

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Sacramento Street Bridge Replacement Project (STPLZ 5030(056))

Lead Agency: City of Vallejo Department of Public Works Contact Person: Srinivas Muktevi
Mailing Address: 555 Santa Clara Street Phone: (707) 651-7107
City: Vallejo Zip: 94590 County: Solano

Project Location: County: Solano City/Nearest Community: Vallejo
Cross Streets: The project is located on Sacramento Street between Farrgut Avenue and Illinois Street Zip Code: 94590
Longitude/Latitude (degrees, minutes and seconds): 38 ° 06 ' 43.7 " N / 122 ° 15 ' 28.9 " W Total Acres: 26.31
Assessor's Parcel No.: Section: 13 Twp.: 3 North Range: 4 West Base:
Within 2 Miles: State Hwy #: 29 & 37 Waterways: Napa River, White Slough
Airports: Railways: City Owned Schools: Vallejo Educational Acad

Document Type:

CEQA: [] NOP [] Draft EIR NEPA: [] NOI Other: [] Joint Document
[] Early Cons [] Supplement/Subsequent EIR [] EA [] Final Document
[] Neg Dec (Prior SCH No.) [] Draft EIS [] Other:
[X] Mit Neg Dec Other: [] FONSI

Local Action Type:

[] General Plan Update [] Specific Plan [] Rezone [] Annexation
[] General Plan Amendment [] Master Plan [] Prezone [] Redevelopment
[] General Plan Element [] Planned Unit Development [] Use Permit [] Coastal Permit
[] Community Plan [] Site Plan [] Land Division (Subdivision, etc.) [X] Other: Transportation

Development Type:

[] Residential: Units Acres
[] Office: Sq.ft. Acres Employees [X] Transportation: Type Bridge Replacement
[] Commercial: Sq.ft. Acres Employees [] Mining: Mineral
[] Industrial: Sq.ft. Acres Employees [] Power: Type MW
[] Educational: [] Waste Treatment: Type MGD
[] Recreational: [] Hazardous Waste: Type
[] Water Facilities: Type MGD [] Other:

Project Issues Discussed in Document:

[] Aesthetic/Visual [] Fiscal [] Recreation/Parks [] Vegetation
[] Agricultural Land [] Flood Plain/Flooding [] Schools/Universities [X] Water Quality
[] Air Quality [] Forest Land/Fire Hazard [] Septic Systems [] Water Supply/Groundwater
[X] Archeological/Historical [] Geologic/Seismic [] Sewer Capacity [] Wetland/Riparian
[X] Biological Resources [] Minerals [] Soil Erosion/Compaction/Grading [] Growth Inducement
[] Coastal Zone [X] Noise [] Solid Waste [] Land Use
[] Drainage/Absorption [] Population/Housing Balance [X] Toxic/Hazardous [] Cumulative Effects
[] Economic/Jobs [] Public Services/Facilities [X] Traffic/Circulation [] Other:

Present Land Use/Zoning/General Plan Designation:

Urban Residential, Residential High Density

Project Description: (please use a separate page if necessary)
See Attached

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

<input type="checkbox"/> Air Resources Board	<input checked="" type="checkbox"/> Office of Historic Preservation
<input type="checkbox"/> Boating & Waterways, Department of	<input type="checkbox"/> Office of Public School Construction
<input type="checkbox"/> California Emergency Management Agency	<input type="checkbox"/> Parks & Recreation, Department of
<input type="checkbox"/> California Highway Patrol	<input type="checkbox"/> Pesticide Regulation, Department of
<input checked="" type="checkbox"/> Caltrans District #4	<input type="checkbox"/> Public Utilities Commission
<input type="checkbox"/> Caltrans Division of Aeronautics	<input checked="" type="checkbox"/> Regional WQCB # _____
<input type="checkbox"/> Caltrans Planning	<input type="checkbox"/> Resources Agency
<input type="checkbox"/> Central Valley Flood Protection Board	<input type="checkbox"/> Resources Recycling and Recovery, Department of
<input type="checkbox"/> Coachella Valley Mtns. Conservancy	<input type="checkbox"/> S.F. Bay Conservation & Development Comm.
<input type="checkbox"/> Coastal Commission	<input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
<input type="checkbox"/> Colorado River Board	<input type="checkbox"/> San Joaquin River Conservancy
<input type="checkbox"/> Conservation, Department of	<input type="checkbox"/> Santa Monica Mtns. Conservancy
<input type="checkbox"/> Corrections, Department of	<input type="checkbox"/> State Lands Commission
<input type="checkbox"/> Delta Protection Commission	<input type="checkbox"/> SWRCB: Clean Water Grants
<input type="checkbox"/> Education, Department of	<input checked="" type="checkbox"/> SWRCB: Water Quality
<input type="checkbox"/> Energy Commission	<input type="checkbox"/> SWRCB: Water Rights
<input type="checkbox"/> Fish & Game Region # _____	<input type="checkbox"/> Tahoe Regional Planning Agency
<input type="checkbox"/> Food & Agriculture, Department of	<input type="checkbox"/> Toxic Substances Control, Department of
<input type="checkbox"/> Forestry and Fire Protection, Department of	<input type="checkbox"/> Water Resources, Department of
<input type="checkbox"/> General Services, Department of	Other: _____
<input type="checkbox"/> Health Services, Department of	Other: _____
<input type="checkbox"/> Housing & Community Development	
<input checked="" type="checkbox"/> Native American Heritage Commission	

Local Public Review Period (to be filled in by lead agency)

Starting Date _____ Ending Date _____

Lead Agency (Complete if applicable):

Consulting Firm: DrakeHaglan & Associates	Applicant: City of Vallejo
Address: 11060 White Rock Road, Suite 200	Address: 555 Santa Clara Street
City/State/Zip: Rancho Cordova, CA 95670	City/State/Zip: Vallejo, CA 94590
Contact: Leslie Haglan	Phone: (707) 651-7107
Phone: (916) 363-4210	

Signature of Lead Agency Representative: _____



Date: 12/09/16

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Draft

Sacramento Street Bridge Replacement Project

Initial Study / Mitigated Negative Declaration



Prepared for:
City of Vallejo
Department of Public Works

November 2016

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INITIAL STUDY

Proposed Project

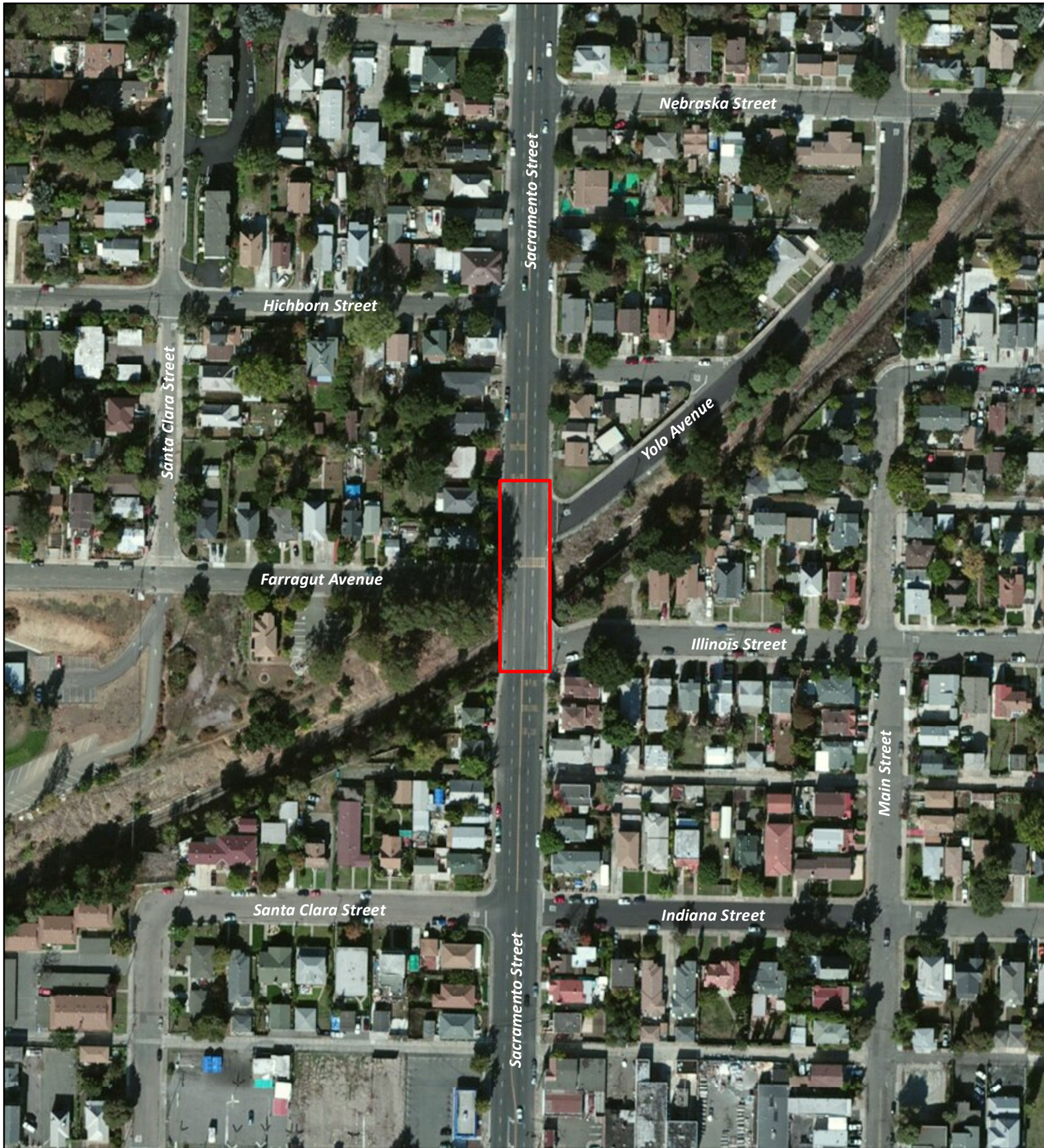
- 1. Project Title:** Sacramento Street Bride Replacement Project (STPLZ 5030 (056))
- 2. Lead Agency Name and Address:** City of Vallejo
- 3. Contact Person and Phone Number:** Srinivas Muktevi, Project Manager (707) 651-7107
- 4. Project Location:** Sacramento Street, between Farrgut Avenue and Illinois Street, City of Vallejo
- 5. Project Sponsor's Name and Address:** Department of Public Works
555 Santa Clara Street
Vallejo, CA 94590
- 6. General Plan Designation(s):** Urban Residential, Commercial
- 7. Zoning Designation(s):** Residential High Density, Residential Low Density, Retail

Introduction

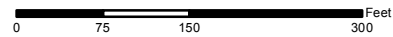
The City of Vallejo (City) proposes to replace the existing bridge on Sacramento Street over City-owned train tracks (Bridge No. 23C-0152) located between Illinois Street and Farrgut Avenue (**Figures 1 and 2**). According to Caltrans' Historic Bridge Inventory the existing bridge was constructed in 1913. In the 1930's the bridge was widened and a span was added, lengthening the bridge to approximately 115 feet. The bridge spans over a single railroad track owned by City, and previously operated by Mare Island Rail Services. Alstom Transportation is the single user of the 2.5 miles of City Track onto Mare Island. The City also has a Track Use Agreement with Cal Northern (California Northern Railroad Company) for operation of this track. They in turn, have an agreement with Alstom to use the track. The railroad tracks will not be in use for the duration of project construction. The general setting is urban with residential and some commercial land uses.

The existing bridge consists of four steel girder spans with reinforced concrete deck slabs spanning between floor beams. The bridge is supported by steel bent frames on individual concrete spread pedestal footings. In 2012, Drake Haglan and Associates Inc. (DHA) prepared a Seismic Retrofit Strategy Report that identified numerous seismic vulnerabilities of the existing structure. In the Seismic Retrofit Strategy Report, DHA recommended bridge replacement in lieu of seismic retrofit.





Sacramento Street Bridge



The City proposes to replace the existing Sacramento Street Bridge with a new bridge that will meet current applicable City of Vallejo, American Association of State Highway and Transportation Officials (AASHTO), and Caltrans design standards for lane and shoulder width. The replacement bridge will also meet Union Pacific Rail Road (UPRR) horizontal and vertical clearances. Roadway capacity of the existing bridge would not be increased.

Project Purpose and Need

The existing bridge structure has reached the end of its design life and is vulnerable to collapse under the Caltrans design earthquake. In addition, the existing bridge does not meet current railroad clearance requirements. The existing vehicular bridge structure has been determined to be structurally deficient with a sufficiency rating of 46.8. There are cracks and raveling present in the AC overlay. The superstructure and substructure have rust on the steel and on the flanges on the steel girders and floor beams.

Sufficiency ratings are used by the Federal Highway Administration (FHWA) to select candidate bridges for the Highway Bridge Program. Sufficiency ratings are determined during the biennial bridge inspection and are intended to indicate a measure of the ability of a bridge to remain in service. Rating are on a scale of 1 to 100, with 100 considered as an entirely sufficient bridge, usually new, and an entirely deficient bridge would receive a rating of 0.

The purpose of the proposed project is to:

- Remove the existing structure and reconstruct with a bridge that will provide adequate and safe pedestrian and vehicle access;
- Provide a new structure that is consistent with City of Vallejo and AASHTO design standards;
- Provide a new structure that meets the current Caltrans Seismic Design Criteria; and
- Provides horizontal and vertical railroad clearances in conformance with UPRR standards.

Project Description

The new bridge will be a single-span, cast-in-place, prestressed (CIP/PS) concrete slab bridge with a clear span of approximately 71 feet and a width of 74 feet. The roadway approaches will conform to the existing roadway at approximately 260 feet to the north and 180 feet to the south of the existing bridge. The new bridge will accommodate four 11-foot-wide travel lanes, two 8-foot-wide shoulders, and two 6-foot wide sidewalks. It is anticipated that the profile will be raised by approximately 1 foot on either side of the bridge to meet both the increased designed speed of 45 mph, per AASHTO standards, as well as UPRR vertical and horizontal clearance requirements. Connecting streets, driveways, and intersection conforms will be improved to meet current AASHTO, City, and ADA standards as well.

Demolition and Construction Staging

Demolition of the existing bridge will be performed in accordance with the Caltrans Standard Specifications modified to meet any environmental permit requirements. All steel, concrete and other debris resulting from bridge demolition will be removed from the project site and disposed of by the contractor. The construction contractor will prepare a bridge demolition plan.

Alstom Transportation is the single user of the 2.5 miles of City Track onto Mare Island. The track will not be in use for the duration of project construction.

During bridge construction, vehicle traffic within the project area will be detoured on to adjacent streets (**Figure 3**). A temporary pedestrian bridge will be constructed to facilitate pedestrian and bicycle access during construction.

Right-of-Way

Due to the profile raise, temporary construction easements will be required from the properties at the northeast and southeast corners of the bridge (APNs 056-01-3010 and 056-04-1240, respectively). Additionally, a temporary construction easement may be required for the property on the northwest corner of the bridge (APN 056-04-3110). Temporary construction easements or rights of entry may also be required from the properties at the southwest corner of the bridge. Permanent easements may be required for the relocated utilities including overhead telephone and electric lines, water mains, and a 4-inch gas line.

At this time no permanent right-of-way parcel acquisitions are anticipated for the project.

Utilities

Several utilities, including overhead telephone and electric lines will need to be relocated as part of the project. There are two water mains on the existing bridge that will be relocated to the new structure and a 4-inch gas line that runs down Sacramento Street and abuts the bridge at the intersection of Illinois Street. This gas line will likely need to be relocated. A 12-inch gas line runs along Yolo Avenue and it will also be relocated to avoid construction impacts. In addition to the relocation of utilities, there may be storm drain modifications.

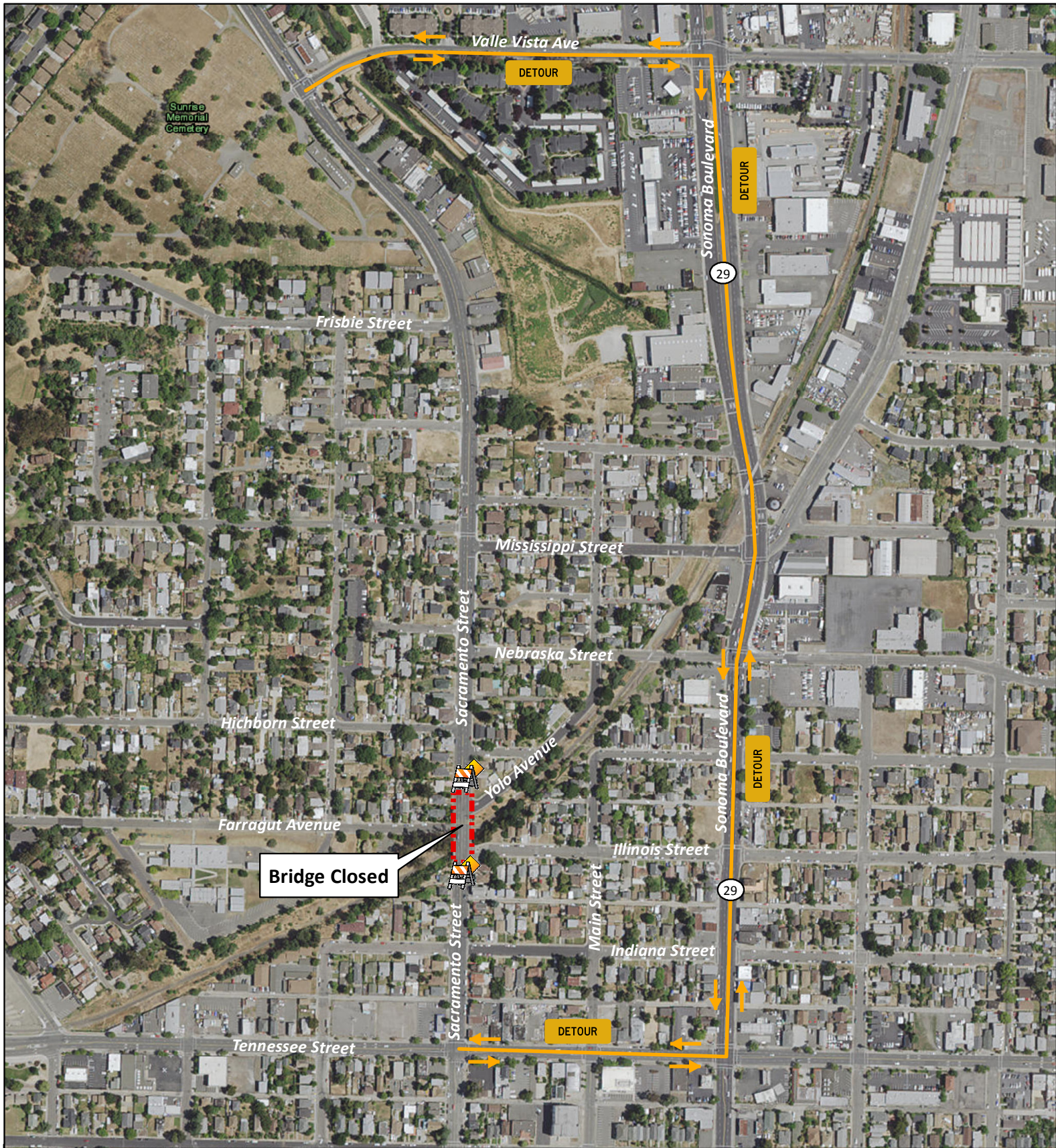
Detour Route

The City of Vallejo has indicated that it will allow closure of Sacramento Street during project construction. There are many detour alternatives available for the project. DHA recommends a detour around the site that would direct 2-way traffic along Nebraska Street, to Sonoma Blvd. (State Highway 29), onto Tennessee Street and back onto Sacramento Street. The Sacramento Street segment between Nebraska Street and Tennessee Street would only be accessible to local residents on either side of the construction site.



Construction Guidelines

Construction will consist of the following activities:

- Installing construction area and detour signs
 - Removing trees
 - Clearing and grubbing
 - Relocating utilities
 - Demolishing existing bridge
- Excavating for the new bridge foundations (maximum of 60 feet deep) Constructing the new bridge and approaches, including excavating for and placing asphalt concrete paving and concrete curb, gutter and sidewalk on each approach and on intersecting streets.



Legend

-  Project Location - Sacramento Street Bridge
-  Detour Route

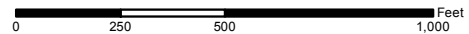


Table 1 provides a description of the type of equipment likely to be used during the construction of the proposed project.

Table 1. Construction Equipment

Equipment	Construction Purpose
backhoe	soil manipulation + drainage work
bobcat	fill distribution
bulldozer / loader	earthwork construction + clearing and grubbing
Crane	placement of falsework beams, lifting rebar cages for piling
dump truck	fill material delivery
excavator	soil manipulation
front-end loader	dirt or gravel manipulation
grader	ground leveling
haul truck	earthwork construction + clearing and grubbing
roller / compactor	earthwork and paving construction
truck with seed sprayer	landscaping
drill rig	cast-in-drilled-hole (CIDH) pile construction
concrete pump	concrete placement
Bid-well paving machine	concrete bridge deck finishing
water truck	earthwork construction + dust control

Construction Schedule and Timing

Construction of the proposed project is anticipated to take approximately 5 months to complete. Construction is scheduled for the 2017 calendar year and would begin in the spring.

Surrounding Land Uses and Setting

The proposed project is located in the City of Vallejo, Solano County, California. The general setting is urban with residential and some commercial land uses. The project site is located in the western portion of the City, between Illinois Street and Farrgut Avenue. The bridge spans over a single railroad track owned by the City of Vallejo. Alstom Transportation is the single user of the 2.5 miles of City Track onto Mare Island. The City also has a Track Use Agreement with Cal Northern (California Northern Railroad Company) for operation of this track. They in turn, have an agreement with Alstom to use the track.

Permits and Approvals Needed

The following permits, reviews, and approvals are required for project construction:

Table 1. Project Permits and Approvals

Agency	Permit/Approval	Status
Caltrans/FHWA	Approval of Categorical Exclusion (CE)	Follows approval of technical studies.
Central Valley Regional Water Quality Control Board	General construction activity stormwater discharge permit	File Notice of Intent and prepare Stormwater Pollution Prevention Plan (SWPPP) required prior to construction

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology, Soils and Seismicity |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Energy | <input checked="" type="checkbox"/> Hazards and Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Land Use Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation and Traffic | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial study:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation 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, no further environmental documentation is required.



Signature
Srinivas Muktevi, Project Manager

12/09/2016

Date

Printed Name

For

ENVIRONMENTAL CHECKLIST

Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Aesthetics – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The project site is located in predominately residential and commercial development. The existing bridge crosses over City-owned train tracks. The proposed project area is representative of the general visual character of the City of Vallejo. The proposed bridge replacement project would not change the current land uses in the area (residential and commercial). The proposed bridge will be constructed at the same location as the existing bridge. It is anticipated that the profile will be raised by approximately 1 foot on either side of the bridge to meet both the increased designed speed of 45 mph per AASHTO standards, as well as UPRR vertical and horizontal clearance requirements. Connecting streets, driveways, and intersections will be improved to meet current AASHTO, City, and ADA standards as well. This is a **less-than-significant impact** and no mitigation measures are required.
- b) A review of the current Caltrans Map of Designated Scenic Routes indicates that there no officially designated scenic highways within Solano County. The project is located in a developed area of the City, and is not located near any officially designated or eligible scenic highway. Therefore, the proposed project would have **no impact** on scenic resources associated with a scenic highway or roadways and no mitigation measures are required.
- c) The visual character of the proposed project would be compatible with the existing visual character of the corridor. The proposed project would not affect the pattern elements (buildings, landscaping trees and vegetation) of the project area. The proposed project would not interrupt land use diversity with addition of new land uses. The replacement of the new bridge and approaches would be similar in scale and slightly elevated above the current bridge and road.

Viewer groups include motorists and adjacent residents. Viewer sensitivity to the proposed roadway changes is considered low because the bridge would have low visual dominance.

Construction of the proposed project would result in temporary changes in local visual conditions, such as clearing and grading at the project site. Any area disturbed during construction will be revegetated with native and appropriate vegetation to minimize erosion and visual contrast with existing vegetation. Given the relatively short-term nature of these construction-related activities, construction-related visual impacts are considered **less-than-significant** and no mitigation measures are required.

Since the proposed project is a replacement of an existing bridge, there would be no permanent changes to existing views. The new bridge would be slightly wider to meet current design standards. No other new structures would be added as part of the project and the proposed project would include a similar bridge structure. These changes in views would not substantially degrade the existing visual character or quality of the site and its surroundings. This is a **less-than-significant impact** and no mitigation measures are required.

- d) The project site is located within an urban setting where street lighting is present. Roadway traffic and lighting from private properties are also sources of nighttime light. The proposed project will not result in any changes that would introduce new sources of light and glare (i.e., billboards, street lamps, security lighting, etc.) to the vicinity of the project site. Additionally, it is not the purpose of the proposed project to increase roadway capacity, so a greater number of vehicles will not be introduced in this area as a result of construction of the proposed project. Consequently, the proposed project would have **no impact** and no mitigation measures are required.

References

California Department of Transportation (Caltrans), 2010. Caltrans Map of Designated Scenic Routes.

Agricultural and Forest Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<p>Agricultural and Forest Resources – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p>				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) Land use in the vicinity of the project is designated as urban residential and commercial. The proposed project would not result in any impact or acquisitions of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; therefore, there is **no impact** associated with the conversion or loss of farmland resulting from the project and no mitigation measures are required.
- b) Similar to as discussed under (a), there is no land in the project site listed under the Williamson’s Act according to Department of Conservation. The proposed project will not result in any impacts to any lands covered by a Williamson Act contract. There is **no impact** and no mitigation measures are required.

- c) The proposed project site consists of a two-lane bridge crossing City-owned train tracks. Land uses surrounding the project site are designated as residential and commercial. The project site is not within an area zoned for forestland or timberland. There is **no impact** and no mitigation measures are required.
- d) The proposed project is not located in the vicinity of any forest land. No forest conversion would occur as a result in the loss of forest land or conversion of forest land. There is **no impact** and no mitigation measures are required.
- e) As discussed above in (a) through (d), no important farmlands are located within the proposed project site. The proposed project does not propose any new land uses or the permanent conversion of existing agricultural lands or result in any other actions that would impact the adjacent agricultural lands. There is **no impact** and no mitigation measures are required.

Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site is located in the City of Vallejo within the San Francisco Bay Area Air Quality Management District (BAAQMD). The BAAQMD is located in the San Francisco Bay Area Air Basin (SFBAAB). The purpose of the BAAQMD is to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin (SFBAAB). Air quality is measured against both National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) to protect public health and the climate. "Attainment" status for a pollutant means that the Air District meets the standard set by the U.S. Environmental Protection Agency (federal) or California Environmental Protection Agency (state). The SFBAAB is currently non-attainment for ozone (state and federal ambient standards) and particulate matter (PM_{2.5} and PM₁₀) (state ambient standards). The SFBAAB has created a plan to address ozone, but there is no current plan to address particulate matter. The proposed Project is on the exempt list of projects which will be reviewed by the Metropolitan Transportation Commission (MTC) Air Quality Task Force at its December 1, 2016 meeting. The MTC Air Quality Task Force will review the project and is expected to concur that the project is exempt from PM2.5 project level conformity requirements.

Due to the dense population in the Bay Area, ozone pollution from automobiles is the main contributor to poor air quality in the summertime. The greatest contributor to ozone in the Bay Area is exhaust from diesel engines. Fine particulate matter, which is made up of extremely small particles and liquid droplets, is primarily a concern in the wintertime.

Discussion

- a) The purpose of the proposed project is to replace the existing Sacramento Street Bridge in order for the bridge to meet current AASHTO design standards, Caltrans Seismic Design Criteria, provide horizontal and vertical railroad clearance with UPRR standards, and to provide safe access for pedestrians and vehicles. The proposed project would not increase roadway capacity or service capabilities that would induce unplanned growth or remove an existing obstacle to growth. The proposed project is consistent with the BAAQMD's current Clean Air Plan (2010) which takes into account population growth and vehicle-miles-travelled (VMT) in order to bring regional emissions into compliance with federal and state air quality standards. The proposed project would not increase long-term traffic levels and there would be no operational impacts to air quality. Therefore, the proposed project would not conflict with the region's air quality management plans and would be considered a **less-than-significant impact** and no mitigation measures are required.
- b) Since the proposed project would not add lanes or increase capacity, it would only affect local air pollutants during construction (approximately five months). The proposed project would not affect long-term air pollutant emissions in the area or stationary air pollutant sources.

Construction

The primary concern to the BAAQMD during construction would be PM₁₀ emissions from dust-generating activities. According to BAAQMD, the City of Vallejo is designated unclassified for PM₁₀ for National Ambient Air Quality Standards (NAAQS) and designated nonattainment under California Ambient Air Quality Standards (CAAQS).

The BAAQMD has adopted the following rules that relate to the proposed project, which are summarized below:

2.6.1. Criteria Air Pollutants and Precursors

If daily average emissions of construction related criteria air pollutants or precursors would exceed 54 and 82 lbs/day for PM_{2.5} and PM₁₀, respectively, the project would result in a significant cumulative impact.

3.5.1. Criteria Air Pollutants and Precursors

This preliminary screening provides the lead agency with a conservative indication of whether the proposed project would result in the generation of construction-related criteria air pollutants and/or precursors that exceed the Thresholds of Significance. If all of the following Screening Criteria are met, the construction of the proposed project would result in a less-than-significant impact from criteria air pollutant and precursor emissions.

1. All Basic Construction Mitigation Measures would be included in the project design and implemented during construction; and
2. Construction-related activities would not include any of the following:
 - Demolition activities inconsistent with District Regulation 11, Rule 2: Asbestos Demolition, Renovation and Manufacturing;

- Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously);
- Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development);
- Extensive site preparation (i.e., greater than default assumptions used by the Urban Land Use Emissions Model [URBEMIS] for grading, cut/fill, or earth movement); or
- Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

The project is a small bridge replacement and does not exceed the screening size for construction-related criteria air pollutants and precursors, and would not result in a significant cumulative impact. During construction, the project would minimize potential toxic air contaminants through implementation of minimization measures listed below. In addition, construction related activities listed above under BAAQMD Rule 3.5.1 -2 are not anticipated. With implementation of these required controls, PM₁₀ impacts from construction of the proposed project would be **less-than-significant** and no mitigation measures are required.

Operations

The proposed project would not result in increased capacity or additional vehicle trips. The proposed project would not increase long-term traffic levels. There would be **no impact** to air quality under full operation of the proposed project and no mitigation measures are required.

- c) As discussed above under Item (b), the proposed project would result in minimal air pollutant emissions during the short-term duration of construction. In addition, the proposed project would not result in any operational activities or emissions. Therefore, the proposed project would not 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. Consequently, this impact is **less-than-significant** and no mitigation measures are required.
- d) A sensitive receptor is defined as the following (from BAAQMD 2010): “Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas.” The nearest sensitive receptors are existing residences located adjacent to the proposed project, as well as children in the elementary school approximately 400 feet west of the project area.

Construction activities would occur over a brief duration within the estimated 5-month construction timeline. Residents located adjacent to the project site and within the vicinity would be exposed to construction contaminants only for the duration of construction. This brief exposure period would substantially limit exposure to hazardous emissions. This brief exposure period is less than the 2-year exposure period typically assumed for health risk analysis for small construction projects. With implementation of the minimization measures listed below, construction of the project would not expose sensitive receptors to substantial pollutant concentrations. In addition, operation of the proposed project would not result in increased level of air pollutants. This impact would be **less-than-significant** and no mitigation measures are required.

- e) Generally, the types of projects or activities that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. The proposed project is a bridge replacement project that is located within an urban area and would not create objectionable odors affecting a substantial number of people. This impact would be **less-than-significant** and no mitigation measures are required.

Minimization Measures

Good housekeeping and/or work practices include but are not limited to the following will be implemented in order to minimize construction emissions:

- Application of water and/or approved chemicals to control emissions in the demolition of existing buildings or structures, construction operations, solid waste disposal operations, the grading of roads and/or the clearing of land.
- Application of asphalt, water and/or approved chemicals to road surfaces.
- Application of water and/or suitable chemicals to material stockpiles and other surfaces that may generate fugitive dust emissions.
- Paving and/or re-paving roads.
- Maintenance of roadways in a clean condition by washing with water or sweeping promptly.
- Covering or wetting material stockpiles and open-bodied trucks, trailers, or other vehicles transporting materials that may generate fugitive dust emissions when in motion.
- Installation and use of paved entry aprons or other effective cleaning techniques to remove dirt accumulating on a vehicle's wheels on haul or access roads to prevent tracking onto paved roadways.
- For process equipment, the installation and use of hoods, fans, and filters to enclose, collect, and clean the emissions prior to venting.
- Ceasing operations until fugitive emissions can be reduced and controlled.
- Using vegetation and other barriers to contain and to reduce fugitive emissions.
- Using vegetation for windbreaks.
- Instituting good housekeeping practices by regularly removing piles of material that have accumulated in work areas and/or are generated from equipment overflow.
- Maintaining reasonable vehicle speeds while driving on unpaved roads in order to minimize fugitive dust emissions.

References

Bay Area Air Quality Management District. *Air Quality Standards and Attainment Status*. Accessed September, 2015 at <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>

Bay Area Air Quality Management District. *CEQA Guidelines*. Accessed September, 2015 at http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx

Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Biological Resources – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The project is located in the City of Vallejo, Solano County, California. The project is on the Mare Island CA USGS 7.5' Quadrangle within Township 3 North, Range 4 West, Section 13, and the project's biological study area encompasses a total of approximately 26.31 acres. The Sacramento Street Bridge is over the City-owned train tracks and is located at the intersection of Farragut Avenue, Yolo Avenue, and Sacramento Street.

Regionally, the project area is located in the Great Valley Ecological Section and Yolo-American Basins Ecological Subsection (Miles and Goudey, 1997). Historically, this region supported extensive marshes, riparian woodlands intermixed with oak woodland, vernal pools, and grasslands. Intensive agricultural and urban development has resulted in substantial changes and conversions of these habitats. Because most

native habitats have been altered by changes in land use, native plant communities are typically limited to areas along water courses and drainages, within designated reserves, or on untilled pasture lands.

Data Sources/Methodology

The Sacramento Street Bridge Technical Memorandum for Biological Resources (memo) was prepared for the proposed project and is available for review at the City. An evaluation of biological resources was conducted to determine whether any special-status plant or wildlife species, or their habitat, or sensitive habitats occurs in the project's biological study area. Data on special-status species and habitats known in the area was obtained from state and federal agencies. Maps and aerial photographs of the BSA and surrounding areas were reviewed. Field surveys were conducted to determine the habitats present.

Regional Species and Habitats of Concern

The proposed project is located in a built environment with few areas of open land. The high level of disturbance associated with the land uses and the nature of the urban/landscape vegetation makes the project site of overall low value to wildlife. The roadside vegetation is primarily urban landscape—mixed vegetation planters, shrubs, strips of lawn, and street trees, some ruderal areas, and mainly nonnative species. The project would result in the removal of coast live oak, eucalyptus, street trees and other urban landscape which could affect nesting birds. The project also could have impacts related to invasive vegetation species. The project would not result in impacts on wetlands or special status species.

Discussion

- a) The proposed project is located in a built environment with few areas of open land. The high level of disturbance associated with the land uses and the nature of the urban/landscape vegetation makes the project site of overall low value to wildlife. The project would not result in impacts on wetlands or special status species. No candidate, sensitive, or special status species were observed in the project area during the biological resource survey conducted in May of 2015.

However, the landscaping / street trees, as well as the coast live oak, eucalyptus, coyote brush and buckbrush, in the project area could potentially support nesting birds. The proposed project has the potential to affect nesting migratory birds due to the proposed removal of up to 6 existing street trees as well as the other construction activities that would occur near trees in the project vicinity. These activities could cause disruption to nesting activity particularly if construction occurred during the nesting season (February 1 – August 31). Potential impacts on nesting birds can be avoided by delaying tree removal and other construction activities in the immediate vicinity until the end of the nesting season. In addition, prior to tree removal, a tree survey will be needed to determine whether there are active nests in one or more of the trees to be removed for the project.

With the implementation of **Avoidance and Minimization Measure BIO-1**, the proposed project will have a **less-than-significant impact** on special status species.

- b) The Sacramento Street Bridge crosses over City-owned train tracks and the surrounding land use is high density residential and retail. The high level of disturbance associated with the land uses and the nature of the urban/landscape vegetation makes the project site of overall low value to wildlife. There is no riparian habitat or other natural sensitive areas located in the proximity of the project. This condition precludes the possibility of impacts, and **no impact** would occur.

- c) Because most native habitats have been altered by changes in land use, native plant communities are typically limited to areas along water courses and drainages, within designated reserves, or on untilled pasture lands. The project site does not contain any waterways or isolated wetlands that would be classified as jurisdictional features. This condition precludes the possibility of impacts, and **no impact** would occur.
- d) The general setting of the project area is urban with few areas of open land. The proposed project would not substantially remove, degrade, or otherwise interfere with the structure or function of a wildlife movement corridor. The project site does not contain any features commonly associated with wildlife or fish movement (waterways, arroyos, ridgelines, etc). This condition precludes the possibility of impacts, and **no impact** would occur.
- e) The City of Vallejo Municipal Code (Code) protects trees in general (10.12) from construction and development impacts and states that “No person, firm or corporation shall cut, trim, prune, plant, remove, injure or interfere with, any tree, shrub or ornamental plant upon any street, park, pleasure ground, boulevard, alley or public place of the city without a permit for that purpose.” (10.12.040 [A]).

In addition, the Code has a measure in place for replacing removed trees along a city street and states that “Street trees which have been removed as required by this chapter shall be replaced by the property owner with an equal number of trees from the approved street tree list within sixty days of the date of the removal, unless such replacement trees would, in the opinion of the director, also be hazardous or impediment. Replacement trees shall be a minimum fifteen-gallon size. With respect to a person, firm or corporation who makes application to the city for the removal of a street tree, the applicant shall be required to pay a fee in an amount established by city council resolution, which fee shall be used by the city to purchase and replant a street tree on the property of the applicant or, at the option of the applicant, to purchase and replant a street tree on public property at another location within the city. In the event that the application to remove the street tree is denied, the fee shall be returned forthwith to the applicant.” (10.12.150).

The proposed project could result in the removal of up to 6 trees as well as other landscaped areas. The existing trees are in the right-of-way, which include eucalyptus, coast live oak and “street” trees and are protected under Vallejo Municipal *Code 10.12.40(A)* and *10.12.150*. In onsite review of the trees, the City found that the majority of the trees are in fair to poor condition. The trees are affected by past trimming and limb removal; impeded root systems; poor planter condition and spacing; and other factors that impair the growth and overall health of the trees.

The tree replacement proposed as part of the project would result in planting species that are better suited to the urban corridor as far as size (i.e., appropriate for planting relative to overhead and buried utility lines and near buildings) and resistance to disease (i.e., elm disease). In addition, as recommended by the City’s Code, planting in correctly spaced and designed tree planters with automatic irrigation would improve the survivability of the trees thereby providing an improved environmental and urban landscape condition in the corridor. Prior to removal, all trees would be posted for public notice and a permit would be obtained (pursuant to City Code 10.12.140). The City will replace removed trees at a 1:1 ratio.

Impacts will be mitigated in accordance with agency requirements. **Avoidance and Minimization Measure BIO-2 and BIO-3:** Therefore, this impact is considered **less-than-significant**.

- f) The proposed project is not located in an area with a Habitat Conservation Plan or Natural Community Conservation Plan, therefore, there is **no impact**.

Avoidance and Minimization Measures

Avoidance and Minimization Measure BIO-1: Conduct a Preconstruction Nesting Migratory Bird and Raptor Survey and Establish No-disturbance Buffers, if Necessary

The removal of trees will be conducted to avoid the migratory bird nesting season (February 1–July 31). In addition, to ensure there are no effects on nesting birds, a qualified biologist will conduct preconstruction tree surveys of the trees to be removed, and within 500 feet of the project construction area. Survey work will be done no more than 2 days prior to initiation of tree removal to minimize the potential that nests are initiated after the survey and prior to removal. If any occupied nests are detected the tree will be flagged, a minimum buffer of 100 feet between the nest and construction zone will be established, and that area will be avoided until the qualified biologist has determined the nest is no longer occupied/active. Once the biologist has determined that young have fledged and the nest is no longer active, the flagged tree can be removed.

The preconstruction tree surveys will include evaluation of other trees in the construction zone and within 500 feet of the construction zone to determine if nests are in nearby trees that would not need to be removed. If nesting migratory birds are discovered in the construction area, then construction in the immediate vicinity of those trees should be delayed to avoid the nesting season (February 1–July 31). If construction activities cannot avoid the nesting season, then any trees with nests should be flagged, a minimum 100-foot buffer established between the nest and construction zone, and avoidance of the area until a qualified biologist has determined the young have fledged and the nest is no longer occupied. Once the nest is no longer active, construction in the immediate vicinity of that tree can be resumed.

If no active nests are identified during the preconstruction survey, no further mitigation is necessary. If construction activities (i.e. vegetation and tree removal) are scheduled to begin during the non-breeding season (September–January), preconstruction surveys would not be necessary.

Avoidance and Minimization Measure BIO-2: Return Temporarily Disturbed Areas to Pre-Project Conditions

All temporarily disturbed areas will be returned to pre-project conditions upon completion of construction. These areas will be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation.

Avoidance and Minimization Measure BIO-3: Replace Removed Trees with Native Species

The tree replacement proposed as part of the project would result in planting species that are better suited to the urban corridor as far as size (i.e., appropriate for planting relative to overhead and buried utility lines and near buildings) and resistance to disease (i.e., elm disease). In addition, as recommended by the City's Code, planting in correctly spaced and designed tree planters with automatic irrigation would improve the survivability of the trees thereby providing an improved environmental and urban landscape condition in the corridor. Prior to removal, all trees would be posted for public notice and a permit would be obtained (pursuant to City Code 10.12.140).

References

Caltrans, 2015. Technical Memorandum for Biological Resources for the Sacramento Street Bridge (23C-0152) Rehabilitation Project; November 2015.

Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Cultural Resources – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Cause a substantial adverse change in the significance of a tribal cultural resource pursuant to Section 21074?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

A record search was conducted for the project at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University on October 27, 2015 (IC File No. 15-0525). The purpose of the records search was to (1) determine whether known cultural resources have been recorded within or adjacent to the Area of Potential Effects (APE); (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources. Furthermore, a sacred lands search request was submitted to the Native American Heritage Commission (NAHC) on October 1, 2015. The NAHC responded on October 14, 2015, indicating that the Sacred Lands File revealed no Native American cultural resources within the APE.

Assembly Bill 52 (AB52) went into effect on July 1, 2015 and establishes a consultation process with all California Native American Tribes on the NAHC List for Federal and Non-Federal Recognized Tribes. Once the Tribe is notified of the project, the Tribe has 30 days to request consultation. The consultation process ends when either the parties agree to mitigation measures or avoid a significant effect on Tribal Cultural resources or a party, acting in good faith and after reasonable effort concludes that mutual agreement cannot be reached. The NAHC provided a list of Native American individuals and organizations that might have concerns with or interest in the proposed Project. Mr. James Kinter, the Tribal Historic Preservation Officer, responded on January 22, 2016. He had reviewed the information provided regarding the project and indicated a cultural interest. He requested a project timeline, detailed project information, and the latest cultural study. He also requested that if any cultural items are found, to please contact Mr. James Sarmiento, Cultural Resources Manager. On February 22, 2016, the project timeline and detailed project information was sent to both James Kinter and James Sarmiento via email.

Field surveys of the APE were completed on February 21, 2016 and a Historic Property Survey Report (HPSR) was completed in March 2016. The APE encompasses 8 acres and includes 25 residential homes, the Sacramento Street Bridge (23C-0152), and a former entryway to the Mare Island Naval Shipyard. Following Volume 2, Cultural Resources, of the Caltrans SER, Chapter 7, Section 7.8.5.5 on railroads, the City-owned railroad is excluded from the APE. This Project merely intersects the railroad at an existing grade crossing with a construction of a new bridge overcrossing that does not physically touch the railroad with no impacts.

The existing bridge was built in 1913 and rehabilitated in the 1930s and was previously evaluated by Caltrans and determined to be ineligible for inclusion in the National Register of Historic Places (NRHP). Based on archival research, public involvement, and field investigation efforts, 27 built environment resources within the APE were identified and evaluated. None of the resources have been previously evaluated for listing in the National Register nor are they a California Historical Landmark, a California Point of Historical Interest, or listed in the State Office of Historic Preservation's Historic Property Directory.

In an effort to establish public outreach and to inquire about the local history of the APE, relevant preservation groups were contacted regarding the proposed project. Letters were sent to the Solano County Historical Society, the Vallejo Naval and Historical Museum, and Bill Tuikka, Associate Planner with the City of Vallejo, dated November 23, 2015. One response has been received. Mr. Tuikka responded on December 14, 2015, pointing out the presence of a City Landmark (No. 7) within the Architectural Area of Direct Impact, an Eastlake cottage at 415 Farragut Avenue (APN 055-04-4190) known as the Heritage House. He concluded that it doesn't appear the project will have an impact on the structure itself, just a small section of the parcel it is built on. The Heritage House is located within the project APE, but outside of the area of direct impact and will not be impacted by project construction.

As a result of the current study, the house was evaluated as significant under National Register Criterion C: Architecture at the local level for its eclectic and distinctive mixture of Victorian-era architectural styles. The period of significance corresponds to the c.1880 date of construction. Despite its relocation, the house retains a high degree of integrity in terms of design, workmanship, and materials, and clearly conveys its design significance through a distinctive mixture of architectural styles that is distinguished among other properties in Vallejo. As such, this property embodies distinctive characteristics of a type, period, or method of construction and is recommended eligible for listing in the National Register under Criterion C: Architecture. The house located at 415 Farragut Avenue (APN 055-04-4190) is also considered a historical resource for the purposes of the California Environmental Quality Act (CEQA). The remaining properties within the APE are not historical resources for the purposes of CEQA. More details on this property can be found in the project Historical Resources Evaluation Report (HRER).

Additionally, one other property within the project APE, the former entryway to Mare Island Naval Shipyard (APN 055-051-1300), was found to have a direct association and is recommended as a contributing resource to the Mare Island Historic District. The entryway consists of two bollards and three cannons that were part of a main entrance to the Mare Island Shipyard up until April 1, 1996, when the shipyard closed and access was reconfigured. According to the Mare Island Historic Park Foundation, whose inventory includes the cannons, the building at this entrance (nonextant) was used by the labor board and where people applied for jobs.

The Mare Island Historic District was listed under *Criterion A of the NRHP* in the areas of *Military History* and *Industry* for its role in national defense and its preeminence among West Coast shipyards; under *Criterion C of the NRHP* in the areas of *Architecture* and *Engineering* as an intact collection of military and industrial buildings with distinguished examples of structural engineering; and under *Criterion D of the NRHP* for its information potential for archaeological deposits relating to the Mare Island Naval Shipyard. The period of significance of the district is 1854-1945, which includes the dates of entryway bollards and cannons. However, the boundaries of the National Register-listed historic district do not include the parcels of the former entryway to Mare Island Naval Shipyard, which include the bollards and cannons documented as part of this study. The district nomination indicates that not all contributing resources are located within the boundaries. As such, it was evaluated for the National and California Registers following the Section 106PA and the guidance in Chapter 7, Built-Environment Cultural Resources Evaluation and Treatment, Section 7.8.5.8, Historic Districts, of the Caltrans Standard Environmental Reference. A Finding on No Adverse Effect with Standard Condition: Environmental Sensitive Area (FNAE-SC: ESA) Action Plan will be implemented to protect the former entryway to Mare Island Naval Shipyard (APN 055-051-1300).

The bollards and cannons constructed in 1935 at the former entryway to Mare Island Naval Shipyard date within the period of significance of the Mare Island Historic District, are similar in design to other contributing features, and add to the historic character of the historic district. These features retain sufficient historic integrity to convey a sense of time and place from the period of significance of the historic district. As such, the bollards and cannons are recommended eligible for listing under the National Register and the California Register as discontinuous contributing resources to the Mare Island Historic District for the purposes of this project since the Mare Island Historic District boundaries do not currently include these resources.

Discussion

- a) The proposed project would not likely cause a significant impact to the eligibility of a historical resource. As discussed above, the existing bridge was built in 1913 and rehabilitated in the 1930s and was previously evaluated by Caltrans and determined to be ineligible for inclusion in the NRHP. Two historical resource were identified during record search or field survey of the APE. The former entryway to Mare Island Naval Shipyard (APN 055-051-1300) and the Heritage House (APN 055-04-4190). The former entryway consists of two bollards and three cannons that were part of a main entrance to the Mare Island Shipyard until April 1, 1996, when the shipyard closed and access was reconfigured. One cannon and one bollard are located on the south side of Tennessee Street and is outside of the APE and will not be implemented by the Project. The remaining bollard and two cannons will be protected from direct or indirect construction impacts associated with the proposed bridge replacement Project within the APE through the implementation of the Environmental Sensitive Area Action Plan (ESA-AP). The other resource, the Heritage House, is located within the project APE, but outside of the area of direct impact and will not be impacted by the project construction. Given the recent development and high level of disturbance in properties within the APE, an accidental discovery of historical resources is unlikely to occur. Nonetheless, there is a chance that construction activities associated with the proposed project could result in accidentally discovering historical resources. With implementation of **Mitigation Measure CUL-1 and CUL-2** listed below, the proposed project would result in a **less-than-significant impact** on historical resources.

- b) According to the record search and intensive pedestrian survey, no cultural resource was identified within the project APE. It is evident that the APE has been highly disturbed by road construction, railroad construction, and residential developments for the past 100 years. These prior ground disturbances should have unearthed and broadcast at least some evidence of prior human use if near-surface buried deposits were present. Two bore samples, however (reported by WRECO 2015), suggest three to four feet of fill overlies native soils/sediments which may have obscured cultural materials, if present. The upper portion of railroad cut exposed on the east side of the bridge along Illinois Street was closely inspected for evidence of buried cultural deposits.

The Cultural Resources Report did not identify any previously recorded prehistoric or historic archaeological sites or historic buildings and structures in the Project area or within a ½-mile radius of the study area. However, the absence of known cultural resources in the Project area does not preclude the possible presence of undiscovered cultural resources that may lie in the subsurface. The exposure of historic and archaeological resources during ground-disturbing activities is addressed by adherence to Section 21083.2(g) of the California Public Resources Code (CUL-1).

- c) The Project is subject to Assembly Bill (AB) 52. "AB 52" (Statutes of 2014) is applicable to projects that have filed a Notice of Preparation (NOP) of an Environmental Impact Report (EIR), or notice of a Negative Declaration (ND) or Mitigated Negative Declaration (MND) on or after July 1, 2015. AB 52 requires lead agencies to initiate consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project. AB 52 allows Tribes 30 days after receiving notification to request consultation. AB 52 states that consultation ends with either: (1) an agreement is reached regarding avoidance of or mitigation measures to reduce a significant impact on a Tribal Cultural Resource or (2) a party concludes in good faith and after reasonable effort that mutual agreement cannot be reached. As of the circulation of this IS/MND, the Yocha Dehe Tribe has been contacted and they have requested that if any new information or cultural items are found, the Yocha Dehe tribe will be notified.

Consultation with local Native American tribes (Yocha Dehe Wintun Nation) identified the APE as a culturally sensitive area. Therefore, there is a chance that construction activities associated with the proposed project could result in accidentally discovering archaeological resources. With implementation of **Mitigation Measure CUL-2 and CUL-3** listed below, the proposed project would result in a **less-than-significant impact** on archeological resources.

- d) Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils – particularly vertebrate fossils – are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are considered highly significant records of ancient life.

A search of the University of California Museum of Paleontology (UCMP) collections database identified 1449 occurrences in Solano County, California. Based on the database search, no paleontological resources have been identified in the project area. No known paleontological resources or unique geologic features exist within the project site. Given the recent development and high level of disturbance in properties within the APE, the proposed project is not likely to

destroy, either directly or indirectly, a unique paleontological resource or site, or geological feature. As described in **Mitigation Measure CUL-2** below, if such a resource should be encountered during construction, work would stop until the resource can be evaluated and a determination made of its significance and need for recovery, avoidance, and/or mitigation. Therefore, the proposed project would result in a **less-than-significant impact** on paleontological resources or unique geologic features.

- e) Based upon a records search, no human remains are known to exist within the project site. In the unlikely event that human remains are discovered, work within the area will be stopped and the Solano County Coroner will be notified immediately. Work will only resume after the investigation and in accordance with any requirements and procedures imposed by the Solano County Coroner. In the event that the bone most likely represents a Native American interment, the Native American Heritage Commission will be notified so that the most likely descendants can be identified and appropriate treatment can be implemented. Therefore, with the incorporation of this measure, the proposed project would not result in any significant impacts with respect to disturbing any human remains, including those interred outside of formal cemeteries. To ensure a **less-than-significant impact** in the event of an accidental discovery, **Mitigation Measure CUL-3** shall be implemented.

Mitigation Measures

Mitigation Measure CUL1: Protection of Historical Resources. The following protective measures have been developed to avoid adverse effect to the bollard and two cannons located within the APE

- The City's Architectural Historian Consultant will oversee the photo-documentation of the bollards and cannons within the APE prior to and after construction;
- Advise the contractor regarding the historic resource requiring protection by attending one preconstruction meeting;
- Prior to construction activities, the City's Architectural Historian Consultant will delineate the ESA through the installation of a K-rail and a three-foot-high orange temporary construction fence with five-foot buffer around the bollard and two cannons;
- City's Architectural Historian will work closely with the Resident Engineer (RE) and Construction Contractor to educate all involved about the elements of the action plan. Preconstruction field review of the plan will be implemented as well as training for construction personnel;
- The ESA will be included in the City's RE's Pending File and clearly marked on all project plans and contract specifications (PS&E) and special provisions for the ESA will appear on all project plans and in contract specifications; and
- ESA will remain in place until the construction activities are complete;
- Contractor is responsible for protection of the one bollard and two cannons that are located on APN 055-051-1300;
- Contractor shall advise all construction workers of the location of the bollard and cannons and that they are required to protect the bollard and two cannons from any inadvertent damage;
- A penalty clause shall specify that if the bollard and/or two cannons are damaged in any way during construction, the contractor will be responsible for the cost of restoring the bollard and two cannons to the satisfaction of the City under the direction of a qualified Architectural Historian approved by and working for the City, but paid for by the contractor;

- Prior to construction activities, the City's Architectural Historian will delineate the ESA through the installation of K-rails and a three-foot-high orange temporary construction fence with a five-foot buffer around the bollard and two cannons; and
- No construction personnel or ride-on machinery shall be allowed within the ESA boundary.

Mitigation Measure CUL-2: Discovery of Cultural Resources during Ground-Disturbing Activities. If cultural resources are discovered during ground-disturbing activities, all activity in the vicinity shall cease until the discovery is evaluated by an archaeologist or paleontologist working under the direction of a Principal Investigator who meets the requirements of the Secretary of the Interior's Qualification Standards. If the archaeologist/paleontologist determines that the resources may be significant, no further work in the vicinity of the resources shall take place until appropriate treatment is determined and implemented.

The need for archaeological and Native American monitoring during the remainder of the project will be re-evaluated by the archaeologist as part of the treatment determination. The archaeologist shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature.

In considering any suggested mitigation proposed by the archaeologist in order to mitigate impacts to cultural resources, the project proponent will determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) will be instituted.

Mitigation Measure CUL-3: Halt Work if Human Skeletal Remains are Identified during Construction. If human skeletal remains are uncovered during project construction, work must immediately halt and the Solano County Coroner must be contacted to evaluate the remains; the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines must be followed. If the County Coroner determines that the remains are Native American, the project proponent will contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

References

Caltrans, 2016. Historical Resources Evaluation Report Sacramento Street Bridge (Bridge No. 23C-0152) at City of Vallejo Railroad Replacement Project; March 2016.

Caltrans, 2016. Archaeological Survey Report for the Sacramento Street Bridge (23C0152) Replacement Project; March 2016.

Caltrans, 2016. Historical Property Survey Report for the Sacramento Street Bridge (23C0152) Replacement Project; September 2016.

Caltrans, 2016. Environmentally Sensitive Area Action Plan for the Sacramento Street Bridge (23C0152) Replacement Project; November 2016.

University of California Museum of Paleontology, Berkeley. UCMP Specimen Search.
<http://ucmpdb.berkeley.edu/>. Accessed March 2016.

Geology, Soils, and Seismicity

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Geology, Soils and Seismicity –Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				
ii) Strong seismic ground shaking?				
iii) Seismic-related ground failure, including liquefaction?				
iv) Landslides?				
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a.i-a.iv) According to the United States Geological Survey (USGS) Earthquake Hazards Program (2006), the nearest fault is the potentially active West Napa fault line located approximately 4 miles north of the project site. According to the Department of Conservation, the project site is located within the Mare Island Alquist-Priolo Earthquake Fault Zone.

Liquefaction of granular soils can be caused by strong vibratory motion due to earthquakes. Soils that are highly susceptible to liquefaction are medium- to fine-grained, loose, granular and saturated at depths of less than 50 feet below the ground surface. Liquefaction of soils causes surface distress, loss of bearing capacity, and settlement of structures that are founded on the soils. According to the United States Department of Agriculture (USDA) Soil Conservation Service Soil Survey Geographic Database (SSURGO), there are two soil types in the project area: Dibble and Rincon. Both soils are well-drained clay loam with slow infiltration rate and moderately fine or fine textures. According to the Association of Bay Area Governments Resilience Program, the project site has very low liquefaction susceptibility.

According to the Association of Bay Area Governments Resilience Program, very few landslides occur in the vicinity of the project. The probability of landslides occurring on the project site is very low.

The proposed project is a bridge replacement and would not expose additional people or structures to substantial adverse effects. The new bridge would comply with the 2013 California Building Code, which would minimize the potential effects of ground shaking. This impact is considered **less-than-significant**.

- b) The proposed project involves removing the existing bridge and constructing a new bridge over City-owned train tracks. Construction activities will involve earth moving activities. No waterways are in the project vicinity, therefore there is no potential for waterways to transport sediment. The project site covers a relatively small area and will not result in substantial loss of topsoil. In accordance with Chapter 12.40 Excavation, Grading, and Filling Control Ordinance of the City of Vallejo, "Where suitable topsoil exists on areas to be disturbed by grading or building operations, the topsoil shall be stripped in the amount needed to complete finish grading operations, and shall be piled in convenient locations for storage during construction." Furthermore, "All graded surfaces and materials, whether filled, excavated, transported or stockpiled, shall be wetted, protected or contained in such a manner as to prevent any nuisance from dust or spillage upon adjoining property or streets." With adherence to stated management practices, the proposed project operations will not result in a significant increase in the potential for soil erosion over existing conditions. Potential erosion impacts from construction activities will be **less-than-significant**.
- c) According to the Association of Bay Area Governments Resilience Program, very few landslides occur in the vicinity of the project. The probability of landslides occurring on the project site is very low. The project site does not have loose sandy soil or a shallow water table, nor does it contain soils that would be susceptible to lateral spreading, liquefaction, or collapse. With adherence to all applicable codes and regulations, including the 2013 California Building Code, the project's impacts associated with on-or off-site landslide would be minimized. The impact is considered to be **less-than-significant**.
- d) Expansive soils are those possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). The extent of shrinking and swelling is influenced by the environment, including the extent of wet or dry cycles, and by the amount of clay in the soil. This physical change in the soils can react unfavorably with building foundations, concrete walkways, swimming pools, roadways, and masonry walls. The project site consists of soil types Dibble and Rincon soil which both have clayey textures and are considered expansive; however, the proposed bridge replacement project would not expose life or properties to adverse effects associated with expansive soil. The impact is considered to be **less-than-significant**.
- e) The proposed project does not involve the connection to sewer systems, septic tanks as part of the proposed project; therefore, there is **no impact**.

References

Association of Bay Area Governments Resilience Program; 2015.

<http://gis.abag.ca.gov/website/Hazards/?hlyr=concordGV&co=6095> Accessed September 2015.

State of California. Alquist-Priolo Earthquake Fault Zoning Map; 2007.

<http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>. Accessed September, 2015.

U.S. Geological Survey and California Geological Survey, 2006. Quaternary fault and fold database for the United States. <http://earthquakes.usgs.gov/regional/qfaults/>. Accessed September, 2015.

Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Greenhouse Gas Emissions –Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a, b) The existing bridge structure has reached the end of its design life and is vulnerable to collapse under the Caltrans design earthquake. In addition, the existing bridge does not meet current railroad clearance requirements. The proposed project would not include additional through lanes, nor would it increase roadway facilities or service capabilities that would induce unplanned growth or remove an existing obstacle to growth. Consequently, the proposed construction project is considered small, short-term in nature and would not generate substantial air quality (including greenhouse gas emission) pollutant concentrations as discussed under the Air Quality section. The proposed project would not increase long-term traffic levels and there would be no operational impacts associated with greenhouse gas emissions. Impacts are considered **less-than-significant**.

Energy

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Energy –Would the project:				
a) Result in a substantial increase in overall or per capita energy consumption?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in wasteful or unnecessary consumption of energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new sources of energy supplies or additional energy infrastructure capacity the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Conflict with applicable energy efficiency policies or standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a-d) The proposed project will result in temporary use of energy as fuels for construction equipment. Construction activities are estimated to last approximately five months. The proposed project is required to provide safe vehicle access to the bridge and provide a new structure that will meet current design standards. The proposed project is not associated with the development of land uses (i.e., residential, commercial, etc.) that would increase the demand for local or regional sources of energy. The use of energy for the construction of the proposed project is minimal and would not require the construction of new sources of energy or energy infrastructure for implementation of the proposed project. The proposed project will also not conflict with any energy efficiency policies or standards. The impact to energy resources is considered **less-than-significant**.

Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Hazards and Hazardous Materials –Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

An Initial Site Assessment (ISA) was prepared for the proposed project and completed in January 2016 and a Limited Phase 2 Environmental Site Assessment was prepared in November of 2015. The results of these two studies are incorporated into the discussion of the proposed project's impacts below. The ISA was performed in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E 1527-05. No Recognized Environmental Conditions (RECs), as defined in ASTM Practice E 1527-05, were observed during a site visit or by the Environmental Database Resources, Inc. (EDR) record search in connection with the project site.

The Limited Phase 2 Environmental Site Assessment consisted of performing screening-level field sampling and analytical testing of the recovered samples, and the preparation of a technical memorandum to document the findings and present the findings regarding the presence of lead-based paint on the existing bridge structure, the potential for lead in the existing pavement striping and the presence of Total Petroleum Hydrocarbons gas (TPHg), Total Petroleum Hydrocarbons Diesel (TPHd), Motor Oil (TPGmo), Oil & Grease, and CAM 17 metals in the shallow soils along the existing railroad alignment. Our sampling area was restricted to accessible areas of the existing bridge structure; existing Sacramento Street right-of-way between Yolo Avenue and Illinois Street and; the existing railroad alignment below the Sacramento Street Bridge. The details of these tasks are presented below.

Lead-Based Paint

Structures/Buildings constructed prior to 1978 are presumed to contain lead based paints and therefore a lead based paint survey was conducted utilizing a certified consultant to assess the potential hazard associated with lead during demolition of the existing Sacramento Street Bridge. Potential lead and heavy metals associated with pavement striping. Implementation of improvements may require the removal and disposal of yellow traffic striping and pavement marking materials (paint, thermoplastic, permanent tape, and temporary tape). Yellow paints made prior to 1995 may exceed hazardous waste criteria under Title 22, California Code of Regulations, and require disposal in a Class 1 disposal site. Shallow subsurface soils have the potential to contain petroleum hydrocarbon contamination, motor oil, oil & grease, and heavy metals due to railroad operations.

A Lead-Based Paint Survey was performed by CALINC on July 9, 2015 under contract with WRECO. The field investigation consisted of the sampling and acquisition of paint samples at twelve (12) locations from the bridge structure and two (2) locations from existing pavement striping.

Lead was detected above the Laboratory Reporting Limits in ten of the fourteen paint chip samples analyzed at concentrations ranging from 300 parts per million (ppm) to 37,000 ppm. Lead was only encountered in two of the paint chip samples above the US EPA threshold to be considered lead-based paint (greater than or equal to 0.5% by weight or 5,000 ppm; 40 CFR Part 745) and these were samples of the yellow pavement striping. Lead was found in three samples above 1,000 ppm, one of California's thresholds for hazardous waste designation (the two samples of the yellow pavement striping and one paint chip sample from the northeast bridge abutment).

Soil Analysis

Shallow soil sampling was performed by WRECO on July 9, 2015. The soil samples were acquired along each side of the existing railroad alignment within the Project. Our field investigation consisted of the sampling of six locations utilizing a hand auger to acquire soil samples from 6 inches, 12 inches and 24 inches below the ground surface. A total of sixteen (16) samples were acquired. Due to subsurface obstructions, samples were not acquired at 12 inches and 24 inches at location HA-4. All soil sampling equipment was decontaminated between collections of each sample using Alconox solution followed by a double rinse with deionized water. The collected samples were placed in containers, sealed, properly labeled, and transported under standard chain-of-custody documentation to a laboratory certified by the Environmental Laboratory Accreditation Program (ELAP).

A review of the soil analytical test results indicates the following:

- Arsenic was identified above the Environmental Screening Level (ESL) in all 16 of the samples tested and the highest detected concentration of arsenic (21 mg/kg) is above the mean background arsenic concentration within undifferentiated flatland soils in the nine-county San Francisco Bay Area (11.0mg/kg; Duverge, 2011).
- The average concentration of arsenic of the tested samples is 9.4 mg/kg.
- Copper encountered in 3 of the samples above the ESL.
- Lead was encountered in 8 of the samples above the ESL and 3 of the samples above the Total Threshold Limit Concentration (TTLC). The 3 samples that exceeded the TTLC levels were acquired from the top 6 inches of material.
- Where encountered in the recovered samples, TPHg, TPHd and TPHmo did not exceed state or federal thresholds.
- There are no definitive regulatory threshold values for petroleum oil & grease (POG).

Discussion

- a) Construction of the proposed project would potentially require the use of various types and quantities of hazardous materials. Hazardous materials that are typically used during construction include, but are not limited to, hydraulic oil, diesel fuel, grease, lubricants, solvents, and adhesives. Although equipment used during construction activities could contain various hazardous materials, these materials would be used in accordance with the manufacturers specifications and all applicable regulations. Operation of the proposed project would not involve the routine storage or use of hazardous materials. Impacts resulting from the transport, use or disposal of hazardous materials during construction and operation of the proposed project would be **less-than-significant**.
- b) As stated above, if implemented, the proposed project has the potential to use a variety of hazardous materials. These materials would be stored, handled, and transported per federal, state, and local regulatory requirements. Avoidance, minimization, and/or mitigation measures are proposed as part of the project for potential ACMs, LBP and arsenic containing soil that may be present at the proposed project site.

Asbestos: New uses of asbestos containing materials (ACM) were banned by the EPA in 1989. Revisions to regulations issued by the Occupational Safety & Health Administration (OSHA) on June 30, 1995, require that all thermal systems insulation, surfacing materials, and resilient flooring materials installed prior to 1981 be considered Presumed Asbestos Containing Materials (PAC) and treated accordingly. In order to rebut the designation as PAC, OSHA requires that these materials be surveyed, sampled, and assessed in accordance with 40 CFR 763 (Asbestos Hazard Emergency Response Act [AHERA]). ACMs have also been documented in the rail shim sheet packing, bearing pads, support piers, and expansion joint material of bridges. The City 's records indicates that the Sacramento Street Bridge was constructed around 1913.

Lead: Lead has been used in commercial, residential, roadway, and ceramic paint; in electric batteries and other devices; as a gasoline additive; for weighting; in gunshot; and other purposes. It is recognized as toxic to human health and the environment and is widely regulated in the United States. Structures constructed prior to 1978 are presumed to contain lead-based paint unless proven otherwise, although buildings constructed after 1978 may also contain lead-based

paints. Due to the construction age of the existing structure, painted areas on the existing bridge structure may also be of concern due to the possible use of lead-based paint.

Lead was detected above the Laboratory Reporting Limits in ten of the fourteen paint chip samples analyzed at concentrations ranging from 300 parts per million (ppm) to 37,000 ppm. Lead was only encountered in two of the paint chip samples above the US EPA threshold to be considered lead-based paint (greater than or equal to 0.5% by weight or 5,000 ppm; 40 CFR Part 745) and these were samples of the yellow pavement striping. Lead was found in three samples above 1,000 ppm, one of California's thresholds for hazardous waste designation (the two samples of the yellow pavement striping and one paint chip sample from the northeast bridge abutment).

During construction, any existing hazardous materials that may be encountered would pose a hazard for construction workers and the environment. Construction workers typically are at the greatest risk for exposure to contaminated soil. Accidents or spills during transport of hazardous materials or wastes could have the potential to expose the public and the environment to these substances.

Soil: Shallow soil sampling was performed by WRECO on July 9, 2015. The soil samples were acquired along each side of the existing railroad alignment within the Project area as shown on Figure 2. Our field investigation consisted of the sampling of six locations utilizing a hand auger to acquire soil samples from 6 inches, 12 inches and 24 inches below the ground surface. A total of sixteen (16) samples were acquired. Due to subsurface obstructions, samples were not acquired at 12 inches and 24 inches at location HA-4. All soil sampling equipment was decontaminated between collections of each sample using Alconox solution followed by a double rinse with deionized water. The collected samples were placed in containers, sealed, properly labeled, and transported under standard chain-of-custody documentation to a laboratory certified by the Environmental Laboratory Accreditation Program (ELAP).

Arsenic was identified above the Environmental Screening Level (ESL) in all 16 of the samples tested and the highest detected concentration of arsenic (21 mg/kg) is above the mean background arsenic concentration within undifferentiated flatland soils in the nine-county San Francisco Bay Area (11.0mg/kg; Duverge, 2011). The average concentration of arsenic of the tested samples is 9.4 mg/kg. Copper encountered in 3 of the samples above the Environmental Screening Levels (ESL). Lead was encountered in 8 of the samples above the Environmental Screening Levels (ESL) and 3 of the samples above the Total Threshold Limit Concentration (TTLC). The 3 samples that exceeded the TTLC levels were acquired from the top 6 inches of material. Where encountered in the recovered samples, TPHg, TPHd and TPHmo did not exceed state or federal thresholds. There are no definitive regulatory threshold values for petroleum oil & grease (POG).

Implementation of **Mitigation Measures HAZ-1, HAZ-2, and HAZ-3** would be required to ensure there would not be 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 and reduce the impact to a **less-than-significant** level.

- c) The nearest school facility is the Vallejo Educational Academy located approximately 0.2 mile northwest of the project site. While the project would involve the short-term handling of

hazardous materials during construction, the handling and storage of said hazardous materials during construction would comply with all applicable local, state, and federal standards. The type and level of use is limited to length of construction (5 months) and will not result in ongoing hazardous emissions. Increase in long-term vehicle-related emissions is not expected as the project does not increase the roadway capacity. The impact would be **less-than-significant**.

- d) An ISA prepared for the proposed project included an extensive database records search for the project site and properties within a 1-mile radius of the project site. The ISA identified one facility of concern within ¼ mile of the project site. According to the record search, the potential exists for groundwater in the project area to have elevated levels of cleaning solvents, and contaminants concerned will be addressed in **Mitigation Measure HAZ-3**.

As discussed in (b), avoidance, minimization, and/or mitigation measures are proposed as part of the project for potential ACMs and LBP that may be present at the proposed project site.

Implementation of **Mitigation Measures HAZ-1, HAZ-2, and HAZ-3** would be required to ensure there would not be 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 and reduce the impact to a **less-than-significant** level.

- e) The nearest airport to the project site is the Napa County Airport located over 8 miles north of the project site. Napa County Airport is a County-owned, public facility south of the City of Napa and north of City of Vallejo. The project site is not located within an adopted airport land use plan. There is **no impact**.
- f) The project site is not located within the vicinity of a private airstrip. There is **no impact**.
- g) The proposed project will require removal of the existing bridge and construction of a new bridge. Sacramento Street will be closed during construction of the proposed project. Traffic will be detoured to surrounding streets including Nebraska Street, Sonoma Blvd. (State Highway 29), and Tennessee Street. During construction, the Sacramento Street segment between Nebraska Street and Tennessee Street would only be accessible to local residents and emergency vehicles, and the proposed project could temporarily interfere with emergency access or response in the vicinity of the project site. With implementation of **Mitigation Measure TRAF-1**, discussed later in the document in the Transportation and Traffic section, this impact is **less-than-significant**.
- h) The area surrounding the project site contains private residential and commercial buildings that are susceptible to fire damage. The proposed project is a bridge replacement that will not expose additional people or structures to the threat of fire. There is a **less-than-significant impact** associated with wildland fire threat.

Mitigations Measures

Mitigation Measure HAZ-1: ACM and LBP. Based on the age of the structure, the existing bridge may contain ACMs, and shall be inspected by a CAC under separate assessment during the Plan, Specifications and Estimate (PS&E) process. Lead was detected above the Laboratory Reporting Limits in ten of the fourteen paint chip samples analyzed at concentrations ranging from 300 parts per million (ppm) to 37,000 ppm. Lead was only encountered in two of the paint chip samples above the US EPA threshold to

be considered lead-based paint (greater than or equal to 0.5% by weight or 5,000 ppm; 40 CFR Part 745) and these were samples of the yellow pavement striping. Lead was found in three samples above 1,000 ppm, one of California's thresholds for hazardous waste designation (the two samples of the yellow pavement striping and one paint chip sample from the northeast bridge abutment).

Pavement Striping

Lead-based paint with lead levels of 19,000 ppm and 37,000 ppm was encountered in the two paint chips sampled from the yellow pavement striping. The yellow pavement striping may be handled directly as a California Hazardous Waste and removal requirements for the pavement marking and striping materials be performed in accordance with Caltrans Standard Special Provision 14-11.07 Remove Traffic Stripe and Pavement Markings with Hazardous Waste Residue.

Bridge Structure

The levels of lead encountered on the paint chip samples for the bridge structure were below the 5,000 ppm regulatory threshold to be considered a lead-based paint. However, the analytical test results indicated that detectable levels lead were encountered above the Laboratory Reporting Limit in 8 of the 12 paint chip samples analyzed for the bridge structure and one of the paint chip samples (northeast bridge abutment) was above the California threshold for hazardous waste ($\geq 1,000$ mg/kg).

Detectible lead was encountered in the majority of the paint chip samples on the bridge structure. Therefore, the contractor is responsible for understanding and adhering to the Cal-OSHA 'Lead in Construction Standard' and the contractor should prepare a CAL-OSHA lead compliance plan/program to protect their workforce.

The level of lead, above the California threshold for hazardous waste, was encountered in one of the four paint samples analyzed for the bridge abutment concrete. However, the mass fraction of lead based paint to abutment concrete demolition waste is very small. Additional lead profiling of bulk demolition waste will be required to satisfy state and federal manifest requirements prior to disposal.

Since detectible levels of lead were encountered in the majority of the paint sampled from the steel bridge structure, abatement (removal and disposal) of the paint will be necessary prior to recycling of the steel. Abatement of the lead based paint shall be performed in accordance with the most current Cal-OSHA regulatory requirements.

Mitigation Measure HAZ-2: Soil. The analytical testing for metals indicated that arsenic, copper and lead exceeded the ESLs in two or more of the soil samples. Lead exceeded the ESL in eight samples. Lead also exceeded the TTLC level in three samples and these three samples were acquired from the top 6 inches of soil. Where encountered in the recovered samples, TPHg, TPHd, TPHmo did not exceed the RWQCB Region 2 ESLs.

At the time of this report the grading plans for the bridge replacement had not been completed and the quantity and aerial extent of the soil excavation was not determined. Therefore, based on this screening-level study and limited analytical data we conclude that there are two potential options to deal with the site soils that will be disturbed during the construction activities:

Option 1

For bidding purposes, since analytical testing indicated that some of the tested soils would be classified as a California Hazardous Waste the contractor may elect to consider all of the excavated soil to be a California Hazardous Waste and plan to remove it from the site and dispose of in a Class 1 landfill. Depending on the amount of soil to be excavated, and due to the limited number of soil samples for this screening-level study, the landfill operator may require additional sampling and testing for further hazardous waste characterization of the soil prior to exercising this option.

Option 2

Based on the test results, some of the soil tested for this study would be classified as non-hazardous. Therefore, upon finalization of the grading plans, the owner may elect to perform additional soil sampling and analytical testing to further characterize the site soils to delineate the extent and quantity of soils that would need to be treated as a California Hazardous Waste. A soil sampling plan should be prepared that addresses the full aerial extent and planned depths of the project excavation to characterize the soils and establish the quantities and limits of soils that will need to be treated as a California Hazardous Waste.

Option 1 provides the most conservative approach but provides clear direction to the contractor. *Option 2* requires more sampling and testing (additional upfront costs to the project) to further delineate and quantify the limits of soils that would need to be treated as a California Hazardous Waste, however some construction cost savings may be realized if the site soils could be segregated into hazardous and non-hazardous entities, potentially reducing disposal costs, and/or the potential to reuse some of the excavated soils onsite.

Mitigation Measure HAZ-3: Development of a Health and Safety Plan (HASP). A HASP shall be developed for the proposed project. The HASP shall describe appropriate procedures to follow in the event that any contaminated soil or groundwater is encountered during construction activities. Any unknown substances shall be tested, handled and disposed of in accordance with appropriate federal, state and local regulations.

Mitigation Measure TRAF-1: Please refer to the Transportation and Traffic section.

References

- Caltrans 2015. Sacramento Street Bridge Replacement Project Initial Site Assessment. November 2015.
- Caltrans 2015. Traffic Technical Memorandum: Sacramento Street Bridge Replacement Project, City of Vallejo. November 2015.
- Wreco 2015. Sacramento Street Bridge Replacement Project Limited Phase 2 Environmental Site Assessment, City of Vallejo, November 2015.

Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Hydrology and Water Quality – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) Construction activities involving soil disturbance, excavation, cutting/filling, demolition, paving, and grading activities have the potential for surface water runoff to carry sediment and pollutants into storm water drainage systems and local waterways. Construction materials such as asphalt, concrete, and equipment fluids could be exposed to precipitation and subsequent runoff. Chemicals such as gasoline, diesel fuel, oil, grease, heavy metals, paints, solvents, and other substances could be used during construction. If precautions are not taken to contain contaminants, construction activities could contribute to the degradation of water quality in the area.

Construction of the entire project is anticipated to take approximately five months. The proposed project is subject to Construction General Permit (Final Order No.2012-011-DWQ, NPDES No. CAS000003) requirements, which requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The proposed project would comply with the NPDES Construction General Permit including preparing and implementing a SWPPP that identifies project specific Best Management Practices (BMP)s to protect water quality during project construction. Implementation of these measures would reduce this impact to **less-than-significant**.

- b) The project site is not actively used for groundwater recharge. The proposed project is similar in size and scale as the existing bridge and roadway approaches. The proposed project would not construct a significant amount of new impervious surfaces that would impede surface water drainage into the soil. This impact is **less-than-significant**.
- c) Implementation of the proposed bridge replacement would not substantially modify the character of the project site in terms of sources of water pollutants. Construction activities could potentially expose soils and result in substantial erosion. However, as mentioned above, the proposed project is subject to acquire a NPDES general permit and implement a SWPPP. Activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation. The purpose of the SWPPP is to identify the sources of sediment and other pollutants that could affect the quality of storm water discharges and to ensure the implementation of BMPs. BMPs are used to reduce or eliminate sediment and other pollutants being discharged into waterways from construction activities. Implementation of these measures would reduce this impact to **less-than-significant**.
- d) The proposed project is replacing an existing bridge of similar size and scale. The project site contains existing storm drainage infrastructure consisting of catch basins and underground storm drain lines. The existing storm drainage infrastructure discharges runoff to connections with the Vallejo Sanitation and Flood control District municipal storm drainage system. Furthermore, local residential and retail land uses and vehicles traveling on Sacramento Street would remain the primary sources of water pollutants at the project site. The project would not change the number of vehicles traveling on Sacramento Street or other nearby land uses. The potential impact of increasing surface water runoff is **less-that-significant**.
- e) As mentioned above, existing storm drainage is present in the project area. The project would not result in additional surface water runoff. The potential impact is **less-that-significant**.

- f) As discussed above, the proposed project has the potential to pollute downstream waterways by conducting construction and operational activities. Implementation of BMPs would reduce impact to **less-than-significant**.
- g) The proposed project does not include housing, and therefore would not expose people or structures to flooding risk. This condition precludes the possibility of placement of housing within a 100-year flood hazard area. **No impacts** would occur.
- h) The proposed bridge would not impede or redirect flood flows. According to the Association of Bay Area Governments Resilience Program, the proposed bridge is located outside of a 100-year flood hazard area. This condition precludes the possibility of placing structures within a 100-year flood hazard area that may impede flood flows. **No impact** would occur.
- i) The proposed project is not located within an area protected by a levee. This condition precludes the possibility of inundation of flooding as a result of levee or dam failure. **No impacts** would occur.
- j) According to the Association of Bay Area Governments Resilience Program, the proposed project is not located within a tsunami evacuation zone. The project site is not located near any large inland bodies of water; this condition precludes the possibility of a seiche. There are no active volcanic features or steep slopes in the project vicinity; this condition precludes the possibility of mudflows. The potential for inundation by seiche, tsunami, or mudflow is **no impact**.

References

Association of Bay Area Governments Resilience Program; 2015.

<http://gis.abag.ca.gov/website/Hazards/?hlyr=concordGV&co=6095> Accessed September 2015.

Caltrans 2015. Water Quality Technical Memorandum for the Sacramento Street Bridge (23C-0152) Rehabilitation Project. November 2015.

Avila and Associates 2014. Hydrology and Hydraulic Analysis for the Replacement of the Sacramento Street Bridge, Solano County, California. April 2015.

Land Use and Land Use Planning

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Land Use and Land Use Planning – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The proposed project will consist of the replacement of an existing bridge structure. The proposed project will not divide an established community. There is **no impact**.
- b) The new bridge would not interfere with the activity associated with the surrounding residential and commercial land uses. The proposed project does not propose any new land uses for the project site and would result in operational activities similar to existing conditions. Additionally, the proposed project will not result in any land use conflicts. The project would not conflict with any applicable land use plan, policy, or regulations. There is **no impact**.
- c) The project site is not within the jurisdiction of an adopted Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, project implementation would not conflict with the provisions of an approved local, regional, or state habitat conservation plan. **No impact** would occur.

Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Mineral Resources – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The proposed project is a bridge replacement project that will remove the existing bridge and construct a new bridge at existing location. Construction activities would be temporary and operation of the project would not conflict with or limit access to mineral resources. There would be **no impact**.
- b) The proposed area is located in an urban area and surrounded by urban residential, commercial, and public facility uses. The project is not located near a mineral resource recovery site delineated on any local general plan, specific plan or other land use plan. There would be **no impact**.

Noise

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Noise – Would the project:				
a) Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Noise is defined as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. A frequency weighting measure that simulates human perception is commonly used to describe noise environments and to assess impacts on noise-sensitive areas. 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. The decibel notation used for sound levels describes a logarithmic relationship of acoustical energy, for example, a doubling of acoustical energy results in an increase of three dB, which is considered barely perceptible. A 10-fold increase in acoustical energy equals a ten dB change, which is subjectively like a doubling of loudness. **Table 2**, Typical Noise Levels, identifies decibel levels for common sounds heard in the environment.

Table 2. Typical Noise Levels

Common Outdoor Activity	Noise Level (dBA)	Common Indoor Activity
Jet flyover at 1,000 feet	110	Rock band
Gas lawnmower at 3 feet	100	
Diesel truck at 50 feet at 50 mph	90	Food blender at 3 feet
Noisy urban area, daytime	80	Garbage disposal at 3 feet
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	60	Normal speech at 3 feet
Heavy traffic at 300 feet	60	Large business office
Quiet urban daytime	50	Dishwasher next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
Quiet rural nighttime	30	Library
	20	Bedroom at night, concert hall (background)
	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans Technical Noise Supplement, 2013

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are equivalent A-weighted sound level over a given time period (L_{eq}); average day-night 24-hour average sound level (L_{dn}) with a nighttime increase of 10 dBA to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL), also a 24-hour average that includes both an evening and a nighttime weighting. Noise levels are generally considered low when ambient levels are below 45 dBA, moderate in the 45 - 60 dBA range, and high above 60 dBA. Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered to be adverse levels of noise with respect to public health because of sleep interference.

Land use within and adjacent to the project corridor is predominately urban residential (single family houses and apartments), which may be considered more sensitive to project-related construction noise. However, according to the City of Vallejo General Plan, Sacramento Street is listed as a major traffic corridor and a major source of noise. Residents near the project site may already be exposed to a higher level of noise due to the proximity of a major traffic corridor.

Discussion

- a) **Construction Noise Effects.** The City of Vallejo Code of Ordinances states that "All grading and noise therefrom, including, but not limited to, warming of equipment motors, in residential zones or within one thousand feet of any residential occupancy, hotel, motel or hospital shall be limited to between the hours of seven a.m. and six p.m." In addition, the Noise Element of the City of Vallejo's General Plan states, "Where appropriate, limit noise generating activities (for example, construction and maintenance activities and loading and unloading activities) to the hours of 7:00 am and 9:00 pm." Furthermore, "When approving new development, limit project-related noise increases to no more than 10 dB in non-residential areas and 5 dB in residential areas where the with-project noise level is less than the maximum 'normally acceptable' level." According to General Plan, the normally acceptable level of noise for residential land use is 60 dBA, and the conditionally acceptable level is 70 dBA. Abatement measures are required for noise levels above the conditionally acceptable level.

Construction activity noise levels at and near the proposed project construction areas would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. **Table 3** shows typical noise levels during different construction stages. **Table 4** shows typical noise levels produced by various types of construction equipment.

Table 3. Typical Construction Noise Levels

Construction Phase	Noise Level ^a (dBA, Leq)
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

^a 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.
Source: Bolt, Beranek, and Newman, 1971; Cunniff, 1977.

Table 4. Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level ^a (dBA, Leq at 50 feet)
Dump truck	88
Portable air compressor	81
Concrete mixer (truck)	85
Scraper	88
Jackhammer	88
Dozer	87
Paver	89
Generator	76
Backhoe	85

^a 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.
Source: Bolt, Beranek, and Newman, 1971; Cunniff, 1977.

During construction of the proposed project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise generated by demolition, grading and finishing activities associated with short-term construction of the proposed project would result in an increase in noise at nearby residential properties. No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02, 42-1.02, applicable local noise standards, and control measures discussed below. Construction noise would be short-term and intermittent. Construction operations are anticipated during daylight hours only and would adhere to City standards (Monday to Friday, 7:00 AM to 6:00 PM). This impact would be **less-than-significant** with implementation of the **Mitigation Measure NO-1**.

Operational Noise Effects. The proposed project would have no long-term effects on noise levels, since the proposed project would not increase capacity along the roadway. Once construction is completed, noise levels would return to levels similar to the existing noise environment.

- b) Equipment associated with high vibration levels (pile drivers) will not be used for the proposed project. There are several different methods that are used to quantify vibration. The threshold of perception for humans is around 65 VdB, and human response to vibration is not usually

significant unless the vibration exceeds 70 VdB. Rapid transit or light rail systems typically generate vibration levels of 70 VdB or more near their tracks. On the other hand, buses and trucks rarely create vibration that exceeds 70 VdB unless there are bumps in the road (FTA, 2006).

Construction of the project would use bulldozers and other heavy tracked construction equipment, which may generate a groundborne vibration level of 93 VdB at 50 feet from source. Project equipment would be located closely to the residential properties directly adjacent to the project site and may cause annoyance to nearby sensitive receptors. The majority of construction noise will be from clearing of the project work site along with the placement of the new bridge abutments and structure. Construction of the project is expected to last five months. With the implementation of **Mitigation Measure NO-1**, the project would have a **less-than-significant impact**.

- c) The proposed project would have no long-term effects on noise levels. Noise levels would return to levels similar to the existing noise environment upon completion of the project. There is **no impact** to long-term noise levels.
- d) During construction, the proposed project would temporarily increase ambient noise levels in the project vicinity. See the discussion regarding construction noise under a) above. This impact would be **less-than-significant** with implementation of **Mitigation Measure NO-1**.
- e) There are no airports within two miles of the proposed project. There would be **no impact** from airports upon people residing or working in the vicinity of the proposed project.
- f) There are no private airstrips within two miles of the proposed project. There would be **no impact** from airstrips upon people residing or working in the vicinity of the proposed project.

Mitigation Measures

Mitigation Measure No-1: Elevated Noise Level during Construction.

During construction, the noise level may be temporarily elevated. To minimize the impact, all construction in or adjacent to residential areas shall follow the following procedures for noise control: Construction operations shall adhere to City standards and be limited to Monday through Friday, 7:00 AM to 6:00 PM. The following control measures shall be implemented in order to minimize noise and vibration disturbances at sensitive receptors during periods of construction

- Use newer equipment with improved muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).
- Utilize construction methods or equipment that will provide the lowest level of noise and ground vibration impact such as alternative low noise pile installation methods.
- Turn off idling equipment.

- Temporary noise barriers shall be used and relocated, as needed, to protect sensitive receptors against excessive noise from construction activities. Noise barriers can be made of heavy plywood, or moveable insulated sound blankets.

The following administrative measures shall be implemented in order to minimize noise and vibration disturbances at sensitive receptors during periods of construction:

- Implement a construction noise and vibration-monitoring program to limit the impacts.
- Plan noisier operations during times (Monday through Friday, 7:00 AM to 5:00 PM) of least sensitivity to receptors.
- Keep noise levels relatively uniform and avoid impulsive noises.
- Maintain good public relations with the community to minimize objections to the unavoidable construction impacts. Provide frequent activity update of all construction activities.

References

Bolt, Beranek, and Newman, 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.*

City of Vallejo Municipal Code. Code of Ordinances. July 2015

California Department of Transportation (Caltrans), 2009. *Technical Noise Supplement.* November 2009.

Cunniff, Patrick F., 1977. *Environmental Noise Pollution.*

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment.* May 2006.

U.S. Environmental Protection Agency (EPA), 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.* December 1971.

Population and Housing

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Population and Housing – Would the project:				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The proposed project would provide temporary employment for several people for construction and demolition activities. The proposed project would not result in the permanent creation of new jobs that would induce substantial population growth. Additionally, the bridge will remain a two-lane road and will not encourage population growth within the surround communities are adjacent to the project site. This impact is **less-than-significant**.
- b,c) The proposed project would be constructed in place of an existing bridge and would not displace any housing or people. Consequently, replacement housing would not be required. There is **no impact**.

Public Services

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Public Services – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the 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:				
i. Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- ai) Fire service in the City is provided by the Vallejo Fire Department. The Vallejo Fire Department provides response to fire, medical, and hazardous material emergencies in the project area. Station 21 of the Vallejo Fire Department is located on 1220 Marin St., 5 miles from the project site. Station 23 of the Vallejo Fire Department is located on 900 Redwood St, approximately 1 mile from the project site.

Construction of the proposed project could result in accident or emergency incidents that would require emergency response, such as fire services; however, construction activities will be short-term and minimal. The proposed project is a bridge improvement project that would not create additional demands on the local fire district during operations. There is a **less-than-significant impact**.

Emergency access to the vicinity of the project site may be temporarily inhibited during construction of the proposed project. Implementation of **Mitigation Measure TRAF-1** would ensure that traffic disruption impacts are minimized to a **less-than-significant** level.

- aii) The Vallejo Police Department provides law enforcement services to the City. The Vallejo Police Department is located on 111 Amador St, approximately 1.6 miles from the project site.

Construction of the proposed project may result in accident or emergency incidents that would require police services; however, construction activities will be short-term and minimal. The proposed project is a bridge improvement project that would not create additional demands on the local police district during operations. There is a **less-than-significant impact**.

Emergency access to the vicinity of the project site may be temporarily inhibited during construction of the proposed project. Implementation of **Mitigation Measure TRAF-1** would ensure that traffic disruption impacts are minimized to a **less-than-significant** level.

aiii) The proposed project is located approximately 0.3 miles east of the Vallejo Educational Academy and 1 mile west of the Vallejo High School. The proposed project is a bridge and roadway improvement project and would not generate any additional demand for schools. Construction of the project would require closure of the Sacramento Street Bridge for approximately five months. During construction, traffic can use nearby local streets to bypass the project area. After construction, access and safety of the Sacramento Street Bridge would be improved. This temporary impact to the access of schools would be **less-than-significant**.

aiv) The nearest parks are City Park and River Park, which are located approximately 0.3 miles south and 0.4 miles west of the project site, respectively. No construction or staging will be conducted on any park land. Therefore, the proposed bridge and roadway improvements would not result in long-term impacts to parks. The proposed project would result in **no impact**.

av) The proposed project would have **no impact** on any other public services, such as The City of Vallejo administrative services.

References

2015. The City of Vallejo Fire Department. Accessed September 2015 at http://www.ci.vallejo.ca.us/city_hall/departments__divisions/fire/

2015. The City of Vallejo Police Department. Accessed September 2015 at http://www.ci.vallejo.ca.us/city_hall/departments__divisions/police/

Recreation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Recreation – Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The proposed project is a bridge replacement project; it would not contribute to an increase in the local population, nor would it increase demand on existing neighborhoods. No additional regional parks would be created. The proposed project would have **no impact** on the use of existing neighborhood and regional parks.
- b) The general setting is urban with residential commercial land uses. No recreational facilities are adjacent to the Project. The nearest recreational facilities are City Park and River Park, which are located approximately 0.3 miles south and 0.5 miles west of the project. No construction or staging will be conducted on recreational land. No adverse effects on recreational facilities are anticipated. The proposed project would have **no impact** on recreational facilities.

Transportation and Traffic

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Transportation and Traffic – Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the City congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Short-Term Traffic Impacts

Construction of the proposed project is currently scheduled to start in spring 2017 and take approximately 6 months to complete. The City of Vallejo has indicated that it will allow closure of Sacramento Street during project construction. Under this scenario, the City plans to install detour guidance signs for motorists, directing them to alternate travel routes. With no bridge on Sacramento Street, traffic would be diverted to surrounding roadways, namely Valle Vista Avenue, Sonoma Boulevard, and Tennessee Street. The project vicinity is mainly comprised of single-family homes, which correlates to a lack of signalized intersections. Five intersections have signal control, and these are the most efficient alternate routes with the bridge under construction. Installation of detour route signage to alert drivers will be necessary to minimize traffic operational impacts. Valle Vista Avenue, Tennessee Street and Sonoma Boulevard will serve as the main detour route, capturing northbound and southbound traffic travelling between Valle Vista Avenue and Tennessee Street along Sacramento Street.

Vehicles travelling southbound on Sacramento Street would be diverted to eastbound Valle Vista Avenue, southbound Sonoma Boulevard, and westbound Tennessee Street before continuing their trip. This route utilizes all available signals in the vicinity and would have minimal impact to traffic operations. Vehicles travelling northbound on Sacramento Street would be diverted to eastbound Tennessee Street, northbound Sonoma Boulevard and westbound Valle Vista Avenue.

Full closure of the bridge is expected to cause unacceptable operations at three signalized intersections with no mitigation measures:

- Sacramento Street & Tennessee Street
- Sonoma Boulevard & Tennessee Street
- Sonoma Boulevard & Valle Vista Avenue

All study intersections operate at acceptable LOS with the following mitigation measures:

- Event Plan signal timing updates during bridge construction
- “Right-Turn Only” restriction for eastbound and westbound approaches of Sonoma Boulevard & Indiana Street during a.m. (6:00-9:00 a.m.) and p.m. (4:00-7:00 p.m.) peak periods
- Westbound left-turn pocket extension from 30 feet to 300 feet at Sacramento Street & Tennessee Street
- Eastbound approach modification at Sonoma Boulevard & Tennessee Street providing two-lane approach with one left-turn lane and one shared through-right.

Some left-turn queues at signalized intersections are expected to exceed capacity and may potentially spill back onto the mainline approaches during peak hours.

- Eastbound left-turn at Sonoma Boulevard & Tennessee Street during the p.m. peak hour
 - Install “Keep Clear” pavement legend in eastbound direction of Marin Street & Tennessee Street intersection
- Southbound left-turn at Sacramento Street & Valle Vista Avenue during all peak hours
 - Extend pocket to provide 225 feet of storage
- Northbound left-turn at Sonoma Boulevard & Valle Vista Avenue during all peak hours
 - No significant negative impact on through movements due to provision of two through travel lanes in the northbound direction

The above analysis considers the worst-case scenario that 100 percent Sacramento Street traffic would be diverted to the proposed detour route. Traffic patterns will be reasonably close to this scenario for the first couple of weeks of construction. However, drivers, especially regular commuters and nearby residents, will explore other alternate routes and stabilize afterwards. Considering the availability of many east-west parallel streets available to access Sonoma Boulevard before arriving in the construction vicinity, it is most likely that less traffic impacts would occur on the proposed detour route. Specifically,

- With northbound traffic starting to divert prior to Tennessee Street, the eastbound left-turn movement at Sonoma Boulevard & Tennessee Street would have less impacted operations. Similarly, the northbound left-turns at Sonoma Boulevard & Valle Vista Avenue would experience less traffic impact than analyzed since some of the drivers may choose to make left-turns downstream at Redwood Street instead.
- With southbound traffic starting to divert at Redwood Street prior to Valle Vista Avenue, the southbound left-turns at Sacramento Street & Valle Vista Avenue would have less impacted

operations. Similarly, the westbound left-turns at Sacramento Street & Tennessee Street would show less impact since the southbound traffic into the downtown area may use available east west parallel routes to reach their destinations from Sonoma Boulevard.

Detailed detour signage plans will be reviewed and approved by the City's traffic engineer and provided in the engineering plan set. Development of the detour will also include coordination with Caltrans and require a Caltrans Encroachment Permit to put signage along Highway 29. City staff will provide Public Outreach brochures and meetings prior to construction to keep residents informed of the project. Emergency vehicle access would be maintained at all times. Staging areas for contractor site access and lay down areas will be in portions of the road closed to traffic/parking. A temporary pedestrian bridge will be constructed to facilitate pedestrian and bicycle traffic during construction.

Long-Term Impacts

The project is a bridge replacement project that will not increase or decrease future traffic capacity or create any long-term impact to traffic circulation in the area. Roadway users will continue to be able to travel on the new bridge by motor vehicle, bicycle, or on-foot after construction is complete.

Discussion

- a,b) The purpose of the project is to provide adequate and safe vehicle access and provide a structure that will meet current design standards for the traffic utilizing this bridge. The proposed project will not create additional lanes, so the Average Daily Traffic Volume is expected to be consistent with current volumes on the existing bridge.

Minor short-term traffic-related impacts are anticipated with the proposed project. The Sacramento street segment between Nebraska Street and Tennessee Street will be closed to through traffic, pedestrians, and bicycles during the 5-month project construction. Local residents living along the closed segment will be granted access through the construction site. With no bridge on Sacramento Street, traffic would be diverted to surrounding roadways, namely Valle Vista Avenue, Sonoma Boulevard, and Tennessee Street. A temporary pedestrian bridge will be constructed to facilitate pedestrian and bicyclists. The project is not anticipated to create any long term impacts to traffic circulation in the area, as the proposed project will not increase roadway capacity or change traffic patterns. The new bridge will continue to accommodate pedestrian and bicycle traffic on both sides of the bridge. Providing safer vehicular, bicycle and pedestrian access through the replacement of the deficient bridge will offset temporary impacts related to construction activity.

The proposed project will not conflict with any plan or policy established for measuring the performance of the circulation system. Additionally, the proposed project would not result in impacts to level of service along Sacramento Street. This is a **less-than-significant impact**.

- c) The proposed project does not include structures or uses that would affect air traffic patterns, nor is an airport located in proximity to the project site. Therefore, the proposed project would not result in substantial safety risks related to air traffic and would have **no impact**.

- d) One of the primary purposes of the proposed project is to improve safe access to the bridge for vehicles and pedestrians. Traffic hazards will not be increased as a result of the proposed project. This is a **less-than-significant impact**.
- e) Traffic congestion and delays can occur during construction and can result in an adverse effect; however, these adverse effects can be avoided through standard construction period traffic management planning that includes timely notification of any road closures and detours to police and fire departments, and other emergency service providers. Implementation of **Mitigation Measure TRAF-1** would ensure that traffic disruption impacts are minimized to a **less-than-significant** level.
- f) The proposed project will increase pedestrian safety by including two 6-foot wide sidewalks along each side of the bridge. The proposed project will not conflict with adopted policies, plans, or programs supporting alternative transportation. There is **no impact**.

Mitigation Measures

Mitigation Measure TRAF-1: Standard Traffic Management Plan. The construction contractor for the proposed project shall implement a standard traffic management plan to minimize traffic disruption and ensure adequate access is maintained to surrounding properties. Temporary disruptions to access for residences in the area shall be minimized by coordinating construction activities to provide alternative access points and/or by coordinating construction schedule with property owners. Additionally, prior to the start of construction, the contractor shall coordinate with the City of Vallejo Police and Fire departments and local public and private ambulance and paramedic providers in the area to prepare a Construction Period Emergency Access Plan. The Emergency Access Plan shall identify phases of the project and construction scheduling and shall identify appropriate alternative emergency access routes.

Utilities and Service Systems

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Utilities and Service Systems – Would the project:				
a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The proposed project would not generate any wastewater. There is **no impact**.
- b) The proposed project would not require the construction of additional wastewater or water treatment facilities. There would be **no impact**.
- c) The proposed project consists of demolition of an existing bridge and construction of a new bridge and would not require expansion of existing water drainage facilities. This is a **less-than-significant impact**.
- d) The proposed project consists of demolition of an existing bridge and construction of a new bridge and would not require water supply. The proposed project would require some non-potable water during construction for dust control. This is a **less-than-significant impact**.

- e) The proposed project does not require wastewater treatment services. There is **no impact** to wastewater treatment facilities.
- f) The proposed project would generate waste from temporary construction activities and demolition of the Sacramento Street Bridge. Solid waste associated with construction activities will be handled by Recology Vallejo and transfers to Devlin Road Recycling and Transfer Facility located on 899 Devlin Road, American Canyon. The landfills used by the transfer stations have the capacity to accept waste generated by the proposed project. The project would not result in long-term demands for solid waste disposal services. This is a **less-than-significant impact**.
- g) The proposed project would comply with all federal, state, and local statutes and regulations related to solid waste. There is **no impact**.

Mandatory Findings of Significance

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Mandatory Findings of Significance – Would the project:				
a) 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) Per the impact discussions in the Biological Resources section and the Cultural Resources section, the potential of the proposed project to substantially degrade the environment is **less-than-significant** with incorporated mitigation measures.
- b) The project site is located within the City of Vacaville. The purpose of the proposed project is to provide safe vehicle access and meet current design standards for the Sacramento Street Bridge. The impacts of the proposed project are mitigated to a less-than-significant level, limited to the construction phase of the proposed project, and generally site specific. No other projects are proposed that would overlap or interact with the proposed project. The cumulative impact of the proposed project is **less-than-significant**.
- c) The proposed project would not cause substantial adverse effects on human beings. Effects related to cultural resources, biological resources, hazardous materials, hydrology and water quality, geologic hazards, air quality, transportation and noise are discussed above, and would not result in any significant and unavoidable impacts. This impact is considered **less-than-significant**.

