREA PARCEL

The project site and the adjacent borrow area parcel were once part of a contiguous approximately 35-acre project site that M&A conducted surveys on over multiple years dating between 2006 and 2018. Both the project site and adjacent borrow area parcel are dominated by ruderal (weedy) vegetation including stinkwort (*Dittrichia graveolens*), Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common vetch (*Vicia sativa*), red-stem filaree (*Erodium cicutarium*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), California burclover (*Medicago polymorpha*), and cut-leaf geranium (*Geranium dissectum*). These non-native, weedy species provide little habitat value to wildlife and they do not constitute a native plant community. Native, coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a plant that responds to land disturbances, is also common on the 35 acres. Ruderal vegetation is the only vegetation community found on the project site. The adjacent borrow area parcel, however, in addition to supporting a ruderal herbaceous community also supports waters of the United States, as described below.

On May 16, 2018, the U.S. Army Corps of Engineers issued a jurisdictional determination confirming their jurisdiction over 0.043-acre of waters of the U.S. on the approximately 35-acre

parcel that comprises the project site, the adjacent borrow area parcel, and another property now known as 330 Commerce Center (see attached exhibits). The entire 0.043-acre of waters of the U.S. confirmed by the Corps is found on the adjacent borrow area parcel as shown on the attached exhibit "Borrow Site Rough Grading," Sheet 1 prepared by RSA on August 21, 2020. There are no waters of the United States or State on the project site.

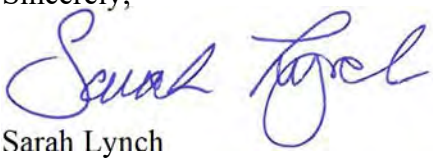
3. DISCUSSION OF PROPOSED ACTIVITIES AND AVOIDANCE OF IMPACTS TO MAPPED WATERS OF THE UNITED STATES

The project applicant intends to rough grade the borrow area parcel and transport soil from that parcel onto the project site for use in development of the project site. In order to protect the waters of the United States/State that occur in between the project site and the borrow area parcel, a 25-foot buffer area around the outside edge of the wetlands will be staked and protected with fiber roll, silt fencing and high visibility orange construction fencing to prevent equipment from driving into the wetlands during hauling activities. See the attached exhibit.

With these protection measures in place, as shown on the attached Borrow Site Rough Grading exhibit, Sheet 1, attached, *there are no expected impacts to waters of the U.S./State from the transport of soil/materials from the borrow area parcel to the project site*.

This concludes our addendum to our biology report. If you have any questions or require additional information, please do not hesitate to contact me at (925) 323-4850 or Sarah@monkassociates.com. Thank you.

Sincerely,



Sarah Lynch
Senior Associate Biologist

Attachments: U.S. Army Corps of Engineers Confirmed Aquatic Resources Delineation Map;
Sheet 1, Borrow Site Rough Grading prepared by RSA, August 21, 2020

GRAPHIC SCALE

60 0 60 120

(IN FEET)
1 inch = 60 FT

14,880± CU. YD. STOCKPILE

11.9 RG/CONF

12.2 RG/CONF

23,919± CU. YD. STOCKPILE

46,700 CU. YD. BORROW SITE INCLUSIVE OF STOCKPILES - FINE GRADE AS REQUIRED TO PROVIDE POSITIVE DRAINAGE - NO LOW SPOTS.

13.5 RG/CONF

(E) 1.7%

16.0 RG/TC/CONF

INSTALL FIBER ROLL, SILT FENCE, AND ORANGE CONSTRUCTION FENCE AT 25' BUFFER FROM MAPPED WETLAND

COMMERCE 330 DISTRIBUTION CENTER - UNDER SEPARATE PERMIT

0.6%

0.4%

10:1 SLOPE

20' WIDE HAUL ROAD

1.9%

(E) 1.7%

(P) COMMERCE 217 DISTRIBUTION CENTER

2.3%

16.0 RG/TC

25.0 RG

5:1 SLOPE

INSTALL FIBER ROLL, SILT FENCE, AND ORANGE CONSTRUCTION FENCE AT 25' BUFFER FROM MAPPED LINEAR WETLAND

COMMERCE COURT EXTENSION - UNDER SEPARATE PERMIT

NO.	DATE	REVISIONS	BY	APPD

RSA+
1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE | 707 | 252.2301
+ www.RSAcivil.com +
RSA+ | CONSULTING CIVIL ENGINEERS + SURVEYORS + | (936)

SDG COMMERCE 217 DISTRIBUTION CENTER
BORROW SITE ROUGH GRADING

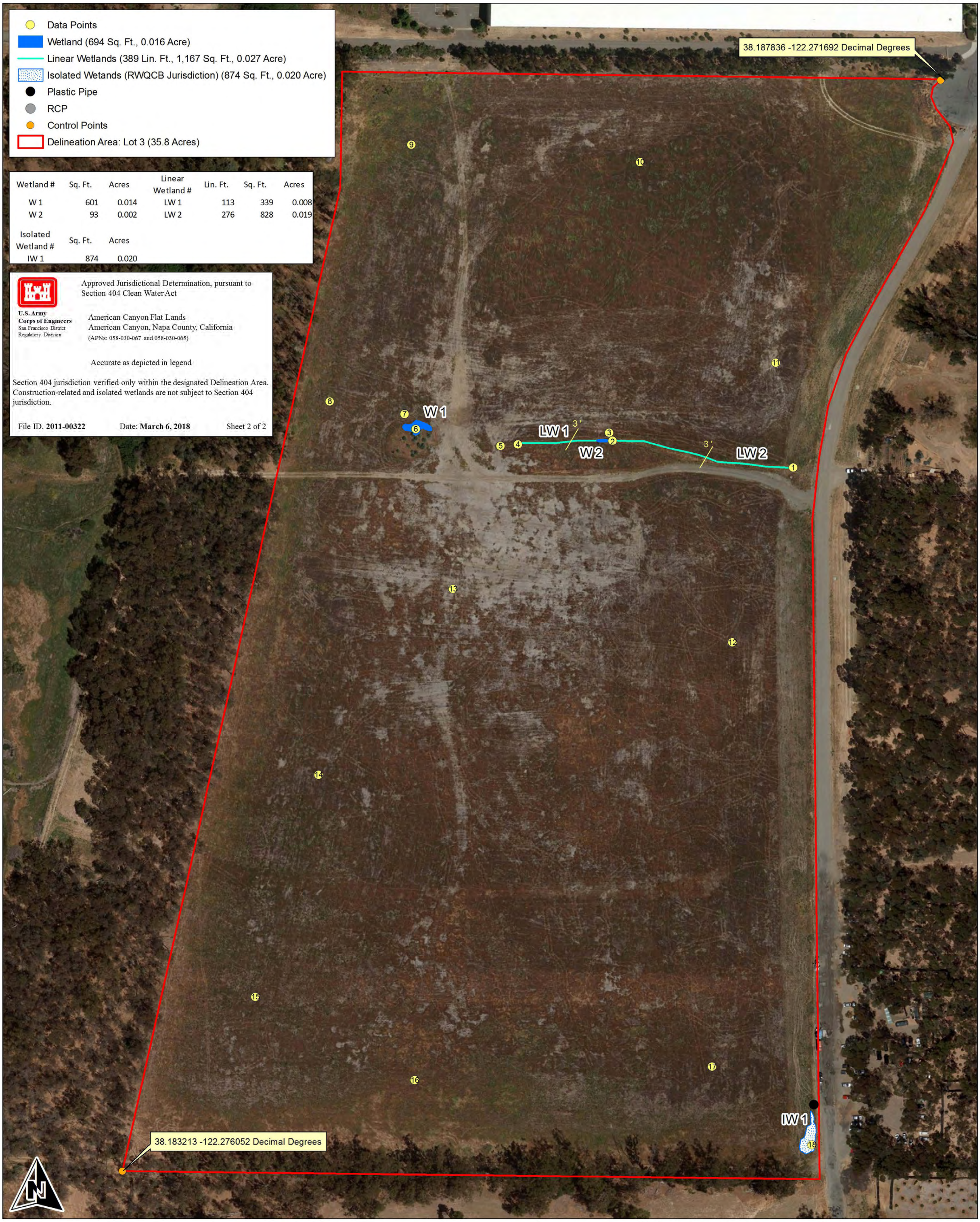
AMERICAN CANYON CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER PAUL SARGENT WANNOP No. 82758 Exp. 9-30-20 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	AUG. 21, 2020
DRAWN	DRL
DESIGNED	DRL
CHECKED	PSW
JOB NO.	4114037.0

SHEET NO.
1
1 OF 1 SHEETS

PRELIMINARY - NOT FOR CONSTRUCTION



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IW 1	874	0.020

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Sheet 2. Confirmed Reverification Aquatic Resources Delineation Map
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Corps Verification Date: May 18, 2017
Confirmed by Bryan Matsumoto
Delineation Conduced by: Hope Kingma & Devin Jokerst
Aerial Photograph Source: ESRI
Map Revision Date: May 22, 2017

Appendix D

Geologic Report

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED SDG COMMERCE 217
DISTRIBUTION CENTER
1075 COMMERCE COURT
AMERICAN CANYON, CALIFORNIA

PROJECT NO. 032-19032
DECEMBER 9, 2019

Prepared for:

MR. BRIAN DOSWALD
INDUSTRIAL AND COMMERCIAL CONTRACTORS, L.P.
413 W. YOSEMITE AVENUE, SUITE 105
MADERA, CALIFORNIA 93637

Prepared by:

KRAZAN & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING DIVISION
4320 ORANGE GROVE AVENUE, SUITE E-F
SACRAMENTO, CALIFORNIA 95841
(916) 564-2200

Krazan & ASSOCIATES, INC.
SITE DEVELOPMENT ENGINEERS

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

December 9, 2019

KA No. 032-19032

Mr. Brian Doswald
Industrial and Commercial Contractors, L.P.
413 W. Yosemite Avenue, Suite 105
Madera, California 93637

RE: Geotechnical Engineering Investigation
Proposed SDG Commerce 217 Distribution Center
1075 Commerce Court
American Canyon, California

Dear Mr. Doswald:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above-referenced site. The results of our investigation are presented in the attached report.

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at or (916) 564-2200.

REGISTERED PROFESSIONAL ENGINEER
DAVID R. JAROSZ II
NO. 2698
EXP. 6/30/2020
GEOTECHNICAL
STATE OF CALIFORNIA

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

DRJ:ht

TABLE OF CONTENTS

December 9, 2019 KA Project No. 032-19032

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED SDG COMMERCE 217 DISTRIBUTION CENTER
1075 COMMERCE COURT
AMERICAN CANYON, CALIFORNIA

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed SDG Commerce 217 Distribution Center to be located at Commerce Court near Eucalyptus Drive in American Canyon, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, Engineered Fill, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior flatwork, retaining walls, pavement design and soil cement reactivity.

A site plan showing the approximate boring locations is presented following the text of this report. A description of the field investigation, boring logs, and the boring log legend are presented in Appendix A. Appendix A contains a description of the laboratory-testing phase of this study, along with the laboratory test results. Appendices B and C contain guides to earthwork and pavement specifications. When conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE

This investigation was conducted to evaluate the soil and groundwater conditions at the site, to make geotechnical engineering recommendations for use in design of specific construction elements, and to provide criteria for site preparation and Engineered Fill construction.

Our scope of services was outlined in our proposal dated October 14, 2019 (KA Proposal P641-19) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- A field investigation consisting of drilling 24 borings to depths ranging from approximately 10 to 50 feet for evaluation of the subsurface conditions at the project site.
- Performing laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

- Evaluation of the data obtained from the investigation and an engineering analysis to provide recommendations for use in the project design and preparation of construction specifications.

- Preparation of this report summarizing the results, conclusions, recommendations, and findings of our investigation.

PROPOSED CONSTRUCTION

We understand that design of the proposed development is currently underway; structural load information and other final details pertaining to the structures are unavailable. On a preliminary basis, it is understood that development will include the construction of an approximately 217,000 square foot distribution center building. It is anticipated the building will be a single-story concrete tilt-up structure utilizing concrete slab-on-grade construction. Foundation loads are anticipated to be light to moderate. On-site paved areas and landscaping are also planned for the development of the project.

In the event, these structural or grading details are inconsistent with the final design criteria, the Soils Engineer should be notified so that we may update this writing as applicable.

SITE LOCATION, SITE HISTORY AND SITE DESCRIPTION

The site is rectangular in shape encompasses approximately 10.39 acres. The site is located approximately 0.4 miles north of Eucalyptus Drive, just west of Commerce Court Extension in American Canyon, California. The site has a street address of 1075 Commerce Court. The site is surrounded by agricultural land, groves of trees and industrial developments.

Site history was obtained by reviewing historical aerial photographs taken in 1948, 1982, 1993, 2002, 2005, 2012 and 2018. Review of the 1948 aerial photograph indicates that the project site was occupied by a grove of trees. Commerce Boulevard Extension trended north-south along the eastern edge of the site. The land to the north was vacant. Land to the south, east and west were occupied by groves of trees. A stream trending north-south was located west of the project site.

Review of the 1982 and 1993 aerial photographs indicate that the project site conditions appeared to be relatively similar to that noted in the 1948 aerial photograph. The northwest portion of the site had been cleared of trees.

Review of the 2002 aerial photograph indicates that the project site conditions appeared to be relatively similar to that noted in the 1993 aerial photograph. A parking area and access road were located at the clearing in the northwest corner. Land further north of the site was developed with an industrial warehouse.

Review of the 2005 aerial photograph indicates that the project site conditions appeared to be relatively similar to that noted in the 2002 aerial photograph. Land immediately north of the site was developed with an industrial warehouse. The section of Commerce Boulevard Extension bordering the project site was realigned to connect to new Commerce Boulevard, resulting in an enlarged project site.

Review of the 2012 and 2018 aerial photograph indicates that the project site and the land to the south had been cleared of the trees and were vacant.

Presently, the site predominately consists of vacant land. Some grading activities had been performed throughout the site. Several stockpiles of rocks are located in the northeast corner of the site. The surface soils have a loose consistency and contain a moderate amount of grass and weeds. Trees border the site to the north and west. Commerce Boulevard Extension is a gravel road and borders the site to the east. Buried utility lines may be located along Commerce Boulevard Extension along the eastern edge of the site. The site gently slopes from east to west with approximately 20 to 23 feet in grade change across the site.

GEOLOGIC SETTING

The subject site is located in the north-eastern portion of the San Francisco Bay Region, within the Coast Ranges Geomorphic Province of California. The Coast Range Geomorphic Province borders the Coast of California and generally consists, more or less, of a discontinuous series of northwesterly/southeasterly trending mountain ranges, ridges, and intervening valleys characterized by intense, complex folding and faulting. The ridges are most often comprised of granitic, metavolcanic, and metasedimentary rocks. Numerous northwest to southeast trending faults parallel the trend of the Coast Ranges.

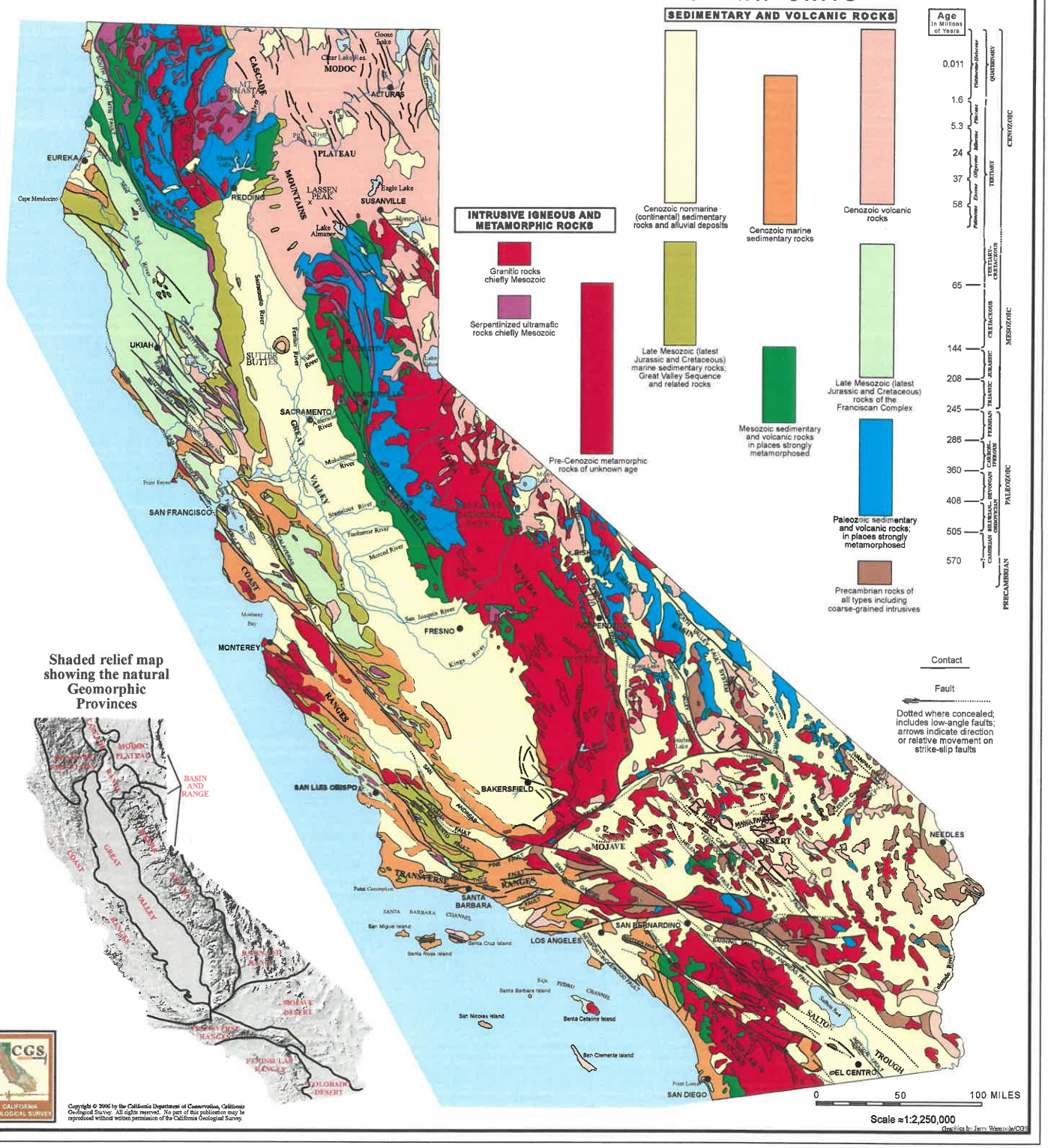
The project site is located in a seismically active region, which is situated on a tectonic plate boundary marked by the San Andreas Fault System and several northwest trending active and potentially active faults. The site is in close proximity to several major faults, including the West Napa, Green Valley, Hayward-Rodgers Creek, Mount Diablo Thrust, Calaveras, and San Andreas faults located approximately 0.8 miles west, 8.0 miles east, 11 miles west, 24 miles south, 29 miles southeast, and 30 miles west of the site, respectively. Although the site is in close proximity to several faults, the site is not within a State of California Earthquake Fault Zone or Special Study Zone for faulting. The site is located approximately 3,200 feet west of the West Napa Fault and 600 feet from the California Earthquake fault zone for the West Napa Fault. The site is not located on a State of California Seismic Hazard Zone Map.

The probability of one or more earthquakes of magnitude 6.7 (Richter scale) or higher occurring in the San Francisco Bay Area within a 30-year period of time is evaluated by the U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities on a periodic basis. The result of the 2008 evaluation indicated a 63 percent likelihood that such an earthquake event will occur in the Bay Area between 2007 and 2036 (USGS 2008). The faults with the greater probability of a magnitude 6.7 or higher earthquake are the Hayward fault at 31 percent and the San Andreas fault at 21 percent.

Based on published geologic maps of the area the near-surface deposits in the vicinity of the subject site are indicated to be comprised of late Pleistocene to Holocene fan deposits of sand, gravel, silt and clay that are moderately to poorly sorted and moderately to poorly bedded. The site is located at an elevation of approximately 20 feet above sea level. Groundwater in the vicinity of the site is typically encountered at depths of approximately 11 to 25 feet.

SIMPLIFIED GEOLOGIC MAP OF CALIFORNIA

CORRELATION OF MAP UNITS



Graphics by Jerry Wemple/CGS

FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling 24 borings to depths ranging from approximately 10 to 50 feet below existing site grade, using a truck-mounted drill rig. In addition, 3 bulk subgrade samples were obtained from the site for laboratory R-value testing. The approximate boring and bulk sample locations are shown on the site plan. During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the subsoils. Soil samples were retained for laboratory testing. The soils encountered were continuously examined and visually classified in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, gradation, shear strength, consolidation potential, expansion potential, plasticity, R-value and moisture density relationships of the materials encountered. In addition, chemical tests were performed to evaluate the soil-cement reactivity. Details of the laboratory test program and results of the laboratory test are summarized in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the upper soils consisted of approximately 6 to 12 inches of very loose clayey sand and sandy clay. These soils are disturbed, have low strength characteristics and are highly compressible when saturated.

Beneath the loose surface soils, approximately 7 to 13½ feet of loose to dense clayey sand or stiff to hard sandy clay and silty clay were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. The clayey soils had a moderate to high potential for expansion. Penetration resistance ranged from 16 blows per foot to greater than 50 blows per 6 inches. Dry densities ranged from 100 to 132 pcf. Representative soil samples swelled approximately 1 to 1½ percent under a 2 ksf load when saturated. Representative soil samples had angles of internal friction between 16 and 18 degrees. Representative samples of the clayey soil had expansion indices between 77 and 102.

Below 8 to 14½ feet, alternating layers of predominately stiff to hard silty clay or medium dense clayey sand, clayey sand/sandy clay, sandy silt, silty sand, and sandy silt were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. Penetration resistance ranged from 9 to 52 blows per foot. Dry densities ranged from 88 to 121 pcf. These soils had slightly stronger strength characteristics than the upper soils and extended to the termination depth of our borings.

For additional information about the soils encountered, please refer to the logs of borings in Appendix A.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. The historic high groundwater depth for the region was determined to be 10 feet below existing site grade, based on the State of California Department of Water Resources data from 3 wells within 1.5 miles of the site. However, free groundwater was encountered between depths of 9 and 22 feet during our subsurface investigation.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, and climatic conditions, as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

SOIL LIQUEFACTION

Soil liquefaction is a state of soil particle suspension, caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs in soils, such as sands, in which the strength is purely frictional. However, liquefaction has occurred in soils other than clean sands. Liquefaction usually occurs under vibratory conditions, such as those induced by seismic events.

To evaluate the liquefaction potential of the site, the following items were evaluated:

1) Soil type

2) Groundwater depth

3) Relative density

4) Initial confining pressure

5) Intensity and duration of groundshaking

The predominant soils within the project site consist of alternating layers of silty clays, clayey sands, clayey sand/sandy clay and sandy clays. Groundwater was encountered at depths as shallow as 9 feet below existing site grade during our exploratory drilling. Information obtained from the Department of Water Resources indicated that water wells had historic groundwater elevations as shallow as 10 feet below existing site grade within the project site vicinity.

The potential for soil liquefaction during a seismic event was evaluated using the LIQUEFYPRO computer program (version 5.8h) developed by CivilTech Software. For the analysis, a maximum earthquake magnitude of 6.9 was used. A peak horizontal ground surface acceleration of 0.687g was considered conservative and appropriate for the liquefaction analysis. An estimated high groundwater

depth of 9 feet was used for our analysis. The computer analysis indicates that soils above a depth of 9 feet are non-liquefiable due to the absence of groundwater. The soils below a depth of 9 feet have a slight to very low potential for liquefaction under seismic shaking due to predominately medium dense/stiff to very dense/hard sandy and clayey soils. The analysis also indicates that the total and differential seismic induced settlement is not anticipated to exceed 1 and ⅔ inch, respectively. Accordingly, measures to mitigate liquefaction potential are not necessary.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following is a summary of our evaluations, conclusions, and recommendations.

Administrative Summary

In brief, the subject site and soil conditions, with the exception of the loose surface soils, expansive nature of the clayey soils, and previous development, appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated. Accordingly, it is recommended that the surface soils be recompacted. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

The site was previously utilized as agricultural land consisting of orchards. In addition, several dirt access roads trend throughout the site. Associated with these developments may be buried structures, such as utility lines and irrigation lines that extend into portions of the project site. Demolition activities should include proper removal of any buried structures. Any surface or buried structures, including utilities or loosely backfilled excavations, encountered during construction should be properly removed and the resulting excavations backfilled with Engineered Fill. It is suspected that demolition activities of the existing structures will disturb the upper soils. After demolition activities it is recommended that these disturbed soils be removed and/or recompacted. This compaction effort should stabilize the upper soils and locate any unsuitable or pliant areas not found during our field investigation.

It is recommended that following stripping and fill removal operations, the upper 12 inches of soil within the proposed building areas be excavated worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. In addition, in order to reduce the potential for differential settlement, it is recommended that the proposed structure foundations be supported by a minimum of 24 inches of Engineered Fill. Over-excavation should extend to a minimum of 5 feet beyond structural elements. The on-site, native soils and fill material will be suitable for reuse as Engineered Fill, provided they are cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Prior to backfilling, the bottom of the excavation should be proof rolled and observed by Krazan & Associates, Inc. to verify stability. This

compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation. Fill material should be compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

The upper soils within the site are predominately clayey sands and sandy clays. These soils appeared to have a moderate to high swell potential. The estimated swell pressures of the clayey soils may cause minor movement effecting slabs and possible stucco or similar brittle exterior finishes. To reduce potential soil movement, it is recommended the upper 30 inches of soil within slab-on-grade and adjacent exterior flatwork areas consist of 24 inches of non-expansive Engineered Fill overlain by 6 inches of Class 2 aggregate base. During construction, it is recommended that additional tests should be performed on the on-site soils to verify their physical and index properties.

As an alternative to the use of non-expansive soils, the upper 30 inches of soil supporting the slab areas can consist of lime-treated clayey soils. The lime-treated soils should be recompacted to a minimum of 90 percent of maximum density. Preliminary application rate of lime should be 5 percent by dry weight. The lime material should be calcium oxide, commonly known as quick-lime. The clayey soils should be above optimum moisture during the mixing operations.

Sidewalks not located adjacent to the buildings may be supported on 4 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density. Prior to placing the aggregate base, the subgrade soils should be excavated/scarified to a minimum depth of 12 inches, moisture-conditioned to a minimum of 3 percent above optimum moisture content and compacted to between 90 and 95 percent of maximum density based on ASTM Test Method D1557. As an alternative, the aggregate base can be placed over 12 inches of lime-treated subgrade. The Owner should be aware some movement of the sidewalks may occur which could result in cracking and vertical offsets.

Buried utility lines are located along Commerce Boulevard Extension on the east side of the site and may extend into the site. Demolition activities should include proper removal of any buried structures. Any buried structures encountered during construction should be properly removed and the resulting excavations cleaned to firm native ground and backfilled with Engineered Fill. Disturbed areas caused by demolition activities should be removed and/or recompacted.

Tree removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be cleaned to firm native ground and backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

A bioretention/detention pond is included in the project plans. The biorention/detention pond should be located at least 50 feet from the structure. Alternatively, the pond can be lined.

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structure footings may be designed utilizing an allowable bearing pressure of 3,000 psf for dead-plus-live loads. Footings should have a minimum embedment of 18 inches.

Groundwater Influence on Structures/Construction

During our field investigations, groundwater was encountered at depths of 9 to 22 feet below site grade. Therefore dewatering and/or waterproofing may be required should structures or excavations extend below the groundwater table. If groundwater is encountered, our firm should be consulted prior to dewatering the site. Installation of a standpipe piezometer is suggested prior to construction should groundwater levels be a concern.

In addition to the groundwater level, if earthwork is performed during or soon after periods of precipitation, the subgrade soils may become saturated, "pump," or not respond to densification techniques. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material; or mixing the soil with an approved lime or cement product. Our firm should be consulted prior to implementing remedial measures to observe the unstable subgrade conditions and provide appropriate recommendations.

Site Preparation

General site clearing should include removal of vegetation; concrete and metal debris; existing utilities; structures including foundations; basement walls and floors; existing stockpiled soil; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 to 4 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for use as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas.

The site is surrounded by agricultural land, groves of trees and industrial developments. Associated with these developments are buried structures such, as utility lines that are located along the edges of the site and within the project site vicinity. Demolition activities should include proper removal of any buried structures. Any buried structures encountered during construction should be properly removed and/or relocated and the resulting excavations backfilled. Excavations, depressions, or soft and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. In general, any septic tanks, debris pits, cesspools, or similar structures should be entirely removed. Concrete footings should be removed to an equivalent depth of at least 3 feet below proposed footing elevations or as recommended by the Soils Engineer. Any other buried structures should be removed in accordance with the recommendations of the Soils Engineer. The resulting excavations should be backfilled with Engineered Fill.

The site was previously occupied by a eucalyptus grove. Tree root removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

It is recommended that following stripping, tree removal operations and fill removal operations, the upper 12 inches of native soils within the proposed building areas be excavated, worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. In addition, it is recommended that the proposed structure foundations be supported by a minimum of 24 inches of Engineered Fill. Over-excavation should extend to a minimum of 5 feet beyond structural elements. The on-site, native soil and fill material will be suitable for reuse as Engineered Fill, provided it is cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Prior to backfilling, the bottom of the excavation should be proof rolled and observed by Krazan & Associates, Inc. to verify stability. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation. Fill material should be compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Following stripping and fill removal operations, the exposed subgrade in exterior flatwork and pavement areas should be excavated/scarified to a minimum depth of 12 inches, worked until uniform and free from large clods, moisture-conditioned to a minimum of 2 percent above optimum moisture content, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. Limits of recompaction should extend 3 feet beyond structural elements. This compaction effort should stabilize the surface soils and located any unsuitable or pliant areas not found during our field investigation.

It is recommended that the upper 30 inches of soil within proposed slab-on-grade and adjacent exterior flatwork areas consist of non-expansive or lime-treated Engineered Fill. The intent is to support slab-on-grade and exterior flatwork areas with 24 inches of non-expansive or lime-treated fill, overlain by 6 inches of compacted Class 2 aggregate base. Alternatively, the upper 30 inches may consist of lime-treated Engineered Fill. The fill placement serves two functions: 1) it provides a uniform amount of soil, which will more evenly distribute the soil pressures and 2) it reduces moisture content fluctuation in the clayey material beneath the building area. The non-expansive fill material should be a well-graded silty sand or sandy silt soil. A clean sand or very sandy soil is not acceptable for this purpose. A sandy soil will allow the surface water to drain into the expansive clayey soil below, which may result in soil swelling. Imported Fill should be approved by the Soils Engineer prior to placement. The fill should be placed as specified as Engineered Fill. In addition, it is recommended conventional foundations and slabs be nominally reinforced to reduce cracking and vertical offsets.

Sidewalks not located adjacent to the buildings may be supported on 4 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density. Prior to placing the aggregate base, the subgrade soils should be excavated/scarified to a minimum depth of 12 inches, moisture-conditioned to a minimum of 3 percent above optimum moisture content and compacted to between 90 and 95 percent

of maximum density based on ASTM Test Method D1557. As an alternative, the aggregate base can be placed over 12 inches of lime-treated subgrade. The Owner should be aware some movement of the sidewalks may occur which could result in cracking and vertical offsets.

The upper soils, during wet winter months, become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

A bioretention/detention pond is included in the project plans. The biorention/detention pond should be located at least 50 feet from the structure. Alternatively, the pond can be lined.

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Soils Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the Engineered Fill section.

Engineered Fill

The organic-free, on-site, upper native soils and fill material are predominately clayey sand, sandy clay, and silty clay. These clayey soils will not be suitable for re-use as non-expansive Engineered Fill. These clayey soils will be suitable for reuse for fill placement within the upper 30 inches of slab-on-grade and adjacent exterior flatwork areas, provided they are lime-treated. The preliminary application rate of lime should be 5 percent by dry weight. The lime material should be calcium oxide, commonly known as quick-lime. The clayey soils should be at or near optimum moisture-condition during mixing operations. Additional testing is recommended to determine the appropriate application rate of lime prior to placement. These clayey soils will be suitable for reuse as General Engineered Fill, provided they are cleansed of excessive organics, debris, and moisture-conditioned to at least 2 percent above optimum moisture. It is recommended that additional testing be performed on the on-site soils and fill material to evaluate the physical and index properties prior to reuse as Engineered Fill.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since he has complete control of the project site at that time.

Imported Fill material should be predominately non-expansive granular material with a plasticity index less than 10 and a UBC Expansion Index less than 15. Imported Fill should be free from rocks and lumps greater than 4 inches in diameter. All Imported Fill material should be submitted for approval to the Soils Engineer at least 48 hours prior to delivery to the site.

The Contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The Contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

Foundations

The proposed structure may be supported on a shallow foundation system bearing on a minimum of 30 inches of Engineered Fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures:

Load	Allowable Loading
Dead Load Only	2,250 psf
Dead-Plus-Live Load	3,000 psf
Total Load, Including Wind or Seismic Loads	4,000 psf

The footings should have a minimum depth of 18 inches below pad subgrade (soil grade) or adjacent exterior grade, whichever is lower. Footings should have a minimum width of 12 inches, regardless of load. Ultimate design of foundations and reinforcement should be performed by the project Structural Engineer. A modulus of subgrade reaction of 35 pci can be used for the on-site soils.

The total soil movement is not expected to exceed 1 inch. Differential movement measured across a horizontal distance of 40 feet should be less than 1 inch. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

The footing excavations should not be allowed to dry out any time prior to pouring concrete. It is recommended that footings be reinforced by at least one No. 4 reinforcing bar in both top and bottom.

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.3 acting between the base of foundations and the supporting subgrade. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 250 pounds per cubic foot acting against the appropriate vertical footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A ⅓ increase in the above value may be used for short duration, wind, or seismic loads.

Floor Slabs and Exterior Flatwork

In areas that will utilize moisture-sensitive floor coverings, concrete slab-on-grade floors should be underlain by a water vapor retarder. The water vapor retarder should be installed in accordance with accepted engineering practice. The water vapor retarder should consist of a vapor retarder sheeting underlain by a minimum of 3 inches of compacted, clean, gravel of ¾-inch maximum size. To aid in concrete curing an optional 2 to 4 inches of granular fill may be placed on top of the vapor retarder.

The granular fill should consist of damp clean sand with at least 10 to 30 percent of the sand passing the 100 sieve. The sand should be free of clay, silt, or organic material. Rock dust which is manufactured sand from rock crushing operations is typically suitable for the granular fill. This granular fill material should be compacted. Floor slabs subject to forklift traffic should be underlain by a minimum of 2 inches of Class 2 aggregate base compacted to a minimum of 95 percent of maximum density based on ASTM Test Method D1557. Slabs can be designed utilizing a modulus of subgrade reaction of 100 pci.

The floor slab should be a minimum of 6 inches thick and reinforced at a minimum with No. 4 reinforcement bars at 24 inches on-center each way within the middle one-third. Thicker floor slabs with increased concrete strength and reinforcement should be designed wherever large vehicular loads, heavy concentrated loads, heavy equipment, or machinery is anticipated.

The exterior floors should be poured separately in order to act independently of the walls and foundation system. All fills required to bring the building pads to grade should be Engineered Fills.

Moisture within the structure may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor can travel through the vapor membrane and penetrate the slab-on-grade. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structure. To reduce moisture vapor intrusion, it is recommended that a vapor retarder be installed. It is recommended that the utility trenches within the structure be compacted, as specified in our report, to reduce the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the building is recommended. Positive drainage should be established away from the structure and should be maintained throughout the life of the structure. Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed. In addition, ventilation of the structure (i.e. ventilation fans) is recommended to reduce the accumulation of interior moisture.

Lateral Earth Pressures and Retaining Walls

Walls retaining horizontal backfill and capable of deflecting a minimum of 0.1 percent of its height at the top may be designed using an equivalent fluid active pressure of 50 pounds per square foot per foot of depth. Walls that are incapable of this deflection or walls that are fully constrained against deflection may be designed for an equivalent fluid at-rest pressure of 70 pounds per square foot per foot per depth. Expansive soils should not be used for backfill against walls. The wedge of non-expansive backfill material should extend from the bottom of each retaining wall outward and upward at a slope of 2:1 (horizontal to vertical) or flatter. The stated lateral earth pressures do not include the effects of hydrostatic water pressures generated by infiltrating surface water that may accumulate behind the retaining walls; or loads imposed by construction equipment, foundations, or roadways. All of the above earth pressures are unfactored and are, therefore, not inclusive of factors of safety.

Retaining and/or below grade walls should be drained with either perforated pipe encased in free-draining gravel or a prefabricated drainage system. The gravel zone should have a minimum width of 12 inches wide and should extend upward to within 12 inches of the top of the wall. The upper 12 inches of backfill should consist of native soils, concrete, asphaltic concrete or other suitable backfill to

of these recommendations is incorporated into the project design and construction. Krazan & Associates, Inc. will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using the most appropriate and most current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Soils Engineering, physical changes in the site, either due to excavation or fill placement, new agency regulations, or possible changes in the proposed structure after the soils report is completed may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that 2 years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations may be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations may be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation with the purpose of evaluating the soil conditions in terms of foundation design. The scope of our services did not include any Environmental Site Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands. Any statements, or absence of statements, in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (916) 564-2200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

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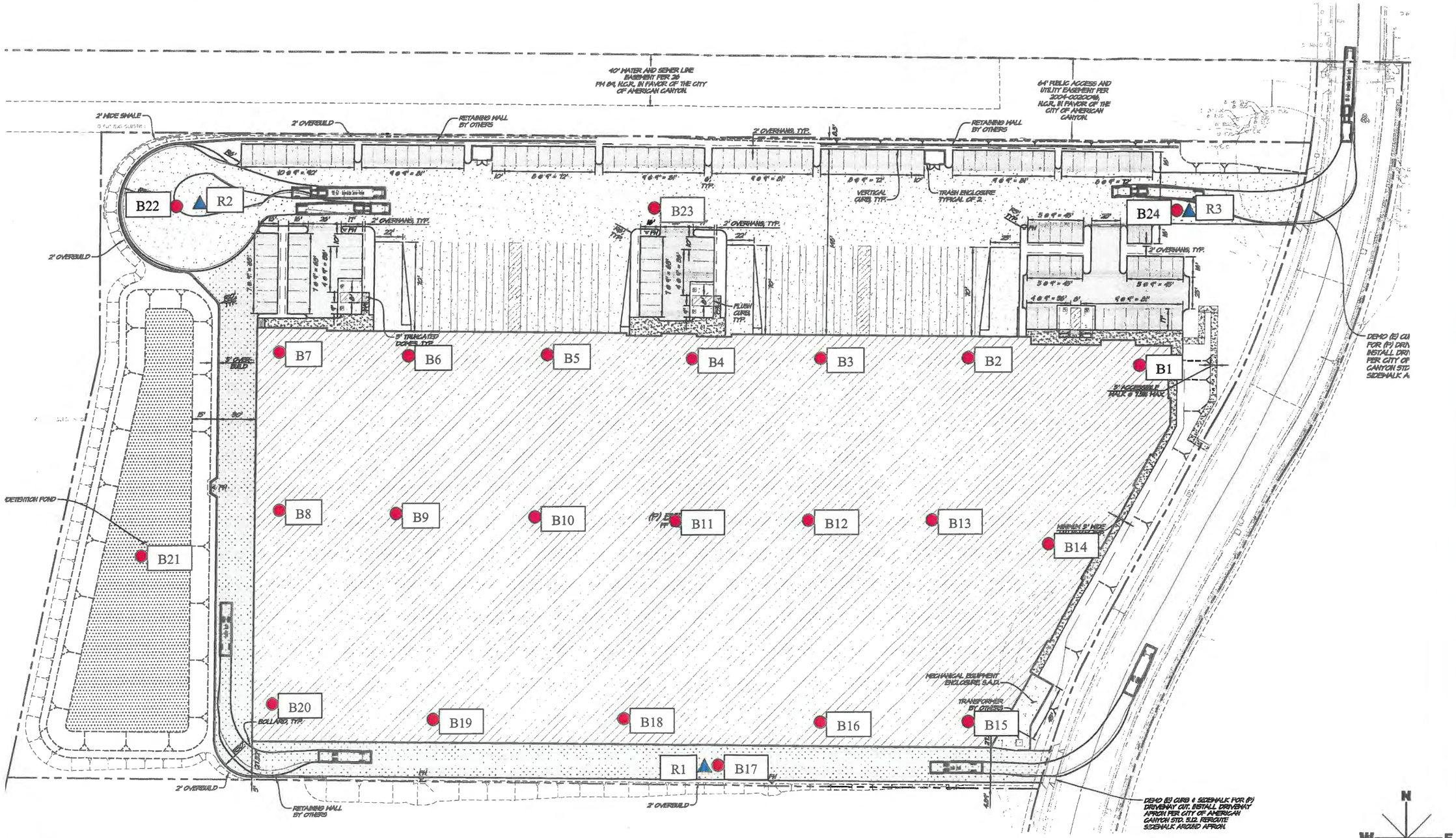

APPROXIMATE BORING LOCATION

APPROXIMATE R-VALUE LOCATION

SITE MAP	Scale: NTS	Date: December 2019	Krazan GEOTECHNICAL ENGINEERING
Commerce 217 Distribution Center 1075 Commerce Court American Canyon, California	Drawn by: HT	Approved by: DJ	
	Project No. 032-19032	Figure No. 1	

Appendix E

Noise Appendices

American Canyon SDG Commerce 217

Wine Storage Project Noise Appendix

Technical Information

Site 1 – 24-Hour Noise Plots (3 pages)

Noise Measurement Locations Figure

NOISE APPENDIX

Noise Descriptors

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the "loudness" of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Decibels are measured using different scales, and it has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A–weighted sound level over a given time period (Leq)[1]; day–night 24-hour average sound level (Ldn)[2] with a nighttime increase of 10 dB to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL)[3], also a 24-hour average that includes both an evening and a nighttime sensitivity weighting.

Table 1 identifies decibel levels for common sounds heard in the environment.

Noise Attenuation

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling because they have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and therefore have less attenuation (6.0 dB per doubling). A street or roadway with moving vehicles (known as a "line" source), would typically attenuate at a lower rate, approximately 3 to 4.5 dB each time the distance doubles from the source, which also depends on ground absorption (Caltrans, 1998b). Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, will increase the attenuation that occurs by distance alone.

Temporary Construction Noise

The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. **Table 2** shows typical noise levels from construction equipment. **Table 3** shows noise levels from construction activities, which typically range from 81 to 88 dB Leq at 50 feet, depending on the construction phase.

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[1]The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time–varying sound energy in the measurement period.

[2]Ldn is the day–night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

[3]CNEL is the average A-weighted noise level during a 24-hour day, obtained by addition of 5 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10–decibel penalty in the night between 10:00 p.m. and 7:00 a.m.

Table 1: Typical Noise Levels

Noise Level (dB)	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock Band
80–90	Diesel truck at 50 feet	Loud television at 3 feet
70–80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60–70	Commercial area	Normal speech at 3 feet
40–60	Quiet urban daytime, traffic at 300 feet	Large business office, dishwasher next room
20–40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10–20		Broadcast / recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: modified from Caltrans, 1998a

Groundborne Vibration

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment at a distance of 25 feet are summarized in **Table 4**. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in structural damage. For most structures, a peak particle velocity (PPV) threshold of 0.5 inches per second (in/sec) or less is sufficient to avoid structural damage. The Federal Transit Administration recommends a PPV threshold of 0.5 in/sec for residential and commercial structures, 0.25 in/sec for historic buildings and archaeological sites, and 0.2 in/sec for non-engineered timber and masonry buildings (FTA, 2006).

Table 2: Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level (dB, Lmax at 50 feet)
Air Compressor	78
Backhoe	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Crane	81
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Grader	85
Impact Pile Driver	101
Jackhammer	89
Loader	79
Paver	77
Pickup Truck	75
Roller	80

Source: FHWA, 2006

Table 3: Typical Construction Activities Noise Levels

Construction Phase	Noise Level (dB, Leq at 50 feet)
Ground Clearing	83
Excavation	88
Foundations	81
Erection	81
Finishing	88

Notes: Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.
Leq = equivalent sound level
Source: U.S. Environmental Protection Agency, Legal Compilation, 1973

Table 4: Representative Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity at 25 Feet (in/sec)
Pile Driver (impact)	upper range	1.518
	typical	0.644
Pile Driver (sonic)	upper range	0.734
	typical	0.170
Vibratory Roller		0.210
Large Bulldozer		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA, 2006

State Guidelines

State Land Use Compatibility standards for Community Noise (**Table 5**) are provided in the State of California General Plan Guidelines.

TABLE 5:
LAND USE COMPATIBILITY NOISE STANDARDS

Land Use Category	Community Noise Exposure Ldn or CNEL, dB
Residential – Low Density Single Family, Duplex, Mobile Homes	50 to 60 = Normally acceptable 55 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Residential -- Multifamily	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Transient Lodging – Motels, Hotels	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Auditoriums, Concert Halls, Amphitheaters	50 to 75 = Conditionally acceptable 65 to 85 = Clearly unacceptable
Sports Arena, Outdoor Spectator Sports	50 to 70 = Conditionally acceptable 70 to 85 = Clearly unacceptable
Playgrounds, Neighborhood Parks	50 to 70 = Normally acceptable 67.5 to 75 = Normally unacceptable 72.5 to 85 = Clearly unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75 = Normally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly Unacceptable
Office Buildings, Business, Commercial and Professional	50 to 70 = Normally acceptable 67.5 to 77.5 = Conditionally acceptable 75 to 85 = Normally acceptable
Industrial, Manufacturing, Utilities, Agriculture	50 to 75 = Normally acceptable 70 to 80 = Conditionally acceptable 75 to 85 = Normally acceptable

Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
Clearly Unacceptable	New construction or development generally should not be undertaken.

Source: **State of California General Plan Guidelines, Office of Planning and Research, 2017.**

REFERENCES

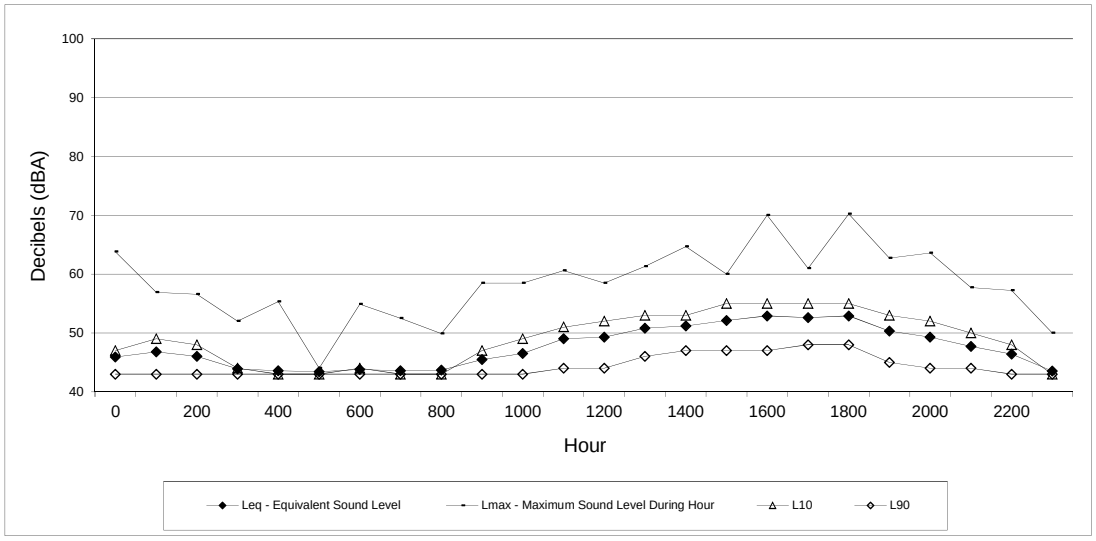
California Department of Transportation (Caltrans), 1998a. *Technical Noise Supplement*.

California Department of Transportation (Caltrans), 1998b. *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, October 1998.

Federal Highway Administration (FHWA), 2006. *Roadway Construction Noise Model User's Guide*.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06).

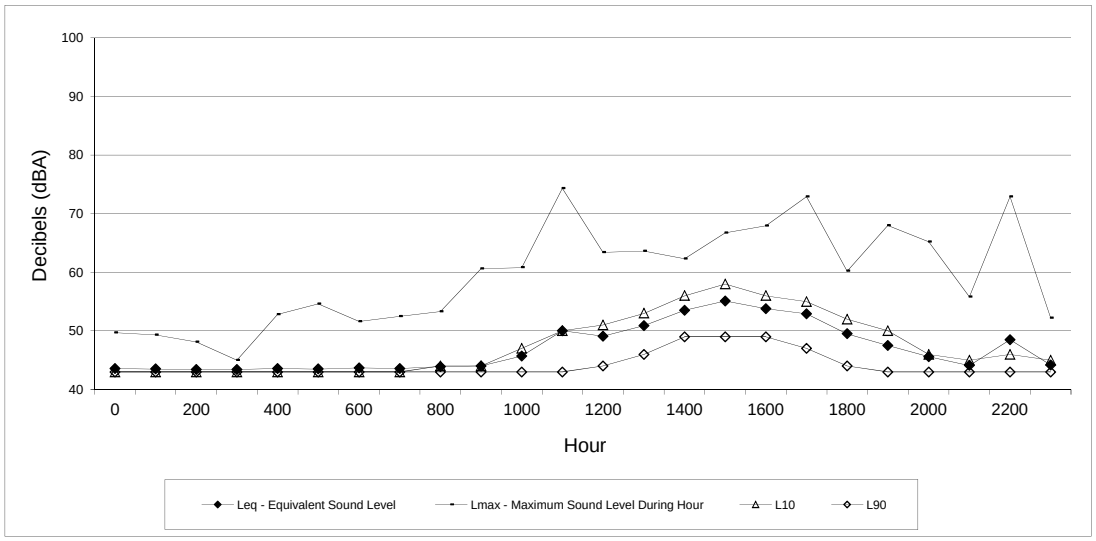
Governor's Office of Planning and Research (OPR), 2017. *State of California General Plan Guidelines*. Appendix D: Noise Element Guidelines.



Site 1: Northern Boundary of Site on Eucalyptus Grove
Tueday August 4, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	46	64	47	43
100	47	57	49	43
200	46	57	48	43
300	44	52	44	43
400	44	55	43	43
500	43	44	43	43
600	44	55	44	43
700	44	53	43	43
800	44	50	43	43
900	46	59	47	43
1000	47	59	49	43
1100	49	61	51	44
1200	49	59	52	44
1300	51	61	53	46
1400	51	65	53	47
1500	52	60	55	47
1600	53	70	55	47
1700	53	61	55	48
1800	53	70	55	48
1900	50	63	53	45
2000	49	64	52	44
2100	48	58	50	44
2200	46	57	48	43
2300	44	50	43	43

CNEL	**53**
LDN	**53**

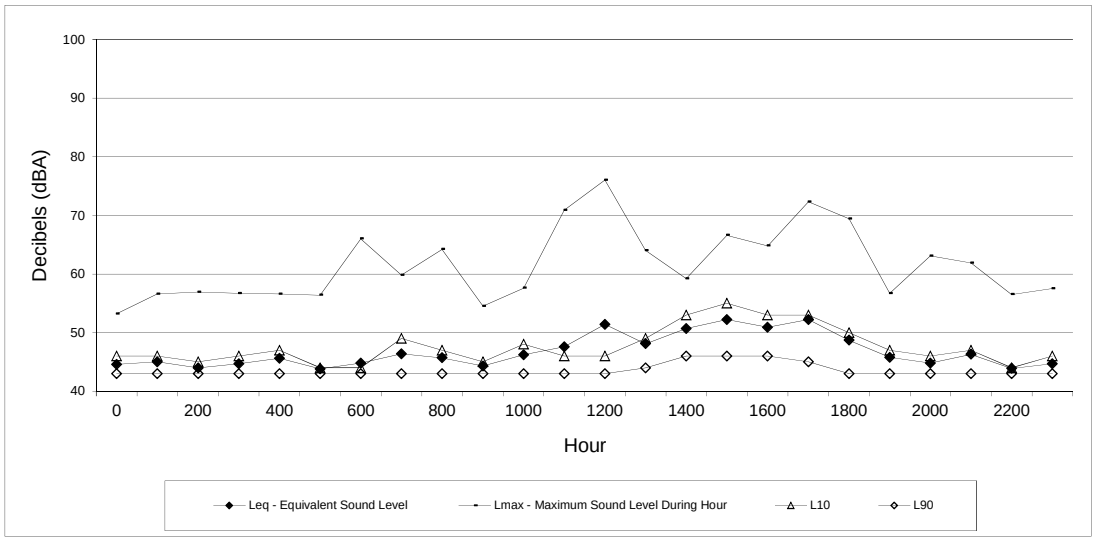


Site 1: Northern Boundary of Site on Eucalyptus Grove
Wednesday August 5, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	44	50	43	43
100	44	49	43	43
200	43	48	43	43
300	43	45	43	43
400	44	53	43	43
500	44	55	43	43
600	44	52	43	43
700	44	53	43	43
800	44	53	44	43
900	44	61	44	43
1000	46	61	47	43
1100	50	74	50	43
1200	49	63	51	44
1300	51	64	53	46
1400	54	62	56	49
1500	55	67	58	49
1600	54	68	56	49
1700	53	73	55	47
1800	50	60	52	44
1900	48	68	50	43
2000	46	65	46	43
2100	44	56	45	43
2200	49	73	46	43
2300	44	52	45	43

CNEL: 53

LDN 52



Site 1: Northern Boundary of Site on Eucalyptus Grove
Thursday August 6, 2020

Hour	Leq - Equivalent Sound Level	Lmax - Maximum Sound Level During Hour	L10	L90
0	45	53	46	43
100	45	57	46	43
200	44	57	45	43
300	45	57	46	43
400	46	57	47	43
500	44	56	44	43
600	45	66	44	43
700	46	60	49	43
800	46	64	47	43
900	44	55	45	43
1000	46	58	48	43
1100	48	71	46	43
1200	51	76	46	43
1300	48	64	49	44
1400	51	59	53	46
1500	52	67	55	46
1600	51	65	53	46
1700	52	72	53	45
1800	49	69	50	43
1900	46	57	47	43
2000	45	63	46	43
2100	46	62	47	43
2200	44	57	44	43
2300	45	58	46	43

CNEL: 52

LDN 52

Noise Measurement Locations

RCHGROUP
planning & environmental consulting

Source: Google Earth and RCH Group 2020

Appendix F
Traffic Memorandumǎ

Memorandum

May 8, 2020

To:	Mr. Brian Doswald Stravinski Development Group, LLC	Project:	SDG 217 Commerce Boulevard Distribution Center Project
From:	Kenneth Isenhower III, EIT Kamesh Vedula, P.E.	Ref/Job No.:	11213027
CC:		File No.:	C2106MEM007.DOCX

Subject: Traffic Impact Analysis Memorandum

1. Introduction

This traffic impact analysis memorandum (TIAM) has been prepared to present the results of a traffic impact analysis performed by GHD for a proposed new distribution center development at 217 Commerce Boulevard in the City of American Canyon. The term "project" used in this memorandum refers to the proposed new 217,294 square foot wine storage warehouse. This study builds on a recent trip generation comparison performed by GHD which evaluated traditional "warehouse" development and specialized wine warehouse sites within the same geographic area of American Canyon.[1] The project site is located at the terminus of Commerce Boulevard south of Green Island Road.

Included in this technical memorandum are analyses and discussion of the following transportation components:

- Quantification of updated daily and peak hour trip generation rates as well as trip distribution associated with proposed wine warehouse uses;
- Existing and future daily and peak hour roadway and intersection operations;
- Right-turn lane analysis for the northbound right-turn movement from Commerce Boulevard onto Green Island Road;
- Traffic signal warrant analysis for the Green Island Road/Commerce Boulevard intersection.

Consistent with previous transportation analyses conducted for the proposed project and City direction the following traffic scenarios were analyzed for this project:

- Existing Conditions
- Existing Plus Approved
- Existing Plus Approved Plus Project Conditions
- Cumulative (No Project) Conditions
- Cumulative Plus Project Conditions

[1] GHD, Trip Generation Comparison Development Site Repurpose; Green Island Wine Warehouse, Design memorandum to Mr. Neil Thompson (Stravinski Development Group) from Mr. Kamesh Vedula (GHD), September 27, 2018.

The following study intersection was identified and analyzed for this project:

- Green Island Road/Commerce Boulevard—All-Way-Stop-Control

The *Existing Conditions* analysis represents current operations of roadway and intersections based on collected traffic count data (October 2018);

The *Existing Plus Approved Conditions* represent the projects that have been approved by the City of American Canyon but have not been constructed and adding these trips to the existing traffic volumes.

The *Existing Plus Approved Plus Project Conditions* represent the net increase in project trips that are then added to existing plus approved traffic volumes to quantify potential impacts from proposed project uses;

The *Cumulative (No Project) Conditions* represent future traffic conditions based on the City of American Canyon General Plan to the Year 2030 but with the proposed project trips backed off as this project is assumed in the buildout of the General Plan.

The *Cumulative Plus Project Conditions* represent the net increase in project trips added to cumulative (no project) volumes to quantify impacts from proposed project uses. Care is given not to "double count" proposed project trips based on assumed land uses for the proposed project site used in City's General Plan.

1.1 Existing Traffic Volumes

Existing traffic volumes for this analysis are based on daily and peak hour traffic volume data collected during the first week of October 2018 at the Green Island Road/Commerce Boulevard intersection as well as on Green Island Road east and west of Commerce Boulevard and on Commerce Boulevard north south of Green Island Road (see Appendices for Supporting Data Information).[2]

The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one-hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. The peak hours chosen within the study coincide with the peak commute hour at which time the roadways typically experience maximum traffic.

As part of the overall traffic data collection effort, the amount of heavy vehicles (truck traffic) was included in the field data collection. Given the industrial/light industrial nature of the area truck traffic can make between 20-30% of traffic volumes on Green Island Road or Commerce Boulevard depending on the time of day and delivery patterns.

[2] National Data and Surveying Services (NDS), AM peak period (7:00-9:00), PM peak period (4:00-6:00) intersection count at the Green Island Road/Commerce Boulevard intersection, October 2, 2018. Average daily traffic (ADT) counts on Green Island Road (east and west of Commerce Boulevard) and Commerce Boulevard (north and south of Green Island Road, October 2, 3, 4, 2018.

1.2 Analysis Level of Service Methodologies/Policies

1.2.1 City of American Canyon Traffic Study Thresholds of Significance

The City of American Canyon establishes the following guidelines for intersection operation. Specifically, a project-related or cumulative traffic impact is considered to be significant if the proposed project:

> *"Causes the existing baseline level of service to degrade to worse than LOS D (LOS E at American Canyon Road/SR 29) at any intersection as stipulated in the City's General Plan, Circulation Element."*

1.2.2 Project-Specific Significance and Mitigation Thresholds

In accordance with the City of American Canyon guidelines, the following thresholds of significance are used to determine if an impact is significant and requires mitigation:

Unsignalized Intersections:

The project is considered to have a significant impact if it would:

- Result in an unsignalized intersection that will operate at an acceptable LOS in the *No Project* condition to deteriorate to an unacceptable LOS in the *Plus Project* condition; or,
- Increase the delay by more than 5 seconds at an unsignalized intersection that is already operating or will operate at an unacceptable LOS in the *No Project* condition.

2. Existing Intersection Operations

2.1 Methodology

Intersection operation is one of the primary factors in evaluating the carrying capacity of a roadway network. Traffic conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. For intersections with minor street stop control, the LOS reflects the delays experienced by the minor street approach. For all-way-stop-control intersections it is the average delay for all approaches.

Intersection levels-of-service have been based on the most recent Highway Capacity Manual (*HCM 6*) operations methodology for unsignalized all-way-stop-control intersections using *Synchro* software (version 10). In addition, peak hour factors (PHF's) for each intersection approach have been incorporated into all existing and future intersection LOS calculations. The PHF is a comparison of the peak 15 minute period within the peak hour compared to the peak hour. Based on field count data, these PHF's ranged from .75 to .87 depending on the peak hour.

2.2 Intersection

Table 1 presents a summary of the *Existing* peak hour intersection delay and level of service at the Green Island Road/Commerce Boulevard intersection using the most recent Synchro model.

Table 1: Existing Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	9.5	A	10.6	B

Notes:

1. AWSC = All Way Stop Control

2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.

3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.

As presented in Table 1, the Green Island Road/Commerce Boulevard intersection is currently operating at acceptable LOS during both peak hours.

2.3 Project Description

The proposed 217 Commerce Boulevard Wine Storage Facility project would be located in the City of American Canyon south of the current terminus of Commerce Boulevard. Based on the latest correspondence and site plan from the project applicant the proposed project would consist of a 217,294 square foot wine storage warehouse. At this time, vehicle and truck access to/from the proposed facility would be to/from Commerce Boulevard via Green Island Road.

2.4 Project Trip Generation

Consistent with previous transportation analyses conducted for wine warehouse and storage facilities in the American Canyon area; daily and peak hour trip generation has been based on observed daily and peak hour traffic volumes at six (6) different wine warehouse buildings in American Canyon located on Mezzetta Court, Airpark Road, Tower Road, Commerce Boulevard, Hanna Drive, and Lombard Drive.[3] From this trip generation analysis an average daily trip rate of 1.69 trips/1,000 square feet of wine warehouse was developed using multiple day 24-hour driveway count data at the six facilities. Using the same methodology for the AM peak hour (between 7:00-9:00) and PM peak hour (between 4:00-6:00) peak hour trip generation has been compared in Tables 2 and 3.

[3] Omni-Means, Ltd., Trip Generation Rates---Green Island Wine Warehouse, Memorandum to Mr. Jason Holley, P.E. (City of American Canyon) from Mr. Kamesh Vedula, P.E., Omni-Means (now GHD), June 1, 2016.

Table 2: AM and PM Peak Hour Trip Generation Comparison--Tuesday

Tuesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips	Trip Rate Based on Observed Traffic (Trips/KSF)
			AM/PM Trips	AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	10-May-16	61 / 42	0.15 / 0.11
787 Airpark Road	377		27 / 37	0.07 / 0.10
175 & 177 Tower Road	254		30 / 31	0.12 / 0.12
Commerce Boulevard	692	16-Feb-16	72 / 93	0.10 / 0.13
Hanna Drive	718		151 / 109	0.21 / 0.15
Lombard Drive	287		50 / 33	0.17 / 0.12
Six Site Combined Average Tuesday Trip Rate				**0.14 / 0.12**

Table 3: AM and PM Peak Hour Trip Generation Comparison---Wednesday

Wednesday Trip Rates				
Warehouse Location	Facility Size (ksf)	Date	Observed Peak Hour Trips	Trip Rate Based on Observed Traffic (Trips/KSF)
			AM/PM Trips	AM/PM Peak Hour Trip Rates
125 Mezzetta Court	396	11-May-16	57 / 34	0.14 / 0.09
787 Airpark Road	377		54 / 24	0.14 / 0.06
175 & 177 Tower Road	254		51 / 36	0.20 / 0.14
Commerce Boulevard	692	17-Feb-16	99 / 133	0.14 / 0.19
Hanna Drive	718		164 / 128	0.23 / 0.18
Lombard Drive	287		57 / 38	0.20 / 0.13
Six Site Combined Average Wednesday Trip Rate				**0.18 / 0.13**

The AM and PM peak hour trip generation recorded for the six warehouse-wine storage sites tends to correlate with the size of the facility. This trend is evidenced by the larger Commerce Boulevard and Hanna Drive facilities generating higher AM and PM peak hour trips than the remaining four sites that generate fewer peak hour trips (under 400 ksf). These peak hour trip characteristics of the warehouse-wine storage facilities are also consistent with previous transportation analyses that evaluated the daily trip generation of the sites (establishing a daily rate of 1.69 trips/ksf). In addition, the trip generation surveys of the six sites also found that the facilities tend to generate a greater number of vehicle/truck trips during the AM peak period. This is due primarily to the majority of employees arriving on-site during this morning period as well as a greater number of truck deliveries to/from the facilities. The PM peak period is more dispersed relative to site trip generation with many employees leaving at different times prior to and in between the 4:00-6:00 p.m. window and fewer truck deliveries occurring during this period based on field observations.

As presented in Tables 2 and 3, the average AM peak hour trip generation rates for the two-day counts were 0.14 trips/ksf and 0.18 trip/ksf , respectively. The resulting AM peak hour trip rate for wine warehouse/storage facilities is 0.16 trips/ksf. During the PM peak hour the average rates for the two-day counts were 0.12 trips/ksf and 0.13 trips/ksf resulting in an overall average PM peak hour rate of 0.125 trips/ksf. Combined with the previously established daily trip rate of 1.69 trips/ksf the proposed project's daily and peak hour trip generation has been presented in Table 4.

Table 4: Project Trip Generation; Daily and Peak Hour

Observed Daily and Peak Hour Trip Rates	Unit[1]	Daily Trip Rate/Uni	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Wine Warehouse/Storage	ksf	1.69	0.16	60%	40%	0.13	35%	65%
Project Name	**Quantity (Units)**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
American Canyon Wine Warehouse	217	367	35	21	14	28	10	18
Net New Project Trips		**367**	**35**	**21**	**14**	**28**	**10**	**18**

Notes:

1. 1 ksf = 1,000 square feet

2. Trip rates based on daily traffic driveway counts at six (6) different wine warehouse/storage facilities in the American Canyon Area focusing on the 24-hour and AM and PM peak hours between (7:00-9:00 am and 4:00-6:00 pm).

As calculated in Table 4, the proposed project would be expected to generate 367 daily trips with 35 AM peak hour trips and 28 PM peak hour trips.

2.5 Project Distribution

Overall project distribution has been based on existing peak hour traffic flow volumes at the Green Island Road/Commerce Boulevard intersection, vehicle and truck access to/from State Route 29, and local circulation patterns that access Green Island Road from the east and west. Additionally, northbound left traffic based on General Plan volumes do not appear to increase for the Northbound Left from Commerce Boulevard to Green Island Road. Based on these factors, it is estimated that 100% of the vehicle/truck traffic would be to/from the east on Green Island Road (to Commerce Boulevard).

3. Existing Plus Approved Traffic Conditions

Existing Plus Approved conditions were simulated by superimposing AM and PM peak hour traffic by adding approved project trip distribution patterns and volumes onto *Existing* intersection traffic volumes. The current list of approved projects consistent of only one project (330 Commerce Blvd Wine Storage Facility).

Intersection Operation

Table 5 provides a summary of *Existing Plus Approved* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 5: Existing Plus Approved Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.0	A	12.4	B

Notes:
1. AWSC = All Way Stop Control
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.

As presented in Table 5, the study intersection of Green Island Road/Commerce Boulevard would continue to operate acceptably during both the AM and PM peak hours with existing and approved project traffic.

4. Existing Plus Approved Plus Project Traffic Conditions

Existing Plus Approved Plus Project conditions were simulated by superimposing AM and PM peak hour traffic by the proposed project onto *Existing Plus Approved* intersection traffic volumes.

Intersection Operation

Table 6 presents a summary of *Existing Plus Approved Plus Project* peak hour intersection delay and level of service that were derived through use of the Synchro model.

Table 6: Existing Plus Approved Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	10.3	B	13.0	B

Notes:
1. AWSC = All Way Stop Control
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.

As presented in Table 6, the study intersection of Green Island Road/Commerce Boulevard would continue to operate acceptably during both the AM and PM peak hours with existing and approved project traffic.

5. Cumulative (No Project) Conditions

Cumulative (No Project) conditions were based on cumulative AM and PM peak hour volume projections found in the *Napa Logistics Park Phase 2 Project Draft EIR* subtracting out the proposed project trip estimates. Peak hour volume projections for Green Island Road west of Paoli Loop Road were used for this analysis and encompass all future vehicle trips originating from industrial and light industrial areas in the Mezzetta Court, Jim Oswalt Way, Hanna Drive, and Commerce Boulevard areas. As a conservative measure, the *No Shift Change Reduction* volumes were utilized.

5.1 Intersection Operation

Table 7 presents a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Synchro model.

Table 7: Cumulative (No Project) Conditions: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	16.5	C	31.3	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 7, the Green Island Road/Commerce Boulevard intersection would operate at acceptable LOS during both peak hours.

6. Cumulative Plus Project Conditions

Cumulative Plus Project conditions were simulated by superimposing traffic generated by the proposed project onto *Cumulative (No Project)* intersection traffic volumes.

6.1 Intersection Operation

Table 8 presents a summary of Cumulative (No Project) peak hour intersection delay and level of service that were derived through the use of a Synchro model.

Table 8 Cumulative Plus Project: Intersection LOS

#	Intersection	Control Type[1,2,3]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Green Island Rd./Commerce Blvd.	AWSC	D	17.9	C	35.0	D
Notes:							
1. AWSC = All Way Stop Control							
2. LOS = Delay based on average delay (in seconds) of all four stop-sign controlled approaches.							
3. Intersection was analyzed using HCM 6 Synchro-Simtraffic software (version 10) for unsignalized all-way-stop-controlled intersections. Allows for multiple approach delay LOS calculations.							

As presented in Table 8, the Green Island Road/Commerce Boulevard intersection would continue to operate at acceptable LOS with *Cumulative Plus Project* volumes during both peak hours.

7. Signal Warrants and Turn Lane Warrants Analyses

7.1 Signal Warrants Analysis

The Green Island Road/Commerce Boulevard intersection was evaluated for traffic signal control warrants. The CaMUTCD manual identifies up to nine warrants which can be used and states that "*An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location*".[4] Traffic signals can have several advantages which are outlined in the manual. These include: maintaining orderly movement of traffic; increasing capacity, reducing the frequency of certain accident types (right-angles), provide continuous movement of traffic at a definite speed, and permit minor street traffic/pedestrians to cross the major street.

However, the manual goes on to state that "*The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated*." The manual recommends that engineering judgment ultimately be used when deciding the appropriateness of signal controls.

Five of the nine warrants were evaluated (four warrants concerning school crossings, coordinated signal systems, roadway networks, and railroad crossing locations were not applicable). The signal warrant worksheets are attached in the Appendix.

7.1.1 Existing Without Project and Existing Plus Project Signal Warrants

The signal warrants were evaluated for Existing Plus Approved Development Trips (Without Project) and Existing Plus Approved Development Plus Project Trips Conditions.

Three warrants are based on vehicle volumes and none of the three are met for Existing Plus Approved Development or Existing Plus Approved Development Plus Project volumes. These include “8-hour volumes” (Warrant 1), “4-hour volumes” (Warrant 2), and “peak hour volumes” (Warrant 3). The multi-hour approach volumes at the Green Island Road/Commerce Boulevard intersection do not sustain the minimum volumes for signalization nor do the peak AM and PM periods.

The CAMUTCD warrant for pedestrian crossing volumes (Warrant 4) was also applied to the study intersection. Although there is a pedestrian sidewalk on the north side of Green Island Road that extends from Commerce Boulevard west to Mezzetta Court and continues north on Green Island Road, there are no pedestrian crosswalks at this intersection. Pedestrian volumes at the Green Island Road/Commerce Boulevard intersection are very low. During the AM and PM peak periods, a maximum of two (2) pedestrians were observed and only one pedestrian crossed north-south on Green Island Road. Therefore, no pedestrian warrants are met at this time.

[4] California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Traffic Control Signal Needs Studies, 2014 Edition, Revision 5 (March 27, 2020).

Finally, the crash experience warrant (Warrant 7) was evaluated for the Green Island Road/Commerce Boulevard intersection. The crash history was obtained from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for the last three calendar years (2017-2019). The crash experience warrant requires at least five collisions within a twelve month period at the intersection correctable by a traffic signal (or a combination of volume/pedestrian conditions). There was one recorded collision over the previous three year period which occurred (in 2019). It was described as a head-on collision between an eastbound vehicle proceeding straight and a southbound left-turning vehicle, and consisted of property damage only. The lack of a significant crash history indicates that vehicle-to-vehicle conflicts are not an immediate cause for concern at this location. Additionally, the lack of significant pedestrian and bicyclist volumes at this location indicates that the current conditions do not warrant signalization for safety reasons.

7.1.2 Cumulative (No Project) and Cumulative Plus Project Signal Warrants

The forecast Cumulative No Project and Cumulative Plus Project peak hour volumes were applied to the peak hour volume warrant for signalization (Warrant #3). The peak hour warrant consists of two parts (Part A and Part B); either one may be satisfied. Part A consists of three sub-parts which are based on vehicle delays in proportion to the intersection volumes. Part B is based solely on volume threshold levels. Part A of the peak hour warrant is met for both cumulative without project and cumulative with project conditions. Part B is not met for cumulative without project conditions nor cumulative plus project conditions.

Specifically, under cumulative without project conditions Part A of the peak hour warrant is met during the PM peak hour. The combination of PM peak hour delays and volumes is satisfied for all 3 parts of Part A. However, the AM peak hour is not met. Part B is not met for either the AM or PM peak hours, as the volumes are lower than the required threshold volumes.

Under cumulative plus project conditions, the findings are the same as without project conditions. The Part A warrant is met for all three parts during the PM peak hour. (During the AM peak hour, two out of the three sub-parts of Part A are met, but the vehicle delay is less than the required threshold level.) The Part B warrant is not met for either AM or PM peak hours, as volumes with the project remain less than the required threshold levels.

7.2 Right-Turn Lane Warrant Analysis

The northbound Commerce Boulevard approach to the Green Island Road intersection has been evaluated to assess whether the number of right-turn movements warrant an exclusive right-turn lane. Based on the Existing AM and PM turning movement count data at the intersection, almost all turning movements from northbound Commerce Boulevard onto Green Island road are right-turn movements. For existing plus approved development conditions without the project, 49 out of 57 northbound approach volumes are right-turns during the AM peak hour and 195 out of 207 approach volumes are right-turns during the PM peak hour. With proposed project traffic added, these movements are calculated to increase to 63 AM right-turns and 213 PM right-turns (see Appendices, Right-Turn Lane Warrants).

Based on the Transportation Research Board (TRB) Report 279 and AASHTO turn-lane requirements, a northbound right-turn lane is warranted at the intersection during the PM peak hour for existing plus approved conditions without the project and with the added project trips.[5]

8. Summary/Mitigation

The proposed 217 Commerce Boulevard Wine Storage Facility project would not significantly affect AM and PM peak hour traffic operations at the Green Island Road/Commerce Boulevard intersection. With *Existing Plus Approved Plus Project* and *Cumulative Plus Project* volumes, the intersection would continue to operate at acceptable levels during the AM and PM peak hours (LOS D or better).

Analyses of intersection signal warrant satisfaction at the Green Island Road/Commerce Boulevard location indicates that no signal warrant would be satisfied under *Existing Plus Approved Plus Project* volumes. With forecast cumulative volumes, the intersection would qualify for signalization under the Peak Hour Warrant (Part A only) during the PM peak hour for *Cumulative (No Project)* and *Cumulative Plus Project* conditions.

At the City's request, the northbound Commerce Boulevard approach was evaluated for right-turn lane warrants based on TRB and AASHTO guidelines for the installation of a right-turn lane. Commerce Boulevard during the PM peak hour would meet the peak hour volume thresholds for installation of a separate right-turn lane with *Existing Plus Approved* and *Existing Plus Approved Plus Project* volumes (the proposed project would add to the existing warrant). In response, the following measure is recommended:

- Widen and/or re-stripe northbound Commerce Boulevard at Green Island Road to include a separate right-turn lane and shared through/left-turn lane. Based on the proposed project's contribution to cumulative buildout volumes at the intersection, its "fair share" contribution towards this improvement would equal 2.7% (28 trips / 1,018 cumulative volumes—PM peak hour).

With recommended improvements for a separate right-turn lane on northbound Commerce Boulevard at Green Island Road; overall intersection LOS would improve under *Existing Plus Approved Plus Project* and *Cumulative Plus Project* conditions during the PM peak hour (worst case). Specifically, intersection LOS would improve from LOS B (13.0 seconds) to LOS B (11.7 seconds) with *Existing Plus Approved Plus Project* conditions. Under *Cumulative Plus Project* conditions, intersection LOS would improve from LOS D (35.0 seconds) to LOS D (29.6 seconds).

[5] Transportation Research Board, Intersection Channelization Design Guide, Chapter 4, Guidelines for Design of Channelized Intersections, Figure 4-23, Traffic volume guidelines of right-turn lanes, 1995.

Draft Technical Memorandum

November 19, 2020

To:	Brian Doswald Stravinski Development Group, LLC	Project:	Commerce 217 Distribution Center
From:	Kamesh Vedula, PE Todd Tregenza, AICP Rosanna Southern, EIT	Ref/Job No.:	11213027
CC:		File No.:	11213027-MEM001.DOCX

Subject: Focused Traffic Impact Analysis for Vehicle Miles Traveled (VMT)

1. Introduction

GHD has been contracted by Stravinski Development Group, LLC (SDG) to prepare a technical memorandum that summarizes the results of a qualitative vehicle miles traveled (VMT) analysis consistent with the guidance and methodologies under the California Environmental Quality Act (CEQA) and the California Governor's Office of Planning and Research (OPR), per Senate Bill 743, for the Commerce 217 Wine Storage Facility/Distribution Center. The Project is located in the northern portion of the City of American Canyon, on Commerce Boulevard, near several other similar land use types.

SB 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and greenhouse gas reductions. The provisions of SB 743 became effective Statewide on July 1, 2020. Under SB 743, automobile delay, traditionally measured as level of service (LOS) is no longer considered an environmental impact under CEQA. Instead, Project impacts are determined by changes to VMT. VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

As part of this study, GHD has reviewed available literature, guidance, and documentation from Napa Valley Transportation Authority (NVTA) and the City of American Canyon to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding threshold values, GHD has presumed a reduction of 15% from regional baseline VMT per employee, consistent with the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) and CEQA Guidelines. GHD has estimated baseline and Project trip-based VMT per employee, using journey-to-work data from the US Census Bureau, data from the California Statewide Travel Demand Model (CSTDM), and data from StreetLight. The Project-level VMT per employee estimates are reviewed against the regional baseline.

1.1 Vehicle Miles Traveled (VMT)

VMT is the amount and distance of automobile travel on a daily basis. VMT for land use projects is measured by multiplying average trip length by the trip generation for the project. VMT estimates for the project are reported based on analysis of average commute trip lengths and estimated project site trip generation for employees. Average trip length information was obtained from StreetLight Data (described below), for the area where the Project is proposed and for the Countywide average (Napa County). Average trip length for the Project Area was multiplied by the Project commute trip generation to estimate Project work-based VMT.

1.2 CEQA Baseline Considerations & Significance Thresholds

Under CEQA, the Project must be evaluated by comparing environmental conditions after Project implementation to conditions at a point in time referred to as the baseline. The CEQA Guidelines state that generally, the baseline is the environmental condition that exists at the time the notice of preparation is published or environmental analysis is commenced, from both a local and regional perspective. However, a lead agency may define the baseline by referencing historic conditions, as long as substantial evidence is provided that such a baseline is necessary to provide the most accurate picture practically possible given that existing conditions change or fluctuate over time.

GHD has reviewed available literature, guidance, and documentation from NVTA and the City of American Canyon to identify any draft or advisory VMT baseline estimates and/or threshold recommendations. Absent adopted or guiding thresholds, GHD presumed a reduction of 15% from baseline work-based VMT, consistent with OPR guidance for work-based projects. Baseline VMT is established utilizing journey-to-work data and trip lengths from StreetLight Data, described subsequently. The VMT impact has been assessed for the Project in terms of average daily VMT and the associated average trip length, and assessed against applying a Napa Countywide average trip length.

2. Data Sources

2.1 LODES Data and California Statewide Travel Demand Model

Data from the US Census and the California Statewide Travel Demand Model were used to compare journey-to-work patterns, including trip length. The technical analysis processes used to verify and interpret the outputs from these data sources are provided in Appendix A. Ultimately, StreetLight Data was determined as the data source utilized to estimate the Project's impact on VMT, as it provides empirically-based trip length and VMT information for the Project Area and Napa County.

2.2 StreetLight Data

GHD has implemented alternative resources and tools to facilitate data collection and accurately represent origin-destination data for home-based-work trips in the study area and Countywide. GHD utilized "big data" from StreetLight Data to assess journey-to-work characteristics including trip length and VMT during 2019. StreetLight Data uses Location Based Services (LBS), and provides VMT and trip length estimations based on a sample size anonymously. Estimations include trips that are tracked from start to finish, and provides a

more granular estimation of VMT patterns when compared to regional travel demand models. StreetLight Data is updated monthly and provides information for all roadways identified on the “Open Streets Map”. The data available through this service allows for evaluation of historical and/or current travel conditions. The data was collected for all days throughout 2019 (pre-COVID-19), for two sets of geographies: Napa County and the “Project Area”. The Project Area is identified in Figure 2.1 below. The data was provided for all days, weekdays, and weekends. However, the analysis evaluated data for weekdays only. The data was analyzed by trip type including employee-based and visitor-based for origins and destinations from/to work, home, and other trip types.

Figure 2.1 Project Area for StreetLight Data Analysis

The employee commute data from StreetLight Data was evaluated to determine average trip length and VMT estimates for the Project Area and Countywide. The average trip length information was utilized to establish Project-level VMT and the VMT that would be 15% below the Countywide average baseline metric.

3. Analysis Results Summary

Table 3.1 presents a summary of the StreetLight Data analysis results, showing employee and visitor trips and the average trip lengths for the Project Area and the County. Additionally, the percent split of employee and visitor trips within the Project Area is presented, which will be utilized to estimate the employee portion of trips from the Project’s trip generation. As presented, a 37% portion of Project Area trips were employee (commute) trips. The average trip lengths presented vary between 11.7 and 31.3 miles, when evaluating

commute trips and visitor-based trips. The VMT estimation associated with the Project utilizes the average trip length associated with employee trips from the Project Area.

Table 3.1 StreetLight Data Analysis Results Summary

Trip Type	Project Area Volumes	% of Trips	Project Area Trip Length (mi)	Countywide Volume	Countywide Trip Length (mi)
Employee Daily Volume	2,138	37%	17.3	704,468	11.7
Visitor Daily Volume	3,626	63%	23.8	287,068	31.3
Total / Average	5,764	100%	21.4	991,536	17.4

3.1 Project Only VMT

In order to evaluate the Project's impact on VMT, total VMT is calculated based on the Project's employee-based trip generation and the Project Area's average trip length (identified in Table 3.1 above). The Project's trip generation was estimated in GHD's Traffic Impact Study for the Project, dated May 2020. The Project is estimated to generate 367 new daily trips, this represents employee trips, visitor trips, delivery trips, and truck trips. Therefore, the percentage of employee trips (37%) was utilized to estimate number of employee trips, which is then utilized to estimate the Project's employee-based VMT. Table 3.2 presents the calculation of the Project's estimated VMT, the VMT threshold based on the trip length that is 15% below the countywide average, and the resulting VMT reduction that the Project would need to meet the 15% below countywide average VMT.

Table 3.2 Project VMT Calculation

Project Daily Trip Generation	% Commute Trips	Employee Trips
367	37%	136
Area	**Average Trip Length**	**Total Employee VMT**
Project	17.3	2,355
Baseline Threshold (15% Below County Average)	9.9	1,354
VMT Reduction to meet Baseline Threshold		**1,001**

Based on an average Project Area trip length of 17.3 miles (from StreetLight data), the total employee VMT generated by the Project is estimated to be 2,355 VMT. GHD recommends utilizing the Countywide average trip length as the baseline and to determine the VMT threshold of 15% below the countywide average. In order to meet the acceptable threshold of 15% below Countywide average, the Project's VMT must be reduced or mitigated by 1,001 VMT to fall below the threshold of 1,354 VMT.

4. Recommendations to Reduce VMT

GHD recommends the Project provide the following improvement to mitigate the Project's VMT below the required threshold. The improvement recommended to be completed by the Project is a Class I bike path running from the current terminus of Commerce Court (northern extent) to the northern driveway of the planned elementary school (southern extent). As illustrated in Figure 4.1 below, a portion of the bike path has already been constructed adjacent to the Project site, extending south from the terminating cul-de-sac of

Commerce Court (which was also recently extended to the Project site) to the southern property line of the Project Site. The elementary school project, which is located on the northeast corner of Eucalyptus Drive and Wetlands Edge Road, is assumed to construct a bike path from the northern school driveway to Eucalyptus Drive. The recommended facility will fill the 300-foot gap in bike infrastructure, resulting in a continuous route connecting the residential areas to the south and the industrial land uses to the north.

Figure 4.1 Extents of Bike Path and Recommended Improvement

The estimation of VMT reduction assumes full completion of the bike path, which will provide continuous bike infrastructure between Commerce Court and Eucalyptus Drive. The quantification of the VMT reduction from full construction of the bike path is detailed in Appendix B. The VMT reduction is based on the research cited in the National Cooperative Highway Research Program (NCHRP) Report 552, *Guidelines for Analysis of Investment in Bicycle Facilities*. Table 4.1 presents the reduction in VMT associated with new bicyclist commuters anticipated to increase as a result of the bicycle facility, between Commerce Court and Eucalyptus Drive. The total new commuters estimated from the analysis (detailed in Appendix B) is used to

estimate the reduction in VMT by multiplying the number of new commuters by the number of daily trips and the average trip length for the project area.

Table 4.1 VMT Reduction

VMT Reduction Associated with Induced Demand/Bicycle Mode Shift	
Total New Commuters	32
Daily Commute Trips (2 trips)	65
Average One-way Trip Length[1]	17.30
Daily VMT Reduction	**1,119**

[1] *StreetLight Data (2019) for Project Area*

As shown, the new shared-use path (Class I bicycle facility) is expected to result in mode shift from vehicle to bicycle for some users. According to the NCHRP calculation, this bike path will reduce the Project VMT by 1,119, which is more than the required VMT threshold of significance of 1,001. Therefore, GHD recommends the Project construct the bike path between its current terminus and the northern school driveway, in order to close the gap in bicycle infrastructure and provide a continuous route between Commerce Court and Eucalyptus Drive.

Memorandum

Appendices

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Appendix A
Technical Methodologies & Data

Appendix A Technical Methodologies & Data

The following section outlines the analysis methodologies and data sources that have been used in the VMT impact study to quantify VMT for the proposed Project. The regional travel demand model and VMT policy are currently under development. Therefore, various data sources were utilized to determine VMT characteristics.

Project Specific (Related) Information

SDG has provided site-specific information for employee origins from their existing building at 330 Commerce Boulevard, which is a similar use. This information is presented in Table A.1 along with the calculated two-way travel distance, VMT, and the total VMT per employee rate (21.9). The proposed Project is expected to have 43 employees, but the residence locations are unknown. Since the estimate in the below table is the existing data for a single similar use, it does not provide substantial evidence to support a baseline VMT per employee estimation for the area. However, this information can be utilized to compare against the average trip length for the Project Area.

Table A.1 Employee Commute & VMT for 330 Commerce Blvd (3 buildings)

Home Origin	Number of Employees	Two-Way Commute Distance (mi)	VMT
Vallejo	21	12.6	264.6
Napa	18	22.8	410.4
American Canyon	8	2.0	16.0
Fairfield	7	31.8	222.6
Vacaville	3	46.8	140.4
Benicia	1	29.5	29.5
Suisun City	1	32.6	32.6
Sonoma	1	36.8	36.8
Yountville	1	37.5	37.5
Pittsburg	1	65.3	65.3
Antioch	1	73.6	73.6
Winters	1	74.9	74.9
TOTAL	64		1404.2
Average VMT per Employee			21.9

LODES Data

Journey-to-work data is available from the Longitudinal Employer-Household Dynamics (LEHD) program[1]. The primary source of data used in the LEHD program is the enhanced Quarterly Census of Employment and Wages (QCEW) microdata files obtained from each participating Local Employment Dynamics (LED) state. The employer-based QCEW data is merged with additional worker-based administrative data collected by the US Census Bureau to create integrated employer-worker data, available through two different databases, Quarterly Workforce Indicators (QWI) and LEHD Origin-Destination Employment Statistics (LODES).

Unlike sample-based surveys (such as the US Census's American Community Survey or CTPP), the LODES data provides a nearly complete enumeration of home-to-work flows covering over 90% of all workers and employers in the United States. The LODES data does not contain details on the work trips such as mode choice, route, or travel times. The LODES data does not include federal workers, self-employed or the military, and workplace location is assigned algorithmically for people who work for a business with multiple locations in a County. The LODES data provides many more origin-destination pairs than collected through sampled data, and provides sufficient data for home-to-work flows.

The LODES data was used to calculate average trip lengths and associated VMT for the Project Area in comparison against the region. The 2017 LODES data was downloaded statewide, on the US Census block level, and then filtered for Napa County. Based on the LODES data, approximately 52% of Napa County workers live outside the County, and approximately 48% of County employees live and work in Napa County. The employment number used for VMT per employee was determined by summing all the job destinations in the LODES dataset for Napa County.

Based on the methodology for estimating Baseline VMT as described herein, Table A.2 below presents a summary of the Baseline VMT estimates and Project VMT estimates utilizing LODES data and shortest-path analysis for trip lengths, within a 50-mile commute distance. The Project Area average trip length was found to be 18.8 miles, and the Countywide average was found to be 16.7 miles. The selected census blocks for the Project Area that present similar uses currently have VMT per employee rates that are, on average, 18.5% higher than the Countywide average of 31.4 VMT per employee. Compared to the Citywide average of 32.7 VMT per employee, the Project Area rate is 13.8% higher. The VMT per employee of the Project Area from the CSTDM is 61% higher than the Countywide average rate, and 2% lower than the citywide average rate. The Project Area is above the recommended threshold from OPR of 15% lower than the baseline.

[1] Data Source: U.S. Census Bureau. 2020. Longitudinal-Employer Household Dynamics Program (LEHD) Origin-Destination Employment Statistics Data (2015-2017). Washington, DC. accessed on 05/12/2020 at https://lehd.ces.census.gov/data/#lodes. LODES 7.4

Table A.2 LODES Analysis Results Summary

Area	Total Employees	Total VMT	Average VMT per Employee	*15% below Average*
Napa County	58,836	1,846,314	31.4	*26.7*
City of American Canyon	3,171	103,671	32.7	*27.8*
Project Area	682	25,366	37.2	
Project Area % Difference from County			18.5%	
Project Area % Difference from City			13.8%	

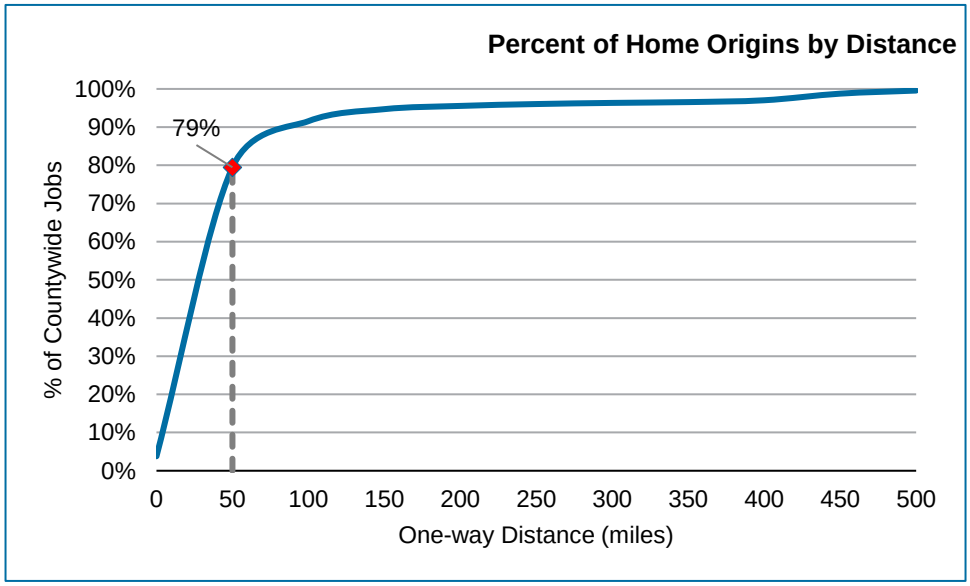
Shortest Path GIS Analysis Methodology

Shortest path analysis was performed using the GIS-based Google Distance Matrix API. The API is a service that computes travel distance and journey duration between multiple origins and destinations using a given mode of travel. The geographic boundaries of the census blocks Statewide were downloaded from the US Census Bureau to be utilized within the analysis. The LODES data was queried to retrieve the census blocks statewide that had a work destination within Napa County, then joined to the reference block dataset to find their locations. There were over 67,300 origin-destination pairs with a work destination in Napa County. The geometric centroids of each of the filtered census blocks were then calculated and utilized to determine the coordinates of the origins or destinations for analysis within the GIS-based API. The API was then called iteratively for a process which calculated the distance and travel time between each origin and destination (block to block). Distances between each origin-destination pair account for the full trip length, outside of the County boundary. The results were then joined back to the original LODES data to preserve the job count information, and assure the calculated destinations corresponded with the correct origin-destination pairs. GHD reviewed some of the origin-destination pair's distances against Google maps directions for quality control and assurance.

The primary work location reported by the LODES data may not represent the actual physical location where workers work, i.e. large corporations or other companies may have a headquarters located in an unrealistic location for commuting to and from work on a daily basis. Figure A.1 shows the percent of home origins of the Countywide jobs by distance. The Figure shows that a 50-mile buffer captures 79% of work destination trips Countywide (travel time is approximately 1 hour). Based on the project-specific information provided by the Project applicant, the existing employees of the neighboring use commute within a 50-mile distance. Therefore, the VMT per employee was calculated utilizing only the trips within a 50 mile buffer, one-way, thus removing errant outliers in the data that incorrectly inflate the average VMT per employee.

Based on the LODES data and shortest-path analysis, the Countywide average VMT per employee was estimated to be 31.4, and the Citywide average VMT per employee was estimated to be 32.7.

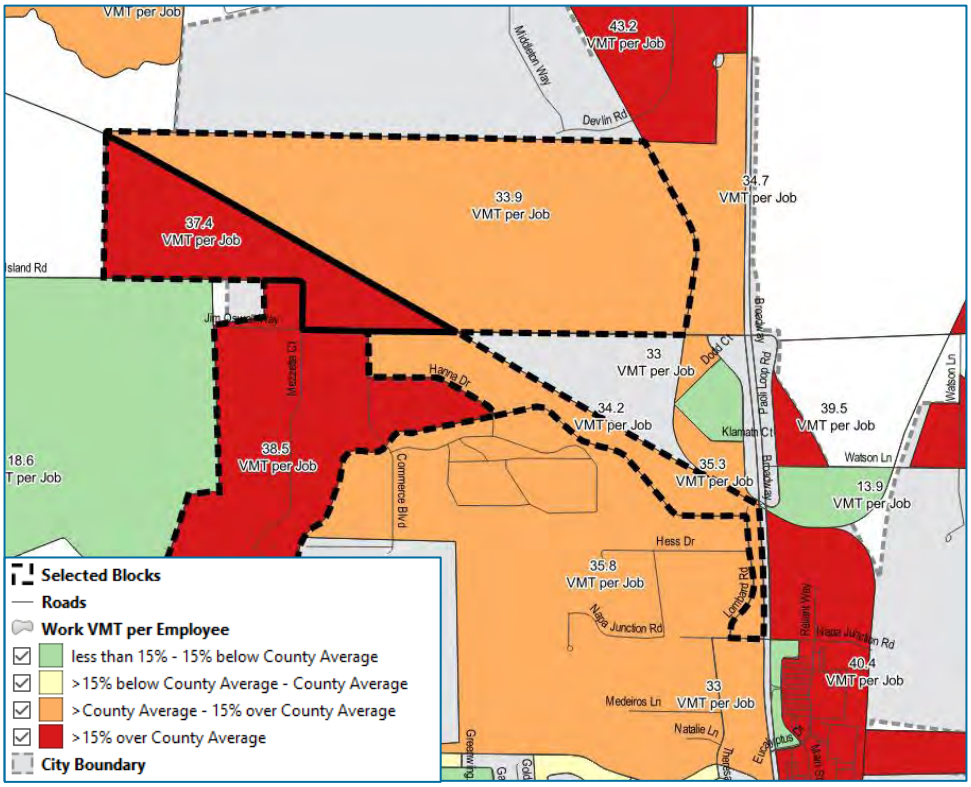
Figure A.1 Percent of Home Origins of Countywide Jobs by Distance



VMT Estimations & Geography

The distances calculated from the shortest path GIS analysis combined with the LODES data was utilized to estimate VMT per employee. VMT for each origin-destination pair was estimated by multiplying the number of jobs (employees) by the distance between the origin, destination, and back to the origin (2x distance) to include the full daily trip length for each origin-destination pair. The number of jobs, total VMT estimation, and average VMT per employee results were then summarized by geography (County, City, Project Area) for baseline estimation, Project Area estimation, and comparison of VMT per employee rates. The average VMT per employee for the County and City of American Canyon were calculated by dividing the total VMT by the total number of jobs for the census blocks in those geographies. For the Project Area average, four census blocks were evaluated, as identified in Figure A.2 below, to estimate the VMT per employee of the Project, by estimating the VMT per employee of the surrounding similar land uses. The census block along Commerce Boulevard was not selected due to also containing an elementary school, City Hall, and other dissimilar uses. Figure A.2 also shows the VMT per employee for each of the selected census blocks, and is colorized based on the comparison to the Countywide average VMT per employee. As shown, the selected census blocks in the Project Area range from rates of 33.9 to 38.5 VMT per employee. The average VMT per employee for the Project Area is 37.2 (total of VMT for Project Area divided by the total of employees in Project Area).

Figure A.2 Selected Census Blocks for Project Area



Caltrans Statewide Travel Demand Model

Caltrans maintains the Statewide travel demand model (CSTDM) which contains VMT information on the traffic analysis zone (TAZ) level. Based on the CSTDM, the Countywide average VMT per employee is estimated to be 23.7, the Citywide average VMT per employee is estimated to be 38.7, and the TAZ where the Project is located has a VMT per employee rate of 38.1. However, the CSTDM only has two TAZ's that are located in the City of American Canyon. Based on the CSTDM, the Countywide average trip length is 11.2, and the average trip length for the Project area is 12.9.

Appendix B
VMT Reduction for Class I Bikeway

Appendix B VMT Reduction for Class I Bikeway

The proposed SDG Commerce 330 Distribution Center Project (herein referred to as the Project) includes a segment of Class I Shared-Use Path that will close a gap between two shared-use facilities to the north and south of the proposed project. Based on the research cited in the National Cooperative Highway Research Program (NCHRP) Report 552, *Guidelines for Analysis of Investment in Bicycle Facilities*, the new facility may result in mode shift from vehicle to bicycle for some users. The methodology describes an approach for estimating the induced demand associated with a given bicycle facility improvement, and translates the projected increase in demand to monetized benefits related to mobility, health, recreation, and decreased auto use.

To estimate the reduction in vehicle miles traveled (VMT) associated with the bicycle facility improvement proposed as part of the Project, this analysis utilizes only the decreased auto use benefit component of the NCHRP 552 methodology. The induced demand benefits associated with the Project's proposed bicycle facility improvement is translated to a VMT reduction estimate by using the projected increase in number of daily commuters estimated to be associated with the proposed bicycle facility and the average trip length for the project area.

This memorandum describes our application of the NCHRP 552 methodology in additional detail, the results of the induced demand and reduced auto use benefit, and the estimated reduction in VMT associated with the Project.

Methodology

The NCHRP 552 methodology is centered on several assumptions (NCHRP 552, Appendix A):

1. Existing bicyclists near a new facility will shift from the existing nearby facility to the new facility.
2. The new facility will result in induced number of cyclists as a function of the number of existing bicyclists, relative to the attractiveness of the proposed facility.
3. People are more likely to ride a bicycle if they live within 1.5 miles of a facility than if they live outside that distance.

The methodology suggests that existing bicycle commute mode share can be utilized to estimate the number of existing and future bicycle ridership based on low, moderate, and high likelihood multipliers and the population within 1.5 mile, 1 mile, and 0.5 mile buffers that surround a facility. The total rate of adult bicycling ranges from a low estimate, based on the Census commute share, to a high estimate, based on 0.6 percent plus three times the Census commute share (NCHRP 552, Appendix A). Moreover, the highest likelihood of a member of the population to use the facility exists if they live within a .5 mile buffer around the facility. Thus, demand is reported at low, medium, and high estimates for the populations at each buffer distance. Each buffer area—at 0.5, 1 and 1.5 mile distances from the proposed bicycle improvement was created using a network-based analysis in a GIS environment.

To project the future bicycling demand, the population near the improvement was estimated using U.S. Census population estimates at the block and block group. 2018 American Community Survey (ACS) Census population estimates by Census block group and 2010 U.S. Decennial Census population estimates by Census block level were utilized to estimate existing population at the block level associated with each buffer area.

The smallest geography in which the 2018 population data is available is at the block group level, but a portion of the block groups surrounding the project area are too large to accurately capture the population within 1.5 miles. Thus, the percent change in population between the 2010 population and 2018 population was applied to the 2010 population estimates to project 2018 population at the block level. The block group associated with each block in the 2010 data was identified and compared against the block groups associated with the 2018 data to calculate the change in population by block group. The percent change was applied to all blocks within a given block group associated with the 2010 data to project the 2018 population by block.

Using the projected population and the sketch planning method presented in Appendix A of the NCHRP 552 Report, the induced demand and decreased auto use benefits associated with the proposed bicycle facility at low, medium and high levels were estimated.

Results

Induced Demand

Table B.1 presents the calculations for estimating the induced demand associated with the proposed bicycle facility at the three buffer distances. As shown, the bicycle facility improvement is anticipated to induce 32 new bicyclist commuters.

Table B.1: Induced Demand Calculations

SDG Commerce 330 Distribution Center Project Induced Bicycle Demand	
Adult Population Percentage [1]	73.70%
Bicycle Commute Mode Share [2]	1.00%
Existing Population [3]	
Population near Facility, 2400m	6,907
Population near Facility, 1600m	3,541
Population near Facility, 800m	1,253
Existing Bicycle Commuters [4]	
Bicyclist Commuters, 2400m	69
Bicyclist Commuters, 1600m	35
Bicyclist Commuters, 800m	13
Existing Adult Population [5]	
Adult Population near Facility, 2400m	5,090
Adult Population near Facility, 1600m	2,610
Adult Population near Facility, 800m	923
Existing Adult Bicycling Rates (Non-Commuters) [6]	

Adult Bicycling Rate, High	3.60%
Adult Bicycling Rate, Moderate	1.60%
Adult Bicycling Rate, Low	1.00%
Existing Adult Bicyclists (Non-Commuters), High Estimates [7]	
Adult Bicyclists, High 2400m	183
Adult Bicyclists, High 1600m	94
Adult Bicyclists, High 800m	33
Existing Adult Bicyclists (Non-Commuters), Moderate Estimates [7]	
Adult Bicyclists, Moderate 2400m	81
Adult Bicyclists, Moderate 1600m	42
Adult Bicyclists, Moderate 800m	15
Existing Adult Bicyclists (Non-Commuters), Moderate Estimates [7]	
Adult Bicycling Rates, Low 2400m	51
Adult Bicycling Rates, Low 1600m	26
Adult Bicycling Rates, Low 800m	9
Likelihood Multipliers By Each Buffer Distance [8]	
Likelihood Multiplier, 2400m	0.15
Likelihood Multiplier, 1600m	0.44
Likelihood Multiplier, 800m	0.51
New Bicycle Commuters [9]	
Total New Commuters, 2400m	10
Total New Commuters, 1600m	16
Total New Commuters, 800m	6
New Adult Bicyclists (Non-Commuters), High Estimates [10]	
New Adult Cyclists, High 2400m	27
New Adult Cyclists, High 1600m	41
New Adult Cyclists, High 800m	17
New Adult Bicyclists (Non-Commuters), Medium Estimates [10]	
New Adult Cyclists, Moderate 2400m	12
New Adult Cyclists, Moderate 1600m	18
New Adult Cyclists, Moderate 800m	8
New Adult Bicyclists (Non-Commuters), Low Estimates [10]	
Total New Adult Cyclists, Low 2400m	8
Total New Adult Cyclists, Low 1600m	11
Total New Adult Cyclists, Low 800m	5
Total New Adult Cyclist Estimates (Commuter and Non-Commuter) [11]	
Total New Cyclists, High	118
Total New Cyclists, Moderate	70
Total New Cyclists, Low	56

Table Notes:

[1] U.S. Census Bureau, American Community Survey ACS 2019 5-Year Estimates
[2] American Canyon, CA Commuting Characteristics 2018 ACS 5-Year Estimates
[3] 2010 U.S. Decennial Census Population by Block; 2018 U.S. Census American Community Survey (ACS) 5-Year Estimates by Block Group
[4] Population near Facility x Bicycle Commute Mode Share
[5] Population near Facility x Adult Population Percentage
[6] High Estimate Rate = .06% + 3(Census Bicycle Commute Mode Share); Medium Estimate Rate = 0.4% +1.2(Census Bicycle Commute Mode Share); Low Estimate Rate = Census Commute Mode Share
[7] Adult Population near Facility at Given Buffer Distance x Adult Bicycling Rate
[8] Established by NCHRP 552 research; see Appendix B
[9] Existing Bicycle Commuters x Likelihood Multiplier
[10] Existing Adult Bicyclist (Non-Commuter) x Likelihood Multiplier
[11] Sum of New Adult Bicyclists (Non-Commuter) and New Bicyclist Commuters at High, medium and Low Estimates

Vehicle Miles Traveled (VMT) Reduction

Table B.2 presents the reduction in VMT associated with new bicyclist commuters anticipated to increase as a result of the proposed bicycle facility. The total new commuters shown in Table B.1 is used to estimate the reduction in VMT by multiplying the number of new commuters by the number of daily trips and the average one-way trip length for the project area. As shown, the daily VMT reduction is estimated to be 1,119 vehicle miles traveled.

Table B.2: VMT Reduction

VMT Reduction Associated with Induced Demand/Bicycle Mode Shift	
Total New Commuters	32
Daily Commute Trips (2 trips)	65
Average One-way Trip Length[1]	17.3
Daily VMT Reduction	**1,119**
Annual VMT[2]	262,884

[1] StreetLight Data (2019) for the Project Area
[2] Assumes 47 weeks per year, 5 days per week for average commute year

Appendix G
Tribal Outreach Letters

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

July 29, 2020

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

To Whom It May Concern:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

The project area is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of the American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area, and lies on the southern 15.24-acre portion of Assessor's Parcel Number 058-030-065. The project area is situated in the Township 4 North, Range 4 West, sections 14, and 23 as depicted on the attached *Cuttings Wharf, California* USGS topographic quadrangle.

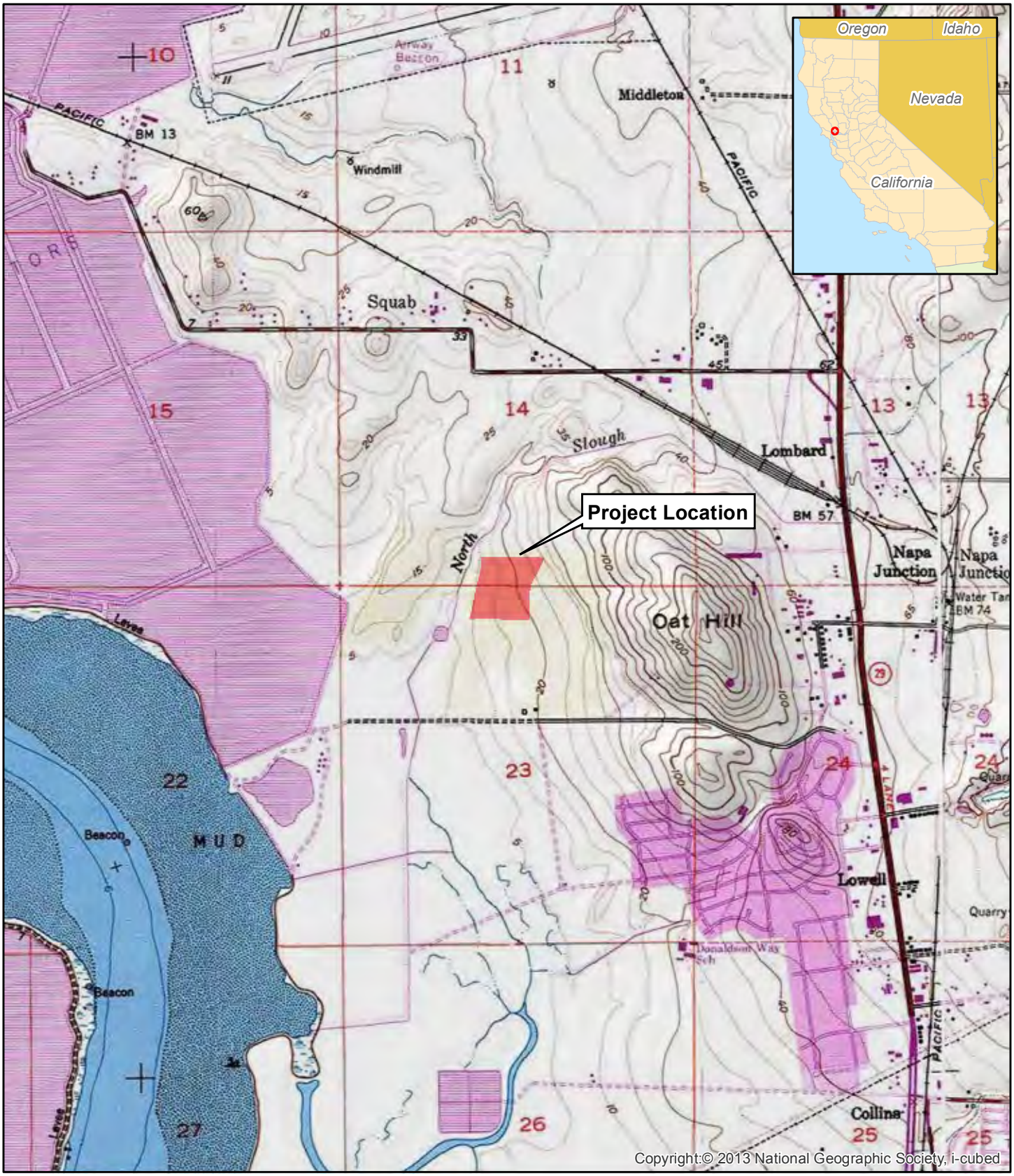
The SAS study will include a pedestrian cultural resources survey of the project area. Before we commence fieldwork, however, we would like to facilitate AB 52 consultation on behalf of the City. To provide this assistance to the City, we would like to request a list of appropriate regional Native American community contacts and a search of the Sacred Lands File.

If you have any questions, feel free to contact me at your convenience by phone at 530-417-7007 or via email at Brian@solanoarchaeology.com. Thank you very much for your time and I look forward to hearing from you soon.

Regards,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

Native American Heritage Commission
Tribal Consultation List
Napa County
7/30/2020

Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
Charlie Wright, Chairperson
P.O. Box 1630 — Wintun
Williams, CA, 95987
Phone: (530) 473 - 3274
Fax: (530) 473-3301

Guidiville Indian Rancheria
Merlene Sanchez, Chairperson
P.O. Box 339 — Pomo
Talmage, CA, 95481
Phone: (707) 462 - 3682
Fax: (707) 462-9183
admin@guidiville.net

Middletown Rancheria of Pomo Indians
Jose Simon, Chairperson
P.O. Box 1035 — Lake Miwok
Middletown, CA, 95461 — Pomo
Phone: (707) 987 - 3670
Fax: (707) 987-9091
sshope@middletownrancheria.com

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road — Wappo
Windsor, CA, 95492
Phone: (707) 494 - 9159
scottg@mishewalwappotribe.com

Yocha Dehe Wintun Nation
Anthony Roberts, Chairperson
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
Fax: (530) 796-2143
aroberts@yochadehe-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed SDG Commerce 330 Warehouse Project, Napa County.

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

July 30, 2020

Brian Ludwig, PhD, Principal Investigator
Solano Archaeological Services

Via Email to: brian@solanoarchology.com
Cc to: scottg@mishewalwappotribe.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, SDG Commerce 330 Warehouse Project, Napa County

To Dr. Ludwig:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Mishewal-Wappo Tribe of Alexander Valley tribes on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Sarah.Fonseca@nahc.ac.gov.

Sincerely,

Sarah Fonseca
Cultural Resources Analyst

Attachment

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Ms. Merlene Sanchez
Guidiville Indian Rancheria
P.O. Box 339
Talmage, CA 95481

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Ms. Sanchez:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

The project area is located in the City of American Canyon on the west side of the unimproved Commerce Blvd. extension north of Eucalyptus Drive and due north of the City of the American Canyon Clarke Ranch open space/recreation area. The property is at the south end of the expanded Green Island Industrial Area, and lies on the southern 15.24-acre portion of Assessor's Parcel Number 058-030-065. The project area is situated in the Township 4 North, Range 4 West, sections 14, and 23 as depicted on the attached *Cuttings Wharf, California* USGS topographic quadrangle.

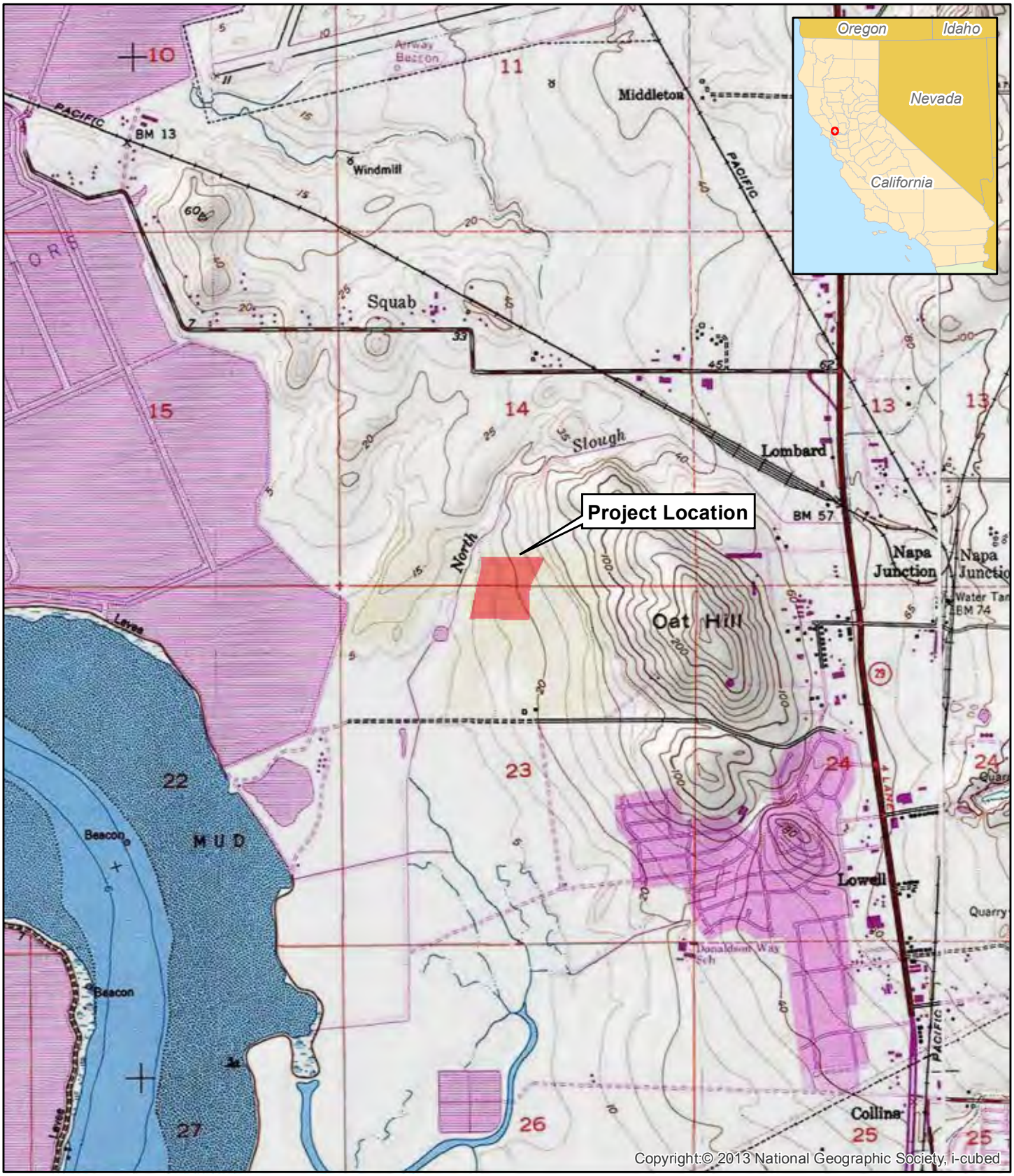
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Scott Gabaldon
Mishewal-Wappo Tribe of Alexander Valley
2275 Silk Road
Windsor, CA 95492

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Gabaldon:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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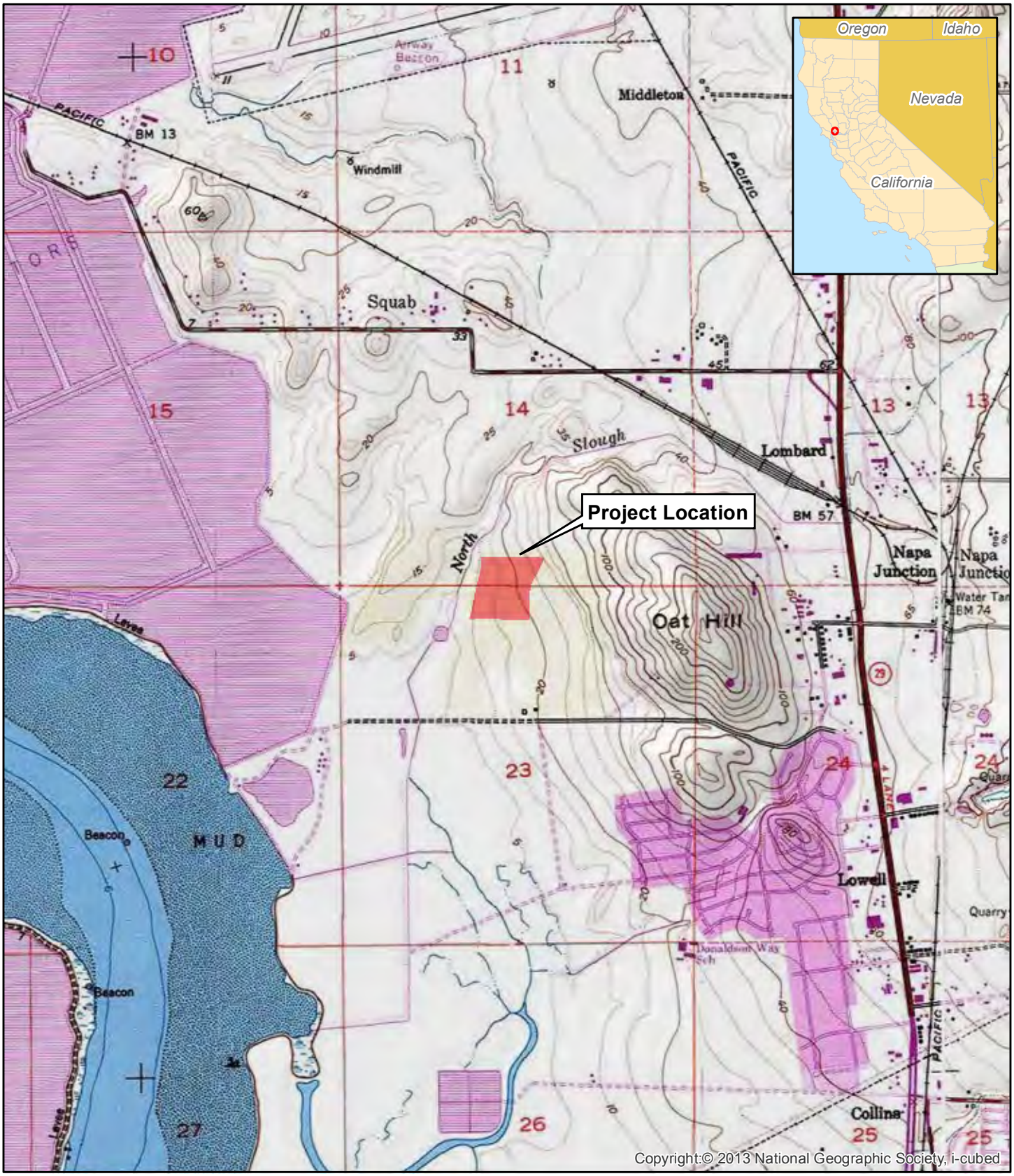
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project to you, and solicit any information on undocumented sites that may exist in the project area or concerns you might have with the proposed Project. In addition, if you can provide specific information on, or guidance pertaining to the cultural property noted by the NAHC, it would be greatly appreciated.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



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Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Jose Simon
Middletown Rancheria of Pomo Indians
P.O. Box 1035
Middletown, CA 95461

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Simon:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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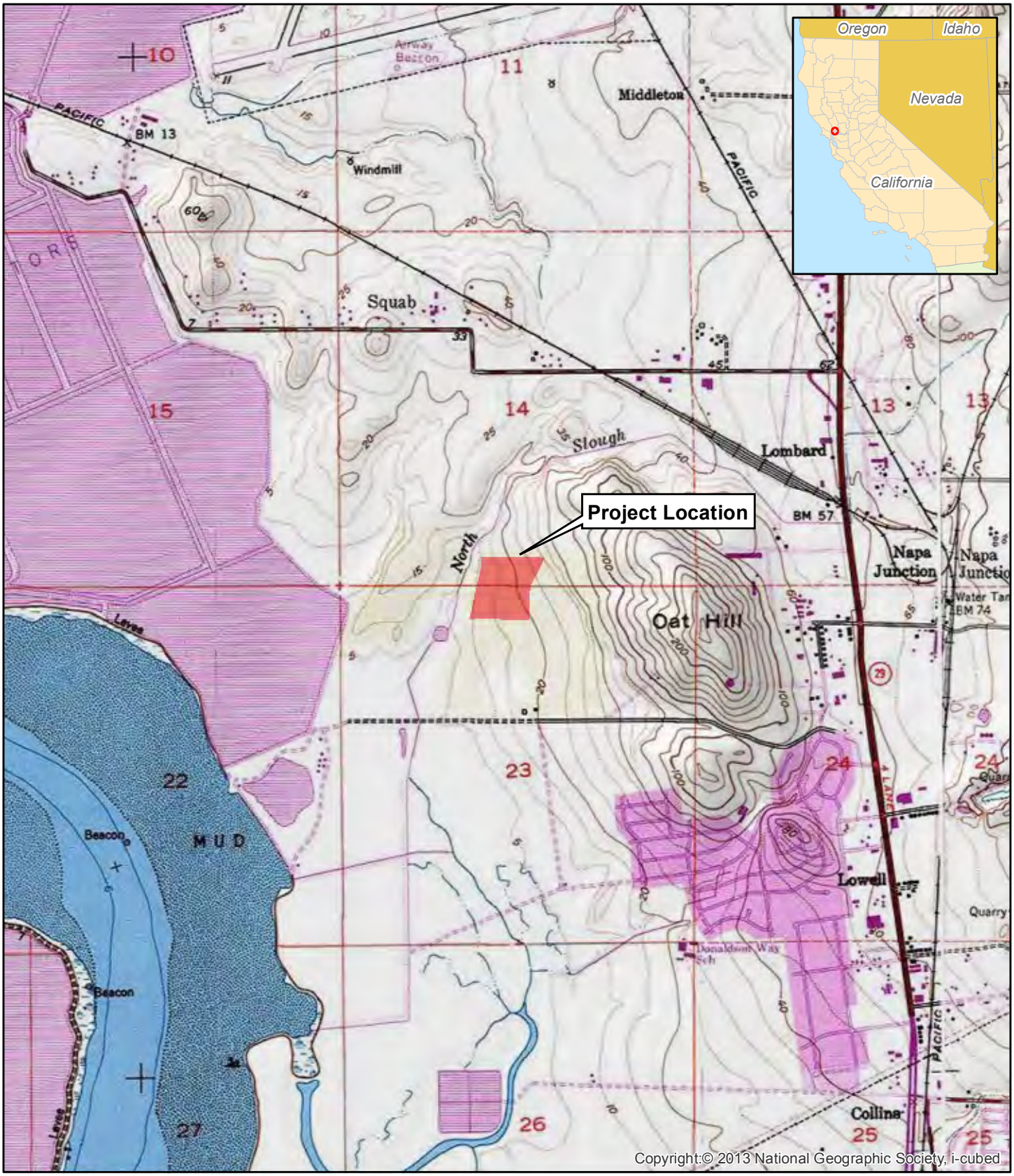
On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
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131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Charlie Wright
Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
P.O. Box 1630
Williams, CA 95987

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Wright:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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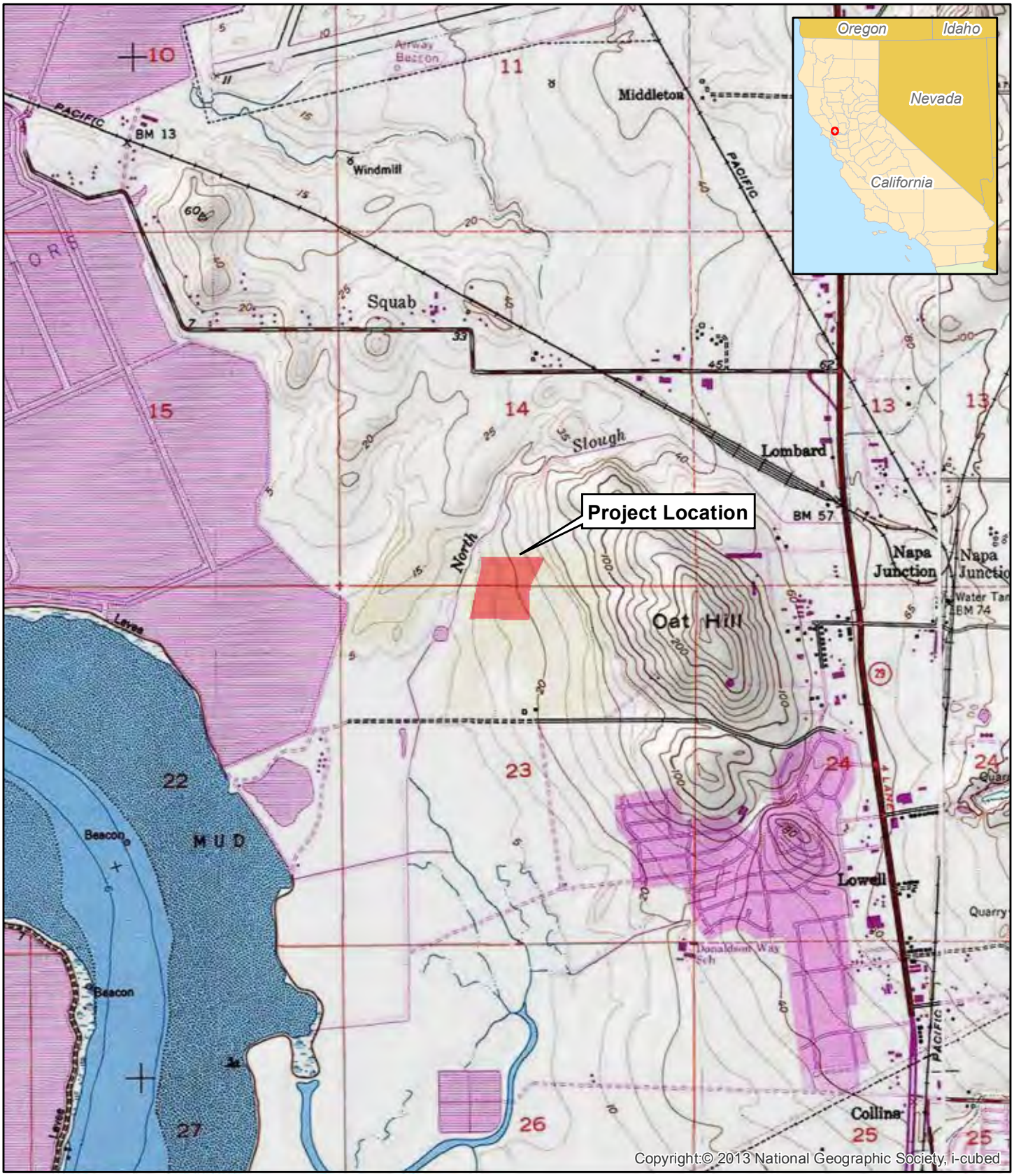
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



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1 Kilometers

131 Sunset Avenue, Suite E # 120
Suisun, CA 94585-2064

707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

August 3, 2020

Mr. Anthony Roberts
Yocha Dehe Wintun Nation
P.O. Box 18
Brooks, CA 95606

RE: Cultural Resources Inventory for the SDG Commerce 330 Warehouse Project, Napa County, California – Facilitation of AB 52 Consultation

Dear Mr. Roberts:

Grassetti Environmental Consulting has recently retained Solano Archaeological Services (SAS) to conduct a California Environmental Quality Act (CEQA)-level cultural resources inventory of an approximate 15.24-acre property located in the City of American Canyon (the City), Napa County, for the proposed SDG Commerce 330 Warehouse Project (Project). SDG Commerce 330, LLC, proposes to develop a 330,528 square-foot wine storage and distribution center on the 663,802 square-foot site. A total of 189 car and 32 truck dock parking spaces would be provided for the building and the overall project is consistent with the other industrial developments within the Green Island Industrial Park.

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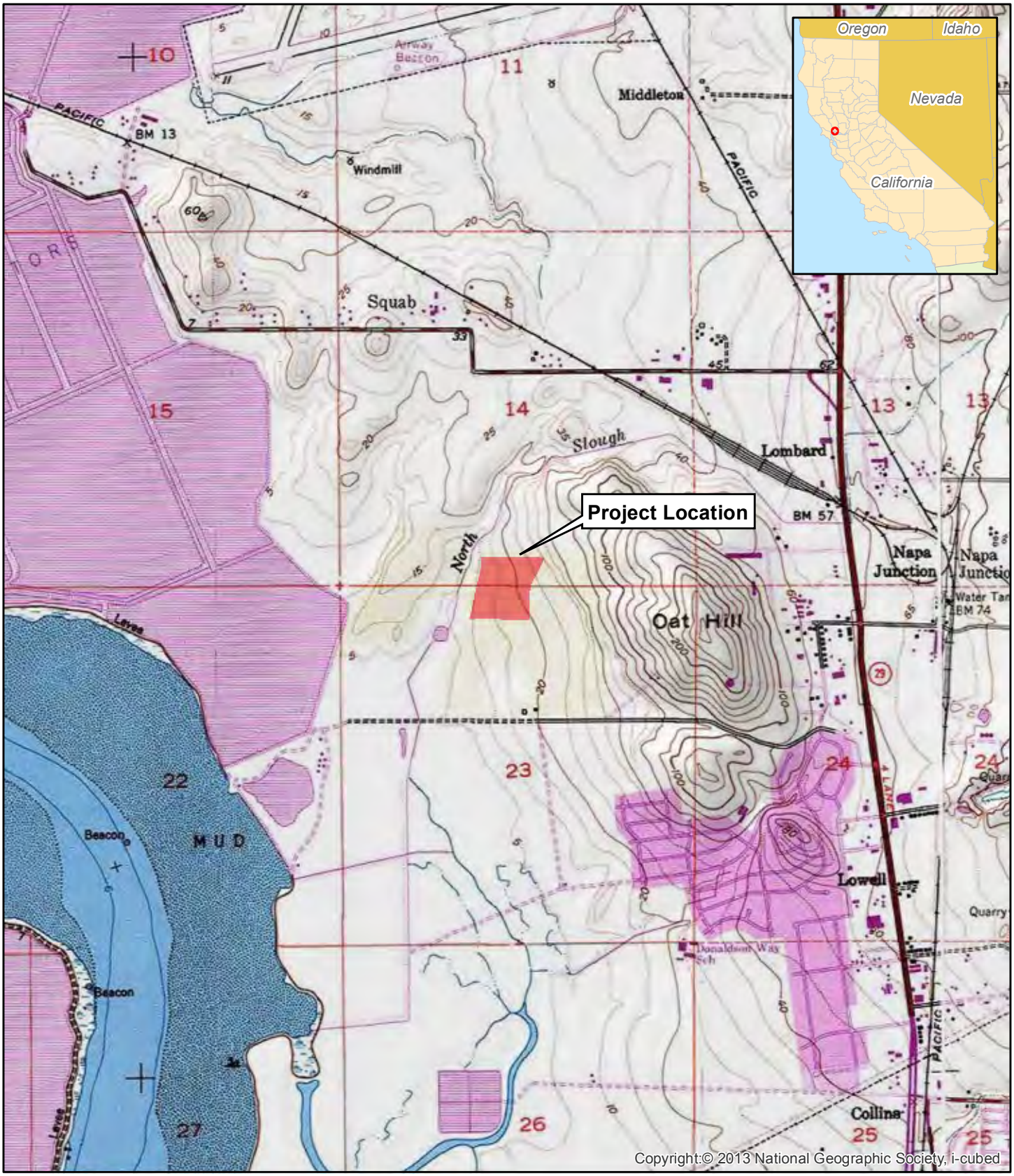
The review of the Native American Heritage Commission (NAHC) Sacred Lands File resulted in the identification of a Native American cultural property within or near the project area. The NAHC specifically stated that the Mishewal-Wappo Tribe of Alexander Valley be contacted regarding this property.

On behalf of the City of American Canyon, SAS is facilitating AB-52 consultation for the Project. We are writing to you to introduce the Project and inquire if you have any information on undocumented sites that may exist in the project area, or concerns you might have with the proposed Project.

Thank you very much for your time and I hope to hear from you soon. I can be reached via email at Brian@solanoarchaeology.com or by phone at 530-417-7007.

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator



Project Location Map.

Commerce 217 Project Area

T4N, R4W, Sections 14 and 23.
Cuttings Wharf 7.5' Series Quadrangle, USGS, 1981.

1:24,000

0.5 Miles

1 Kilometers

NATIVE AMERICAN CONSULTATION LOG FOR
THE SDG COMMERCE 217 PROJECT,
NAPA COUNTY, CALIFORNIA

SAS Contact: Brian Ludwig, Ph.D.

Native American Consultant	Date of Correspondence	Responses
Cortina Rancheria – Kletsel Dehe Band of Wintun Indians **Charlie Wright -** Chair	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by phone regarding the project and left message.
Guidiville Indian Rancheria - **Merlene Sanchez -** Chairperson	8-3-2020 8-17-1010 8-22-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by phone regarding the project and left message Received email from Mr. Ryan Peterson (Admin & Projects Coordinator). Mr. Ryan stated the project area was outside the Guidiville Rancheria's ancestral area of concern and suggested SAS contact Mr. Gabaldon of the Mishewal Wappo.
Middletown Rancheria of Pomo Indians **Jose Simon,** Chairperson	8-3-2020 8-17-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Contacted by email regarding the project Sally Peterson emailed stating that SAS request would be forwarded to the THPO department. Also provided updated contact information for the tribe which SAS forwarded to NAHC.
Mishewal-Wappo Tribe of Alexander Valley **Scott Gabaldon,** Chairperson	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Emailed and left phone message regarding the project. No responses received
Yocha Dehe Wintun Nation **Anthony Roberts**, Chairperson	8-3-2020 8-17-2020	Mailed project introduction letter and maps depicting the APE. The letter invited consultation and asked for any information on unrecorded resources in the vicinity. Emailed and left phone message concerning project - no responses received.

Appendix H

Will Serve Letters

April 17, 2020

Mr. Peter Stravinski
SDG Commerce 330, LLC
413 W. Yosemite Ave., Suite 105
Madera, CA 93637

SUBJECT: Request for Water Service "Will-Serve" Letter
SDG Commerce 217, LLC
1075 Commerce Court, American Canyon, CA 94503
(APN's 058-030-065)

Dear Mr. Stravinski:

The City of American Canyon has received your request as Property Owner for a Will-Serve letter for water service to the property located at 1075 Commerce Court in American Canyon (Assessor's Parcel Number: 058-030-065); referred to herein as the "Property"). The City is also processing a Conditional Use Permit (PL18-0010) received on March 18, 2020 for the development of a 217,294 square foot warehouse to be used for the storage and distribution of wine and wine industry goods. Additionally, the City has received an application for a Tentative Parcel Map (PL18-0011) on February 28, 2019 (Planning Commission Resolution 2019-02) to divide this parcel into three separate parcels. After the Parcel Map is recorded the warehouse will reside on a 10.39 acre parcel shown as Lot 1 in the parcel map, with additional development on the remaining two parcels.

It is the City's understanding that the Property is located within its city limits and that a Will-Serve Letter for water service to the Property is required prior to issuance of any building permits. In general, the City reviews the impacts of such requests for service taking into account the overall demand within its system and known supplies available to meet this demand.

The City's understanding of the current request is based on water demand estimates attached to the Will-Serve Application dated April 7, 2020. At present, the land comprising 35.85 acres, and the future 10.39 acre legal parcel is vacant with no historical water demand.

As Table 1 below shows, the requested Average Daily Demand (ADD) is 142 gal/day. Table 2 details the requested Maximum Daily Demand (MDD) of 560

gal/day for the Property. Table 3 shows the anticipated recycled water demands for the Property.

Table 1 – Requested Average Day Demand

Average Daily Water Demand (ADD) in gallons per day:	
Domestic:	142 gpd
Irrigation:	0 gpd
Industrial:	0 gpd
Total:	142 gpd

Table 2 – Requested Maximum Day Demand

Maximum Daily Water Demand (MDD) in gallons per day:

Domestic:	560 gpd
Irrigation:	0 gpd
Industrial:	0 gpd
Total:	560 gpd

Table 3 – Anticipated Recycled Water Demand

ADD (gpd)	MDD (gpd)
541	2,736

The City's Zero Water Footprint (ZWF) Policy requires new development to offset all of its water demands in order to prevent reduction in the reliability of existing water supplies or increases in water rates to existing customers. In light of the information submitted in the Application the City has determined that the Property will not have a Zero Water Footprint because once complete, the Property's proposed ADD (142 gpd) will be greater than the established baseline ADD (0 gpd). Because the Owner is requesting service greater than the established baseline demand, the Property will potentially reduce the reliability of existing water supplies and increase costs to existing customers. In accordance with this Policy, because the Property has been determined to not have a Zero Water Footprint, a more detailed Water Supply Report has been prepared, and is attached hereto and made a part of this "Will-Serve" Letter. In order to comply with the ZWF Policy and offset the Property's demand, the applicant shall contribute to the City's ZWF Mitigation Fund whereby the City will continue to undertake water conservation efforts to

offset the requested ADD increase of 142 gpd. Such efforts will result in this Property achieving a net zero impact to the City's water system, therefore adhering to the ZWF Policy.

This Will-Serve Letter supersedes any other purported service commitments to the Property for any use. By way of this Will-Serve Letter, the City is offering to meet the water service demands shown in Tables 1 & 2. The City's offer is contingent upon the occurrence and/or satisfaction of the following conditions and the continued existence of the following described conditions:

1. Owner shall be subject to all City's rules and regulations, including all fees and charges.

2. At no cost to the City, the Owner shall construct all facilities necessary to serve the Property in accordance with all City standards.

3. As part of the application process, the owner/developer shall submit a Developer Deposit Project Setup Form and pay the required deposit of $2,000. The deposit will be retained and the owner will receive a monthly statement of charges for the cost of processing the application, including writing water will serve and water supply report, plan review and inspections. At the close of the project, the last statement will be deducted from the deposit and remainder will be refunded to the owner.

4. The City has experienced potential reduction and/or curtailment of its primary sources of water supply during times of drought. When these reductions occur, the City's demands may exceed available supplies. In an effort to reduce this undesirable imbalance, the City is taking steps to reduce customer demands while also seeking to acquire additional supplies. The cost of these additional supplies is unknown at this time, and is not included in the current City water rates. The City is considering implementing potential changes to its rate structure which would be applied in a uniform manner in order to acquire such supplies. The Owner agrees to waive any protest to changes to current City water rates necessary to acquire additional water supplies during their formulation, implementation and review under the California Environmental Quality Act, Public Resources Code section 21000 et seq. ("CEQA") as long as such changes are initiated during the term of this Will Serve Water Supply Agreement or any extension thereof. Moreover, the Owner acknowledges that the City, during dry years, may be unable to meet the Property's water service demands and that its water service may be uniformly reduced and/or curtailed entirely. Owner further agrees to indemnify, defend and hold harmless the City, its elected officials, officers, attorneys, employees or agents for any and all damages or claims of damages stemming from such uniform reductions or curtailments that may occur as long as they are directly related to the City's provision for water to the Property.

5. As a result of Vineyard Area Citizens for Responsible Growth v. Rancho Cordova (2007) 40 Cal.4th 412, the City, as lead agency pursuant to CEQA, prior to approval the project must, at a minimum during its environmental review:

   a. Presented sufficient facts to evaluate the pros and cons of supplying the water that the Project will need; and

   b. Presented analysis that assumes that all phases of the Project will be built and will need water, and includes an analysis to the extent reasonably possible of the consequences of the impacts of providing water to the entire project; and

   c. Where it is impossible to determine that anticipated future water sources will be available, some discussion of possible replacement sources or alternatives to use of anticipated water and of the environmental consequences of those impacts were presented.

6. The Owner agrees its financial obligation for water service is as follows:

   a. Monthly water service charges will be billed at the current rate of $6.59 per unit (1 unit = 748 gal). At present the estimated average monthly water service fee will be approximately $37.53[1], plus meter fees and any surcharges. Service charges will be billed at the rates in effect at the time of service and are subject to change.

   b. The water capacity fee for the Property will be $ 13,865.60[2] based on MDD of 560 gal.

   c. The ZWF Mitigation (offset) cost for the Property is $1,310.77[3]in order to achieve compliance with the ZWF Policy.

   d. Capacity fees and mitigation funds are due and payable prior to issuance of a building permit.

7. The Property shall incorporate the following water conservation best management practices:
   - Ultra-low-flow toilets in restrooms
   - Ultra-low-flow fixtures and appliances
   - On demand (Instahot) hot water heaters or the plumbing of hot water return lines with an integral pump if using a centralized tank or tankless unit
   - Installation of ET Smart irrigation controllers

---

[1] (142 gpd/748) * 30 days * $6.59 = $37.53/month
[2] Calculation: 560 gpd x $24.76 = $ 13,865.60. This fee based on rates effective December 17, 2019. Actual fee to be based on rates in effect at time of payment.
[3] Calculation: 142 gpd/65 gpd x $600 = $1,310.77

- Use of recycled water for irrigation
- Education of employees regarding water conservation (offered both in English and in Spanish.

8. The City reserves the right to audit the site's water demand as deemed necessary in order to verify that the Owner's water use is in accordance with this Will-Serve letter.

9. Future changes to the Project with respect to the change in use or water demands shall require that a new Will-Serve Letter be issued.

10. Development of the remaining parcel(s) will require a separate Will-Serve Letter.

This Will-Serve Letter will remain valid until April 30, 2020. The City reserves the right to further condition and/or deny the extension of water service if the Project is different from that which presently proposed and authorized or if events out the City's control impact the City's ability to furnish water.

Except to the extent set forth, this letter does not create a liability or responsibility to the Owner or to any third party on behalf of the City. The City does not make a determination as to land use entitlements required for the proposed project, and the issuance of this Will Serve letter shall not be construed to be an expression of the City of a position regarding the use or intensity of use of the development Property or that the County has complied with applicable law in assessing the proposed project under CEQA.

This Will Serve letter becomes effective only upon the express acknowledgement and acceptance of the conditions set forth herein as demonstrated by the execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City.

Sincerely yours,

Richard Kaufman, P.E.
Public Works Director/City Engineer

cc: Jason Holley, City Manager
William Ross, City Attorney
Susan Presto, Finance Manager
Utility Billing

ACCEPTANCE
of
City's Conditional Offer of Water Service for

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Numbers 058-030-065

I, _____, _____,
(Print Name) (Print Title)

accept the conditions set forth in this communication.

_____ Date: _____
(Signature)

CITY OF AMERICAN CANYON

PUBLIC WORKS DEPARTMENT

4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

FOR

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Number 058-030-065

Prepared by:

Edison Bisnar Jr.
Development Services

Approved by:

Richard Kaufman, P.E. **Date**
Public Works Director/City Engineer

TABLE OF CONTENTS

PREFACE

This Water Supply Report (WSR) is prepared in response to a request received by the City of American Canyon for a new water service(s) and/or an expansion of existing water service(s). The intent of the WSR is to help inform the discretionary approval process undertaken in conjunction with the request. Chief among its purpose is to:

- Determine if the request is consistent with City ordinances, policies, and practices;
- Determine whether the City's water supply is sufficient to grant the request when compared to existing and other planned future uses, including agricultural and manufacturing uses; and
- To establish a water allocation for the property.

On October 23, 2007, the American Canyon City Council adopted the following definition as the basis for its Zero Water Footprint (ZWF) Policy:

> Zero Water Footprint – No loss of water service reliability or increase in water rates to the City of American Canyon's existing water service customers due to requested increase demand for water within the City's water service area.

The overarching intent of the ZWF Policy is to require all new development (residential or non-residential), or the expansion of existing commercial and industrial development, to mitigate all new water demands with "wet-water" offsets by one or more of the following options:

- Reducing existing potable water demands on-site
- Funding programs or constructing projects that would conserve an equivalent amount of water elsewhere within the water service area
- Funding of and/or constructing projects that would increase an equivalent amount of recycled water use elsewhere within the water service area where potable water is currently used.
- Purchase new water supplies from other water providers

SECTION 1.0 - REQUEST FOR SERVICE

1.1 - Property Description

The property at 1075 Commerce Court in American Canyon (Assessor's Parcel Number: 058-030-065) and is referred to herein as the "Property." The Property is zoned General Industrial (GI) and is located within the City's Corporate Boundary.

1.2 - Project Description

The project is a new 217,294 square foot warehouse building to be used for storage and distribution of case-good wines and wine industry goods. A Will-Serve and a Conditional Use Permit (PL20-0008) is under review by the City.

The project will incorporate the following water conservation best management practices:

- Ultra-low flow toilets in restrooms
- Ultra-low flow fixtures and appliances
- On demand hot water heaters for all lavatories & breakrooms or the plumbing of hot water return lines with a timed recirculation pump
- Installation of an ET Smart irrigation controllers
- Use of recycled water for landscaping
- Education of employees regarding water conservation (offered in both English and Spanish).

1.3 - Status of Existing Services

The property is currently vacant. The City has no record of historical potable water use at the property. No prior Will-Serve Letters have been issued by the City. The property can be served by City recycled water.

1.4 - Will Serve Application

A Will-Serve Application was submitted by the Owner, Mr. Peter Stravinski on April 7, 2020. The application submitted details the anticipated and existing water demands for the project. Staff has reviewed the provided application and finds the estimate to be consistent with industry standards for similar uses.

1.5 - "Average-Day" Demand (ADD)

As shown on Table 1, the anticipated "Average-Day" Demand (ADD) for the Property is 142 gpd.

Table 1 – Property ADD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
142	0	0	142

1.6 - Maximum Day Demand (MDD)

As shown in Table 2, the anticipated Maximum Demand (MDD) for the Property is 560 gpd.

Table 2 – Property MDD			
Domestic (gpd)	Industrial (gpd)	Irrigation (gpd)	Total (gpd)
560	0	0	560

SECTION 2.0 - PROJECT WATER FOOTPRINT

2.1 - Baseline Water Footprint

The Property's Baseline Water Footprint is determined as one of the following: a) the approved demand amount specific in a current, (unexpired) Will-Serve Letter, Water Supply Report and/or Water Service Agreement; b) the water demand calculated from an audit of three-years of water use; or c) absent other information, the water demand in 2007. As shown in Table 3 below, the Property's baseline water footprint is 0 gpd.

Table 3 – Baseline Water Footprint			
Approved Demand (gpd)	Audited Demand (gpd)	Historical Demand (gpd)	Baseline Water Footprint
N/A	N/A	0	0

2.2 - Zero Water Footprint Determination

Because the Property ADD (142 gpd) exceeds the Property's Baseline Water Footprint, the Property <u>does not</u> have a Zero Water Footprint (ZWF). Because the Property does not have a ZWF, the new demand(s) on the City's

water system could potentially result in a loss in water service reliability or increase in water rates to the City's existing customers.

2.3 - Demand Offset

The City has established various programs intended offset new demand(s) on its water system. The Property has agreed to participate in one such program whereby old plumbing fixtures in existing residences (such as toilets, showers and faucets) are replaced with high-efficiency fixtures. On average the cost to replace the fixtures in a single family dwelling unit is $600 and results in an on-going savings of 65 gpd. By facilitating the replacement of these fixtures city-wide, the Property's new demand is offset by water which is saved elsewhere. The Property has agreed to contribute $1,310.77[1] to the City's Zero Water Footprint Mitigation Fund. Monies in the Fund are used to pay for replacement of plumbing fixtures. The amount paid will result in equivalent savings of 142 gpd, thereby offsetting the Property's new ADD.

2.4 - Project Impact on Reliability & Rates

The City's water treatment, delivery and storage system is reliable to serve demands of existing development that existed at the time of ZWF Policy implementation in 2007. New or increased demands to the City's system after the implementation of the ZWF Policy are determined to potentially have a negative impact on the City's water system reliability which could result in an increase in water rates of existing customers. By facilitating the replacement of inefficient plumbing fixtures through the monetary contribution to the City's ZWF Mitigation Fund, the Property has offset its new demand and thus, it is reasonable to conclude that it will have no impact on reliability or rates.

2.5 - Short term mitigations

The water impacts of the Property will be fully mitigated by the financial contribution it makes to the water capacity fee program in addition to the ZWF Mitigation fee it will make to mitigate 100% of the Property's new water demand.

2.6 - Long term mitigations

The City's Water Shortage Emergency Plan authorizes the City Council to declare a water shortage emergency[2]. Emergencies are declared in four stages with specific reduction methods used for each stage. In the event the City experiences short term water shortages and determines it is necessary to purchase dry year water the Owner shall provide funds to the City of American Canyon to purchase dry-year water. Upon demand of the Public

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[1] Calculation: 142gpd/65 gpd x $600 = $1,310.77
[2] ACMC §13.14.070

Works Director, when a water shortage has been declared by the City Council, the project may have to contribute a reasonably determined and reasonably allocated non-refundable payment to the water operations fund to allow the City to acquire dry-year water, if reasonably necessary. The projects contribution shall be equal to the properties reasonably allocated annual demand (AFY) times the City's reasonable cost of a one-year transfer. The annual demand will be implemented uniformly to all City water uses, determined by a City water audit of all City water uses for the previous water year and the analysis in reasonable detail made available to the Owner for reasonable review and comment prior to implementation. The contribution shall be recalculated and made on an annual basis, as reasonably necessary.

SECTION 3.0 – CAPACITY FEES AND SERVICE CHARGES

3.1 - Capacity Fee

Based on the American Canyon Water Capacity Fee Ordinance[3], the Property shall pay a Water Capacity Fee is $13,865.60. This one-time fee is based on the rate of $24.76 per gallon per day (MDD) based on rates in effect December 17, 2020 rates. The actual fee will be based on rates effective at the time of payment.

3.2 – Service Charge

The Property is located within the City's Corporate Boundary and based on the American Canyon Water Rates and Connection Fee Ordinance[4], the Property shall pay a monthly service charge in the amount of $6.59/100 cubic feet, plus any rate surcharges and monthly meter fees. Based on the AADD, the estimated water service charge is approximately $37.53[5] per month. All service charges shall be based on actual use and rate schedule that is in place at time of billing.

3.3 - Reimbursable Improvements

The Property proposes no water or recycled system improvements that would be eligible for reimbursement by the City.

SECTION 4.0 - *VINEYARDS* ANALYSIS

4.1 – *Vineyards* Decision

The California Supreme Court decision "*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association, et al*." sets forth guidelines for evaluating the water

[3] ACMC §13.06.090
[4] ACMC §13.06.040
[5] (142 gpd/748) * 30 days * $6.59 = $37.53/month

supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

4.2 - Facts With Respect to Existing Water Supply and Demand

The City's 2015 Urban Water Management Plan (UWMP) analyzed existing demands and anticipated future demand growth. The 2015 UWMP also quantified the amounts and reliability of its water supplies in various planning horizon scenarios.

The City has entered into enforceable long-term contracts for its supply of potable water. The suppliers are the State Department of Water Resources (DWR) and City of Vallejo. The DWR supplies are provided by the State Water Project (SWP) and they vary each year up to a maximum of 5,200 acre-feet. The Vallejo supplies are 500 acre-feet of raw water as needed and up to 2,000 acre-feet of treated water may be purchased as a retail customer.

City customers consumed 2,460 acre-feet of SWP water in 2015. The 2015 UMWP determined adequate supplies exist for all planning horizons and supply scenarios, except for the "single-dry year scenarios". For single dry year scenarios only 2025 appears to have adequate supplies.

New water demand from the Project and reduced per capita consumption (facilitated by the City's Water Conservation Program) were anticipated as part of the assumed future demand growth in all planning horizons and supply scenarios in the 2015 UWMP. If the total AADD or MDD exceed the totals shown in this report, the applicant will be subject to penalties in-place at the time and has agreed to take the necessary measures to reduce demand to comply with this report.

4.3 – Anticipated Water Supplies over the Life of the Project

The City has developed a capacity fee capital program and water conservation program which, when implemented, will reasonably ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

By fully complying with the City's ZWF Policy, the project will offset its new demand by paying an in-lieu fee that will be used by the City to implement its water conservation efforts to reduce potable water demands throughout its Water Service Area. Given the City's efforts to expand its water portfolio in terms of supply, storage, and conservation, and the fact that this project will not result in an increased demand on the existing system, it is reasonable to project there is sufficient water supply over the life of the project.

4.4 – Environmental Impacts of Likely Future Water Sources

According to the 2015 UWMP, adequate long-term supplies exist for all planning horizons and supply scenarios, except "under single-dry water year conditions, the supply is generally sufficient until sometime after 2030 when shortfalls begin to appear." The Project will offset its new demand by paying a ZWF Mitigation fee that will be used by the City to further its water conservation efforts to reduce potable water demands throughout its Water Service Area. These efforts will have no significant impacts to the physical environment.

Moreover, it is unlikely that additional long-term supplies will need to be developed to meet the new demands attributable to the Project and it would be unnecessarily speculative to analyze the potential impact of such an unlikely activity.

Lastly, the City Council adopted a Mitigated Negative Declaration in November 2003 in conjunction with the adoption of the Recycled Water Facilities Plan. That plan identifies a series of projects which in conjunction with the water conservation program will reduce potable water demands throughout its Water Service Area. Impacts caused by the implementation of the Recycled Water Facilities Plan are less than significant because the new recycled water distribution pipelines were to be located in existing paved public rights of way.

ACKNOWLEDGEMENT OF WATER SUPPLY ANALYSIS

Mr. Peter Stravinski
SDG Commerce 217, LLC

1075 Commerce Court, American Canyon, CA 94503
Napa County Assessor's Parcel Number 058-030-065

I, _____, acknowledge and accept the water supply analysis as set forth in this Water Supply Report dated_____2020.

_____
(Print Name and Title)

Date: _____

_____ Date: _____
(Signature)

Appendix I

Draft COVID-19 Exposure Control Plan

COVID – 19

Exposure Control Plan (ECP)

DRAFT
4.6.2020

Industrial & Commercial Contractors, LP
413 W. Yosemite Ave, Suite 105
Madera, CA 93637
(559) 674-0906
License # 506265

TABLE OF CONTENTS

Pages

COVID – 19 Exposure Control Plan (ECP)

COVID-19 Exposure Control Plan for Construction

Industrial & Commercial Contractors, LP (ICC) takes the health and safety of our employees very seriously. With the spread of the coronavirus or "COVID-19," a respiratory disease caused by the SARS-CoV-2 virus, we all must remain vigilant in mitigating the outbreak. This is particularly true for the construction industry, which has been deemed "essential" during this Declared National Emergency. In order to be safe and maintain operations, we have developed this COVID-19 Exposure Prevention, Preparedness, and Response Plan to be implemented throughout ICC / Subcontractor and at all our jobsites. We have also identified a team of employees to monitor available U.S. Center for Disease Control and Prevention ("CDC") and Occupational Safety and Health Administration ("OSHA") guidance on the virus.

This Plan is based on currently available information from the CDC and OSHA and is subject to change based on further information provided by the CDC, OSHA, and other public officials.

ICC may also amend this Plan based on operational needs.

1. Responsibilities of Managers and Supervisors

All managers and supervisors must be familiar with this Plan and be ready to answer questions from employees. Managers and supervisors must always set a good example by following this Plan. This involves practicing good personal hygiene and jobsite safety practices to prevent the spread of the virus. Managers and supervisors must encourage this same behavior from all employees.

2. Responsibilities of Employees / Subcontractors

We are asking every one of our employees and subcontractors to help with our prevention efforts while at work. In order to minimize the spread of COVID-19 at our jobsites, we all must play our part. As set forth below, ICC has instituted various housekeeping, social distancing, and other best practices at our jobsites. All employees / workers must follow these.

Everyone is a partner in insuring jobsite safety and if you observe a person or situation which is unsafe you should immediately notify your supervisor or safety personnel.

In addition, employees are expected to report to their managers or supervisors if they are experiencing signs or symptoms of COVID-19, as described below. If you have a specific question about this Plan or COVID-19, please ask your manager or supervisor. If they cannot answer the question, please contact ICC Safety Manager, Kevin Barnes at 559-674-0906.

OSHA and the CDC have provided the following control and preventative guidance to all workers, regardless of exposure risk:

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Follow appropriate respiratory etiquette, which includes covering for coughs and sneezes.
- Avoid close contact with people who are sick.
- In addition, employees must familiarize themselves with the symptoms of COVID-19:
- Coughing, Fever; Shortness of breath, difficulty breathing; and early symptoms such as chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose.

If you develop a fever and symptoms of respiratory illness, such as cough or shortness of breath, DO NOT GO TO WORK and call your healthcare provider right away. Likewise, if you come into close contact with someone showing these symptoms, call your healthcare provider right away. If you do not go to work be sure to inform your direct supervisor in the usual manner.

3. Job Site Protective Measures

ICC has instituted the following protective measures at all jobsites.

A. General Safety Policies and Rules

- Any employee/contractor/visitor showing symptoms of COVID-19 will be asked to leave the jobsite and return home.
- Safety meetings will be by telephone, if possible. If safety meetings are conducted in-person, attendance will be collected verbally, and the foreman/superintendent will sign-in each attendee. Attendance will not be tracked through passed-around sign-in sheets or mobile devices. During any in-person safety meetings, avoid gathering in groups of more than 10 people and participants must remain at least six (6) feet apart.
- Employees must avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six (6) feet. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers.
- All in-person meetings will be limited. To the extent possible, meetings will be conducted by

telephone.

- Employees will be encouraged to stagger breaks and lunches, if practicable, to reduce the size of any group at any one time to less than ten (10) people.

- ICC and Subcontractors understands that due to the nature of our work, access to running water for hand washing may be impracticable. In these situations, ICC / Subcontractor will provide, if available, alcohol-based hand sanitizers and/or wipes.

- Employees should limit the use of co-worker's tools and equipment. To the extent tools must be shared, Subcontractor will provide disinfectant to clean tools before and after use.

- Employees are encouraged to limit the need for N95 respirator use, by using engineering and work practice controls to minimize dust. Such controls include the use of water delivery and dust collection systems, as well as limiting exposure time.

- Employees shall avoid ride-share. While in vehicle, employees must ensure adequate ventilation.

- If practicable, employees should use/drive the same truck or piece of equipment every shift.

- In lieu of using a common source of drinking water, such as a cooler, employees should use individual water bottles.

B. Workers entering Occupied Building

- When employees perform construction and maintenance activities within occupied office buildings, and other establishments, these work locations present unique hazards with regards to COVID-19 exposures. All such workers should evaluate the specific hazards when determining best practices related to COVID-19.

- During this work, employees must sanitize the work areas upon arrival, throughout the workday, and immediately before departure. ICC / Subcontractor will provide alcohol-based wipes for this purpose.

- Employees should ask other occupants to keep a personal distance of six (6) feet at a minimum. Workers should wash or sanitize hands immediately before starting and after completing the work.

C. Job Site Visitors

- The number of visitors to the job site, including the trailer or office, will be limited to only those necessary for the work.

- All visitors will be screened in advance of arriving on the job site. If the visitor answers "yes" to

any of the following questions, he/she should not be permitted to access the jobsite:

- Have you been confirmed positive for COVID-19?
- Are you currently experiencing, or recently experienced, any acute respiratory illness symptoms such as fever, cough, or shortness of breath?
- Have you been in close contact with any persons who has been confirmed positive for COVID- 19?
- Have you been in close contact with any persons who have traveled and are also exhibiting acute respiratory illness symptoms?

- Site deliveries will be permitted but should be properly coordinated in line with the employer's minimal contact and cleaning protocols. Delivery personnel should remain in their vehicles if possible.

D. Personal Protective Equipment and Work Practice Controls

- In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:

- Gloves: Gloves should always be worn while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Employees should avoid sharing gloves.

- Eye protection: Eye protection should always be worn while on-site.

- **NOTE:** The CDC is currently not recommending that healthy people wear N95 respirators to prevent the spread of COVID-19. Employees should wear N95 respirators if required by the work and if available.

- Due to the current shortage of N95 respirators, the following Work Practice Controls should be followed:

    - Keep dust down by using engineering and work practice controls, specifically using water delivery and dust collection systems.
    - Limit exposure time to the extent practicable.
    - Isolate workers in dusty operations by using a containment structure or distance to limit dust exposure to those employees who are conducting the tasks, thereby protecting nonessential workers and bystanders.

- Institute a rigorous housekeeping program to reduce dust levels on the jobsite.

4. Job Site Cleaning and Sanitation

- ICC and Subcontractors shall institute regular housekeeping practices, which includes cleaning and disinfecting frequently used tools and equipment, and other elements of the work environment, where possible. Employees should regularly do the same in their assigned work areas.

- Jobsite trailers and break/lunchroom areas will be cleaned at least once per day. Employees performing cleaning will be issued proper personal protective equipment ("PPE"), such as nitrile, latex, or vinyl gloves and mask as recommended by the CDC.

- Any trash collected from the jobsite must be changed frequently by someone wearing nitrile, latex, or vinyl gloves.

- Any portable jobsite toilets should be cleaned by the leasing company at least twice per week and disinfected on the inside. ICC / Subcontractor will ensure that hand sanitizer dispensers, where available, are always filled. Frequently touched items (i.e. door pulls and toilet seats) will be disinfected frequently.

- Stock additional toilet paper as needed.

- A designated worker shall check the facilities each morning or before each shift to assure the cleaning was performed at least twice a week. Check date on cleaning tag.

- Vehicles and equipment/tools should be cleaned at least once per day and before change in operator or rider.

- If an employee has tested positive for COVID-19, OSHA has indicated that there is typically no need to perform special cleaning or decontamination of work environments, unless those environments are visibly contaminated with blood or other bodily fluids. Notwithstanding this, ICC / Subcontractor will clean those areas of the jobsite that a confirmed-positive individual may have meet before employees can access that workspace again.

- ICC and Subcontractors will ensure that any disinfection shall be conducted using one of the following:

    - Common EPA-registered household disinfectant; or

    - Diluted household bleach solutions (these can be used if appropriate for the surface).

- ICC / Subcontractor will maintain Safety Data Sheets of all disinfectants used on site.

5. Jobsite Exposure Response Situations

- **Employee Exhibiting COVID-19 Symptoms**

  - ICC and Subcontractors will confirm with individual that they should not return to work until a doctor confirms it is safe. Currently, direction is at least 72 hours after the resolution of fever (below 100.4° F [37.8° C]), and respiratory symptoms, including cough, without employing fever-lowering medications or cough suppressants.

  - Confirm individual is receiving care they need.

  - Confirm areas and people the individual had contact with and during what time.

  - Try and determine if the individual knows when they might have been exposed.

  - Confirm that individual should not report to work and should self-quarantine to avoid contact with other people as much as possible to keep from spreading illness.

  - For employees who have tested positive, communicate all available resources and benefits available to them including that this time off will be considered sick leave and short-term disability for those who become eligible.

  - Subcontractor employees, should check with their employer to determine leave benefits.

  - If an individual receives notification of a positive diagnosis of COVID-19 while at the project or office, please isolate them in a separate room and provide them a mask to wear. The comfort and the care we show is important to everyone's mindset.

- **Employee Tests Positive for COVID-19**

  - An employee that tests positive for COVID-19 will be directed to self-quarantine away from work. Employees that test positive and are symptom free may return to work when at least seven (7) days have passed since the date of his or her first positive test and have not had a subsequent illness. Employees that test positive and are directed to care for themselves at home may return to work when: (1) at least 72 hours (3 full days) have passed since recovery;[1] and (2) at least seven (7) days have passed since symptoms first appeared. Employees that test positive and have been hospitalized may return to work when directed to do so by their medical care provider. ICC will require an employee to a Subcontractor's employee to provide documentation clearing their return to work.

[1] Recovery is defined as: (1) resolution of fever with the use of fever-reducing medications; and (2) improvement in respiratory symptoms (e.g., cough, shortness of breath).

6. OSHA Recordkeeping

If a confirmed case of COVID-19 is reported, ICC / Subcontractor will determine if it meets the criteria for recordability and reportability under OSHA's recordkeeping rule. OSHA requires construction employers to record work-related injuries and illnesses that meet certain severity criteria on the OSHA 300 Log, as well as complete the OSHA Form 301 (or equivalent) upon the occurrence of these injuries. For purposes of COVID-19, OSHA also requires employers to report to OSHA any work-related illness that (1) results in a fatality, or (2) results in the in-patient hospitalization of one or more employee. "In-patient" hospitalization is defined as a formal admission to the in-patient service of a hospital or clinic for care or treatment.

OSHA has decided that COVID-19 should *not* be excluded from coverage of the rule – like the common cold or the seasonal flu – and, thus, OSHA is considering it an "illness." However, OSHA has stated that only confirmed cases of COVID-19 should be considered an illness under the rule. Thus, if an employee simply comes to work with symptoms consistent with COVID-19 (but not a confirmed diagnosis), the recordability analysis would not necessarily be triggered at that time.

If an employee has a confirmed case of COVID-19, ICC and Subcontractor will assess any workplace exposures to determine if the case is work-related. Work-relatedness is presumed for illnesses that result from events or exposures in the work environment, unless it meets certain exceptions. One of those exceptions is that the illness involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs *outside* of the work environment. Thus, if an employee develops COVID-19 *solely* from an exposure outside of the work environment, it would *not* be work-related, and thus not recordable.

The Company's assessment will consider the work environment itself, the type of work performed, risk of person-to-person transmission given the work environment, and other factors such as community spread. Further, if an employee has a confirmed case of COVID-19 that is considered work-related, ICC and Subcontractor will report the case to OSHA if it results in a fatality within 30 days or an in-patient hospitalization within 24-hours of the exposure incident occurring.

7. Essential Business

Several States and localities are issuing orders that prohibit work and travel, except for essential businesses. In general, construction work has been deemed essential and ICC is committed to continuing operations safely. If upon your travel to and from the worksite, you are stopped by State or local authorities, you will be provided a letter that you can show the authorities

indicating that you are employed in an “essential” industry and are commuting to and from work.

8. Confidentiality/Privacy

Except for circumstances in which ICC is legally required to report workplace occurrences of communicable disease, the confidentiality of all medical conditions will be maintained in accordance with applicable law and to the extent practical under the circumstances. When it is required, the number of persons who will be informed of an employee’s condition will be kept at the minimum needed not only to comply with legally-required reporting, but also to assure proper care of the employee and to detect situations where the potential for transmission may increase. A sample notice to employees is attached to this Plan. ICC reserves the right to inform other employees that a co-worker (without disclosing the person’s name) has been diagnosed with COVID-19 if the other employees might have been exposed to the disease so the employees may take measures to protect their own health.

9. General Questions

Given the fast-developing nature of the COVID-19 outbreak, ICC may modify this Plan on a case by case basis. If you have any questions concerning this Plan, please contact ICC Safety Manager, Kevin Barnes.

What is COVID-19?

The novel coronavirus, COVID-19 is one of seven types of known human coronaviruses. COVID-19, like the MERS and SARS coronaviruses, likely evolved from a virus previously found in animals. The remaining known coronaviruses cause a significant percentage of colds in adults and children, and these are not a serious threat for otherwise healthy adults. Patients with confirmed COVID-19 infection have reportedly had mild to severe respiratory illness with symptoms such as fever, cough, and shortness of breath.

How is COVID-19 Spread?

COVID-19, like other viruses, can spread between people. Infected people can spread COVID-19 through their respiratory secretions, especially when they cough or sneeze. According to the CDC, spread from person-to-person is most likely among close contacts (about 6 feet). Person-to-person spread is thought to occur mainly *via* respiratory droplets produced when an infected person coughs or sneezes, like how influenza and other respiratory pathogens spread. There is much more to learn about the transmissibility, severity, and other features associated with COVID-19, and investigations are ongoing.

COVID-19 Prevention and Work Practice Controls:

Worker Responsibilities

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow.
- Avoid touching your eyes, nose, or mouth with unwashed hands. Avoid close contact with people who are sick.
- Notify your supervisor if you have symptoms (i.e., fever, cough, or shortness of breath) and stay home—DO NOT GO TO WORK.
- Avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six (6) feet. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers.
- Avoid ride-sharing. While in vehicle, ensure adequate ventilation.
- If practicable, use/drive the same truck or piece of equipment every shift.
- In lieu of using a common source of drinking water, such as a cooler, use individual water bottles.
    - Maintain at least (6) feet of personal space while waiting to enter or exit the project.

General Job Site Practices

- Clean AND disinfect frequently touched objects and surfaces. Dirty surfaces can be cleaned with soap and water prior to disinfection.
- Avoid using other employees' phones, desks, offices, or other work tools and equipment, when possible. If necessary, clean and disinfect them before and after use.
    - Clean and disinfect frequently used tools and equipment on a regular basis.
    - Clean shared spaces such as trailers and break/lunchrooms at least once per day.
    - Disinfect shared surfaces (door handles, machinery controls, etc.) on a regular basis.
    - Avoid sharing tools with co-workers if it can be avoided. If not, disinfect before and after each use.
    - Arrange for any portable job site toilets to be cleaned by the leasing company at least twice per week and disinfected on the inside.
    - Any trash collected from the jobsite must be changed frequently by someone wearing gloves.
    - In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:
        - Gloves: Gloves should always be worn while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Gloves should not be shared.
        - Eye protection: Eye protection should always be worn while on-site.

Appendix J

Mitigation Monitoring and Reporting Program (to be included in Final IS)

Appendix K

State Clearinghouse Draft IS Circulation Documents (to be included in Final IS)

Appendix L

Comments Received on Draft IS and Responses (to be included in Final IS)