

DATE FILED & POSTED

Posted On: 9/13/17

Removed On: 10/26/17

Receipt No: 36-091317-544

Notice of Determination

Appendix D

To:

Office of Planning and Research  
U.S. Mail: P.O. Box 3044  
Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113  
Sacramento, CA 95814

Public Agency: San Bernardino County Transportation Authority  
Address: 1170 W. 3rd Street, 2nd Floor  
San Bernardino, CA 92410  
Contact: Justin Fornelli  
Phone: (909) 884-8276

County Clerk  
County of: San Bernardino  
Address: 222 W. Hospitality Lane, 1st Floor  
San Bernardino, CA 92415-0022

Lead Agency (if different from above):  
Address:  
Contact:  
Phone:

**SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.**

State Clearinghouse Number (if submitted to State Clearinghouse): 2012041012

Project Title: Redlands Passenger Rail Project (RPRP)

Project Applicant: San Bernardino County Transportation Authority (SBCTA)

Project Location (include county): San Bernardino County, City of San Bernardino, Tippecanoe Ave. & E. Victoria

Project Description:

The Redlands Passenger Rail Project is an approximately nine mile corridor extending east from the City of San Bernardino to the City of Redlands and includes local and express train service. SBCTA certified a Final EIR for the project in March of 2015. The final EIR considered six potential station stops; five of which were carried forward for final design. Based on revised ridership forecasts, SBCTA is proposing to relocate a station stop approved at Waterman Ave. to Tippecanoe Ave. A station stop at Tippecanoe Ave. was considered as part of the Preferred Alternative in the Final EIR; whereas the Waterman Avenue station stop was considered as part of Design Option 3.

This is to advise that the San Bernardino County Transportation Authority has approved the above  Lead Agency or  Responsible Agency

described project on 9/6/17 and has made the following determinations regarding the above described project.

1. The project  will  will not] have a significant effect on the environment.
2.  An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
 A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures  were  were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan  was  was not] adopted for this project.
5. A statement of Overriding Considerations  was  was not] adopted for this project.
6. Findings  were  were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

1170 W. 3rd Street, 2nd Floor, San Bernardino, CA 92410

Signature (Public Agency): [Signature] Title: Director of Transit & Rail Programs

Date: 9/7/17 Date Received for filing at OPR: \_\_\_\_\_

CLERK OF THE BOARD OF SUPERVISORS  
COUNTY OF SAN BERNARDINO CALIFORNIA  
0017 SEP 13 PM 3:44



State of California - Department of Fish and Wildlife  
**2017 ENVIRONMENTAL FILING FEE CASH RECEIPT**  
 DFW 753.5a (Rev. 01/01/17) Previously DFG 753.5a

**Print**    **StartOver**    **Finalize&Email**

RECEIPT NUMBER:  
 36 — 091317 — 542  
 STATE CLEARINGHOUSE NUMBER (If applicable)  
 2012041012

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY San Bernardino County Transportation Authority	LEAD AGENCY EMAIL	DATE 091317
COUNTY/STATE AGENCY OF FILING San Bernardino	DOCUMENT NUMBER	

PROJECT TITLE  
 Redlands Passenger Rail Project (RPRP) Addendum No. 1 to the EIR

PROJECT APPLICANT NAME San Bernardino County Transportation Authority	PROJECT APPLICANT EMAIL	PHONE NUMBER (909) 884-8276
PROJECT APPLICANT ADDRESS 1170 W. 3rd Street, 2nd Floor	CITY San Bernardino	STATE CA
		ZIP CODE 92410

PROJECT APPLICANT (Check appropriate box)

Local Public Agency     School District     Other Special District     State Agency     Private Entity

CHECK APPLICABLE FEES:

<input checked="" type="checkbox"/> Environmental Impact Report (EIR)	\$3,078.25	\$	<u>3,078.25</u>
<input type="checkbox"/> Mitigated/Negative Declaration (MND)(ND)	\$2,216.25	\$	<u>0.00</u>
<input type="checkbox"/> Certified Regulatory Program document (CRP)	\$1,046.50	\$	<u>0.00</u>
<input type="checkbox"/> Exempt from fee			
<input type="checkbox"/> Notice of Exemption (attach)			
<input type="checkbox"/> CDFW No Effect Determination (attach)			
<input type="checkbox"/> Fee previously paid (attach previously issued cash receipt copy)			
<hr/>			
<input type="checkbox"/> Water Right Application or Petition Fee (State Water Resources Control Board only)	\$850.00	\$	<u>0.00</u>
<input checked="" type="checkbox"/> County documentary handling fee		\$	<u>50.00</u>
<input type="checkbox"/> Other		\$	<u>0.00</u>

PAYMENT METHOD: OK#624770

Cash     Credit     Check     Other

TOTAL RECEIVED    \$    3,128.25

SIGNATURE X	AGENCY OF FILING PRINTED NAME AND TITLE Mariela Barrera, Deputy Clerk
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# Addendum No. 1 to the EIR

San Bernardino County Transportation Authority | Redlands Passenger Rail Project

*SCH No. 2012041012*

June 2017

Communication: Draft Addendum 1 (Item 12)



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- Attachment A. Ridership and Environmental Justice Memo (2016)
- Attachment B. Table 5-2 from Final EIR (2015)
- Attachment C. MMRP (2015)

# 1 Purpose and Background

On March 4, 2015, the San Bernardino Associated Governments (now referred to as the San Bernardino County Transportation Authority [SBCTA]) certified the Final Environmental Impact Report (EIR) for the Redlands Passenger Rail Project (RPRP or project) (State Clearinghouse No. 2012041012). In conjunction with the EIR's certification, the project was approved and was adopted into the region's long-range transit plan (April 2010). The project is proposed to encompass passenger rail operations along an approximately 9-mile corridor extending east from the City of San Bernardino to the City of Redlands. As approved, the project also proposed local and express train service via five station stops; two in the City of San Bernardino and three in the City of Redlands.

Following additional coordination with local stakeholders, including the City of San Bernardino, SBCTA is proposing to relocate the previously approved Waterman Avenue station stop to Tippecanoe Avenue. The Waterman Avenue and Tippecanoe Avenue stations were evaluated in the Final EIR certified by SBCTA in March 2015. The Waterman Avenue Station was analyzed in the Final EIR as Design Option 3: Waterman Avenue Rail Station. As described in the Final EIR, Design Option 3 proposed an optional station location to the one considered at Tippecanoe Avenue. Prior to 2015, the Tippecanoe Avenue station stop was analyzed as part of SBCTA's Preferred Alternative.

SBCTA has prepared this addendum to the EIR (State Clearinghouse No. 2012041012) to address the potential environmental impacts associated with the relocation of the previously proposed station stop at Waterman Avenue to Tippecanoe Avenue (refined Project). This addendum is prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code § 21000, et. seq.) and the CEQA Guidelines (California Administrative Code, Title 14, § 15000, et. seq.).

## 1.1 Applicability and Use of an Addendum

SBCTA's intent through preparation of this addendum is to demonstrate whether the previously adopted CEQA document (i.e., Final EIR), including mitigation measures, are still both adequate and valid for the refined Project. Pursuant to Public Resources Code Section 21166 and the CEQA Guidelines, Sections 15162 through 15164, SBCTA as the lead agency is required to conduct a fact-based evaluation of proposed changes to a project to determine whether supplemental environmental documentation is required. CEQA Guidelines, Sections 15162(a), states that when an EIR is certified for a project, no Subsequent or Supplemental EIR shall be prepared for that project unless the lead agency determines that one of the conditions described in Section 15162(a) has occurred.

Based on the analysis set forth in this addendum, SBCTA has concluded that the refined Project does not trigger any of these circumstances, and that an addendum is the appropriate form of documentation to comply with CEQA.

## 1.2 Format of This Addendum

The previously certified EIR serves as the initial environmental compliance document for the project, and this addendum provides additional clarification and information about the refined Project. This addendum should be read together with the full text of the previously certified EIR (2015). All mitigation measures applicable from the EIR would remain applicable to the refined Project and, therefore, are incorporated by reference into this addendum.

This addendum relies on the use of an Environmental Checklist Form (Checklist), as suggested in Section 15063(d)(3) of the CEQA Guidelines.

## 1.3 Summary of Findings

Based upon the Checklist prepared for the refined Project and supporting responses (Section 3), implementation of the refined Project would not result in substantial changes requiring major revisions to the EIR. Further, the refined Project would not result in any environmental impacts that have not already been addressed in the EIR, and no new mitigation measures are required for the refined Project. Since only minor additions and clarifications are required to the EIR, and none of the conditions described in Public Resources Code Section 21166 or CEQA Guideline 15162 requiring preparation of a subsequent EIR or negative declaration have occurred, SBCTA finds that the preparation of an addendum to the EIR is appropriate and consistent with Public Resources Code Section 21166 and CEQA Guideline 15162.

## 1.4 Lead Agency and Discretionary Approvals

This addendum and the previously adopted EIR are intended to serve as the environmental documentation for the station relocation (to Tippecanoe Avenue) being proposed under the refined Project. The SBCTA is the lead agency under CEQA and maintains authority to approve the addendum.



## 2 Project Description

### 2.1 Introduction

The approved project proposes passenger rail operations along an approximately 9-mile corridor extending east from the City of San Bernardino to the City of Redlands. The approved Project also proposed local and express train service. Local service would occur via five station stops: E Street (and San Bernardino Transit Center [SBTC]) and Waterman Avenue located in the City of San Bernardino; and New York Street, Orange Street (Downtown Redlands), and University Street (University of Redlands) located in the City of Redlands. Metrolink express service would be limited to downtown Redlands and E Street. Components approved as part of the Project included replacement of the existing railroad tracks and ties, reconstruction or rehabilitation of existing bridge structures, construction of station platforms and train layover facility, and auxiliary improvements such as parking, at-grade roadway crossings, and pedestrian access.

The Tippecanoe Avenue Station was previously analyzed as a component of the Preferred Alternative in the Final EIR, which was certified by SBCTA in March 2015; whereas the Waterman Avenue Rail Platform was considered as part of Design Option 3. Therefore, the Tippecanoe Avenue Station is contained within the previously approved Area of Potential Effect (APE) and considered as part of the analysis of direct and indirect effects.

### 2.2 Project Location

The proposed Tippecanoe Avenue station is located in the City of San Bernardino, California, approximately 0.5 mile east of the Santa Ana River (see Figure 1). The proposed Tippecanoe Avenue station would be constructed just west of Tippecanoe Avenue and north of the tracks, inside SBCTA's existing railroad ROW (see Figure 2 and Figure 3). The previously approved Waterman Avenue station location is situated west of the Santa Ana River, east of Waterman Avenue, and south of SBCTA's ROW.

### 2.3 Description of Refined Project

As part of the project's advancement to the 60 percent design, SBCTA is now proposing to relocate the proposed station stop at Waterman Avenue to Tippecanoe Avenue. Figure 2 illustrates the physical footprint area analyzed as part of the Final EIR for the Tippecanoe Station. Figure 3 illustrates the 60 percent design plans for Tippecanoe Station. As shown, the proposed improvements associated with the refined Project would be contained within the area previously analyzed as part of the Final EIR.

SBCTA's decision to advance engineering for a station stop at Tippecanoe Avenue instead of Waterman Avenue is based on multiple factors, including a revised ridership forecast (2016) of the Project system for the opening year service in 2020 and in 2040 (Attachment A). The updated analysis shows that the Tippecanoe Avenue Station would attract more daily boardings compared to the Waterman Avenue Station. Additionally, examination of the land uses/development located within 0.5 mile radius of

each station location previously analyzed in the Final EIR shows that the zoning of the area around the Tippecanoe Avenue Station site is more conducive for Transit Oriented Development (TOD); whereas areas around the Waterman Avenue Station site have become less conducive as a result of new industrial development. Further, the Tippecanoe Avenue Station would continue to provide access for disadvantaged communities and residents living around the station.

## 2.4 Status of Current Project

Final design for the project remains ongoing with the 60 percent plans issued for SBCTA in January 2017; 90 percent will be completed in the third quarter of 2017. The refined Project is reflected in the 60 percent plans. Construction of the mainline track improvements, including station platforms, is scheduled to start in the second or third quarter of 2018.



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Figure 1. RTPP Study Area Overview

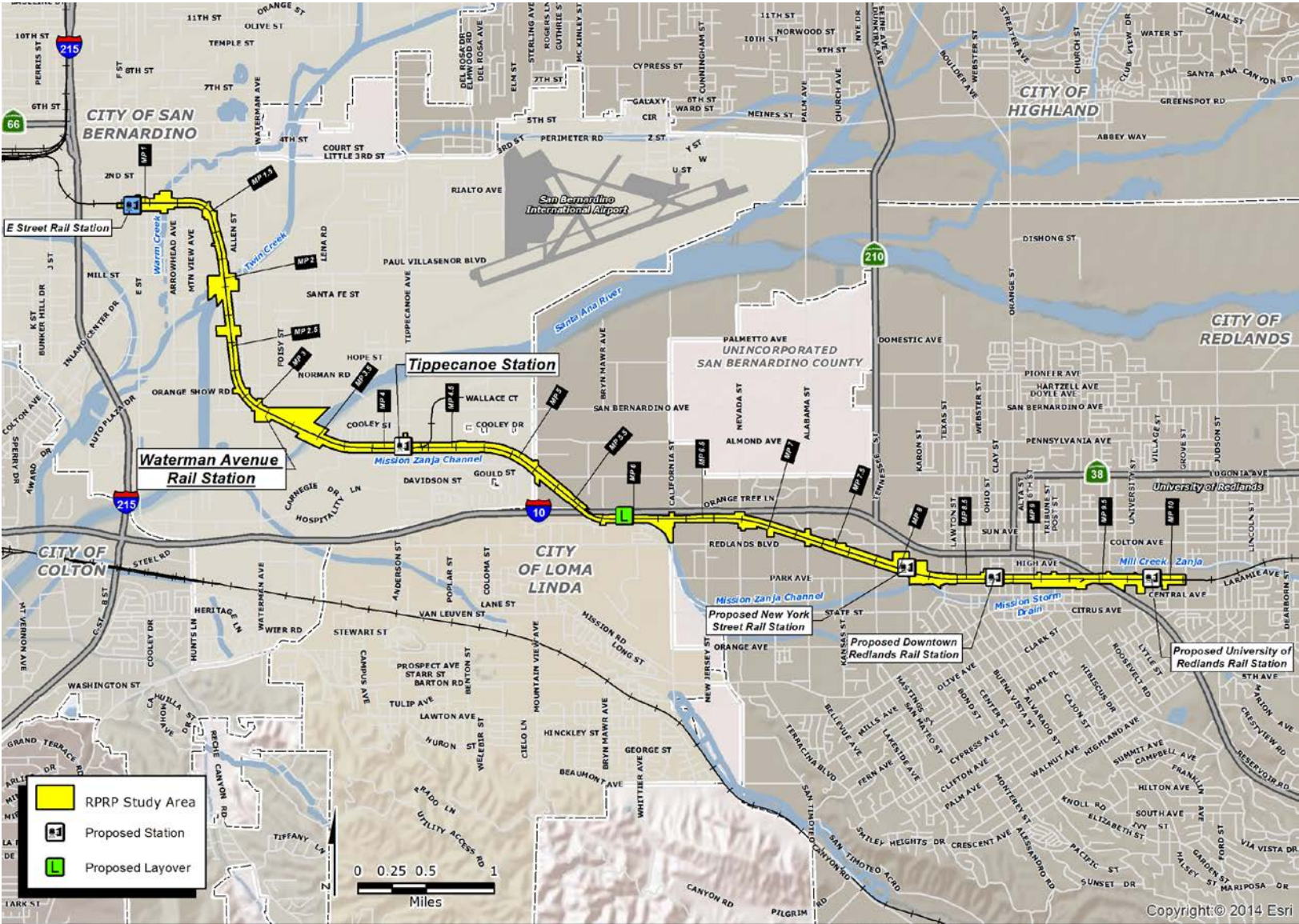
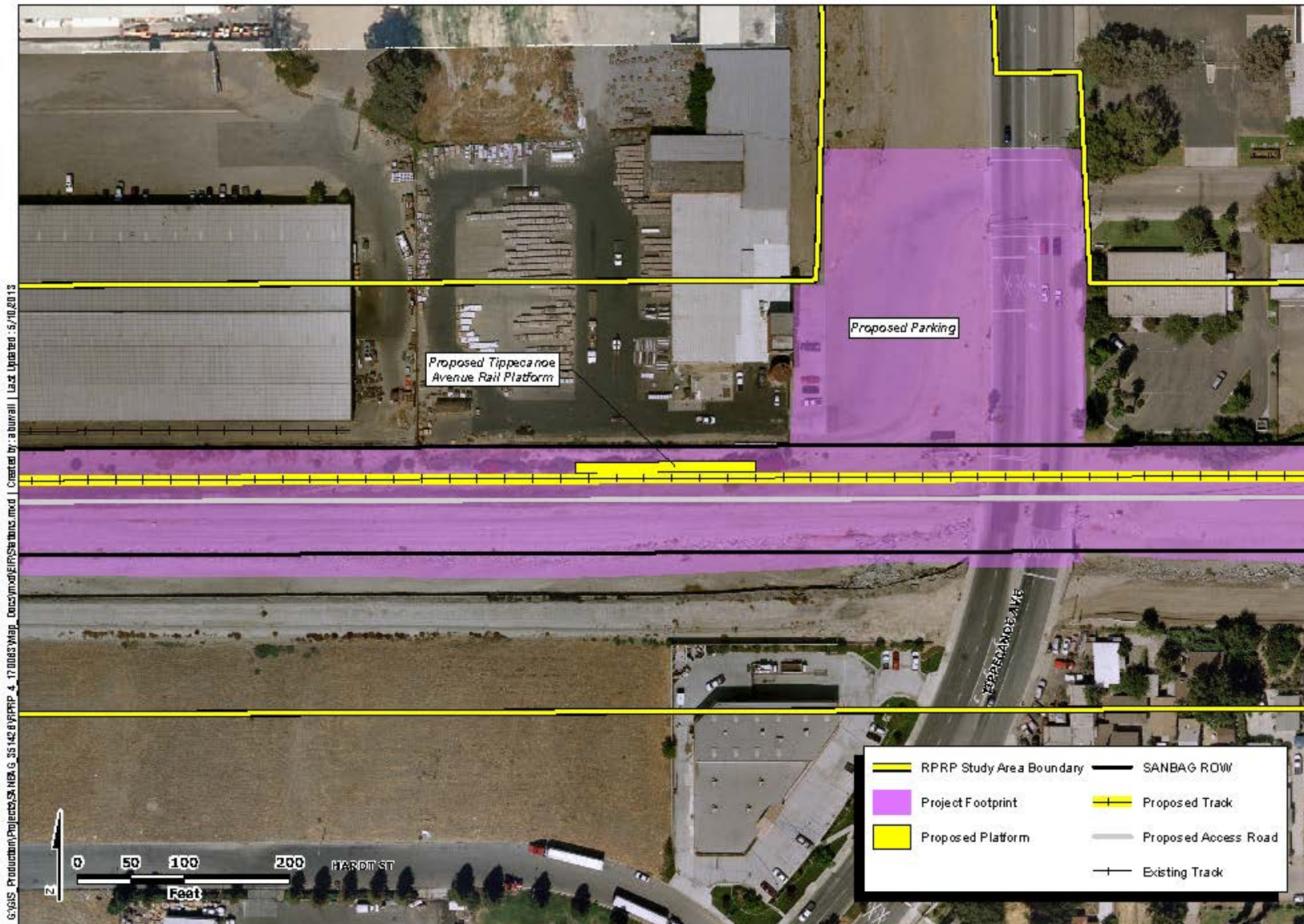


Figure 2. Tippecanoe Avenue Rail Station (30 Percent Design)



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### 3 Environmental Analysis Checklist Summary

The following Environmental Analysis Checklist Summary (Checklist) (Table 1) was developed for projects with previously certified/approved environmental documents. This Checklist takes into consideration the preparation of an environmental document prepared at an earlier stage of a project, evaluates the adequacy of the earlier document in assessing potential environmental impacts resulting from project refinements, and is consistent with Section 21166 of the Public Resources Code and Section 15162 of the CEQA Guidelines.

This addendum incorporates by reference the Final EIR for the approved project, including the analysis of alternatives and design options. Table 5-2 of the Final EIR (see Attachment B) included a comparative analysis between the Preferred Alternative, which included Tippecanoe Avenue, and Design Option 3 (Waterman Avenue Rail Platform).

**Table 1. Environmental Analysis Checklist Summary**

Issues and Supporting Data Sources:	Was Impact Analyzed in Prior EIR <sup>1</sup> ?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
Aesthetics (Table 2)	Yes	No	No	No
Agricultural Resources (Table 3)	Yes	No	No	No
Air Quality (Table 4)	Yes	No	No	No
Biological Resources (Table 5)	Yes	No	No	No
Cultural Resources (Table 6)	Yes	No	No	No
Geology and Soils (Table 7)	Yes	No	No	No
Greenhouse Gas Emissions (Table 8)	Yes	No	No	No
Hazards and Hazardous Materials (Table 9)	Yes	No	No	No
Hydrology and Water Quality (Table 10)	Yes	No	No	No
Land Use and Planning (Table 11)	Yes	No	No	No
Mineral Resources (Table 12)	Yes	No	No	No
Noise (Table 13)	Yes	No	No	No
Population and Housing (Table 14)	Yes	No	No	No
Public Services (Table 15)	Yes	No	No	No

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**Table 1.Environmental Analysis Checklist Summary**

Issues and Supporting Data Sources:	Was Impact Analyzed in Prior EIR <sup>1</sup> ?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
Recreation (Table 16)	Yes	No	No	No
Transportation/Traffic (Table 17)	Yes	No	No	No
Utilities and Service Systems (Table 18)	Yes	No	No	No
Mandatory Findings (Table 19)	Yes	No	No	No

<sup>1</sup> More detailed discussion for each resource topic is included in Table 2 through Table 19 of this checklist.





**Table 2. Aesthetics**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Have a substantial adverse effect on a scenic vista?	Yes	No	No	No
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	Yes	No	No	No
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Yes	No	No	No
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the aesthetics environment as described in Section 3.4, Visual Quality and Aesthetics, of the Final EIR. The location of Tippecanoe Avenue Station remains the same as presented for the Preferred Alternative in Chapter 2 of the Final EIR (2015). Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated, nor would the fundamental characteristics of the station change from that previously analyzed in the Final EIR. No new or more severe visual quality and aesthetics impacts would occur and all mitigation measures adopted as part of SBCTA's MMRP (provided as Attachment C) for the proposed project, including Mitigation Measures (MM) VQA-1, VQA-2, VQA-3, and VQA-4, would continue to apply following the selection of the Tippecanoe Avenue Station (i.e., the refined Project).

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**Table 3. Agricultural Resources**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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*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.*

**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?	Yes	No	No	No
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Yes	No	No	No
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))?	Yes	No	No	No
d) Result in the loss of forest land or conversion of forest land to non-forest use?	Yes	No	No	No
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?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the agricultural environment as described in Section 5.4 Agricultural Resources, of the Final EIR. The proposed location of the Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Similar to the Waterman Station, the Tippecanoe Avenue Station is located on land identified as Urban and Built-Up Land. No new or more severe agricultural resources impacts would occur with the selection of the Tippecanoe Avenue Station (i.e. the refined Project) and no new mitigation measures are required.

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**Table 4. Air Quality**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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*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?	Yes	No	No	No
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Yes	No	No	No
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)?	Yes	No	No	No
d) Expose sensitive receptors to substantial pollutant concentrations?	Yes	No	No	No
e) Create objectionable odors affecting a substantial number of people?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR (2015), there have been no substantial changes to the air quality environment as described in Section 3.5, Air Quality and Climate Change, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated, nor would the fundamental characteristics of the station change from that previously analyzed in the Final EIR. Furthermore, the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe air quality impacts would occur with the selection of the Tippecanoe Avenue Station (i.e., the refined Project). There would be no changes required to the prior Redlands Passenger Rail Project Air Quality and Greenhouse Gas Technical Report (Appendix G1 of the Final EIR) and Redlands Passenger Rail Project Air Quality and Greenhouse Gas Technical Addendum (Appendix G2 of Final EIR). No new mitigation measures would be required.

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**Table 5. Biological Resources**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
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?	Yes	No	No	No
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Yes	No	No	No
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?	Yes	No	No	No
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	Yes	No	No	No
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Yes	No	No	No

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**Table 5. Biological Resources**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
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**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the biological environment as described in Section 3.7, Biological and Wetland Resources, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated. The Tippecanoe Avenue Station is within the previously evaluated development footprint. No new or more severe biological resources impacts would occur and all mitigation measures adopted as part of SBCTA’s MMRP for the proposed project, including MMs BIO-1 through BIO-7, would continue to apply following the selection of the Tippecanoe Avenue Station (i.e. refined Project). There would be no changes required to the prior Biological Resources Technical Report (Appendix I1 of the Final EIR) and Wetland Delineation and Preliminary Jurisdictional Determination (Appendix I2 of the Final EIR). No new mitigation measures would be required.

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**Table 6. Cultural Resources**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	Yes	No	No	No
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Yes	No	No	No
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Yes	No	No	No
d) Disturb any human remains, including those interred outside of formal cemeteries?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the cultural environment as described in Section 3.12, Cultural and Historic Resources, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated. The Tippecanoe Avenue Station is within the previously evaluated development footprint. No new or more severe cultural resources impacts would occur and all mitigation measures adopted as part of SBCTA's MMRP for the proposed project, including MMs CUL-1, CUL3, and CUL4, would continue to apply following the selection of the Tippecanoe Avenue Station (i.e. refined Project). There would be no changes required to the prior *Cultural Resources Technical Memorandum* (Appendix M of the Final EIR). No new mitigation measures are required.

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**Table 7. Geology and Soils**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Yes	No	No	No
ii) Strong seismic ground shaking?	Yes	No	No	No
iii) Seismic-related ground failure, including liquefaction?	Yes	No	No	No
iv) Seismic-related ground failure, including liquefaction	Yes	No	No	No
b) Result in substantial soil erosion or the loss of topsoil?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No

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**Table 7. Geology and Soils**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
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**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the geological environment as described in Section 3.9, Geology, Soils and Seismicity, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated, nor would the fundamental characteristics of the station change from that previously analyzed in the Final EIR. No new or more severe geological impacts would occur and all mitigation measures adopted as part of SBCTA's MMRP for the proposed project, including MM GEO-1, would continue to apply following the selection of the Tippecanoe Avenue Station (i.e. refined Project). There would be no changes required to the prior *Preliminary Geotechnical Evaluation* (Appendix K of the Final EIR).





**Table 8. Greenhouse Gas Emissions**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment?	Yes	No	No	No
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the greenhouse gases environment as described in Section 3.5, Air Quality and Climate Change, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated, nor would the fundamental characteristics of the station change from that previously analyzed in the Final EIR. Furthermore, the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe greenhouse gas impacts would occur with the selection of the Tippecanoe Avenue Station (i.e., the refined Project). There would be no changes required to the prior *Redlands Passenger Rail Project Air Quality and Greenhouse Gas Technical Report* (Appendix G1 of the Final EIR) and *Redlands Passenger Rail Project Air Quality and Greenhouse Gas Technical Addendum* (Appendix G2 of Final EIR). No new mitigation measures would be required.

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**Table 9. Hazards and Hazardous Materials**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes	No	No	No
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	Yes	No	No	No
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	Yes	No	No	No
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?	Yes	No	No	No
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	Yes	No	No	No
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?	Yes	No	No	No
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Yes	No	No	No

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**Table 9. Hazards and Hazardous Materials**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
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**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the environment as described in Section 3.10, Hazardous Waste and Materials, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint and the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe hazards and hazardous materials impacts would occur and all mitigation measures adopted as part of SBCTA’s MMRP for the proposed project, including MMs HAZ-1 through HAZ-6, would continue to apply following the selection of the Tippecanoe Avenue Station (i.e., refined Project). There would be no changes required to the prior *Phase I Environmental Site Assessment* (Appendix L1 of the Final EIR) and *Phase I Environmental Site Assessment Update* (Appendix L2 of the Final EIR).

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**Table 10. Hydrology and Water Quality**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	Yes	No	No	No
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?	Yes	No	No	No
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Yes	No	No	No
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	Yes	No	No	No
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?	Yes	No	No	No
f) Otherwise substantially degrade water quality?	Yes	No	No	No
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?	Yes	No	No	No



**Table 10. Hydrology and Water Quality**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	Yes	No	No	No
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?	Yes	No	No	No
j) Inundation by seiche, tsunami, or mudflow?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the hydrological environment as described in Section 3.8, Floodplain and Hydrology, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated, nor would the fundamental characteristics of the station change from that previously analyzed in the Final EIR. Furthermore, the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe hydrology or water quality impacts would occur and all mitigation measures adopted as part of SBCTA's MMRP for the proposed project, including MMs HWQ-1 through HWQ-6, would continue to apply following the selection of the Tippecanoe Avenue Station (i.e., refined Project). There would be no changes required to the following technical reports:

- *Existing Drainage Conditions Memo* (Appendix J1 of the Final EIR)
- *H&H Report for the Mission Zanja Flood Control Channel and Mill Creek Zanja* (Appendix J5 of the Final EIR)
- *Preliminary Water Quality Management Plan* (Appendix J7 of the Final EIR)

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**Table 11. Land Use and Planning**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Physically divide an established community?	Yes	No	No	No
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?	Yes	No	No	No
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the land use environment as described in Section 3.2, Land Use, Planning and Communities, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated, nor would the fundamental characteristics of the station change from that previously analyzed in the Final EIR. No new or more severe land use, planning and communities impacts would occur and all mitigation measures adopted as part of SBCTA's MMRP for the proposed project, including MM LU-1, would continue to apply following the selection of the Tippecanoe Avenue Station. No new mitigation measures would be required.

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**Table 12. Mineral Resources**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**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?	Yes	No	No	No
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?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the mineral resources environment as described in Section 5.4, Mineral Resources, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. The Tippecanoe Avenue Station is not located within an Industrial Extractive zone used for mineral, sand, and gravel extraction therefore mineral extraction is not permitted. No new or more severe mineral resources impacts would occur with the selection of the Tippecanoe Avenue Station and no new mitigation measures would be required.

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Table 13. Noise

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) 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?	Yes	No	No	No
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Yes	No	No	No
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes	No	No	No
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes	No	No	No
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Yes	No	No	No
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the noise environment as described in Section 3.6, Noise and Vibration, of the Final EIR. The location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint and the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe noise impacts would occur and all mitigation measures adopted as part of SBCTA's MMRP for the proposed project, including MMs NV-1 through NV-7, would continue to apply following the selection of the Tippecanoe Avenue Station (i.e. refined Project). There would be no changes required to the prior *Noise and Vibration Technical Memorandum* (Appendix H1 of the Final EIR) and the *Noise and Vibration Technical Addendum* (Appendix H2 of the Final EIR). No new mitigation measures would be required.





**Table 14. Population and Housing**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Yes	No	No	No
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Yes	No	No	No
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, the location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint and the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe population and housing impacts would occur following the selection of the Tippecanoe Avenue Station (i.e., refined Project). No new mitigation measures would be required.

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**Table 15. Public Services**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

a) Fire Protection?	Yes	No	No	No
b) Police Protection?	Yes	No	No	No
c) Schools?	Yes	No	No	No
d) Parks?	Yes	No	No	No
e) Other public facilities?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the environment as described in Section 3.13, Parklands, Community Services, and Other Public Facilities, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint and the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe community services and other facilities impacts would occur following the selection of the Tippecanoe Avenue Station (i.e., refined Project). No new mitigation measures would be required.

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**Table 16. Recreation**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Yes	No	No	No
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the environment as described in Section 3.13, Parklands, Community Services, and Other Public Facilities, of the Final EIR. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint and the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe parklands impacts would occur following the selection of the Tippecanoe Avenue Station (i.e., refined Project). No new mitigation measures would be required.

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Table 17. Transportation/Traffic

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**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?	Yes	No	No	No
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 county congestion management agency for designated roads or highways?	Yes	No	No	No
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?	Yes	No	No	No
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Yes	No	No	No
e) Result in inadequate emergency access?	Yes	No	No	No



**Table 17. Transportation/Traffic**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
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**Discussion:** Since the certification of the Final EIR, the proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. Development of the Tippecanoe Avenue Station would not expand or increase the development footprint as previously evaluated, nor would the fundamental characteristics of the station change from that previously analyzed in the Final EIR. Furthermore, the construction and operations of the rail station would be the same as evaluated in the Final EIR. No new or more severe traffic impacts would occur and all mitigation measures adopted as part of SBCTA's MMRP for the proposed project would continue to apply following the selection of the Tippecanoe Avenue Station (i.e., refined Project). There would be no changes required to the prior *Redlands Passenger Rail Project Traffic Report* (Appendix E of the Final EIR). No new mitigation measures would be required.

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**Table 18. Utilities and Service Systems**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Yes	No	No	No
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Yes	No	No	No
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Yes	No	No	No
g) Comply with federal, state, and local statutes and regulations related to solid waste?	Yes	No	No	No

**Discussion:** The Final EIR concluded that the proposed project would not result in significant environmental impacts as it relates to utilities and service systems. The proposed location of Tippecanoe Avenue Station remains the same as presented for the proposed project in Chapter 2 of the Final EIR. The refined project does not entail any substantial changes that require major revisions to the EIR's discussion regarding utilities and service systems. No new or more severe utilities and service systems impacts would occur with the selection of the Tippecanoe Avenue Station (i.e., refined Project). No new mitigation measures would be required.



**Table 19. Mandatory Findings**

Issues and Supporting Data Sources	Was Impact Analyzed in Prior EIR?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	Yes	No	No	No
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Yes	No	No	No
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	Yes	No	No	No
<p><b>Discussion:</b> As discussed under Biological Resources (Table 5) and Cultural Resources (Table 6), the refined Project does not have the potential to degrade the environment involving fish or wildlife species and/or plant or animal community or eliminate important examples of the major periods of California history or prehistory. Cumulative impacts were evaluated in the Final EIR. The resources most likely to be cumulatively affected by the approved project include traffic and noise. With mitigation, these impacts would be minimized to a less than significant level. The proposed refinements to the approved project would not result in any significant cumulative impacts or any new or substantially more severe cumulative impacts. Therefore, the refined Project would not result in substantially more severe impacts and no new mitigation measures would be required.</p>				

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### Environmental Determination

Based upon the evidence in light of the whole record documented in the attached environmental checklist explanation, cited incorporations and attachments, I find that the Project:

- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document.
- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. **Minor additions and/or clarifications** are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA §15164).
- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or **substantial changes have occurred** requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163.

Signed: \_\_\_\_\_

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## 4 Mitigation Measures

A listing of applicable mitigation measures from the Redlands Passenger Rail Project's Final EIR is provided as Attachment C of this EIR Addendum. All mitigation measures adopted as part of SBCTA's MMRP for the proposed project would continue to apply following the selection of the Tippecanoe Avenue Station (i.e., refined Project). SBCTA, as the CEQA lead agency, is responsible for adopting and implementing the approved mitigation.

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# Attachment A. Ridership and Environmental Justice Memo (2016)

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## Redland Passenger Rail Project FY 2016 TIGER Grant Potential Station Location Modification White Paper

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### **OVERVIEW & PROJECT UPDATE**

The San Bernardino Associated Governments (SANBAG) is the project sponsor of the Redlands Passenger Rail Project (RPRP), which has been awarded \$8,678,312 in funding from the Fiscal Year 2016 Transportation Investment Generating Economic Recovery (TIGER) Grant program. The RPRP consists of a 9-mile new passenger rail system connecting the cities of Redlands, San Bernardino, and Loma Linda. There are currently five station stops identified as part of the project; University, Downtown Redlands, and New York Street Stations located in the City of Redlands and the San Bernardino Transit Center (SBTC) and Waterman Avenue Stations in the City of San Bernardino.

SANBAG is currently considering revising the location of one of the station locations; no longer building the Waterman Avenue Station and constructing a new station adjacent to Tippecanoe Avenue approximately 1.1 miles further east along the railroad corridor, yet still within the City of San Bernardino. A key consideration for SANBAG in the determination if the station should be relocated is if any of the FY 2016 TIGER Grant funds would be jeopardized by this change to the project.

The project was cleared environmentally by Federal Transit Administration (FTA) and SANBAG in March of 2015. Both the Waterman Avenue Station and Tippecanoe Station were included in the environmental document. SANBAG has since awarded several consultant contracts to assist in the delivery of the project, including contracts for a Program Management Consultant, Mainline Final Design Consultant, Maintenance Facility Design Consultant, Mainline Construction Management Consultant, and an Outreach/Service Branding Consultant. The design of the project is currently 50% complete with the 100% design anticipated to be completed in mid-2017. SANBAG anticipates completing an early utility relocation construction package by early 2018, with the mainline and maintenance facility construction packages being completed by mid-2020. The SANBAG Board has approved the release of a request for proposals (RFP) to procure the Diesel Multiple Unit (DMU) rail vehicles and SANBAG anticipates releasing the RFP by the end of September 2016 and receiving the vehicles by early 2020. SANBAG staff is currently negotiating operations and maintenance agreements with Omnitrans and the Southern California Regional Rail Authority (Metrolink) to provide the RPRP rail service. Omnitrans, as the San Bernardino Valley transit provider, will operate and maintain the DMUs and Metrolink, as the Southern California region commuter rail operator will provide maintenance-of-way and dispatching services of the Redlands Corridor. Revenue service of the RPRP system is anticipated to begin in mid-2020.

## STATION RELOCATION RATIONAL

### Ridership

In June of 2016 SANBAG completed a revised ridership forecast of the RPRP system for the opening year of RPRP service in 2020 and in 2040. The revised forecast differed from a previous ridership forecast completed in 2013 by taking into account transit connections to fixed route bus, bus rapid transit, and Metrolink commuter rail service. Another aspect of the revised forecast was a comparison of potential boardings between the Waterman and Tippecanoe Station locations. The analysis examined the current and projected population and employment in the primary market areas of both stations. As shown in Table 1 below, the analysis indicated that the Tippecanoe Station would draw approximately 150 more daily boarding than the Waterman Station in the opening year and 200 more daily boardings in 2040.

**Table 1:** Ridership Comparison (Waterman versus Tippecanoe Stations)

	2020 Daily Boardings	2040 Daily Boardings
<b>Waterman Station</b>	220	275
<b>Tippecanoe Station</b>	375	480

Source: SANBAG Redlands Passenger Rail Ridership Forecasts Update, June 2016

### TOD Potential

Similar to the 2013 ridership forecast, the revised forecast also accounted for ridership impacts associated with future Transit Oriented Developments (TOD) around the proposed RPRP station locations. Assuming TODs around the station areas resulted in a 25 percent increase in the ridership demand on the Redlands Corridor in 2040.

The City of San Bernardino notified SANBAG in August 2016 that a private developer had completed the entitlement process to construct a 25 acre warehouse facility adjacent to the Waterman Station, severely limiting the TOD potential around the Waterman Station area due to the large size of the facility and the limited number of transit users generated by the new warehouse facility.

### Inland Regional Center Transit Demand

SANBAG had originally identified the Waterman Avenue location as a preferred station location not only due to the future TOD potential, but also because the close proximity of the Inland Regional Center (IRC). The IRC is a nonprofit, private community-based agency that serves individuals with developmental disabilities in San Bernardino and Riverside counties. Based on the fact that a large number of the developmentally disabled are transit dependent, SANBAG made the assumption in originally identifying the Waterman Station that a large number of the IRC's constituents could use RPRP to access the IRC.

As part of researching potential ridership generators for the revised ridership forecast, SANBAG consulted IRC staff to better understand the travel patterns of their constituents and staff. The IRC staff indicated the majority of their constituents receive service from IRC case workers who travel to

the constituents using personal automobiles. The IRC staff further clarified that their constituents seldom travel to the IRC facility near the Waterman Station, primarily only visiting the IRC facility to complete the initial in-take process, which accounts for approximately 1,000 visitors to the headquarters every month. Based on this operational model, the IRC is not a major ridership generator for RPRP and a disadvantaged community would not be affected by the relocation of the RPRP station from Waterman Avenue to Tippecanoe Avenue.

### **NEPA/CEQA IMPACTS**

FTA and SANBAG completed a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and Record of Decision (ROD) in March 2015 to comply with both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The EIR/EIS identified five station stops consisting of SBTC and Tippecanoe in the City of San Bernardino and New York Street, Downtown Redlands, and University Avenue in the City of Redlands. The Waterman Station was also identified as Design Option 3 as part of SANBAG's Locally Preferred Alternative (LPA) and carried forward for approval in conjunction with the ROD.

Since SANBAG environmentally cleared both the Tippecanoe and Waterman Station locations but only plans to build one of these stations due to budget constraints, SANBAG staff plans to bring an item to the SANBAG Board of Directors recommending one of the stations to be constructed. SANBAG staff recommendation on which station to be implemented will largely be influenced by FTA's determination on if TIGER funding eligibility would be jeopardized with not proceeding with the Waterman Station.

### **PROVIDING ACCESS TO LADDERS OF OPPORTUNITY**

As part of the EIS/EIR, SANBAG identified environmental justice populations and general plan land use/zoning designations for the entire project corridor and within a half mile radius around the proposed station locations, including both the Waterman and Tippecanoe Stations. As shown in the attached Figure 3.17-3A from the EIS/EIR, both the Waterman and Tippecanoe Station locations are located within the block group with greater than 50% minority population.

Figure 3.2-1A from the EIS/EIR is also attached and depicts the City of San Bernardino General Plan Land Use and Zoning Designations. The area within a half mile radius around the Waterman Station consists of light industrial, office industrial park, commercial recreation, and flood control areas. In comparison, the half mile radius area around the Tippecanoe Station consists of office industrial park and heavy industrial, but also includes urban and medium-high residential areas in addition to commercial zoning. Based on the close proximity of a much more diverse zoning designation, including urban and medium-high residential areas, the Tippecanoe Station provides more access for disadvantaged communities to ladders of opportunity to not only access work centers, but also provides access for residents living around the station to other work, education, and health centers along Redlands Corridor and via the transit connections that will connect to the RPRP service.

A further indicator of the additional access to ladders of opportunity that the Tippecanoe Station provides over the Waterman Station is shown in the attached Transportation Analysis Zone (TAZ) study areas around the two stations. These TAZ exhibits for the years of 2012 and 2040 were completed by the Southern California Association of Governments (SCAG), which is the MPO for

Southern California. The highlighted population and employment areas that are within a half-mile of the stations depict that the Tippecanoe Station location currently has and in the future will have significantly more population and employment opportunities than the Waterman Station.

### **BUDGET IMPACTS**

SANBAG's Mainline Design Consultant has started preliminary design efforts on the Waterman Station; however SANBAG has directed the consultant to stop work on this station until a decision has been made on which station to implement. If the Tippecanoe Station is approved, the design work associated specifically with the Waterman Station location will no longer be used. There are some design elements of the Waterman Station such as general platform layout and amenities that are transferable. The remaining design budget allocated for the Waterman Station would be transferred to complete the Tippecanoe Station. Additional design budget will need to be allocated to complete the Tippecanoe Station design. These costs have not been estimated at this time, however they are considered to be minor, which SANBAG is committed to funding. No additional construction costs are anticipated associated with the change to the station location.

### **SCHEDULE IMPACTS**

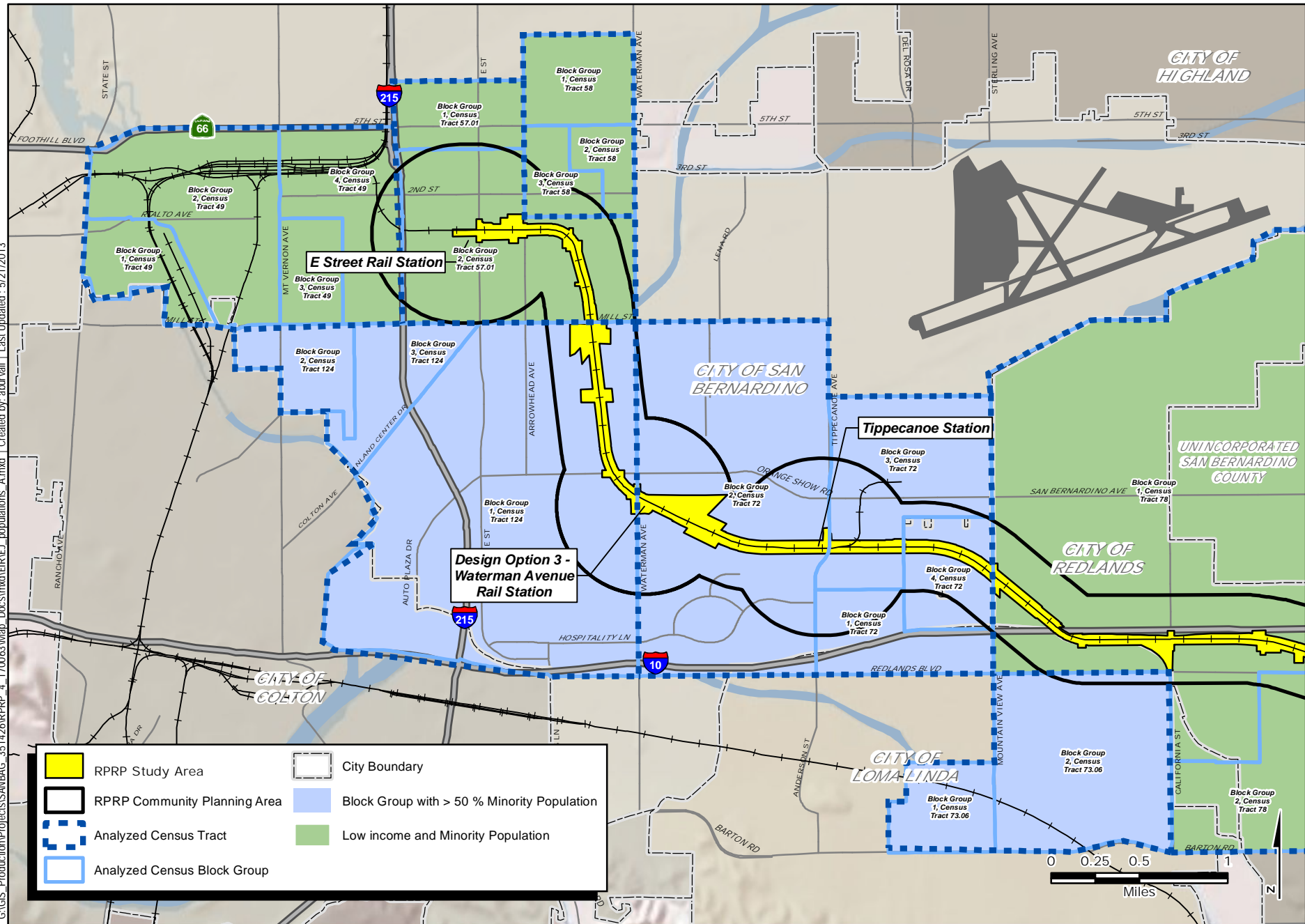
No impacts to the schedule are anticipated if the decision on whether or not to relocate the station is made by September 30, 2016. Design of the other major project elements will progress independent of the station design. However, there are design disciplines in the area of the stations, such as grading/drainage and railroad signals that will be impacted if the station location is not determined soon.

### **CONCLUSION**

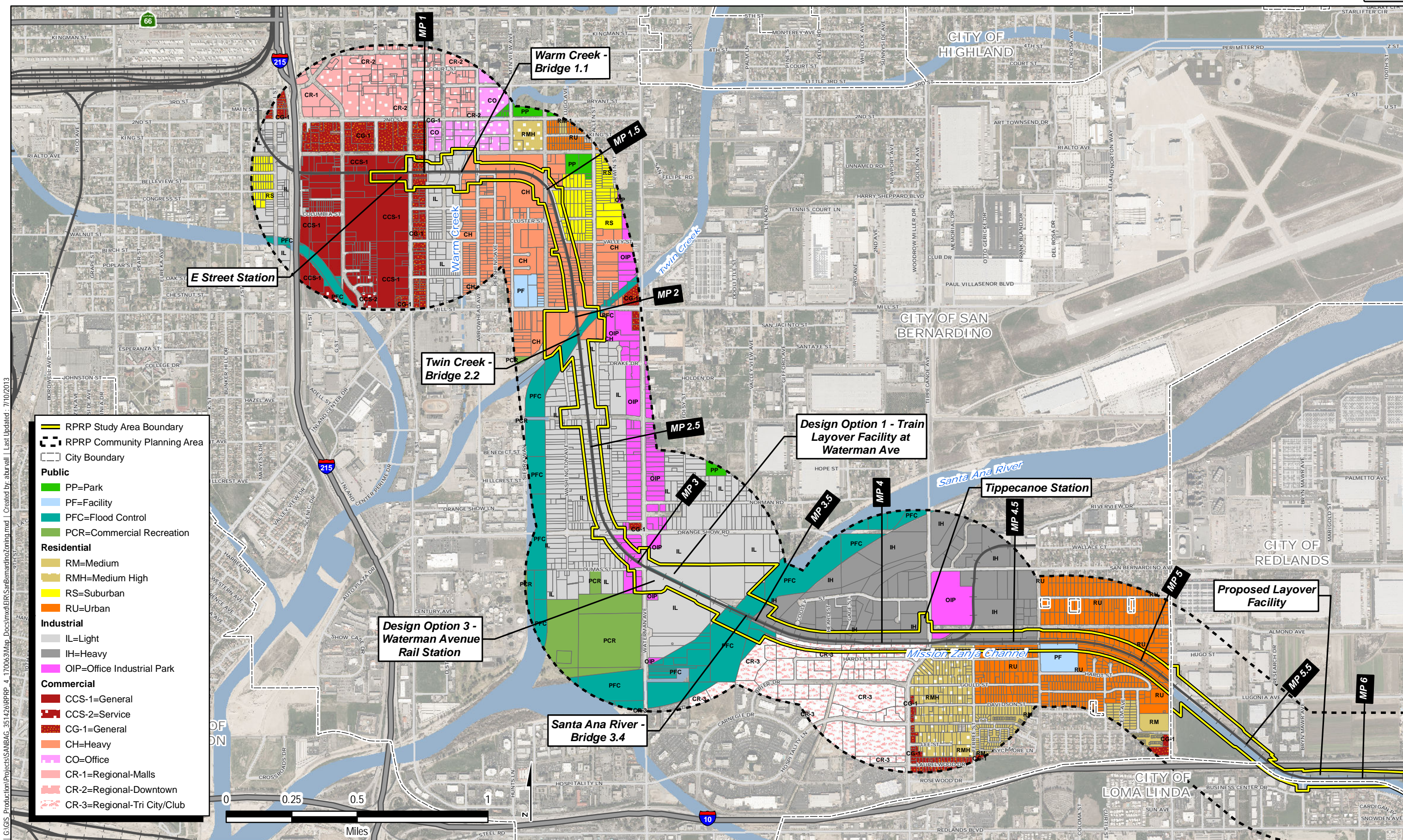
Based on the Tippecanoe Avenue Station providing access to more employment opportunities and being located closer to residential areas that are classified as a 50% or more minority population than the Waterman Station, SANBAG recommends proceeding with replacing the Waterman Station with the Tippecanoe Station. The Tippecanoe Station will provide more ladders of opportunity to the residents and transit users along the Redlands Corridor due to the existing and planned residential and employment areas around the Station. In addition, the realization that assumptions made about the number of IRC constituents visiting the IRC headquarters adjacent to the Waterman Station location further justifies moving forward with the Tippecanoe Station versus the Waterman Station.



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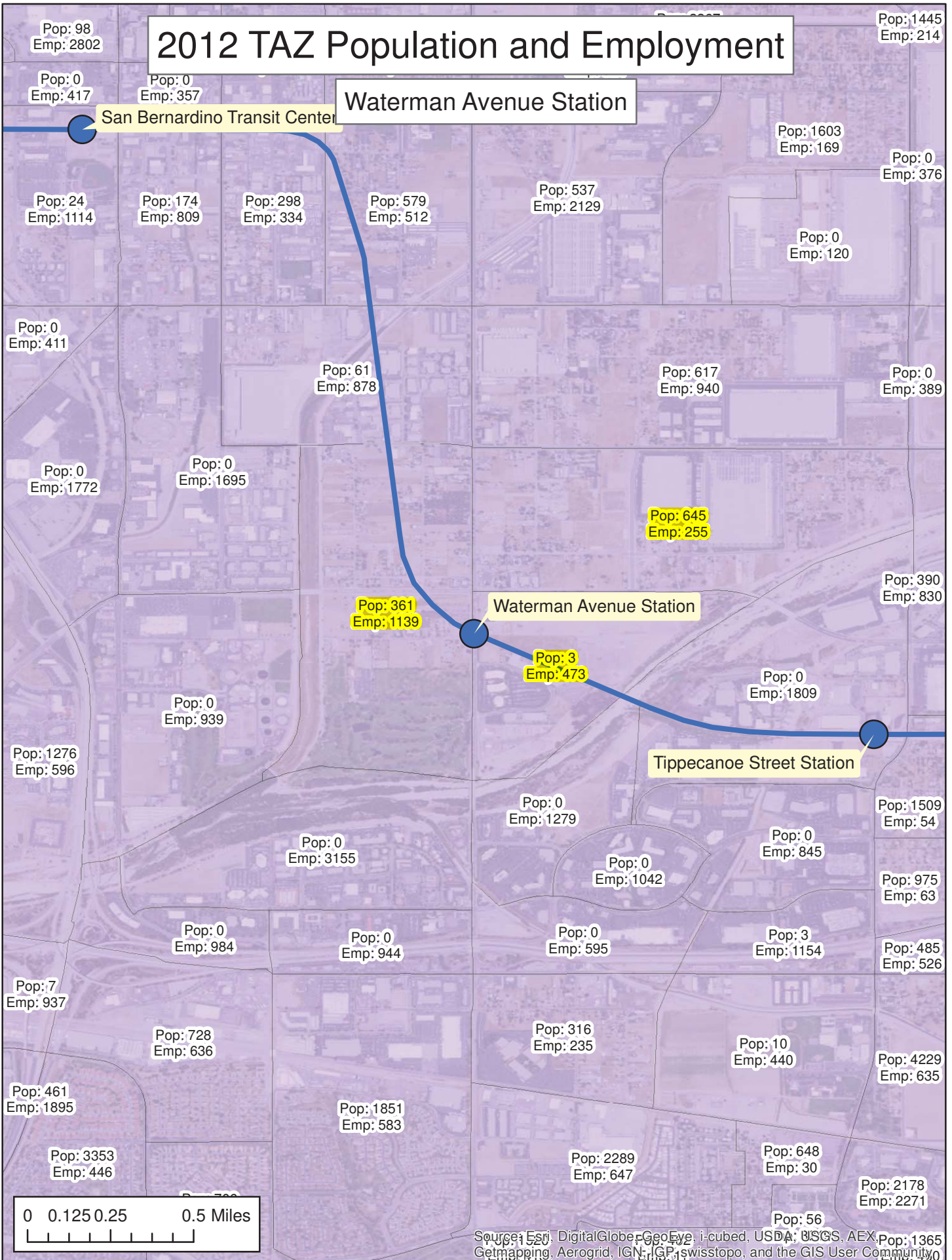


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City of San Bernardino General Plan Land Use and Zoning Designations  
Figure 3.2-1A

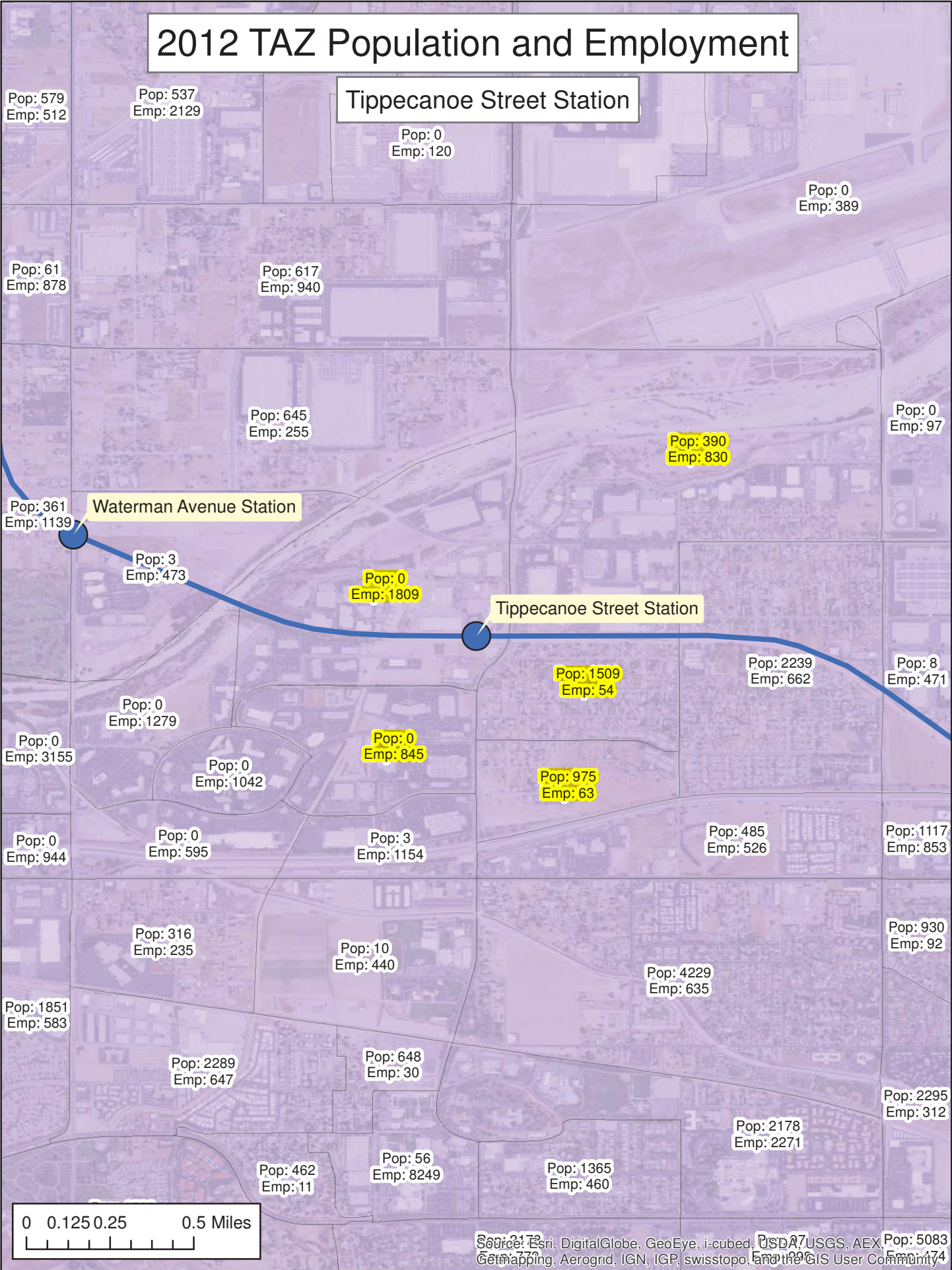
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# 2012 TAZ Population and Employment



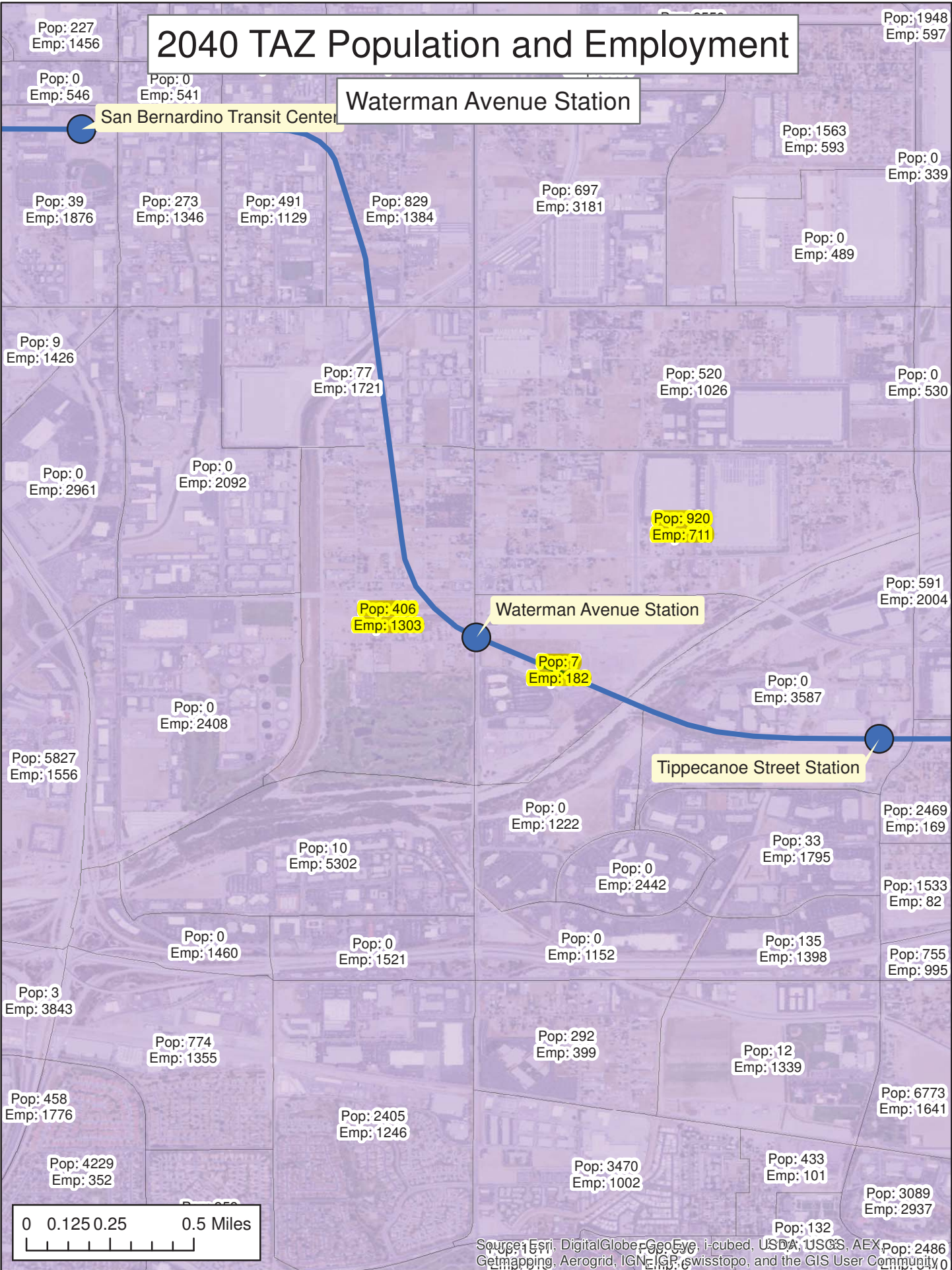
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# 2012 TAZ Population and Employment



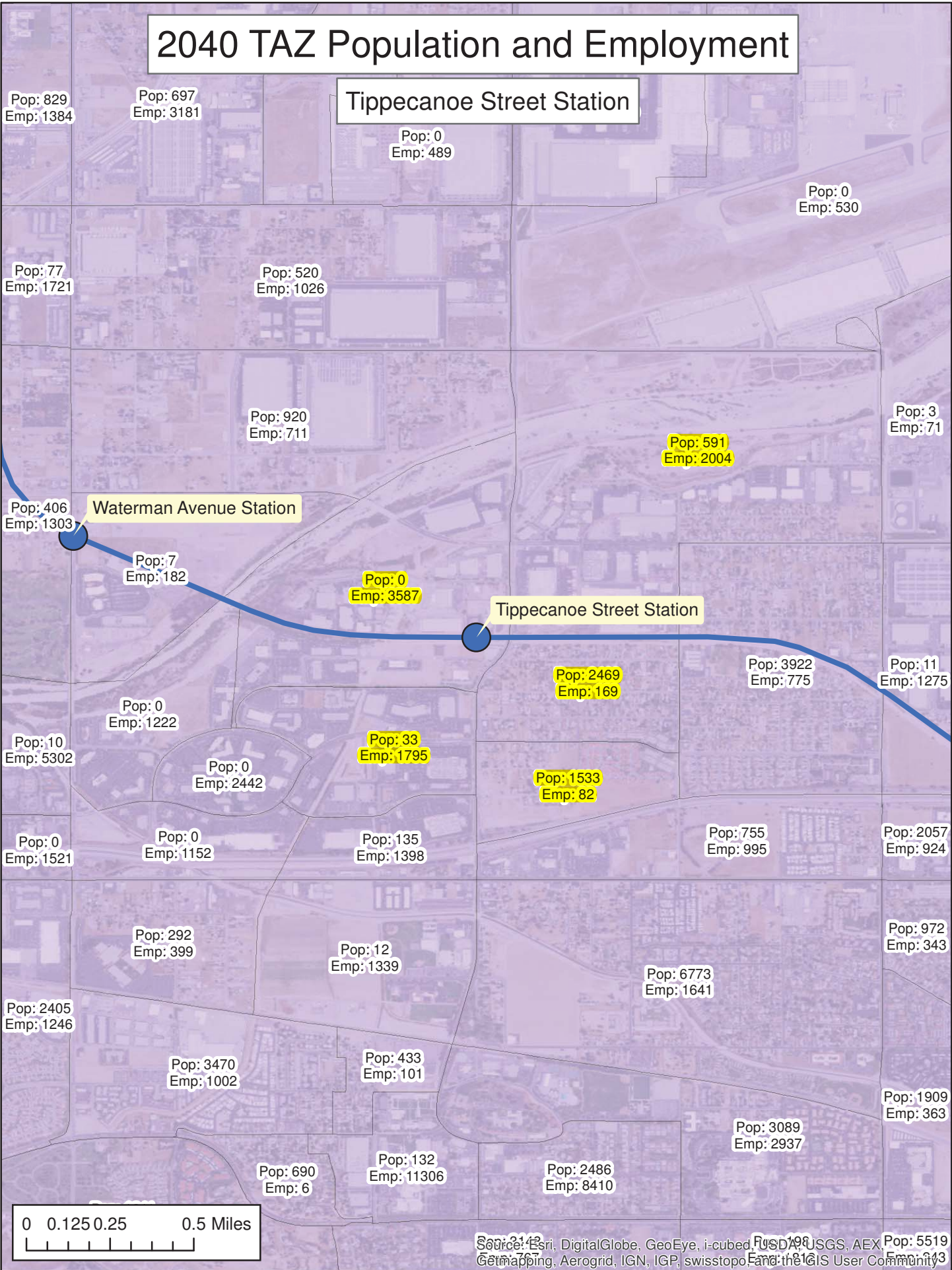
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# 2040 TAZ Population and Employment



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# 2040 TAZ Population and Employment



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# Attachment B. Table 5-2 from Final EIR (2015)

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**Table 5-2. Build Alternatives and Design Options Comparison Table**

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
<b>Section 3.2 - Land Use and Planning – NEPA and CEQA Comparison</b>						
Effect 3.2-1: Physically divide an established community or physically disrupt community cohesion.	AE/SU <sup>4</sup>	S <sup>5</sup>	S	S	S	L (No sound barriers proposed as mitigation)
Effect 3.2-2: Create incompatibility with on-site or adjacent land uses and zoning.	NAE/LTS	S	L (Layover facility placed on industrially zoned land)	L (No new layover facility)	S	L (No new facilities outside ROW)
Effect 3.2-3: Result in conflict or inconsistency with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project.	NAE/LTS	S	L (Layover facility placed on industrially zoned land)	L (No new layover facility)	S	G (Conflict with RTP/SCS)
Effect 3.2-4: Degrade the social or physical character of the community or quality of life of nearby neighborhoods.	NAE/LTS	S	L (Layover facility placed on industrially zoned land)	L (No new layover facility)	S	L (No new facilities outside ROW)
Effect 3.2-5: Displacement of residences and businesses.	NAE/LTS	L (Fewer number of TCEs and partial takes)	S	L (No new layover requires fewest number of full takes)	S	L (Contained within SANBAG ROW)
<b>Section 3.3 - Transportation – NEPA and CEQA Summary</b>						
Effect 3.3-1: Impact local traffic plans, policies, and standards.	NAE/LTS	S	S	S	S	G (Conflict with RTIP, RTP/SCS, and Long Range Transit Plan)

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Table 5-2. Build Alternatives and Design Options Comparison Table

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
Effect 3.3-2: Conflict with an applicable congestion management program.	NAE/LTS	S	S	S	S	G (No decrease in VMT)
Effect 3.3-3: Create or increase hazards from project design features.	NAE/LTS	S	S	S	S	L (No new facilities outside ROW)
Effect 3.3-4: Impacts to emergency response and access.	NAE/LTS	S	S	S	S	L (No new facilities outside ROW)
Effect 3.3-5: Adversely effect alternative forms of transit, including non-motorized facilities.	NAE/LTS	S	S	S	S	L (No new facilities outside ROW)
<b>Section 3.4 - Visual Quality and Aesthetics – NEPA and CEQA Summary</b>						
Effect 3.4-1: Changes to visual character or quality.	AE/SU	S	S	L (No new layover facilities)	S	L (No sound barriers)
Effect 3.4-2: New sources of nighttime lighting and glare.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No new layover facilities)
<b>Section 3.6 – Air Quality and Global Climate Change – NEPA and CEQA Summary</b>						
Effect 3.5-1: Conflict with an air quality plan.	NAE/LTS	S	S	S	S	L (No increase in operational noise from trains)
Effect 3.5-2: Violate air quality standards.	NAE/LTS	S	S	S	S	L (No increase in operational noise from trains; construction next to Redlands Depot)

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**Table 5-2. Build Alternatives and Design Options Comparison Table**

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
Effect 3.5-3: Possible risk to sensitive receptors.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No operational changes)
Effect 3.5-4: Create objectionable odors.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No operational changes)
Effect 3.5-5: Generate greenhouse gas.	NAE/LTS	S	S	S	S	L (No operational changes)
<b>Section 3.6 - Noise and Vibration – NEPA and CEQA Summary</b>						
Effect 3.6-1: Permanent increase in ambient noise levels.	AE/SU	S	S	L (No new layover facilities)	S	L (No operational changes)
Effect 3.6-2: Create excessive groundborne vibration or noise.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No operational changes)
<b>Section 3.7 - Biological and Wetland Resources – NEPA and CEQA Summary</b>						
Effect 3.7-1: Loss and degradation of habitat for special-status wildlife species and potential direct take of individuals.	NAE/LTS	L (Reduction in physical disturbance along Mission Zanja Channel)	S	S	S	L (No bank improvement along Mission Zanja Channel)
Effect 3.7-2: Loss and degradation of habitat for special-status plant species and potential direct take of individuals.	NAE/LTS	L (Reduction in physical disturbance along Mission Zanja Channel)	S	S	S	L (No bank improvement along Mission Zanja Channel)
Effect 3.7-3: Loss and degradation of waters of the U.S., including wetlands, and waters of the state.	NAE/LTS	L (Less impacts to waters of U.S. and State)	S	S	S	L (No bank improvement along Mission Zanja Channel)
Effect 3.7-4: Potential interference with wildlife or fisheries movement.	NAE/LTS	L (Less impacts to vegetation as a result of footprint reduction)	S	L (Less impacts to vegetation with use of existing layover facilities)	S	L (No bank improvement along Mission Zanja Channel)

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**Table 5-2. Build Alternatives and Design Options Comparison Table**

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
Effect 3.7-5: Loss of sensitive natural communities.	NAE/LTS	S	S	S	S	L (No facilities outside SANBAG's ROW)
Effect 3.7-6: Conflict with local ordinances and policies protecting biological resources.	NAE/LTS	S	S	S	S	L (No work outside SANBAG's ROW)
<b>Section 3.8 – Floodplain, Hydrology, and Water Quality – NEPA and CEQA Summary</b>						
Effect 3.8-1: Alteration of drainage patterns resulting in off-site flooding.	NAE/LTS	S	G (Increase in impervious surface up to 5 acres)	L (Reduced Impervious surface area to 11.7 acres)	S	L (No new impervious surfaces)
Effect 3.8-2: Exceeding the capacity of existing or planned drainage systems.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)
Effect 3.8-3: Placement of structures or encroachment within a 100-year floodplain	AE/SU	S	S	L (Layover Facility located outside 100-year floodplain)	S	L (No new structures within the 100-year Floodplain)
Effect 3.8-4: Violation of water quality standards.	NAE/LTS	S	S	S	S	G (No correction of existing drainage)
Effect 3.8-5: Alteration of drainage patterns resulting in off-site erosion and sedimentation.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)
Effect 3.8-6: Contribute substantial sources of polluted runoff.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)

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**Table 5-2. Build Alternatives and Design Options Comparison Table**

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
<b>Section 3.9 – Geology, Soils, and Seismicity – NEPA and CEQA Summary</b>						
Effect 3.9-1: Possible risks to people and structures caused by strong seismic ground shaking and liquefaction	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)
Effect 3.9-2: Possible risks to people and structures caused by landslides.	NAE/LTS	S	S	S	S	G (No correction of existing drainage)
Effect 3.9-3: Substantial soil erosion or loss of topsoil	NAE/LTS	S	G (Layover facility subject to liquefaction hazards)	L (No new layover)	S	L (No new facilities)
Effect 3.9-4: Unstable geologic conditions	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)
Effect 3.9-5: Exposure to potential hazards from problematic soils	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)
<b>Section 3.10 - Hazardous Waste and Materials – NEPA and CEQA Summary</b>						
Effect 3.10-1: Possible risk to the environment through the routine transport of hazardous materials.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)
Effect 3.10-2: Possible risk to the environment through an accidental release.	NAE/LTS	S	S	L (No new layover facilities)	S	L (No facilities outside SANBAG's ROW)

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**Table 5-2. Build Alternatives and Design Options Comparison Table**

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
Effect 3.10-3: Hazardous emissions within close proximity of a school site.	NAE/LTS	S	S	S	S	L (No facilities outside SANBAG's ROW)
Effect 3.10-4: Disturbance to known hazardous materials sites.	NAE/LTS	S	S	S	S	L (No construction beyond existing ROW)
Effect 3.10-5: Possible impediment to emergency plans	NAE/LTS	S	S	S	S	L (No facilities outside SANBAG's ROW)
Effect 3.10-6: Possible risk to people of wildland fires.	NAE/LTS	S	S	S	S	L (No facilities outside SANBAG's ROW)
<b>Section 3.11 - Energy – NEPA and CEQA Summary</b>						
Effect 3.11-1: Conflict with adopted energy conservation plans, including Executive Order 13514.	NAE/LTS	S	S	S	S	G (No long-term decrease in VMT)
Effect 3.11-2: Use non-renewable resources in a wasteful and inefficient manner.	NAE/LTS	S	S	S	S	G (No long-term decrease in VMT)
<b>Section 3.12 - Cultural and Historic Resources – NEPA and CEQA Summary</b>						
Impact 3.12-1: Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	NAE	L (Avoids California/I-10 Grove)	S	S	S	L

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**Table 5-2. Build Alternatives and Design Options Comparison Table**

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
Impact 3.12-2. Impacts to Historical Resources Listed Under the CRHP.	LTS	L	S	S	S	L
Impact 3.12-3. Adverse Effects to Archaeological Resources.	LTS	S	S	S	S	L
<b>Section 3.13 - Parklands, Community Services and Other Public Facilities – NEPA and CEQA Summary</b>						
Effect 3.13-1: Physical impacts or alterations to government facilities.	NAE/LTS	L (Effects to Sylvan Park minimized through constrained roadway design)	S	S	S	L (Noise barriers not required for mitigation)
Effect 3.13-2: Impact to service ratios, response times, or other performance objectives.	NAE/LTS	S	S	S	S	L (No new facilities)
<b>Section 3.14 - Economic and Fiscal Impacts – NEPA Summary<sup>3</sup></b>						
Effect 3.14-1: Employment, income, and tax revenues.	B	S	S	S	S	L (No direct or indirect economic benefits)
<b>Section 3.15 - Safety and Security – NEPA and CEQA Summary</b>						
Effect 3.15-1: Increased pedestrian and/or bicycle safety risks.	NAE/LTS	S	S	S	S	L
Effect 3.15-2: Substantial adverse safety conditions related to accidents	NAE/LTS	S	S	S	S	L

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**Table 5-2. Build Alternatives and Design Options Comparison Table**

Environmental Issue Area <sup>1</sup>	Build Alternatives and Design Options					No-Build Alternative
	Alternative 2 – PP (NEPA and CEQA) <sup>2</sup>	Alternative 3 – RPF	Design Option 1	Design Option 2	Design Option 3	
Effect 3.15-3: Potential for adverse security conditions.	NAE/LTS	S	S	S	S	L

1. Resource areas where recognizable differences exist between the Build Alternatives and Design Options.
2. The NEPA finding and CEQA determination for the Preferred Project following the application of proposed mitigation. Each findings/determination reflects the greatest magnitude of impact as described for the collective direct construction, direct operational, and indirect impacts in Chapter 3.
3. Economic and fiscal effect findings applies only to NEPA.
4. Acronyms for the NEPA finding and CEQA determination are as follows:
  - NEPA Findings*
  - AE Adverse Effect
  - NAE No Adverse Effect
  - CEQA Determinations*
  - SU Significant and Unmitigable
  - LTS Less than Significant
  - B Beneficial Impact
5. In comparing the alternatives and design options to the Preferred Project, the corresponding effects are identified as follows: Similar (S); Greater (G); or Lesser (L).

## 5.6 SIGNIFICANT AND UNMITIGABLE ENVIRONMENTAL EFFECTS

CCR Section 15216.2(b) of the State CEQA Guidelines requires EIRs to include a discussion of any significant environmental impacts that cannot be avoided if the project is implemented. Chapter 3 of this EIS/EIR provides a detailed analysis of all significant environmental impacts related to the Project; identifies feasible mitigation measures, where available, that could avoid or reduce these significant impacts; and presents a determination whether these mitigation measures would reduce these impacts to less than significant levels. Chapter 4 identifies the significant cumulative impacts resulting from the combined effects of the Project and related projects considered in cumulative analysis. If a specific impact in either of these sections cannot be fully reduced to a less than significant level, it is considered a significant and unmitigable adverse impact.

As described below in Sections 3.2 through 3.17, project implementation would result in significant and unmitigable adverse impacts in the following six issue areas: land use and planning; long-term visual quality and aesthetics; noise and vibration; floodplain and hydrology; cultural and historic resources; and environmental justice. Each of these significant impacts would be cumulatively considerable when considered with other incremental projects (listed in Table 4-1) thereby contributing to a significant cumulative impacts see Chapter 4). The following adverse effects would be significant and unmitigable for each of the Build Alternatives and Design Options:

- **Effect 3.2-1.** Physically Divide an Established Community or Physically Disrupt Community Cohesion. The Project would divide established communities and temporarily disrupt community cohesion (Indirect Adverse Effect) (under CEQA only).

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# Attachment C. MMRP (2015)

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# MITIGATION MONITORING AND REPORTING PROGRAM

## 1.0 INTRODUCTION

The California Environmental Quality Act (CEQA) requires a lead or responsible agency to adopt a monitoring and reporting program (MMRP) when approving or carrying out a project (Section 21081.6 of the California Public Resources Code). The purpose of this program is to ensure that when an environmental document, either an Environmental Impact Report (EIR) or a mitigated negative declaration, identifies measures to reduce potential adverse environmental impacts to less than significant levels that those measures are implemented as detailed in the environmental document. As lead agency for the Project, the San Bernardino Associated Governments (SANBAG), acting in its roles as the San Bernardino County Transportation Commission, is responsible for implementation of this MMRP per the requirements of the (CEQA). In its role as the federal lead agency under the National Environmental Policy Act (NEPA), the Federal Transit Administration (FTA), Region IX, will use this MMRP for verifying the implementation of the mitigation measures proposed in conjunction with its issuance of the Record of Decision.

In this context, this MMRP was prepared to provide a monitoring strategy to ensure the implementation of the adopted mitigation measures. Once SANBAG adopts the MMRP, the mitigation monitoring/reporting requirements will be incorporated into the appropriate permits and construction documents (i.e., engineering specifications, engineering and construction plans, real estate entitlements, etc.). Therefore, in accordance with the aforementioned requirements, this MMRP lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties as detailed below in Section 3.

## 2.0 MONITORING AND REPORTING PROCEDURES

This MMRP was developed for the Locally Preferred Alternative (LPA) for SANBAG's Redlands Passenger Rail Project (RPRP or Project) (State Clearinghouse Number 2012041012). The MMRP will be in place through all phases of the Project, including design, construction, and operation, and will facilitate the implementation of mitigation measures proposed to avoid, minimize, or reduce significant environmental effects. SANBAG will be responsible for administering the MMRP and ensuring that all parties, including its contractors, comply with its provisions. SANBAG may delegate implementation and monitoring activities to staff, consultants, or contractors. SANBAG will require that its construction contractors submit an environmental compliance plan for approval by SANBAG and construction manager prior to the beginning construction activities. This plan shall document how the contractor intends to comply with all measures applicable to the contract, including the application of best management practices (BMPs) in accordance with instruction listed in the construction specifications. SANBAG also will ensure that monitoring is documented through systematic compliance verification and reporting and that deficiencies are promptly corrected. The designated environmental compliance manager will track and document compliance with mitigation measures, notify SANBAG of any problems or deficiencies, as appropriate, and take appropriate action to rectify problems.

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### 3.0 MITIGATION MONITORING AND REPORTING PROGRAM IMPLEMENTATION

This MMRP was prepared to verify compliance with individual mitigation measures proposed in the Final Environmental Impact Statement (EIS)/EIR for the Project. Table 1 of this MMRP identifies each mitigation measure by discipline, the entity responsible for its implementation, and the performance standard required to demonstrate compliance with each measure. Certain inspections and reports may require preparation by qualified individuals and these are specified as needed. The timing and method of verification for each measure are also specified.

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Land Use, Planning, and Communities</b>					
<b>LU-1: Minimize Project Land Requirements and Comply with Federal and State Relocation Laws.</b> As part of final design, SANBAG shall maximize opportunities to minimize the Project's land requirements and associated property acquisition. In instances where avoidance is not feasible, SANBAG shall provide just compensation consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act and California Relocation Act. If the acquisition of one or more properties requires relocation of existing residences or businesses, SANBAG shall provide relocation assistance to residential and business tenants prior to the start of construction.	Final design	Entire Project	SANBAG	None	
<b>Transportation</b>					
<b>TR-1: Prepare a Traffic Management Plan.</b> SANBAG shall prepare a Traffic Management Plan prior to the start of construction, and the provisions of the Traffic Management Plan shall be implemented prior to, and during construction, as appropriate, to address traffic considerations of pedestrian and bicycle access and safety, and vehicular flow. The objective of the Traffic Management Plan will be to reduce construction related effects to traffic, non-motorized forms of transportation (e.g., bicycle and pedestrians), and existing public transit (e.g., buses) and will include the following: <ul style="list-style-type: none"> <li>• Construction detour plans and designated construction truck access routes for each phase of construction;</li> <li>• Maintain maximum travel lane capacity to the greatest extent possible during construction periods and provide advanced notice to drivers or roadway changes or closures;</li> </ul>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>• Signage indicating the construction limits, access routes, and entrances to individual business sites and community facilities that may be affected by construction activities. In addition, the construction contractor would supply “open for business” signs to encourage normal business activity during construction;</li> <li>• Pre-planning, outreach, and signage indicating pedestrian and bicycle routes detours;</li> <li>• Coordination with public transit service providers, as necessary;</li> <li>• Heavy trucks and other construction transport vehicles shall avoid the busiest commute hours to the greatest extent possible (weekdays 7 a.m. to 8 a.m. and 5 p.m. to 6 p.m. – High traffic intersections (Greater than 10,000 ADT) – 6:30 a.m. to 8:30 a.m. and 4:30 p.m. to 6:30 p.m.);</li> <li>• Early notification to emergency service providers and area drivers of any road closures or detours and the timeframes of the closures or detours. This information will be posted in a local newspaper, via SANBAG’s web site and will be updated on a monthly basis;</li> <li>• Coordination with the Cities of San Bernardino, Loma Linda, and Redlands for community events in the area to accommodate crowds and road closures;</li> <li>• Pavement damage resulting from project construction will be repaired prior to the completion of construction; and</li> <li>• SANBAG shall maximize opportunities for coordinated construction and installation of</li> </ul>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
improvements that occurs outside the SANBAG ROW with the Cities of San Bernardino, Loma Linda, and Redlands to the greatest extent practical.					
<p><b>TR-2: Existing LOS and V/C Year 2018 and 2038 Impact Roadway Improvements.</b> As part of the Project construction, SANBAG shall coordinate with the appropriate agency in which the intersection improvement is located (Cities of San Bernardino, Loma Linda, Redlands, or Caltrans) to pay SANBAG’s “fair share” of the identified roadway improvements prior to the start of operations of the Project in 2018:</p> <ul style="list-style-type: none"> <li> <b>California Street and I-10 Eastbound Off-Ramp –</b> SANBAG shall coordinate with Caltrans to fund its fair share of construction for a ramp improvement to include a right-turn pocket. The existing right-turn lane will become a shared right-turn lane to accommodate the high number of right turns. <u>The improvements will include replacing existing pedestrian and bicycle facilities, where present.</u> </li> </ul> <p>SANBAG shall provide its fair share for the funding of the following improvements prior to the year 2038:</p> <ul style="list-style-type: none"> <li> <b>California Street and I-10 West On-Ramp –</b> SANBAG shall coordinate with Caltrans to fund its fair share to the construction of a dual southbound right and a dual northbound left turn pocket. <u>The improvements will include replacing existing pedestrian and bicycle facilities, where present.</u> </li> <li> <b>Alabama Street and Industrial Avenue –</b> SANBAG shall coordinate with the City of Redlands to stripe an exclusive westbound right turn lane with 50-feet of storage to accommodate a high number of right turns. <u>The improvements will include</u> </li> </ul>	<p>Prior to the start of operations (2038 improvements will be evaluated at 5-year increments following 2018)</p>	<p>Roadway improvements</p>	<p>SANBAG</p>	<p>Cities of San Bernardino and Redlands; Caltrans</p>	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<u>replacing existing pedestrian and bicycle facilities, where present.</u>					
<b>TR-3: Approval from CPUC for Grade Crossings and Safety Measures.</b> SANBAG shall coordinate with the CPUC prior to the start of construction for re-design and/or closure of all grade crossings to ensure that all grade crossings and safety improvements comply with CPUC standards. SANBAG shall provide verification to the CPUC that all rail safety measures identified in the hazard analysis as part of the "formal application" or "GO 88-B" authorization" from CPUC have been installed.	Final design and post-construction	Grade Crossings	SANBAG	CPUC	
<b>TR-4: Recommended Pre-Signals for Queuing.</b> Prior to the start of operations, pre-signals shall be implemented at the following grade crossing locations and shall be operational prior to the start of 2018: <ul style="list-style-type: none"> <li>• Eastbound I-10 Ramps and California Street crossing;</li> <li>• Industrial Park Avenue and Alabama Street crossing; and</li> <li>• Redlands Boulevard and Tennessee Street crossing.</li> </ul> Prior to 2038 and if warranted based on future intersection operations (as determined through reevaluation in 5-year increments by SANBAG following procedures in the Los Angeles Metropolitan Transportation Authority (MTA) Grade Crossing Policy for Light Rail Transit), pre-signals will be implemented at the following grade crossing locations: <ul style="list-style-type: none"> <li>• Waterman Avenue and Orange Show Road Crossing (Northbound Approach);</li> <li>• Orange Show Road and Waterman Avenue Crossing (Eastbound Approach);</li> </ul>	Prior to the start of operations (2038 improvements will be evaluated at 5-year increments following 2018)	Grade Crossings	SANBAG	CPUC, Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>Redlands Boulevard and California Street Crossing; and Redlands Boulevard and Alabama Street Crossing.</li> </ul>					
<p><b>TR-5: Transit Operations Realignment.</b> SANBAG will work with affected transit service providers as part of their service realignment process (or major service change) to maximize transit efficiencies offered by interfacing existing transit service with Project operations. SANBAG shall develop a transit integration plan in coordination with local transit service providers to establish a framework for service integration. The plan shall, at a minimum, include an approach or strategy for coordinating existing transit scheduling with proposed train operations, maximizing route interfaces with the proposed station locations, and optimizing existing transit routes to minimize duplication in service.</p>	Prior to the start of operations	Project station stops	SANBAG	Omnitrans	
<b>Visual Quality and Aesthetics</b>					
<p><b>VQA-1: Screening of Construction Staging Areas.</b> For construction staging areas within 500 feet of a residence, park, or educational facility, the contractor will be required to shield the staging area to the extent feasible and coordinate with the local jurisdiction regarding the type and method of screening, which may include but is not limited to, the use of fence slats, netting, or mesh or tarps. SANBAG shall limit construction to daylight hours to the extent possible. If nighttime lighting or construction is necessary, the SANBAG shall ensure that unshielded lights, reflectors, or spotlights are not located and directed to shine toward or be directly visible from adjacent properties or streets. To the extent possible, SANBAG shall minimize the use of nighttime construction lighting within 500 feet of existing residences. This measure shall be identified on grading plans and in construction contracts.</p>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>VQA-2: Enhance Exterior Appearance of Structural Facilities.</b> The external appearance of the stations and layover facility, including the choice of color and materials, shall seek to reduce the visual impact of these facilities on adjacent land uses. Bright reflective materials and colors shall be avoided. As appropriate, the exterior design of these facilities should follow design guidelines provided in applicable land use plans. Minimum exterior design requirements shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Painting (with earth-colored tones) of structural façades to blend with surrounding land uses;</li> <li>• Maximize the use of textured or other non-reflective exterior surfaces and non-reflective glass to prevent glare;</li> <li>• Use of fencing or structural materials, shall be similar to those used by nearby land uses and compatible with surrounding architecture;</li> <li>• Development of a landscaping plan for each station and layover facility site that uses a combination of locally derived native vegetation, earthen features (e.g., boulders), and, if appropriate, topographical separations (e.g., berms) to maximize site appearance and shield the new facilities from nearby sensitive receptors to the extent feasible; and</li> <li>• Clustering of structural facilities to maximize open space buffering.</li> </ul> <p>SANBAG shall coordinate final design plans with the Cities of San Bernardino and Redlands prior to final approval.</p>	Final design	Stations	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>VQA-3: Tree Replacement.</b> Prior to construction, SANBAG shall have a registered arborist conduct a tree survey to identify native and ornamental trees requiring removal outside SANBAG's ROW. The arborist will identify measures to avoid and minimize indirect impacts on trees, where feasible, and develop a plan for the replacement of trees that cannot be avoided. The plan will include planting and irrigation design details and a weaning schedule for the establishment period. Trees with a diameter at breast height of 6 inches or greater will be replaced at a minimum ratios of 1:1 and consistent with City of Redlands and San Bernardino standards.	Prior to construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	
<b>VQA-4: Sound Barrier Screening and Surface Treatments.</b> To reduce effects associated with the sound walls, where SANBAG ROW widths allow, drought tolerant landscaping (i.e., trees, vines, and/or shrubs) shall be provided. If the SANBAG ROW width is insufficient to permit landscaping or if landscaping cannot adequately reduce visual impacts, surface treatments that are compatible with surrounding architecture shall be applied to the outside of the sound walls (residential or school facing side). Architectural detailing such as pilasters, wall caps, interesting block patterns, and offset wall layouts shall be used to add visual interest and reduce apparent height of the walls. SANBAG shall coordinate the final design plans with the Cities of San Bernardino and Redlands, as applicable, prior to final approval.	Final design (if constructed)	Sound wall locations	SANBAG	Cities of San Bernardino and Redlands	
<b>VQA-5: Minimize Exterior Lighting in Adjacent Uses.</b> To prevent unintended spillover of lighting, lighting fixtures constructed or relocated as part of the Project shall be oriented and focused onto the specific on-site location intended for illumination (e.g., parking lots) and shielded	Final design	Stations and Layover Facility	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
away from adjacent sensitive uses (e.g., schools, residential properties) and public rights of way to minimize light spillover onto off-site areas. New driveways shall be located and oriented into parking lots, to the extent feasible, in a manner that will not result in headlights from vehicles entering or exiting the parking areas oriented directly at off-site sensitive uses. SANBAG shall coordinate the final design plans with the Cities of San Bernardino and Redlands, as applicable, prior to final approval.					
<b>Noise and Vibration</b>					
<p><b>NV-1: Employ Noise-Reducing Measures during Construction.</b> SANBAG shall require its construction contractors to employ measures to minimize and reduce construction noise. Noise reduction measures that shall be implemented to reduce construction noise to acceptable levels may include but are not limited to the following:</p> <ul style="list-style-type: none"> <li>• Use available noise suppression devices and techniques, including: <ul style="list-style-type: none"> <li>- Equipping all internal combustion engine-driven equipment with mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that are in good operating condition and appropriate for the equipment (5 to 10 dB reduction possible).</li> <li>- Using “quiet” models of air compressors and other stationary noise sources where such technology exists.</li> <li>- Using electrically powered equipment instead of pneumatic or internal combustion-powered equipment, where feasible.</li> </ul> </li> </ul>	During Construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Using noise-producing signals, including horns, whistles, alarms, and bells, for safety-warning purposes only.</li> <li>- Locating stationary noise-generating equipment, construction parking, and maintenance areas as far as reasonable from sensitive receivers when sensitive receivers adjoin or are near the construction Project APE.</li> <li>- Prohibiting unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes).</li> <li>- Placing temporary soundwalls or enclosures around stationary noise-generating equipment when located near noise-sensitive areas (5 to 15 decibel reduction possible).</li> <li>- Ensuring that project-related public address or music systems are not audible at any adjacent receiver.</li> <li>- Notifying adjacent residents in advance of construction work.</li> </ul>					
<p><b>NV-2: Prepare a Community Notification Plan for Project Construction.</b> The construction contractor shall prepare and maintain a community notification plan to address project construction issues the community may have during construction. Components of the plan may include construction phasing to minimize the duration of noise or vibration at any one location. Initial information packets shall be prepared and mailed to all residences within a 500-foot radius of project construction, with updates prepared as necessary to indicate new scheduling or processes. A project liaison shall be identified who will be available to</p>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
respond to questions from the community or other interested groups.					
<p><b>NV-3: Establish Quiet Zones.</b> At-grade crossings shall be designed and constructed to be compatible with the formation of Quiet Zones. Prior to the operation, SANBAG shall coordinate with the City of San Bernardino, City of Loma Linda, and the City of Redlands, to construct and establish quiet zones at the following grade crossings:</p> <ul style="list-style-type: none"> <li>• South Arrowhead Avenue;</li> <li>• South Sierra Way;</li> <li>• West Central Avenue;</li> <li>• East Orange Show Road;</li> <li>• South Waterman Avenue;</li> <li>• South Tippecanoe Avenue;</li> <li>• South Richardson Street;</li> <li>• Mountain View Avenue;</li> <li>• West Colton Avenue;</li> <li>• Alabama Street</li> <li>• Tennessee Street;</li> <li>• Church Street; and</li> <li>• North University Street</li> </ul>	Prior to operation	Grade Crossing Locations	SANBAG	Cities of San Bernardino and Redlands; CPUC; FRA	
<p><b>NV-4: Construct Sound Barriers.</b> SANBAG shall install up to 12-foot in height sound barriers at priority locations along portions of the rail corridor to reduce noise levels at receivers identified with severe noise impacts following the application of quiet zones.</p>	During construction (if required in the absence of quiet zones)	See Figures 8-2A through G (without quiet zones) and 8-3A-F) of the Noise and Vibration TM (October 2014)– See Appendix H of the Final EIS/EIR)	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>NV-5: Wayside Rail Lubrication.</b> SANBAG shall install wayside applicators for all tight-radius curves on the project alignment prior to the start of Project operations. If the wayside applicators are not sufficient to reduce squeal to an acceptable level, additional reduction may be required through customized profiling of the rail to reduce the forces required for trains to negotiate the curve.	Final design and post-construction	All tight-radius curve locations on the project alignment	SANBAG	None	
<b>NV-6: Use Ballast Mats, Resiliently Supported Ties, or Measures of Comparable Effectiveness on Portions of the Rail near Sensitive Receivers.</b> SANBAG shall install track design specifications as part of project design to include the use of ballast mats or resiliently supported ties on portions of the track near sensitive receivers to minimize project-related ground-borne vibration and wheel rail noise generated when the trains pass sensitive receivers. The actual measures and their corresponding placement will be determined following more detailed vibration testing and analysis during final engineering design.	Final design and post-construction	Entire Project	SANBAG	None	
<b>NV-7: Provide Building Noise Insulation to Severe- and Moderate-Impact Residences.</b> For the ten residential structures represented by Receivers 3, 22, and 41, SANBAG will offer to install sound insulation. Treatments may include sealing and relocating vents, caulking and sealing gaps in the building façade and installing new doors and windows that are specially designed to meet acoustical transmission-loss requirements. Acoustical performance ratings are published in terms of Sound Transmission Class (STC) for these special windows. A minimum STC rating of 39 will be used on any window exposed to the noise source.	Final design and during construction	Applicable Receivers	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Biological and Wetland Resources</b>					
<b>BIO-1: Pre-Construction Survey - Conduct Preconstruction Survey for Special Status Plants and Wildlife and, if Found, Implement Avoidance and Compensation Measures.</b> Prior to construction, a qualified biologist retained by SANBAG shall conduct pre-construction surveys for special status plant species including woolly star, slender-horned spineflower, smooth tarplant, and salt spring checkerbloom. Pre-construction surveys will also be required for special status wildlife species including least Bell's vireo, southwestern willow flycatcher, San Bernardino kangaroo rat, yellow-billed cuckoo, burrowing owl, and western spadefoot toad to verify presence or absence in the Project area. If one or more species are detected, then SANBAG shall consult with the USFWS (or CDFW if appropriate) to develop additional minimization measures prior to project construction (if necessary). These additional measures may include construction timing restrictions and/or construction monitoring.	Prior to and during construction	Entire Project	SANBAG	U. S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)	
<b>BIO-2: Least Bells Vireo (LBV).</b> The following measures will be implemented to minimize direct and indirect impacts to LBV during construction: <ul style="list-style-type: none"> <li>a. Impacts associated with clearing and grubbing of Southern Cottonwood Willow Riparian Forest (SCWRF) and Southern Willow Scrub (SWS) will be timed to avoid the breeding season of the least Bell's vireo (March 15 to September 15), unless SANBAG provides survey documentation to USFWS that confirms the riparian habitat is not occupied by LBV.</li> <li>b. Temporary impact areas will be restored to pre-grade contours following bridge construction.</li> </ul>	Prior to and during construction	Mile Posts 3.3 to 4 (only)	SANBAG	USFWS	

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**Table 1. MMRP Mitigation Measures**

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<p>Natural recruitment is anticipated to occur rapidly due to the large amount of intact native riparian habitat that will remain as a seed source. Additionally, the riparian habitat being impacted is adapted to frequent disturbance. The individual species making up the community tend to have large quantities of seeds and very rapid growth that promote rapid re-establishment. Container planting and seeding has not been proposed due to potential conflicts with County Flood Control Maintenance requirements, high risk of plant material being washed out during subsequent storm events and potential conflicts with future Santa Ana River Trail construction. For erosion control purposes, temporarily impacted areas outside of the active floodplain will be hydroseeded with native grasses and shrubs.</p> <p>i. The temporarily impacted SCWRF and SWS habitat will be monitored annually for five years, until LBV is documented using the re-established habitat or until habitat attains 80 percent cover including both shrub and overstory stratum. If recruitment of SCWRF and SWS species is not evident within two years of project construction or habitat has not attained 60 percent cover within three years, impacts will be treated as permanent and additional mitigation for areas not meeting success criteria shall be provided through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 1:1.</p>					

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**Table 1. MMRP Mitigation Measures**

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<p>ii. Temporary direct impacts to potentially suitable LBV habitat will be mitigated as follows: The temporal loss of occupied LBV habitat resulting from temporary removal of SCWRF associated with the Mission Zanja Channel shall be mitigated through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 3:1. The temporal loss of suitable unoccupied LBV habitat resulting from temporary removal of SCWRF and SWS shall be mitigated through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 2:1.</p> <p>c. Permanent direct impacts to occupied LBV habitat (SCWRF) shall be mitigated at a ratio of 3:1 through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration and/or creation of LBV habitat within the Santa Ana River watershed.</p> <p>d. If active LBV nests are identified during pre-construction surveys and noise levels at the nest exceed 60 dBA Leq, noise attenuation structures will be placed or other noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles) will be implemented to reduce noise levels at the nest to 60 dBA Leq (or ambient noise level if greater than 60 dBA Leq). During construction adjacent to these areas, noise monitoring shall occur during the LBV</p>					

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**Table 1. MMRP Mitigation Measures**

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breeding season and be reported daily to USFWS. Construction activities that create noise in excess of the aforementioned levels will cease operation until effective noise attenuation measures are in place to the extent practicable.					
<b>BIO-3: MBTA Covered Species.</b> Prior to habitat removal during the avian breeding season (February 15-August 31), a qualified biologist shall conduct a pre-construction nest survey (in suitable areas) no more than 3 days prior to ground disturbing activities for migratory birds. Pre-construction surveys will be performed year-round between MP 3.3 and 4.0 with the timing and implementation done in coordination with the CDFW and USFWS. Should an active nest of any MBTA covered species occur within or adjacent to the project impact area, a 100-foot buffer (300 feet for raptors) shall be established around the nest and no construction shall occur within this area until a qualified biologist determines the nest is no longer active or the young have fledged.	Prior to and during construction	Mile Posts 3.3 to 4 (only)	SANBAG	USFWS	
<b>BIO-4: Protection of Sensitive Plants and Habitats.</b> SANBAG shall require the construction contractor to implement the following measures to protect sensitive plants and habitats during project-related construction. <ul style="list-style-type: none"> <li>SANBAG shall designate an approved biologist (project biologist) who will be responsible for overseeing compliance with protective measures for the biological resources during clearing and work activities within and adjacent to areas of native habitat. The project biologist will be familiar with the local habitats, plants, and wildlife and maintain communications with the contractor to ensure that issues relating to biological resources are</li> </ul>	Prior to and during construction	Mile Post 3.3 to 4	SANBAG	USFWS and CDFW	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>appropriately and lawfully managed. The project biologist will review final plans, designate areas that need temporary fencing, and monitor construction. The biologist will monitor activities within designated areas during critical times such as vegetation removal, the installation of Best Management Practices (BMPs) and fencing to protect native species, and ensure that all avoidance and minimization measures are properly constructed and followed.</p> <ul style="list-style-type: none"> <li>Project employees and contractors that will be on-site shall complete environmental worker-awareness training conducted by the project biologist. The training will advise workers of potential impacts to the sensitive habitat and listed species and the potential penalties for impacts to such habitat and species. At a minimum, the program will include the following topics: occurrences of the listed species and sensitive vegetation communities in the area, a physical description and their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violations of Federal and State laws, reporting requirements, and work features designed to reduce the impacts to these species; and to the extent practicable, promote continued successful occupation of areas adjacent to the work footprint. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos will be posted in the contractor and resident engineer's office, where they will remain through the duration of</li> </ul>					

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**Table 1. MMRP Mitigation Measures**

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<p>the work. Photos of the habitat in which sensitive species are found will also be posted on-site. The contractor will be required to provide SANBAG with evidence of the employee training (e.g., sign in sheet or stickers) upon request. Employees and contractors will be instructed to immediately notify the project biologist of any incidents, such as construction vehicles that move outside of the work area boundary. The project biologist will be responsible for notifying the USFWS within 72 hours of any similar incident.</p> <ul style="list-style-type: none"> <li>• Prior to construction, SANBAG shall delineate the construction area (including staging and laydown areas) between Mile Posts 3.3 and 4.0 and erect exclusionary construction fencing along the perimeter of the identified construction area to protect adjacent sensitive habitats (SWS, SCWRF, RAFSS, and Santa Ana woolly star). Limits of the exclusionary fencing shall be confirmed by the project biologist prior to habitat clearing. Exclusionary fencing shall be maintained throughout the duration of construction work from Mile Posts 3.3 to 4.0. Exclusionary fencing can be removed at the conclusion of construction work as approved by the project biologist.</li> </ul> <p>All construction-related vehicles and equipment storage shall occur in the construction area and/or previously disturbed areas as approved by the project biologist. Project-related vehicle traffic shall be restricted to established access roads, construction areas, storage areas, and staging and parking areas.</p>					

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**Table 1. MMRP Mitigation Measures**

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<p>If construction activity extends beyond the exclusionary fencing into sensitive vegetation communities, areas of disturbance shall be quantified and an appropriate restoration approach shall be developed in consultation with USFWS and CDFW. For example, if construction extends beyond the limits of the exclusionary fencing, temporarily disturbed areas shall be restored to the natural (preconstruction) conditions, which may include the following: salvage and stockpiling of topsoil, re-grading of disturbed sites with salvaged topsoil, and re-vegetation with native locally available species.</p>					
<p><b>BIO-5: Burrowing Owl.</b> SANBAG will conduct take avoidance (pre-construction) surveys for burrowing owl within 30 days prior to initiating ground disturbance activities. These surveys will be completed in no less than 14 days prior to construction. If burrowing owl is identified, the following shall apply:</p> <ul style="list-style-type: none"> <li>• If burrowing owl is identified during the breeding season (February 1 through August 31) then an appropriate buffer will be established by the biological monitor in accordance with the 2012 Staff Report on Burrowing Owl Mitigation (CDFW 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged and a CDFW-approved exclusion plan has been implemented. In addition to avoidance of the occupied habitat, off-site mitigation will be provided as described below: <ul style="list-style-type: none"> <li>- Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 (9.75) acres per pair or single bird.</li> </ul> </li> </ul>	Prior to construction	Entire Project	SANBAG	CDFW	

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Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 (13.0) acres per pair or single bird.</li> <li>- Replacement of occupied habitat with suitable unoccupied habitat: 3 times 6.5 (19.5) acres per pair or single bird.</li> <li>• If burrowing owl is identified during the non-breeding season (September 1 through January 31), then a 50 meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented.</li> </ul>					
<p><b>BIO-6: Secure Clean Water Act (CWA) Section 404 Permit and Implement All Permit Conditions to Ensure No Net Loss of Functions of Wetlands, Other Waters of the U.S., and Waters of the State).</b> Before the approval of grading or other ground disturbing activities within 50 feet of jurisdictional areas, SANBAG shall obtain a CWA Section 404 permit, Section 401 water quality certification, and CDFW 1602 Streambed Alteration Agreement.</p> <p>As part of the Section 404 permitting process, if the USACE (and/or CDFW) requires compensatory mitigation, a draft wetland mitigation and monitoring plan (MMP) shall be developed for the selected Build Alternative. The MMP shall be consistent with USACE's and EPA's April 10, 2008 Final Rule for Comp Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230).</p> <p>Potential mitigation for impacts to federal and state jurisdictional areas may occur at the following ratios:</p>	Prior to construction	Warm Creek (Historic), Twin Creek, Santa Ana River, Mission Zanja Channel, and Mill Creek Zanja	SANBAG	U. S. Army Corps of Engineers (USACE), Los Angeles District, CDFW, and Regional Water Quality Control Board (RWQCB), Santa Ana Region	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>• USACE Wetland               <ul style="list-style-type: none"> <li>- Permanent: 3:1</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> <li>• USACE Waters               <ul style="list-style-type: none"> <li>- Permanent: 1:1</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> <li>• CDFW Riparian               <ul style="list-style-type: none"> <li>- Permanent: 3:1 (SWS, RAFSS, and SCWRF)</li> <li>- Permanent: 1:1 (unvegetated stream bank)</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> </ul>					
<p><b>BIO-7. Reseeding for Woolly Star.</b> Seeds from the closest known occurrences of woolly-star plants found both upstream and downstream of Bridge 3.4 shall be collected in the fall prior to construction of the SAR crossing. If construction activities require the loss of the single woolly-star at the SAR crossing, the collected seeds will be broadcast in the temporary impact areas, near the impacted woolly-star plant, after construction activities are complete and soils have been restored to pre-Project contours.</p> <ol style="list-style-type: none"> <li>1. Seed collection and broadcast methodologies will be proposed by a qualified seed collector approved by the Service prior to seed collection in a Santa Ana Woolly-Star Management Plan.</li> <li>2. Seed harvest shall be from a minimum of three plants per collection location, limited to no more than 50 percent of the available seeds from any one woolly-star plant.</li> <li>3. Seeds shall be held at the appropriate temperature and humidity for the shortest length of time necessary prior to planting.</li> </ol>	Prior to, during, and following construction	Mile Posts 3.4 to 4	SANBAG	CDFW	

Communication: Draft Addendum 1 (Item 12)





**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>4. Planting of seeds shall be coordinated to occur prior to the first rains of the season, typically during early fall.</p> <p>5. If the woolly-star plant known in the Project area is avoided, collected seeds will be hand broadcast near the parental plants where they were collected.</p> <p>If SANBAG confirms that removal of the one individual is required during final design, SANBAG will purchase ILF or mitigation credits from a qualified mitigation program to address the Project's temporal affect on woolly-star during the up to three-year construction period. Credits will be purchased to cover affects to the on-site individual and off-site parental plants.</p>					
<b>Floodplains, Hydrology, and Water Quality</b>					
<p><b>HWQ-1: Prepare Drainage Plan(s) for Structural Facilities.</b> SANBAG shall prepare a site specific Drainage Plan for all major structural facilities constructed in conjunction with the Project, including stations and parking areas, track improvements, and the proposed layover facility. The Final Drainage Plan shall incorporate measures to maintain on-site runoff during peak conditions to pre-construction discharge levels. Design specifications for the detention and/or infiltration facilities shall provide sufficient temporary storage capacity to attenuate runoff to pre-Project conditions. These improvements will be coordinated with the applicable jurisdictions, including the Cities of Redlands and San Bernardino and the SBCFCD, as appropriate.</p>	Final design	Entire Project	SANBAG	Cities of San Bernardino and Redlands, and the SBCFCD	
<p><b>HWQ-2: Prepare and Implement a SWPPP.</b> The construction contractor will develop a SWPPP that complies with the requirements of the NPDES General Construction Permit (Order 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ and 2012-0006-DWQ) for Risk Level 2</p>	Final design, during construction, and post-construction	Entire Project	SANBAG	RWQCB	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>projects and implement the BMPs described in the SWPPP. The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by SANBAG prior to commencement of work and shall be made conditions of the contract with the contractor.</p> <p>The SWPPP shall be prepared by a qualified SWPPP developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure.</p> <p>Following construction, SANBAG will ensure the provision of sufficient drainage inlet and outlet protection through the use of energy dissipaters, vegetated riprap, and/or other appropriate BMPs to slow runoff velocities and prevent erosion at discharge locations from the rail station and parking areas.</p>					

Communication: Draft Addendum 1 (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>HWQ-3: Prepare and Implement a Flow Diversion Plan for Construction.</b> SANBAG or SANBAG's construction contractor shall develop a Flow Diversion Plan(s) for in-channel construction activities proposed within Warm Creek (Historic)(Bridge 1.1); Twin Creek (Bridge 2.2), SAR (Bridge 3.4), Zanja Channel (Bridges 3.9, and 5.8, and bank improvements), and Mill Creek Zanja (Bridge 9.4). SANBAG's contractor shall incorporate measures to minimize changes to flood flow elevation(s) during construction, address accumulation of floating debris, provide measures that minimize sedimentation to surface waters, and include contingency measures in the event of substantial rainfall.	During construction	Warm Creek (Historic)(Bridge 1.1); Twin Creek (Bridge 2.2), SAR (Bridge 3.4), Zanja Channel (Bridges 3.9, and 5.8, and bank improvements), and Mill Creek Zanja (Bridge 9.4).	SANBAG		
<b>HWQ-4: Prepare a Natural Hazard Management Plan.</b> SANBAG shall develop a Natural Hazard Management Plan for the Project. The Natural Hazard Management Plan will include a flood monitoring and evacuation plan for all Project infrastructure located within a delineated 100-year flood zone based on the most recent FEMA mapping. The Plan shall include protocols and procedures for emergency response in the event of a flood, the investigation and repair of track, station, and bridge facilities following inundation, and the provision of interim transit until Project operations resume.	Prior to operation	Entire Project	SANBAG	None	
<b>HWQ-5: Flood-Proofing of Critical Infrastructure.</b> Where feasible, stations and building pads for the proposed train layover facility shall be designed such that the finished floor elevation will be one-foot above the base 100-year flood elevation, where established.	Final design	Stations at Downtown Redlands and University Street	SANBAG	None	
<b>HWQ-6: Incorporate Post-Construction Runoff BMPs into Project Drainage Plan, Final WQMP, and Industrial SWPPP.</b> The Project Drainage Plan, Final WQMP, and the	Final design and post-construction	Entire Project	SANBAG	None	

Communication: Draft Addendum 1 (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>NPDES Industrial SWPPP shall demonstrate treatment, control, and management of the on- and off-site discharge of stormwater to existing drainage systems or drainage features. The final Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and the final WQMP will ensure sufficient treatment of runoff generated from Project impervious surfaces prior to off-site discharge.</p> <p>SANBAG shall ensure the provision of sufficient outlet protection through the use of energy dissipaters, vegetated rip-rap, soil protection, and/or other appropriate BMPs to slow runoff velocities and prevent erosion at discharge locations for the station platforms, parking areas, and layover facility. A long-term maintenance plan shall be developed and implemented to support the functionality of drainage control devices. The layover facility layout(s) shall also include sufficient container storage and on-site containment and pollution-control devices for drainage facilities to avoid the off-site release of water quality pollutants, including, but not limited to oil and grease, fertilizers, treatment chemicals, and sediment. These measures shall be reflected in the final Industrial SWPPP and WQMP for applicable facilities. The NPDES Industrial SWPPP shall incorporate required maintenance practices and housekeeping to maximize the long-term effectiveness of post-construction BMPs.</p>					
<b>Geology, Soils, and Seismicity</b>					
<p><b>GEO-1: Prepare Final Geotechnical Report for the Project and Implement Recommended Measures.</b> Facility design for all Project components shall comply with the site-specific design recommendations as provided by a licensed geotechnical or civil engineer to be retained by SANBAG.</p>	Design, prior to and post-construction	Entire Project	SANBAG	None	

Communication: Draft Addendum 1 (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>The final geotechnical and/or civil engineering report shall address and make recommendations on the following:</p> <ul style="list-style-type: none"> <li>• Site preparation;</li> <li>• Soil bearing capacity;</li> <li>• Appropriate sources and types of fill;</li> <li>• Liquefaction;</li> <li>• Lateral spreading;</li> <li>• Settlement;</li> <li>• Landslides (with emphasis on improvements that border the Mission Zanja Flood Control Channel);</li> <li>• Hydroconsolidation;</li> <li>• Compressible/Collapsible soils;</li> <li>• Corrosive soils;</li> <li>• Structural foundations; and</li> <li>• Grading practices.</li> </ul> <p>In addition to the recommendations for the conditions listed above, the geotechnical report shall include subsurface testing of soil and groundwater conditions, and shall determine appropriate foundation designs that are consistent with the latest version of the CBC, as applicable at the time building and grading permits are pursued. All recommendations contained in the final geotechnical engineering report shall be implemented by SANBAG.</p>					
<b>Hazardous Waste and Materials</b>					
<p><b>HAZ-1: Prepare and Implement a Construction Hazardous Materials Management Plan and Operational Hazardous Materials Business Plan.</b> Prior to operation, SANBAG shall prepare and implement a Hazardous Materials Management Plan (HMMP) and Hazardous</p>	Prior to construction (HMMP) and operation (HMBP)	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>Materials Business Plan (HMBP) for the Project. The HMMP shall provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project construction, including the proper disposal of waste materials. The HMBP will provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project operations. The HMMP and HMBP shall include, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• A description of hazardous materials and hazardous wastes used;</li> <li>• A description of handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste;</li> <li>• Preparedness, prevention, contingency, and emergency procedures, including emergency contact information;</li> <li>• A description of personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility;</li> <li>• Instructions on keeping Materials Safety and Data Sheets (MSDS) on-site for each on-site hazardous chemical; and</li> <li>• Identification of the locations of hazardous material storage areas, including temporary storage areas, which shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank.</li> </ul>					

Communication: Draft Addendum 1 (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>HAZ-2: Pre-Demolition Investigation.</b> Prior to the demolition of any structures within the Project footprint, a survey shall be conducted for the presence of hazardous building materials such as asbestos-containing materials, lead based paints, and other materials falling under Universal Waste requirements. The results of this survey shall be submitted to SANBAG and the City of San Bernardino's Department of Environmental Health or City of Redlands Department of Environmental Health, as applicable. If any hazardous building materials are discovered, a plan for their proper removal shall be prepared in accordance with applicable requirements of the California Division of Occupational Safety and Health and the County of San Bernardino Environmental Health Services. The contractor performing the work will be required to have a license in the State of California, and possess a C-21, A or B classification. Further and if required, the contractor or their subcontractor will be required to possess a California Contractor License (ASB) to perform any asbestos related work. Prior to any demolition activities, the contractor will be required to secure the site and ensure the disconnection of utilities.</p>	Prior to demolition of any structures	Entire Project	SANBAG	City of San Bernardino Department of Environmental Health or City of Redlands Department of Health, as applicable	
<p><b>HAZ-3: Prepare Phase I and/or Phase II ESA for Indeterminate or High-Risk Sites.</b> Prior to grading, further investigation at any of the identified sites of concern with an indeterminate or high risk-ranking shall be conducted, if it is known that ground disturbance at those sites would exceed 18 inches within 50 feet of the site of concern. The additional investigation shall be in the form of a site-specific ASTM-compliant Phase I ESA investigation. The Phase I ESA recommendation would determine if a Phase II Preliminary Site Investigation (drilling and sampling) would be required, as appropriate. Both the Phase I and Phase II</p>	Prior to construction	Entire Project	SANBAG	None	

Communication: Draft Addendum 1 (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
ESA investigations would be completed prior to parcel acquisition (therefore, prior to any construction activity). The Project shall comply with recommendations provided in the Phase I ESA and/or Phase II ESA(s).					
<b>HAZ-4: Halt Construction Work if Potentially Hazardous Materials are Encountered.</b> All construction contractors shall immediately stop all subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall follow all applicable local, state, and federal regulations regarding discovery, response, disposal, and remediation for hazardous materials encountered during the construction process.	During construction	Entire Project	SANBAG	None	
<b>HAZ-5: Keep Construction Area Clear of Combustible Materials.</b> SANBAG shall ensure, through the enforcement of contractual obligations that during construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. The contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	During construction	Entire Project (Emphasis Mile Posts 3 to 6)	SANBAG		
<b>HAZ-6: Provide Accessible Fire Suppression Equipment.</b> Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. All off-road equipment using internal combustion engines shall be equipped with spark arrestors.	During construction	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Cultural and Historic Resources</b>					
<b>CUL-1: Structural Evaluations.</b> In order to determine the structural stability of the Redlands Depot, Cope Commercial Company Warehouse, Haight Packing House, Redlands City Transfer, and the brick warehouse at 440 Oriental Avenue, structural evaluations shall be prepared by a qualified engineer for these five buildings prior to the commencement of construction. The structural evaluations will also address maximum allowable levels of vibration during construction and, if appropriate, will recommend reduced levels of stabilization in conjunction with vibration monitoring. Qualified recommendations within the structural evaluation shall be adhered to, as appropriate. Permanent stabilization will follow the Secretary of the Interior's guidelines for the treatment of historic properties; if the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings will be restored to their pre-construction condition when the stabilization measures are removed.	Final design and prior to construction	Redlands Depot, Cope Commercial Company Warehouse, Haight Packing House, Redlands City Transfer, and the brick warehouse at 440 Oriental Avenue	SANBAG	State Historic Preservation Officer (SHPO), if required	
<b>CUL-2a: Minimize Indirect Visual Effects of Potential Sound Barriers.</b> Visual surface treatments and drought-tolerant landscaping will be implemented as necessary to minimize indirect effects on the setting and feeling of the Redlands Lawn Bowling Club portion of Sylvan Park and the Second Baptist Church from introduction of sound barriers (if constructed). The surface treatments and landscaping for the sound barrier at the Redlands Lawn Bowling Club will be designed and implemented to harmonize the barrier with the surrounding pastoral park landscape. If a sound barrier is necessary at the Second Baptist Church, surface treatments will be designed and implemented to harmonize the barrier with the Spanish Colonial Revival architecture of the church building. Drought tolerant landscaping will be incorporated into the design of the barrier at the church as needed.	Final design and post-construction (if required)	Redlands Lawn Bowling Club portion of Sylvan Park and the Second Baptist Church	SANBAG	Cities of Redlands and San Bernardino	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>CUL-2b: Conduct Potential Noise Insulation Work at Second Baptist Church in Accordance with Secretary of Interior Standards and Guidelines and Applicable Preservation Briefs.</b> Sound-attenuating insulation may be necessary for the Second Baptist Church building. If sound-attenuating insulation measures are implemented at the church building, the work will be conducted in accordance with the Secretary of the Interior's Standards for Rehabilitation with Guidelines for Applying the Standards (Hume et al. 1990) and applicable National Park Service preservation briefs, including #3 (Improving Energy Efficiency in Historic Buildings); #22 (The Preservation and Repair of Historic Stucco); #24 (Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches); and # 30 (The Preservation and Repair of Historic Clay Tile Roofs). SANBAG will select and implement the recommended insulation measures in coordination with the property owner and SHPO.</p>	Prior to operations (if required)	Second Baptist Church	SANBAG	SHPO, if required	
<p><b>CUL-3: Off-Site Replacement of Citrus Trees Removed from California/I-10-Grove.</b> SANBAG shall coordinate with the City of Redlands, including the Citrus Preservation Commission, to provide for the planting of citrus trees at properties within the Redlands Historical Preserve of Citrus to compensate for the trees removed from the California/I-10 Grove in association with the Preferred Project Alternative. The number of citrus trees planted will be equal to the number of trees removed from the California/I-10 Grove. The types of trees to be planted will be determined through consultation between SANBAG and the City of Redlands, including the Citrus Preservation Commission.</p>	Prior to construction	California/I-10 Grove	SANBAG	City of Redlands, Citrus Preservation Commission	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>CUL-4: Construction Monitoring.</b> Full-time monitoring for archaeological deposits will be conducted in the Project APE in the vicinity of the Redlands Chinatown site (and a 50-foot buffer on each side of the site boundary) during ground disturbing construction activities. Monitoring will be conducted in accordance with a Construction Monitoring and Discovery Plan to be prepared for the project. Monitoring will occur under the supervision of an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards.</p> <p><i>Unanticipated Discoveries.</i> In the event an unanticipated discovery of archaeological resources occurs during construction, the following measures will be implemented immediately following the discovery:</p> <ul style="list-style-type: none"> <li>• All construction within a 50-foot radius of the resource will be halted until a qualified archaeologist can evaluate the resource.</li> <li>• FTA and SHPO will be notified in the event of an unanticipated discovery.</li> <li>• If the discovery is determined to be significant or potentially significant by the qualified archaeologist, the adverse effects under Section 106 to portions of archeological resources determined to be eligible for the NRHP would be resolved in consultation with SHPO through the following tasks:               <ul style="list-style-type: none"> <li>- Discussion with project engineers to determine if impacts can be avoided/minimized, including consideration of preservation in place</li> <li>- Recovery and analysis of archaeological material and associated data</li> </ul> </li> </ul>	<p>During construction</p>	<p>Project APE in the vicinity of the Redlands Chinatown site</p>	<p>SANBAG</p>	<p>SHPO, if required</p>	

Communication: Draft Addendum 1 (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Preparation of a data recovery report or other reports</li> <li>- Recovered archaeological material shall be provided to an accredited archaeological repository.</li> </ul> <p>Archaeological monitor qualification requirements, detailed approaches to archaeological monitoring of various project elements, and the procedures to follow in the event that unanticipated archaeological resources or human remains are discovered will be defined in the Construction Monitoring and Discovery Plan.</p> <p><i>Stop Work if Unanticipated Human Remains Are Encountered.</i> If human remains are exposed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to PRC 5097.98. If the coroner determines the remains to be Native American, the coroner must contact the Native American Heritage Commission and the Project must comply with state laws relating to the disposition of Native American burials that are under the jurisdiction of the Native American Heritage Commission (PRC Section 5097). Construction must halt in the area of the discovery of human remains, the area must be protected, and consultation and treatment would occur as prescribed by law.</p>					
<b>Parklands, Community Services, and Other Public Facilities</b>					
<p><b>PCS-1: Coordinate Trail Planning with Local Jurisdictions.</b> SANBAG will implement the following activities to minimize Project-related conflicts with proposed trails:</p>	Final design	Bridge 3.4 and Orange Blossom Trail	SANBAG	San Bernardino County Parks and Recreation Department and Public Works	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>Santa Ana River Trail - SANBAG shall coordinate final design and construction of Bridge 3.4 with the San Bernardino County Department of Public Works, Transportation Design Division, and Parks and Recreation Department to integrate the trail as contemplated in the SANBAG's Non-Motorized Transportation Plan (2011) (NMTP), so as to maintain it's planned future continuity along the Santa Ana River. If the trail is constructed and operational in advance of the bridge structure, SANBAG will maintain trail access during the course of construction, to the extent feasible. In instances, where trail closures are required the construction contractor will be required to minimize the duration of the closure and support the County with any noticing, outreach, or implementation of temporary detours.</li> <li>Orange Blossom Trail - SANBAG shall update the NMTP (2011) as part of it's next cycle update, to include the realignment of the trail segment of the Orange Blossom Trail that is currently shown as being located within the railroad right-of-way, so as to not conflict with the proposed project. SANBAG will coordinate with the City of Redlands and the County Flood Control District to determine available rights-of-way for the placement of the trail and, if necessary, realign the trail to take advantage of connections via existing roadway and other public right-of-ways.</li> </ul>				Department, City of Redlands, and the San Bernardino County Flood Control District	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Safety and Security</b>					
<p><b>SS-1: Develop Safety and Security Management Plan.</b> Prior to construction, SANBAG shall coordinate and consult with local safety and crime prevention authorities to develop a Safety and Security Management Plan (SSMP) for the track alignment, bridges, parking facilities, and station areas. The SSMP shall include a station surveillance element to be developed in coordination with the local jurisdiction and private properties owners, as applicable. If a non-FRA compliant DMU vehicle type is selected for the Project, the SSMP shall include a plan element that includes appropriate levels of safety as may be necessary to facilitate a shared-use operation.</p>	Final design and post construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	
<p><b>SS-2: Fencing.</b> SANBAG's contractor shall erect temporary fencing and visual screening for staging areas and provide security personnel during construction to minimize trespassing and vandalism throughout the duration of construction.</p>	Prior to and during construction	Entire Project	SANBAG	None	

Communication: Draft Addendum 1 (Item 12)

DATE FILED & POSTED

Posted On: 9/13/17

Removed On: 10/26/17

Receipt No: 36-091317-542

Notice of Determination

Appendix D

To:

Office of Planning and Research  
U.S. Mail: Street Address:  
P.O. Box 3044 1400 Tenth St., Rm 113  
Sacramento, CA 95812-3044 Sacramento, CA 95814

County Clerk  
County of: San Bernardino  
Address: 222 W. Hospitality Lane, 1st Floor  
San Bernardino, CA 92415-0022

From:  
Public Agency: San Bernardino County Transportation Authority  
Address: 1170 W. 3rd Street, 2nd Floor  
San Bernardino, CA 92410  
Contact: Justin Fornelli  
Phone: (909) 884-8276

Lead Agency (if different from above):  
Address:  
Contact:  
Phone:

**SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.**

State Clearinghouse Number (if submitted to State Clearinghouse): 2012041012

Project Title: Redlands Passenger Rail Project (RPRP)

Project Applicant: San Bernardino County Transportation Authority (SBCTA)

Project Location (include county): San Bernardino County, City of San Bernardino, Tippecanoe Ave. & E. Victoria

Project Description:

The Redlands Passenger Rail Project is an approximately nine mile corridor extending east from the City of San Bernardino to the City of Redlands and includes local and express train service. SBCTA certified a Final EIR for the project in March of 2015. The final EIR considered constructing a double track ready alignment throughout the railroad corridor, turning Metrolink train at the University of Redlands, and plausible construction staging areas. SBCTA is proposing to optimize the track alignment for a single track configuration, turning Metrolink trains in downtown Redlands, and additional construction staging areas to facilitate constructability.

This is to advise that the San Bernardino County Transportation Authority has approved the above  
( Lead Agency or  Responsible Agency)

described project on 9/6/17 and has made the following determinations regarding the above  
(date)  
described project.

1. The project [ will  will not] have a significant effect on the environment.
2.  An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
 A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [ were  were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [ was  was not] adopted for this project.
5. A statement of Overriding Considerations [ was  was not] adopted for this project.
6. Findings [ were  were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval or the negative Declaration, is available to the General Public at:  
1170 W. 3rd Street, 2nd Floor, San Bernardino, CA 92410

Signature (Public Agency): [Signature] Title: Director of Transit & Rail Programs

Date: 9/7/17 Date Received for filing at OPR: \_\_\_\_\_

COUNTY OF SAN BERNARDINO  
CLERK OF THE BOARD OF SUPERVISORS  
2017 SEP 13 PM 3:45



State of California - Department of Fish and Wildlife

### 2017 ENVIRONMENTAL FILING FEE CASH RECEIPT

DFW 753.5a (Rev. 01/01/17) Previously DFG 753.5a

Print	StartOver	Finalize&Email
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RECEIPT NUMBER:  
36 — 091317 — 544

STATE CLEARINGHOUSE NUMBER (If applicable)  
2012041012

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY San Bernardino County Transportation Authority	LEAD AGENCY EMAIL	DATE 091317
COUNTY/STATE AGENCY OF FILING San Bernardino	DOCUMENT NUMBER	

PROJECT TITLE  
Redlands Passenger Rail Project (RPRP) Addendum No. 3 to the EIR

PROJECT APPLICANT NAME San Bernardino County Transportation Authority	PROJECT APPLICANT EMAIL	PHONE NUMBER (909) 884-8276
PROJECT APPLICANT ADDRESS 1170 W. 3rd Street, 2nd Floor	CITY San Bernardino	STATE CA
		ZIP CODE 92410

PROJECT APPLICANT (Check appropriate box)

Local Public Agency     School District     Other Special District     State Agency     Private Entity

**CHECK APPLICABLE FEES:**

<input checked="" type="checkbox"/> Environmental Impact Report (EIR)	\$3,078.25	\$	<u>3,078.25</u>
<input type="checkbox"/> Mitigated/Negative Declaration (MND)(ND)	\$2,216.25	\$	<u>0.00</u>
<input type="checkbox"/> Certified Regulatory Program document (CRP)	\$1,046.50	\$	<u>0.00</u>

- Exempt from fee
  - Notice of Exemption (attach)
  - CDFW No Effect Determination (attach)
- Fee previously paid (attach previously issued cash receipt copy)

<input type="checkbox"/> Water Right Application or Petition Fee (State Water Resources Control Board only)	\$850.00	\$	<u>0.00</u>
<input checked="" type="checkbox"/> County documentary handling fee		\$	<u>50.00</u>
<input type="checkbox"/> Other		\$	<u>0.00</u>

**PAYMENT METHOD:**

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# Addendum No. 2 to the EIR

San Bernardino County Transportation Authority | Redlands Passenger Rail Project

*SCH No. 2012041012*

July 19, 2017

Communication: Draft Addendum 2 (Item 12)





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# 1 Purpose and Background

On March 4, 2015, the San Bernardino Associated Governments (now referred to as the San Bernardino County Transportation Authority [SBCTA]) certified the Final Environmental Impact Report (EIR) for the Redlands Passenger Rail Project (RPRP) (State Clearinghouse No. 2012041012). The Project is proposed to encompass passenger rail operations along an approximately nine-mile corridor extending east from the City of San Bernardino to the City of Redlands. As approved, the Project would include local and express train service via five station stops; two in the City of San Bernardino; and three in the City of Redlands.

Following additional coordination with local stakeholders, including the Cities of San Bernardino and Redlands and the Southern California Railroad Authority (SCRRA or Metrolink), and the completion of the Project's 90 percent design, SBCTA is proposing several design refinements. In general, these design refinements would optimize Project operations or constructability, enhance safety, and/or reduce project costs.

SBCTA has prepared this addendum to the EIR for the RPRP (State Clearinghouse No. 2012041012) to address the potential environmental impacts associated with the proposed design refinements (refined Project). This addendum is prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code § 21000, et. seq.) and the CEQA Guidelines (California Administrative Code, Title 14, § 15000, et. seq.).

## 1.1 Applicability and Use of an Addendum

SBCTA's intent through preparation of this addendum is to demonstrate whether the previously adopted CEQA document (i.e., Final EIR), including mitigation measures, are still both adequate and valid for the refined Project. Pursuant to Public Resources Code Section 21166 and the CEQA Guidelines, Sections 15162 through 15164, SBCTA as the lead agency is required to conduct a fact-based evaluation of proposed changes to a Project to determine whether supplemental environmental documentation is required. CEQA Guidelines, Section 15162(a), states that when an EIR is certified for a Project, no Subsequent or Supplemental EIR shall be prepared for that Project unless the lead agency determines that one of the conditions described in Section 15162(a) has occurred.

Based on the analysis set forth in this addendum, SBCTA has concluded that the refined Project does not trigger any of these circumstances, and that an addendum is the appropriate form of documentation to comply with CEQA.

## 1.2 Format of This Addendum

The previously certified EIR serves as the initial environmental compliance document for the Project, and this addendum provides additional clarification and information about the refined Project. This addendum should be read together with the full text of the previously certified EIR (2015). All mitigation measures applicable from the EIR would be

applicable to the refined Project and, therefore, are incorporated by reference into this addendum.

This addendum relies on the use of an Environmental Checklist Form (Checklist), as suggested in Section 15063(d)(3) of the CEQA Guidelines.

### 1.3 Summary of Findings

Based upon the Checklist prepared for the refined Project and supporting responses (Section 3), implementation of the refined Project would not result in substantial changes requiring major revisions to the EIR. Further, the refined Project would not result in any environmental impacts that have not already been addressed in the EIR, and no new mitigation measures are required for the refined Project. Since only minor additions and clarifications are required to the EIR, and none of the conditions described in Public Resources Code Section 21166 or CEQA Guideline Section 15162 has occurred, SBCTA finds that the preparation of an addendum to the EIR is appropriate and consistent with Public Resources Code Section 21166 and CEQA Guideline Section 15162.

### 1.4 Lead Agency and Discretionary Approvals

This addendum and the previously certified EIR are intended to serve as the environmental documentation for the design changes being proposed under the refined Project. The SBCTA is the lead agency under CEQA and maintains authority to approve the addendum.



## 2 Description of Refined Project

### 2.1 Introduction

The approved Project proposes passenger rail operations along an approximately nine-mile corridor extending east from the City of San Bernardino to the City of Redlands. The approved Project would overlay local and express train service using a diesel multiple unit (DMU) and standard Metrolink trainset, respectively. Local service would occur via five station stops: E Street and Tippecanoe Avenue<sup>1</sup> located in the City of San Bernardino; and New York Street, Orange Street (Downtown Redlands) and University Street (University of Redlands) located in the City of Redlands. Metrolink express service would be limited to downtown Redlands and E Street. Components approved as part of the Project include replacement of the existing railroad tracks and ties, reconstruction or rehabilitation of existing bridge structures, and construction of station platforms and a train layover facility. The EIR also considered auxiliary improvements such as parking, at-grade roadway crossings, pedestrian access, and new and relocated utilities, including water, sewer, storm drain, power, gas, fiber optic, and telephone lines.

SBCTA staff is currently negotiating operations and maintenance agreements with Omnitrans and Metrolink to operate and maintain the Project. Omnitrans, as the San Bernardino Valley transit provider, will operate and maintain the DMUs and Metrolink, as the Southern California region commuter rail operator will provide maintenance-of-way and dispatching services of the Redlands Corridor. Revenue service is anticipated to begin in 2020.

### 2.2 Project Location

The refined Project encompasses the same general Study Area as described for the approved Project in Section 2.3, which extends along existing railroad right-of-way (ROW) owned by SBCTA between the cities of San Bernardino and Redlands, San Bernardino County, California (see Attachment A, Figure 1). Section 2.3 of the EIR provides a detailed description of the Project's location and Study Area.

### 2.3 Refined Project

Subsequent to Project approval in 2015, SBCTA has advanced the Project's design to 90 percent. As part of the Project's final design, SBCTA is proposing several minor design refinements to the approved Project, as was previously defined and analyzed in the EIR. The design refinements comprise of a series of physical and operational improvements and are derived from value engineering and risk workshops conducted in 2016, as well as design coordination with SBCTA's partner cities and stakeholders (e.g. University of Redlands, Metrolink, City of San Bernardino, City of Redlands, etc.).

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<sup>1</sup> SBCTA has considered the environmental effects of relocating the station stop at Waterman Avenue, as proposed in the Final EIR, to Tippecanoe Avenue. Addendum #1 to the EIR provides an assessment of the station relocation to Tippecanoe Avenue, as considered as part of the Preferred Alternative in the EIR.

**Proposed Refinements:** SBCTA is proposing ten (10) design refinements to the approved Project. Tables 2-1 and 2-2 provide a summary of these refinements in relation to the improvements originally contemplated in the approved Project (and EIR). These refinements include the following as described further below.

- **Refinement No. 1 – Single Track Bridge Structures:** SBCTA has completed additional operational modeling for the approved Project, which indicates that corridor-wide double tracking will not be required in the foreseeable future to support operations. As a result, SBCTA has decided to construct single-track bridge structures and foundational supports at Bridges 3.4 and 9.4. Construction cost savings would be realized from this proposed refinement.
  - **1A - Single Track Bridge Structure at Santa Ana River (Bridge 3.4).** Bridge 3.4 would be constructed as a single-track structure rather than a double-track ready bridge structure with one interim track alignment. Figure 2 in Attachment A illustrates the corresponding design revisions.
  - **1B - Single Track Bridge Structure at Mill Creek (Bridge 9.4).** Bridge 9.4 would be constructed as a single-track structure rather than a double-track ready bridge structure with one interim track alignment. Figure 3 in Attachment A illustrates the corresponding design revisions.
- **Refinement No. 2. – Single Track Alignment:** Coincident with Refinement No. 1, SBCTA also identified multiple benefits of optimizing the single track alignment within the SBCTA's ROW in lieu of placing the single track in one of the two future double track alignment locations. This refinement would allow for the optimization of the track alignment thereby minimizing the Project's ROW requirements for drainage and ditch grading improvements along the corridor. This refinement would exclude the stretch of track west of Richardson Street and east of California Street (MP 5.5 to MP 7.4), which provides the passing siding as described in the approved Project.
- **Refinement No. 3 – Platform Reconfigurations:** Through a combination of coordination with Metrolink engineering staff and updates to the Project's operational plan, SBCTA determined the need for multiple refinements to the platform design as described for the approved Project. These refinements include the need to include two platforms at the terminal stations (E Street Station and University of Redlands Station) where only one platform was shown in the preliminary engineering design. Additionally, based on input from Metrolink, the platform reconfiguration would increase from one (1) platform edge to two (2) platform edges at terminal stations (E Street Station and University of Redlands Station) (Figure 4).
  - **3A – Two (2) Platform Edges at Terminal Stations (E Street and University of Redlands).** To enhance operational flexibility at the terminal stations, SBCTA is proposing the inclusion of two platform edges to facilitate efficient passenger loading and unloading. Figure 4 in Attachment A illustrates the corresponding design revisions. These design revisions would be contained within the previously analyzed Project footprint.
  - **3B – Increase Platform Lengths at Terminal and Intermediate Stations.** In tandem with Refinement 3A, SBCTA is proposing to increase the platform edge length at terminal stations from 200 feet to 350 feet (an increase in 150 feet). At





intermediate stations, platform lengths would be increased from 150 feet to 170 feet (an increase in 20 feet). The extended platform lengths would be contained within SBCTA's ROW as described for the approved Project.

- Refinement No. 4 - Reconfigure E Street Station Stop:** Following additional coordination with, and agreement by, Metrolink, SBCTA has identified an alternative station configuration for the E Street Station; located adjacent to the San Bernardino Transit Center (SBTC). The primary feature of the revised station configuration is the removal of the siding track at E Street Station, which would result in DMUs operating on the Metrolink track. This concept would improve operational efficiency for the DMU service by eliminating a zig-zag/see-saw move by the DMUs when they arrive at SBTC from the maintenance facility each day. As proposed, this refinement would provide a 170 foot platform for DMU boarding edge (23.5 inches above top of rail) and a 510 foot long Metrolink boarding edge (8 inches above top of rail).

This refinement would eliminate tracks TC-3 and TC-4 and the associated platform improvements (Platform C extension and Platform D). In the space cleared by the removal of these tracks, SBCTA would expand the existing SBTC parking lot north from its existing limits to Platform C, incorporating a new driveway and drive aisle to E Street along the north side of the parking lot (north of the shopping center along E Street). On the east side of E Street, a new employee parking lot would be constructed north of the Pep Boys property. This lot will be fenced and have automatic gates. Figure 5 in Attachment A illustrates the corresponding design revisions.

- Refinement No. 5 – Relocate Metrolink Train Turns:** The approved Project assumed that the Metrolink Express train would turn at the University of Redlands (U of R) Station. Following additional coordination with U of R, SBCTA is proposing to remove the option to turn Metrolink trains at the U of R station. An outcome of negotiations with the University resulted in the decision to not turn the Metrolink trains at the U of R Station. In parallel with Refinement 1B, double tracking would no longer be required east of Bridge 9.4.
- Refinement No. 6 – Downtown Metrolink Siding:** In tandem with Refinement No. 5, SBCTA is proposing to place the Metrolink siding (for train turns) in downtown Redlands. This refinement would involve placement of a two stage, siding track in the eastern portion of downtown Redlands. The proposed siding track would extend approximately 600 feet and be located east of 9th Street and west of Church Street. The proposed improvements would be located within SBCTA's ROW and require the construction of a short retaining wall (less than four feet in height) along the southern edge of the ROW. Figure 6 in Attachment A illustrates the corresponding design revisions.
- Refinement No. 7 – Retain 7<sup>th</sup> Street At-Grade Crossing:** The approved Project, as described in the EIR, assumed that 7th and 9th Streets would be closed to vehicular traffic. As originally proposed, 7th Street would retain a pedestrian at-grade crossing. As a result of community input and a second review of various aspects of the Project, SBCTA is proposing to maintain the existing at-grade crossing at 7th Street. As proposed both vehicle and pedestrian access would be maintained. Figure 7 in Attachment A illustrates the corresponding design revisions.

- **Refinement No. 8 – Expanded Contractor Staging and Access:** Following the completion of the 90% design, SBCTA has determined that four additional construction staging areas and one additional construction access route are required that were not identified in the EIR. These four additional staging areas and the construction access route are located both outside the approved footprint (or limits of construction) that was identified for the approved Project. As part of this Project refinement, the following contractor staging areas and access route would be added to the Project's limits of construction:

  - Contractor Staging on private property northwest of Twin Creek (See Figure 8 in Attachment A)
  - Contractor Staging on private property northeast of Santa Ana River (See Figure 9 in Attachment A)
  - Construction access along Gage Canal (from the north; see Figure 9 in Attachment A)
  - Contractor Staging on SBCTA property in downtown Redlands (between 7<sup>th</sup> and 9<sup>th</sup> Streets; see Figure 10 in Attachment A)
  - Contractor Staging within SBCTA ROW (between Cook Street and Grove Street; see Figure 11 in Attachment A)
  
- **Refinement No. 9 – Jack and Bore of Loma Linda Water Line:** The EIR addressed the potential placement of new or relocated utility infrastructure. The City of Loma Linda owns and maintains an existing 18-inch, steel water pipeline at Richardson Street that will require relocation as part of the approved Project. Based on additional engineering design, SBCTA in coordination with Loma Linda have determined that a new, approximately 303 linear foot, 24-inch cement mortar lined and cement mortar coated (CML&C) steel pipeline would be required. The new water line would be placed within a 36-inch steel casing. Following construction, the new water line would interconnect with Loma Linda's water distribution system and the existing line would be abandoned in place.

As currently proposed, jack and bore construction techniques would be used to install the new water line and associated casing. Boring entry and receiving pits would be excavated on the northern and southern limits of the new water line (see Figure 12 in Attachment A). The proposed water line would follow Richardson Street and under the proposed track infrastructure and Mission Zanja Channel. The new pipe would be placed a minimum of five feet below the channel bed. SBCTA will require that the construction contractor prepare the following documentation prior to the installation of this proposed improvement:

  - Boring Plan: including a sketch of the construction site, proposed depth and length of boring, proposed equipment, and list of lubricants and additives; and
  - Frac-out Contingency Plan: provides Best Management Practices (BMPs) in the event of a frac-out during boring.
  
- **Refinement No. 10 – Minor Refinements to Limits of Construction (Non-Sensitive Areas):** As part of the Project's final design, SBCTA has identified twenty (20) improvements that extend beyond the footprint of the approved Project. In each



instance, SBCTA assessed the location of the improvements and sensitivity of the immediate vicinity and the extent of change. Based on this review, SBCTA determined that these refinements to Project footprint would occur in non-sensitive areas for biological and cultural resources. Table 2 includes a list of minor footprint refinements that would collectively require modification to the contractors' limits of construction in non-environmentally sensitive areas. Figures 13 to 28 in Attachment A illustrate the extent of these minor design refinements.

**Table 1. Comparison of Approved Project (2015 EIR) and Proposed Design Refinements (June 2017)**

Design Basin for Refinement	Refinement Tracking No.	Approved Project (2015 EIR)	Proposed Refinements (90% Design Refinements– June 2017)	Milepost(s)	Figure No.
Track Optimization: Single Track Bridge Structures	1a	<ul style="list-style-type: none"> <li>• Double-track bridge and supporting structural foundations at Santa Ana Bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Single-track bridge and supporting structural foundations at mile post MP 3.4.</li> <li>• The smaller bridge foundations would remain within the previously analyzed footprint</li> </ul>	3.4	2
	1b	<ul style="list-style-type: none"> <li>• Double-track bridges and supporting structural foundations at Mill Creek Zanja (MCZ) Bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Single-track bridge and supporting structural foundations at mile post MP 9.4.</li> </ul>	9.4	3
Track Optimization: Single Track Alignment	2	<ul style="list-style-type: none"> <li>• Construct a double-track (ready) alignment throughout the entire Project.</li> </ul>	<ul style="list-style-type: none"> <li>• Construct a single-track alignment throughout</li> <li>• Maintain passing siding from Richardson Street to California Street (approx. MP 5.5 and 7.4).</li> <li>• Optimize track alignment for single track (expect from 5.5 to 7.4)</li> <li>• Improvements confined to approved footprint</li> </ul>	1.0 to 5.5 7.4 to 10	--

**Table 1. Comparison of Approved Project (2015 EIR) and Proposed Design Refinements (June 2017)**

Design Basin for Refinement	Refinement Tracking No.	Approved Project (2015 EIR)	Proposed Refinements (90% Design Refinements– June 2017)	Milepost(s)	Figure No.
Operational Enhancements: Station Reconfigurations	3a	<ul style="list-style-type: none"> <li>New platforms with one (1) platform edge at each railway station.</li> </ul>	<ul style="list-style-type: none"> <li>New platforms to include two (2) platform edges at terminal stations (E Street Station and University of Redlands Station)</li> <li>Operational enhancement</li> <li>Improvements confined to approved footprint</li> </ul>	1.0, 4.2, 8, 8.8 and 10.0	4
	3b	<ul style="list-style-type: none"> <li>Platform edge lengths to range from 150-200 feet</li> </ul>	<ul style="list-style-type: none"> <li>Event platform at University Station</li> <li>Increase platform edge length at terminal stations to 350 feet.</li> <li>Increase platform lengths to 170 feet at intermediate stations</li> <li>Operational enhancement</li> <li>Improvements confined to approved footprint</li> </ul>	1.0, 8.9, and 10.0	--
Operational Enhancement: Reconfigure E Street Station Stop	4	<ul style="list-style-type: none"> <li>E Street Station – construct tracks south of station, in parallel with Metrolink tracks</li> </ul>	<ul style="list-style-type: none"> <li>No construction of parallel tracks, DMUs will arrive at SBTC from maintenance facility</li> <li>Operational enhancement</li> <li>Reduction from previously analyzed footprint</li> </ul>	1.0	5
Relocate Metrolink Train Turns to Downtown Redlands: Downtown Metrolink Siding	5	<ul style="list-style-type: none"> <li>Metrolink Train to stop and turn-around at University Station</li> </ul>	<ul style="list-style-type: none"> <li>Removal of stop and turn-around at University Station for Metrolink Trains</li> <li>Requested by University</li> <li>Improvements remain within approved Project footprint</li> </ul>	10.0	--
	6	<ul style="list-style-type: none"> <li>Construction of double track east of Church Street for Metrolink Train turns</li> </ul>	<ul style="list-style-type: none"> <li>Implement two-stage siding track east of Downtown Redlands Station.</li> <li>600-foot siding track to be placed east of 9th Street and west of Church Street (Option B). This would result in a 0.5 percent reduction in track slope.</li> <li>Improvements would be contained within SBCTA's ROW.</li> </ul>	9.0	6



**Table 1. Comparison of Approved Project (2015 EIR) and Proposed Design Refinements (June 2017)**

Design Basin for Refinement	Refinement Tracking No.	Approved Project (2015 EIR)	Proposed Refinements (90% Design Refinements– June 2017)	Milepost(s)	Figure No.
Crossing Closures – Retain 7th Street At-Grade Crossing	7	<ul style="list-style-type: none"> <li>Close existing crossing at 7th Street; create cul-de-sac on south side of crossing; install guard post barricades on north side of crossing, and fencing; maintain pedestrian access</li> </ul>	<ul style="list-style-type: none"> <li>Retain 7th Street at-grade crossing</li> <li>Improvements confined to approved footprint</li> <li>Traffic analysis assumed worst case (closure with ped crossing); retention of crossing improves traffic flow</li> </ul>	9.0	7
Expanded Contractor Staging and Access	8	<ul style="list-style-type: none"> <li>Contractor staging within SBCTA ROW, vacated roadway (e.g. Hilda Street closure), and layover site at California Street</li> </ul>	<ul style="list-style-type: none"> <li>Contractor staging at:</li> <li>Private property northwest of Twin Creek</li> <li>Private property northeast of Santa Ana River</li> <li>Access along Gage Canal (from north)</li> <li>SBCTA property in downtown Redlands (between 7th and 9th Streets)</li> <li>SBCTA ROW (between Cook and Grove)</li> </ul>	2, 3.8, 9, and 10.1	8-11
Utility Relocation – Jack and Bore of Loma Linda Water Line	9	<ul style="list-style-type: none"> <li>Approved project contemplated new and relocated utilities, including water, sewer, storm drain, power, gas, fiber optic, and telephone lines.</li> </ul>	<ul style="list-style-type: none"> <li>Relocate Loma Linda Water Line located at Richardson Street. Proposed installation by jack and bore construction technique.</li> </ul>	4.5	12
Minor Refinements to Limits of Construction (Non-Sensitive Areas)	10	<ul style="list-style-type: none"> <li>Approved Project contemplated auxiliary improvements such as at-grade roadway crossings, pedestrian access, and new and relocated utilities.</li> </ul>	<ul style="list-style-type: none"> <li>See Table 2 for a complete listing of minor Project refinements to the limits of construction in non-sensitive areas</li> </ul>	1 through 10	See Table 2

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**Table 2. Minor Refinements to Limits of Construction (Non-Sensitive Areas)**

Refinement Tracking No.	Minor Refinements to the Limits of Construction	Figure No.
10A	Sidewalk extension at E Street (north)	13
10B	Include water line at Stoddard Ave.	
10C	D Street Cul-de-sac	
10D	Extend sidewalk on Arrowhead St. and Hilda extended closure	
10E	Extend work area at City Corp Yard south	14
10F	Add fencing easements (north of Mill; east of Sierra Ave)	15
10G	Add utility easement at NE quadrant at Mill and ROW; Add sidewalk on NE	
10H	Expanded area for signal house at Central (SW quadrant)	16
10I	Expanded area for utility and sidewalk improvements at Orange Show Road and Ennis Road	17
10J	Upland drainage connection, east of Tippecanoe Ave.	18
10K	Extend work area north to ROW line; east of Richardson for signal house	19
10L	Expanded work limits on Mountain View (north); add fencing	20
10M	Add ditch west of Bryn Mawr; expand ROW north 10 feet	21
10N	Expanded area for signal house and sidewalks at California Street crossing	22
10O	Expanded area for signal house and access at Alabama, Colton, and Redlands	23
10P	Extend construction limits south to Redland Blvd, east of Colton	
10Q	Expanded work area for sidewalks at Tennessee and Redlands Blvd.	24
10R	ESRI fiber network connection	
10S	Expanded work area for utilities, signal, access, and sidewalks at Texas Street and Redlands Blvd.	25
10T	Expanded work area for utilities at 6th Street	26

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## 2.4 Status of Current Project

SBCTA is nearing completion of the 90 percent plans and specification for the approved Project. Construction of the approved Project will be phased into three major construction contracts: (1) E Street Demo; (2) Early Utilities; (3) and Mainline Construction. The E Street Demo work will occur in the second half of 2017. Construction of the Early Utilities is scheduled to start in the second half of 2017 and extend into early 2018. Construction of the mainline track improvements, including station platforms, is scheduled to start in 2018 and extend into 2020.



### 3 Environmental Analysis Checklist

The following Environmental Analysis Checklist (Checklist) (Table 3) was developed for projects with previously certified/approved environmental documents. This Checklist takes into consideration the preparation of an environmental document prepared at an earlier stage of a project (e.g. RPRP), evaluates the adequacy of the earlier document in assessing potential environmental impacts resulting from refinements proposed to the Project, and is consistent with Section 21166 of the Public Resources Code and Section 15162 of the CEQA Guidelines. The results of this evaluation are summarized below with the detailed analysis provided in subsequent sections.

**Table 3. Environmental Analysis Checklist Summary**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
1. Aesthetics (Table 4)	Yes	No	No	No
2. Agriculture and Forestry Resources (Table 5)	Yes	No	No	No
3. Air Quality (Table 6)	Yes	No	No	No
4. Biological Resources (Table 7)	Yes	No	No	No
5. Cultural Resources (Table 8)	Yes	No	No	No
6. Geology/Soils (Table 9)	Yes	No	No	No
7. Greenhouse Gas Emissions (Table 10)	Yes	No	No	No
8. Hazards and Hazardous Materials (Table 11)	Yes	No	No	No
9. Hydrology and Water Quality (Table 12)	Yes	No	No	No
10. Land Use and Planning (Table 13)	Yes	No	No	No
11. Mineral Resources Table 14	Yes	No	No	No
12. Noise (Table 15)	Yes	No	No	No
13. Population and Housing (Table 16)	Yes	No	No	No
14. Public Services (Table 17)	Yes	No	No	No
15. Recreation (Table 18)	Yes	No	No	No
16. Transportation/Traffic (Table 19)	Yes	No	No	No
17. Utilities and Service Systems (Table 20)	Yes	No	No	No

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**Table 3. Environmental Analysis Checklist Summary**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
18. Mandatory Findings(Table 21)	Yes	No	No	No
Note: See preceding checklist sections for detailed discussion of each environmental issue area.				





**Table 4. Aesthetics**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Have a substantial adverse effect on a scenic vista?	Yes	No	No	No
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	Yes	No	No	No
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Yes	No	No	No
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes	No	No	No

**Discussion:** Since the certification of the EIR, there have been no substantial changes to the existing aesthetic environment as described in Section 3.4, Visual Quality and Aesthetics, of the Final EIR. Notwithstanding the changed geographic location or extent of the refined Project features (e.g. shifted track alignment, additional work areas, utility extensions, etc.), the refined Project would be constructed in the same general vicinity with much of the work occurring within SBCTA’s ROW as described in the EIR. The refined Project features would generally be located at-or below grade, once constructed. The refined Project features are generally located within the previously described Study Area, which is urbanized, and does not contain any designated scenic vistas or scenic resources. Further, the refined Project features are not located within the viewshed of a State designated scenic highway. As a result, no substantial changes or major revisions to the previous EIR analysis are required. The EIR concluded that with implementation of Mitigation Measures VQA-1, VQA-2, VQA-3, and VQA-5, the Project would not substantially degrade the existing visual character or quality of the site and its surroundings or create significant sources of light or glare. These mitigation measures would continue to apply to the refined Project features. In this context, the refined Project would not result in new or substantially more severe impacts to aesthetics and no new mitigation measures would be required.

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**Table 5. Agricultural Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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*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.*

**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?	Yes	No	No	No
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Yes	No	No	No
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))?	Yes	No	No	No
d) Result in the loss of forest land or conversion of forest land to non-forest use?	Yes	No	No	No
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?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the agricultural environment as described in Section 5.4, Less Than Significant Impacts of the Build Alternatives and Design Options, of the Final EIR. The refined Project features would be constructed within the SBCTA's ROW and land identified as "Urban and Built-up" as previously identified in the Final EIR. Therefore, the refined Project features would not result in new or substantially more severe impacts to agricultural and no mitigation would be required.

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**Table 6. Air Quality**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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*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?	Yes	No	No	No
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Yes	No	No	No
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)?	Yes	No	No	No
d) Expose sensitive receptors to substantial pollutant concentrations?	Yes	No	No	No
e) Create objectionable odors affecting a substantial number of people?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the existing air quality environment as described in Section 3.5, Air Quality and Climate Change, of the Final EIR. The EIR identified that the approved Project would generate short-term construction emissions due to construction activities that include demolition/reconstruction of the railroad corridor and construction employee and haul-related vehicle trips. These impacts were determined to be less than significant based on detailed air quality modeling completed in support of the EIR and included in Appendix G. The refined Project features would require similar construction activities of comparable duration and intensity as described for the approved Project and analyzed in the EIR. In this context, the construction of the refined Project features would not result in a substantial increase in construction activities and related emissions as analyzed in the EIR. As a result, the refined Project would not result in new or substantially more severe construction-related air quality impacts and no mitigation would be required. Similar to the approved Project, the refined Project features do not include any new trip-generating uses that would generate additional traffic on area roadways. Likewise, the refined Project operations would remain similar to that as described in the EIR; therefore, comparable operational emissions would result over the long-term. As a result, the refined Project would not result in new or substantially more severe operational air quality impacts and no mitigation would be required.

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**Table 7. Biological Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
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?	Yes	No	No	No
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Yes	No	No	No
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?	Yes	No	No	No
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	Yes	No	No	No
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Yes	No	No	No
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?	Yes	No	No	No



**Table 7. Biological Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions as described in Section 3.7, Biological and Wetland Resources and Appendix I, of the Final EIR. Much of the refined Project is located within the previously analyzed Project footprint and would not expand or increase the direct footprint as previously evaluated. Those features that would extend beyond the previously analyzed footprint, including proposed Refinement Nos. 8, 9, and 10, would be constructed in previously disturbed, urbanized locations adjacent to the railroad ROW. These areas contain existing development, landscaping with ornamentals, or hardscape (e.g. parking lots, roads, etc.). The entry and exit pits for Refinement No. 9 would be located within the roadway ROW for Richardson Street. The improvements included within Refinements 10A through 10T would generally be constructed at existing at-grade crossings and within the roadway crown.</p> <p>Based on a field reconnaissance of the areas beyond approved Project footprint and related vegetation mapping, as provided in Attachment B, no sensitive vegetation communities, as defined by CDFW, were identified. However, suitable habitat was identified for several special status botanical and zoological species considered in the EIR. Compliance with Mitigation Measures BIO-3 and BIO-5 would minimize the potential for any impacts to burrowing owl and migratory bird species. Compliance with Mitigation Measure BIO-4 would minimize the potential for any impacts to sensitive botanical species. Additionally, no additional State or Federal jurisdictional areas were identified beyond the limits of those identified in the 2013 Preliminary Jurisdictional Determination (PJD) that would otherwise be directly impacted by the refined Project features. Refinement No. 9 would be constructed in a manner (e.g. jack and bore) that would avoid direct impacts to the Mission Zajna Channel (MZC). Additionally, SBCTA will require the construction contractor to prepare a Drilling Plan and Fra-q-out Contingency Plan prior to initiating construction. Attachment B includes additional discussion and analysis of the refined Project features for each of the areas affected beyond the previously considered footprint.</p> <p>Based on the conclusions of the biological letter report contained in Attachment B, no new or more severe biological resources impacts would occur as a result of the refined Project features. All mitigation measures adopted as part of SBCTA’s Mitigation Monitoring and Reporting Plan (MMRP), including Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7, would continue to apply to the refined Project features, as applicable, and potential impacts to biological resources would be mitigated to a less than significant level. No new mitigation would be required.</p>				

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**Table 8. Cultural Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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***Would the project:***

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	Yes	No	No	No
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Yes	No	No	No
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Yes	No	No	No
d) Disturb any human remains, including those interred outside of formal cemeteries?	Yes	No	No	No



**Table 8. Cultural Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions for historic architectural and archaeological resources as described in Section 3.12, Cultural and Historic Resources, and Appendix M of the Final EIR. Much of the refined Project is located within the previously analyzed approved Project footprint and area of potential effect (APE) and, as a consequence, would not expand or increase the physical footprint as previously evaluated in the Final EIR. Those features that would extend beyond the previously analyzed footprint (and APE), including proposed Refinement Nos. 8, 9, and 10, would generally be constructed in previously disturbed urbanized locations (e.g. developed lots, roadways, etc.). Additionally, in the case of the expanded contractor staging areas identified under Refinement No. 8, no excavation or grading would occur at the expanded contractor staging sites.</p> <p>SBCTA prepared an evaluation of the proposed Refinement Nos. 6 and 7 to determine if they would affect the previous findings regarding cultural resources (both historic built environment and archaeological) within the previously-approved Area of Potential Effects (APE). The placement of the Metrolink Siding under Refinement No. 6 would be contained within SBCTA's existing ROW and previously considered APE, as approved by the State Historic Preservation Officer (SHPO). The previous analysis concluded a finding of no adverse affect, which the Office of Historic Preservation (OHP) concurred on August 14, 2014 (OHP reference number FTA120830A).</p> <p>There have been no archaeological resources identified within or adjacent to the areas proposed for minor design refinements. However, there is ground disturbing work associated with the proposed design refinement and the possibility exists for the discovery of unanticipated archaeological resources. The recommendation of Mitigation Measures CUL-4 to implement specific measures immediately following an unanticipated discovery remains unchanged and consistent with the Final EIR.</p> <p>The previous cultural resources evaluation for this project identified 28 significant historic properties eligible for listing in the NRHP, CRHR, or as historical resources for purposes of CEQA within the APE. Three of those properties are located within one parcel past the limits of the project improvements adjacent to the proposed Refinement No. 6 (near Downtown Redlands station): 420 E Stuart Avenue, 510 E Stuart Avenue, and 610 E Stuart Avenue (see Attachment C). There are no currently listed resources located within one parcel past the limits of the project improvements adjacent to Refinement No. 6. There are no significant or listed historic properties located adjacent to, or within one parcel of the existing 7th Street at-grade crossing that will now be retained under Refinement No. 7 (rather than permanently closed).</p> <p>The only minor design refinement that could have an effect on the surrounding viewshed of Refinement No. 6, the only proposed new vertical incursion, would be the introduction of a four-foot-tall retaining wall located adjacent to the northern parcel boundary of 304 9th Street. The approximately 550-foot retaining wall would be very minimally or not at all visible from all three adjacent historic properties and would not affect their integrity of setting or diminish any of the character defining features of any of the three adjacent historic properties.</p> <p>Overall, the proposed refinements/engineering refinements would not be considered to have a significant impact to historical resources under CEQA. The updated cultural resources analysis confirms that the proposed engineering refinements to the project do not change the previous conclusions regarding cultural resources. No new or more severe cultural resources impacts would occur and Mitigation Measures CUL-1, CUL-3, and CUL-4 as contained in SBCTA's MMRP for the approved Project would continue to apply the refined Project features. There would be no changes required to the prior <i>Cultural Resources Technical Memorandum</i> (Appendix M of the Final EIR). No new mitigation is required.</p>				

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**Table 9. Geology and Soils**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Yes	No	No	No
j) Strong seismic ground shaking?	Yes	No	No	No
k) Seismic-related ground failure, including liquefaction?	Yes	No	No	No
l) Landslides?	Yes	No	No	No
b) Result in substantial soil erosion or the loss of topsoil?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No





**Table 9. Geology and Soils**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> Since the certification of the Final EIR, there have been no substantial changes to the existing geological environment as described in Section 3.9, Geology, Soils and Seismicity, and Appendix K of the Final EIR. The refined Project features would be constructed in the same general vicinity as the approved Project and would not be located within 500 feet of a major active fault or fault zone. Similar to the approved Project, the refined Project does not include the construction of structures that would be used for human occupancy and, therefore, the Project would not expose people to potential substantial adverse effects, including the risk of loss, injury, or death as a result of significant ground shaking and related secondary hazards. Similar to the approved Project, the refined Project features would be required to be in conformance with applicable seismic standards in the Uniform Building Code and Mitigation Measure GEO-1 as contained in SBCTA's MMRP. No new or more severe geological impacts would occur and the proposed mitigation would continue to apply to the refined Project. No new mitigation would be required.</p>				

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**Table 10. Greenhouse Gas Emissions**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment?	Yes	No	No	No
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions as described in Section 3.5, Air Quality and Climate Change, and Appendix G of the Final EIR. The refined Project features would be constructed and operated consistent with the assumptions applied in the Final EIR. No increase in the emission of GHGs would result from the proposed refinements. As a result, no new or more severe impacts would occur with the refined Project and no mitigation is required.



**Table 11. Hazards and Hazardous Materials**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes	No	No	No
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	Yes	No	No	No
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	Yes	No	No	No
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?	Yes	No	No	No
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	Yes	No	No	No
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?	Yes	No	No	No
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Yes	No	No	No

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**Table 11. Hazards and Hazardous Materials**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
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**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the existing environment conditions as described in Section 3.10, Hazardous Waste and Materials, and Appendix L of the Final EIR. Similar to the approved Project, a majority of the refined Project features would be located within the approved Project footprint as previously evaluated in the Final EIR. In instances where the refined Project features extend beyond the previously approved footprint, SBCTA would comply with Mitigation Measure HAZ-3, which requires an updated Phase 1 Environmental Site Assessment (ESA) and Phase 2 Investigation, if necessary. No additional demolition of existing structures would be required that would otherwise require the implementation of Mitigation Measure HAZ-2.

Similar to the approved Project, the transport, use, and storage of hazardous materials during construction would be conducted in accordance with all applicable State and Federal laws. For this reason, the refined Project features, as applicable, would be subject to the hazardous materials management requirements contained in Mitigation Measure HAZ-1.

Based on a review of the Department of Toxic Substance's Control EnviroStor Database, the refined Project features are not identified as being located on a hazardous materials site compiled pursuant to Government Code Section 65962.5. Mitigation Measure HAZ-4 would continue to apply to the refined Project in order to reduce the potential impacts associated with the discovery of hazardous materials and/or contaminants. Mitigation Measures HAZ-5 and HAZ-6 would also continue to be applicable to the refined Project features, where construction within very high wildlife hazard areas.

Based on the above analysis, no new or more severe hazards and hazardous materials impacts would occur as a result of the refined Project features. All mitigation measures adopted as part of SBCTA's MMRP for the Project would continue to apply to the refined Project, as applicable. No new mitigation measures would be required.

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Table 12. Hydrology and Water Quality

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	Yes	No	No	No
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)?	Yes	No	No	No
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Yes	No	No	No
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	Yes	No	No	No
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?	Yes	No	No	No
f) Otherwise substantially degrade water quality?	Yes	No	No	No
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?	Yes	No	No	No
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	Yes	No	No	No

**Table 12. Hydrology and Water Quality**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
j) Inundation by seiche, tsunami, or mudflow?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the existing hydrological environment as described in Section 3.8, Floodplain and Hydrology, and Appendix J of the Final EIR. Similar to the approved Project, the refined Project features would be located within the approved footprint as previously evaluated in the Final EIR. Where the refinements extend beyond the previously approved footprint, the improvements would be located within previously disturbed or paved areas. Similar to the approved Project, the refined Project features, as applicable, would be subject to Mitigation Measure HWQ-1, which requires the preparation of a site-specific drainage plan for all structural components associated with the Project. The treatment of project-related stormwater would be addressed through compliance with Mitigation Measure HWQ-6, such that long-term water quality impacts would be less than significant.

Similar to the approved Project, the refined Project features would include grading and land disturbance activities that would require compliance Mitigation Measure HWQ-2, which requires compliance with the NPDES General Construction Permit. Construction of the refined Project would entail the same types of construction activities as analyzed in the final EIR and, therefore, no greater or more severe water quality impacts are expected from the construction of the refined Project features. None of the proposed refinements is located within waterways and, therefore, no in-channel construction activities are anticipated, which would otherwise require compliance with Mitigation Measures HWQ-3.

Similar to the approved Project, some of the proposed refinements would be constructed within areas subject to flooding during a 100-year storm event. These improvements would be subject to compliance with Mitigation Measures HWQ-4 and HWQ-5, as applicable, and would not to exacerbate existing flooding conditions within the Project area.

Based on the above analysis, no new or more severe hydrology or water quality impacts would occur as a result of the proposed refinements. All mitigation measures adopted as part of SBCTA’s MMRP for the Project would continue to apply to the refined Project. No new mitigation is required.

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**Table 13. Land Use and Planning**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Physically divide an established community?	Yes	No	No	No
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?	Yes	No	No	No
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions as described in Section 3.2, Land Use, Planning and Communities, and Appendix D of the Final EIR. The refined Project features would be located within or in close proximity to the approved Project footprint as previously evaluated in the Final EIR. As proposed, the refined Project features would not introduce new land uses that were not otherwise previously considered as part of the Final EIR. For this reason, the no substantive changes to the previous analysis of plan consistency would result and the previous less than significant determination would continue to apply.

Similar to the approved Project, the refined Project features would not physically divide the community or conflict with any applicable habitat conservation plan or natural communities' conservation plan. Temporary and permanent encroachments into adjacent properties, as applicable to the refined Project features, would be required to comply with Mitigation Measure LU-1.

Based on the above evaluation, no new or more severe land use, planning and communities impacts would occur as a result of the refined Project features. Mitigation adopted as part of SBCTA's MMRP for the Project would continue to apply to the refined Project, as applicable. No new mitigation measures would be required.

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**Table 14. Mineral Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
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?	Yes	No	No	No
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?	Yes	No	No	No
<p><b>Discussion:</b> Since the certification of the Final EIR, there have been no changes to the existing environmental conditions as described in Section 5.4, Less Than Significant Impacts of the Build Alternatives and Design Options, of the Final EIR. The refined Project feature would be located within the same general vicinity of the approved Project as previously evaluated in the Final EIR. As a result, the refined Project is not located on a site that is designated as an important local or State mineral resource recovery site. As a result, implementation of the refined Project would not result in the loss of a known mineral resource and no new or more severe impacts would result from the refined Project.</p>				

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**Table 15. Noise**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project result in:**

a) 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?	Yes	No	No	No
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Yes	No	No	No
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes	No	No	No
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes	No	No	No
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Yes	No	No	No
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Yes	No	No	No

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**Table 15. Noise**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> Since the certification of the Final EIR, there have been no substantial changes to the noise environment as described in Section 3.6, Noise and Vibration, and Appendix H of the Final EIR. The refined Project would be located within the same general vicinity of the approved Project as previously evaluated in the Final EIR. The refined Project features would result in construction noise levels similar to that evaluated in the Final EIR. Construction of the refined Project features would be subject to the requirements of Mitigation Measure NV-1 and NV-2.</p> <p>Operational noise levels and related impacts to noise sensitive land uses associated within the refined Project would be similar to the approved Project. Under the refined Project, DMU and Metrolink operations would generally function as described and analyzed in the Final EIR. Several of the improvements proposed under Refinement 10 (e.g. pedestrian gates, signal houses, etc.) are intended to support the implementation of quiet zones per the requirements of Mitigation Measure NV-3. Refinement Nos. 6 and 7 would slightly modify the approved Project operations by relocating the Metrolink Siding to downtown Redlands (from the University Station) and maintain the at-grade crossing at 7<sup>th</sup> Street, which was previously proposed for closure (to vehicle traffic).</p> <p>To address the minor refinements to the Project operations in downtown Redlands, additional noise modeling was conducted to factor in the retention of the 7<sup>th</sup> Street at-grade crossing (with signals) and the relocation of the Metrolink Siding; east of the 9<sup>th</sup> Street. According to the Final EIR, the noise impact at the Receiver 54 (R54) was severe and the impact at R55 (Second Baptist Church) was moderate. R54A and R54B represent the closest residences to the refined turnout and siding track location (at 9<sup>th</sup> Street). For the purposes of the analysis, the noise modeling, as presented in Attachment D, assumed the presence of locomotives idling (less than 30 minutes) at both ends of the siding track. Under this operational scenario, the calculated noise level is 60 dBA LDN (with quiet zones), which one dBA greater than existing, ambient noise levels. As a result, with the continued implementation of Mitigation Measure NV-3, no substantial changes to the previous impact analysis would result and no additional mitigation, including Mitigation Measure NV-4 (Sound Barriers), would be required.</p> <p>Construction and operational vibration were also considered in the Final EIR. Similar to the approved Project, construction-related vibration levels for the refined Project features would require compliance with Mitigation Measures NV-1, NV-2, and CUL-1. With the optimization of the track alignment as a result of Refinement No. 2, the placement of track would not occur as close to several structures in downtown Redlands due to the placement of only one track as opposed to two (in the ultimate condition). As a result, operational vibration levels may be slightly reduced. Nonetheless, Mitigation Measures NV-5 and NV-6 would continue to apply to the refined Project at locations where proposed.</p> <p>Based on the evaluation above, no new or more severe noise impacts would occur as a result of the Refined Project. Mitigation Measures NV-1, NV-2, NV-3, NV-5, NV-6, and NV-7 as contained in SBCTA's MMRP for the approved Project would continue to apply to the refined Project. No new mitigation measures would be required.</p>				

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**Table 16. Population and Housing**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Yes	No	No	No
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Yes	No	No	No
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	Yes	No	No	No

**Discussion:** No substantial changes to existing environmental conditions as it relates to population and housing have changed since the certification of the Final EIR. Similar to the approved Project, the refined Project features would be limited to existing roadway and rail improvements in the vicinity of the approved Project. These improvements would not increase the relocation or displacement impacts of the approved Project. No new land uses are proposed as part of the refinements that would otherwise increase the population estimates contained in the Final EIR. Based on these considerations, no new or more severe population and housing impacts would occur. No new mitigation would be required.

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Table 17. Public Services

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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*Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

a) Fire Protection?	Yes	No	No	No
b) Police Protection?	Yes	No	No	No
c) Schools?	Yes	No	No	No
d) Parks?	Yes	No	No	No
e) Other public facilities?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to existing environmental conditions as described in Section 3.13, Parklands, Community Services, and Other Public Facilities, of the Final EIR. Similar to the approved Project, the refined Project features are limited to roadway and rail improvements and would not generate population growth that would otherwise place new demands on local public service providers. Additionally, the refined Project does not include a residential component which would otherwise result in an incremental increase in demand on public services. Based on these considerations, no new or more severe public or community services and other facilities impacts would occur as a result of the refined Project. No new mitigation would be required.



**Table 18. Recreation**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Yes	No	No	No
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the existing environmental conditions as described in Section 3.13, Parklands, Community Services, and Other Public Facilities, of the Final EIR. Similar to the approved Project, the refined Project would not contribute to population growth that could result in an increased use of existing neighborhood and regional parks nor does it include or require construction or expansion of recreational facilities. The refined Project does not propose substantial changes that require major revisions to the EIR’s discussion of potential impacts to recreation. No new or more severe impacts to parks and recreation would occur under the refined Project. Mitigation Measure PCS-1 would continue to apply to the refined Project and no new mitigation is required.

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**Table 19. Transportation/Traffic**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
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?	Yes	No	No	No
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 county congestion management agency for designated roads or highways?	Yes	No	No	No
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?	Yes	No	No	No
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Yes	No	No	No
e) Result in inadequate emergency access?	Yes	No	No	No
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?	Yes	No	No	No



**Table 19. Transportation/Traffic**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> The existing traffic and circulations conditions described in Section 3.3, Transportation and Circulation, and Appendix E of the Final EIR have not substantially changed since the EIR’s certification. Similar to the approved Project, implementation of the refined Project would include various improvements at roadways and at-grade crossings to maintain existing traffic levels of service (LOS) and accommodate future traffic levels as forecasted under each City’s General Plan. Construction of these improvements would require compliance with Mitigation Measures TR-1 to minimize impacts to existing roadway and intersection LOS, including emergency access, during construction of the refined Project.</p> <p>The proposed refinements would not degrade LOS at the intersections analyzed in Section 3.14 and Appendix E of the EIR. By maintaining the at-grade crossing at 7<sup>th</sup> Street in downtown Redlands (Refinement No. 7), traffic operations are expected to remain at similar LOS as analyzed in the EIR or slightly improved. Mitigation Measures TR-2 and TR-3 would still be required to maintain acceptable LOS, where applicable.</p> <p>Similar to the approved project, the refined Project would support the region’s transit plans, including the regional transportation plan and sustainability community strategy (RTP/SCS). Traffic and non-motorized transportation (e.g. bicycle) safety would be addressed through compliance with Mitigation Measures TR-4 and SS-1 for the refined Project. Several of the minor improvements identified in Refinement 10 are included to address the safety requirements for the Project in compliance with Mitigation Measure SS-1. Additionally, the refined Project would continue to facilitate transit realignment of Omnitrans bus service, similar to the approved Project, in compliance with Mitigation Measure TR-5.</p> <p>Based on this evaluation, no new or more severe traffic impacts would occur as a result of the refined Project features. Mitigation Measures TR-1, TR-2, TR-3, TR-4, and TR-5 as contained in SBCTA’s MMRP would continue to apply to the refined Project. No new mitigation measures would be required.</p>				

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**Table 20. Utilities and Service Systems**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Yes	No	No	No
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Yes	No	No	No
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Yes	No	No	No
g) Comply with federal, state, and local statutes and regulations related to solid waste?	Yes	No	No	No





**Table 20. Utilities and Service Systems**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> The Final EIR concluded that the approved Project would not result in significant environmental impacts as it relates to utilities and service systems (see Section 5.5 of the Final EIR). As provided in Chapter 2 of the EIR, the approved Project contemplated the placement of new or relocated utility infrastructure. The refined Project features include these types of utility improvements (e.g. Refinements Nos. 9 and 10), which are now better defined based on the additional engineering design completed. The refined Project does not entail any substantial changes (or new improvements) that require major revisions to the EIR’s discussion regarding utilities and service systems. Similar to the approved Project, the refined Project would not introduce new land uses that would increase demand for potable water supply or wastewater treatment. Similar to the approved Project, new drainage infrastructure proposed in conjunction with the refined Project would be constructed in compliance with Mitigation Measure HWQ-1, which requires the attenuation of post-project runoff to pre-project levels. Similar to the approved Project, the refined Project would adhere to all applicable local, State, and Federal standards for the disposal of solid waste. The refined Project does not entail any substantial changes that require major revisions to the EIR’s discussion regarding utilities and service systems. No new or more severe utilities and service systems impacts would occur as a result of the refined Project. No new mitigation measures would be required.</p>				

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**Table 21. Mandatory Findings**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Refinements Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	Yes	No	No	No
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Yes	No	No	No
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	Yes	No	No	No

**Discussion:** As discussed in the Biological and Cultural Resources Sections, the refined Project features would not create new or more severe impacts when compared to the approved Project. With the implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7, the refined Project would not 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, or reduce the number or restrict the range of a rare or endangered plant or animal. Similar to the approved Project, the refined Project would not eliminate important examples of the major periods of California history or prehistory through compliance with Mitigation Measures CUL-1, CUL-3, and CUL-4. Cumulative impacts were evaluated for each of the environmental issue areas in Chapter 3 of the Final EIR. Similar to the approved Project, the refined Project would be required to comply with mitigation requirements relating to traffic, noise, hydrology and water quality, and vibration. With mitigation, these impacts would be minimized to a less than significant level for the refined Project features and not cumulatively considerable. Based on this evaluation, the proposed refinements to the approved Project would not result in any significant cumulative impacts or any new or substantially more severe cumulative impacts. Mitigation measures adopted by SBCTA for the approved Project would be effective in minimizing adverse environmental effects on human beings. Therefore, the refined Project would not result in substantially more severe cumulative impacts and no new mitigation measures would be required.

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**Environmental Determination**

Based upon the evidence in light of the whole record documented in the attached environmental checklist explanation, cited incorporations and attachments, I find that the Project:

- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document.
- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. **Minor additions and/or clarifications** are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA §15164).
- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or **substantial changes have occurred** requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163.

Signed: \_\_\_\_\_

Communication: Draft Addendum 2 (Item 12)

## 4 Mitigation Measures

A listing of applicable mitigation measures from the Redlands Passenger Rail Project's EIR is provided as Attachment E of this EIR Addendum. All mitigation measures adopted as part of SBCTA's MMRP for the Project would continue to apply following the approval of the refined Project. SBCTA, as the CEQA lead agency, is responsible for adopting and implementing the approved mitigation.



# Attachment A. Figures

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# Attachment B. Biology Letter Report



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# Attachment C. Cultural Resources Letter Report

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# Attachment D. Noise Calculations

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# Attachment E. Mitigation Monitoring and Reporting Program



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## Attachment A: Figures

Figure 1: Regional Location

Figure 2: Single Track Bridge Structure at Santa Ana River (Bridge 3.4)

Figure 3: Single Track Bridge Structure at Mill Creek (Bridge 9.4)

Figure 4: Two (2) Platform Edges at Terminal Stations (E Street and University of Redlands).

Figure 5: Reconfigure E Street Station Stop

Figure 6: Downtown Metrolink Siding

Figure 7: Retain 7th Street At-Grade Crossing

Figure 8: Contractor Staging on private property northwest of Twin Creek

Figure 9: Contractor Staging and Access on private property northeast of Santa Ana River

Figure 10: Contractor Staging on SBCTA property in downtown Redlands

Figure 11: Contractor Staging within SBCTA ROW

Figure 12: Jack and Bore of Loma Linda Water Line

Figure 13: Minor Refinements (E Street to Pershing Avenue)

Figure 14: Minor Refinements (City Corp Yard)

Figure 15: Minor Refinements (Shay Street to Mill Street)

Figure 16: Minor Refinements (Signal House at Central Avenue)

Figure 17: Minor Refinements (Ennis Street to Orange Show Road)

Figure 18: Minor Refinements (East of SAR to Gage Canal)

Figure 19: Minor Refinements (East of Tippecanoe Avenue to Richardson Street)

Figure 20: Minor Refinements (Mountain View Avenue)

Figure 21: Minor Refinements (Bryn Mawr Avenue)

Figure 22: Minor Refinements (California Street)

Figure 23: Minor Refinements (Alabama Street to East of Colton Avenue)

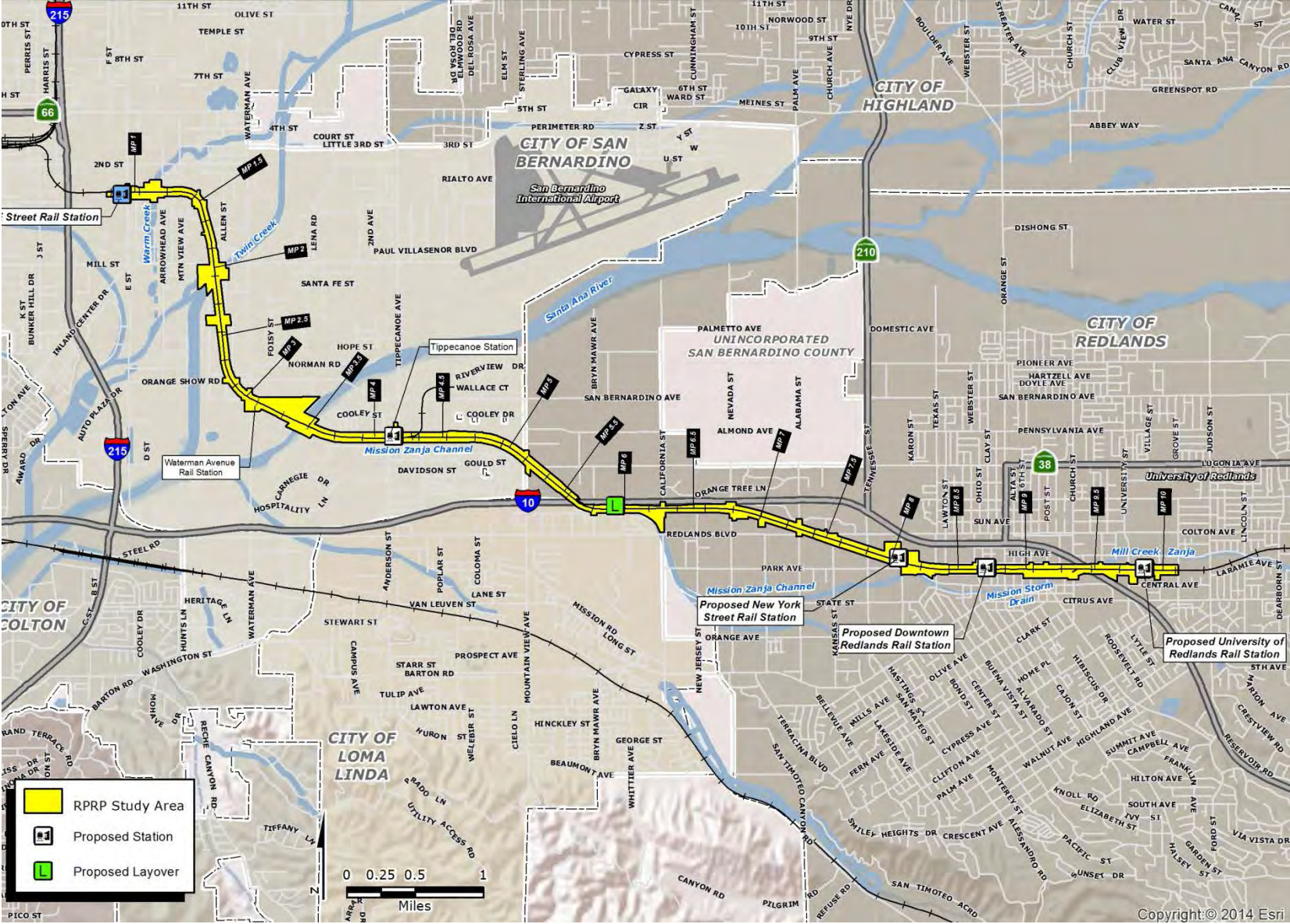
Figure 24: Minor Refinements (Tennessee Street to New York Street)

Figure 25: Minor Refinements (Texas Street)

Figure 26: Minor Refinements (6th Street)



Figure 1: Regional Location

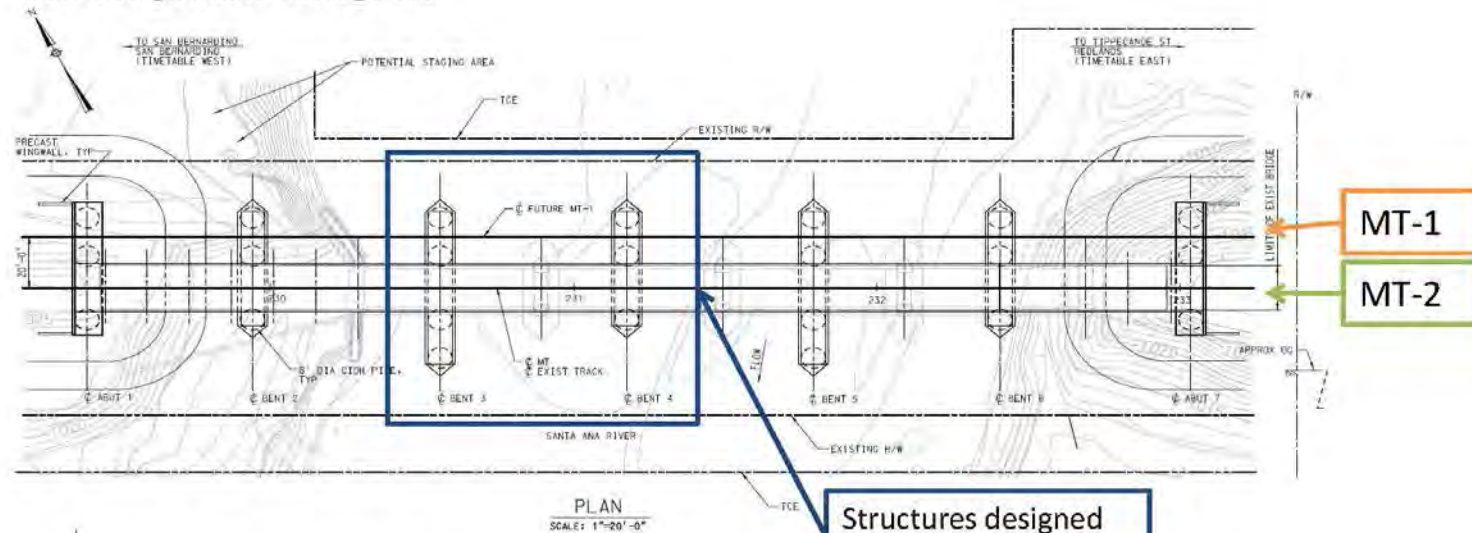


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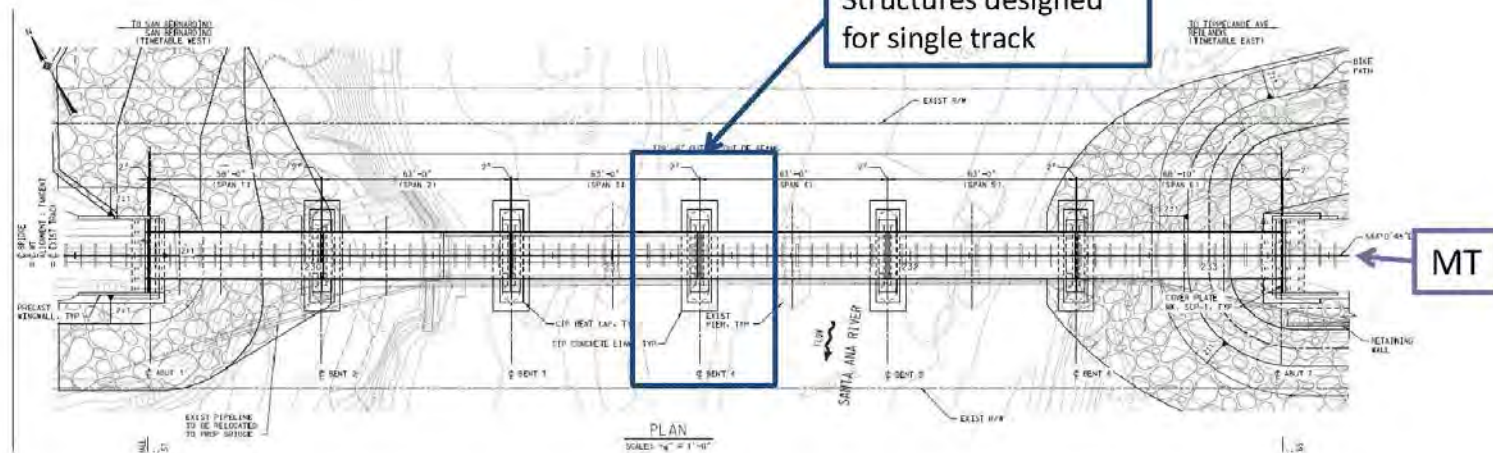


Figure 2: Single Track Bridge Structure at Santa Ana River (Bridge 3.4)

30% Design Plans - Bridge 3.4

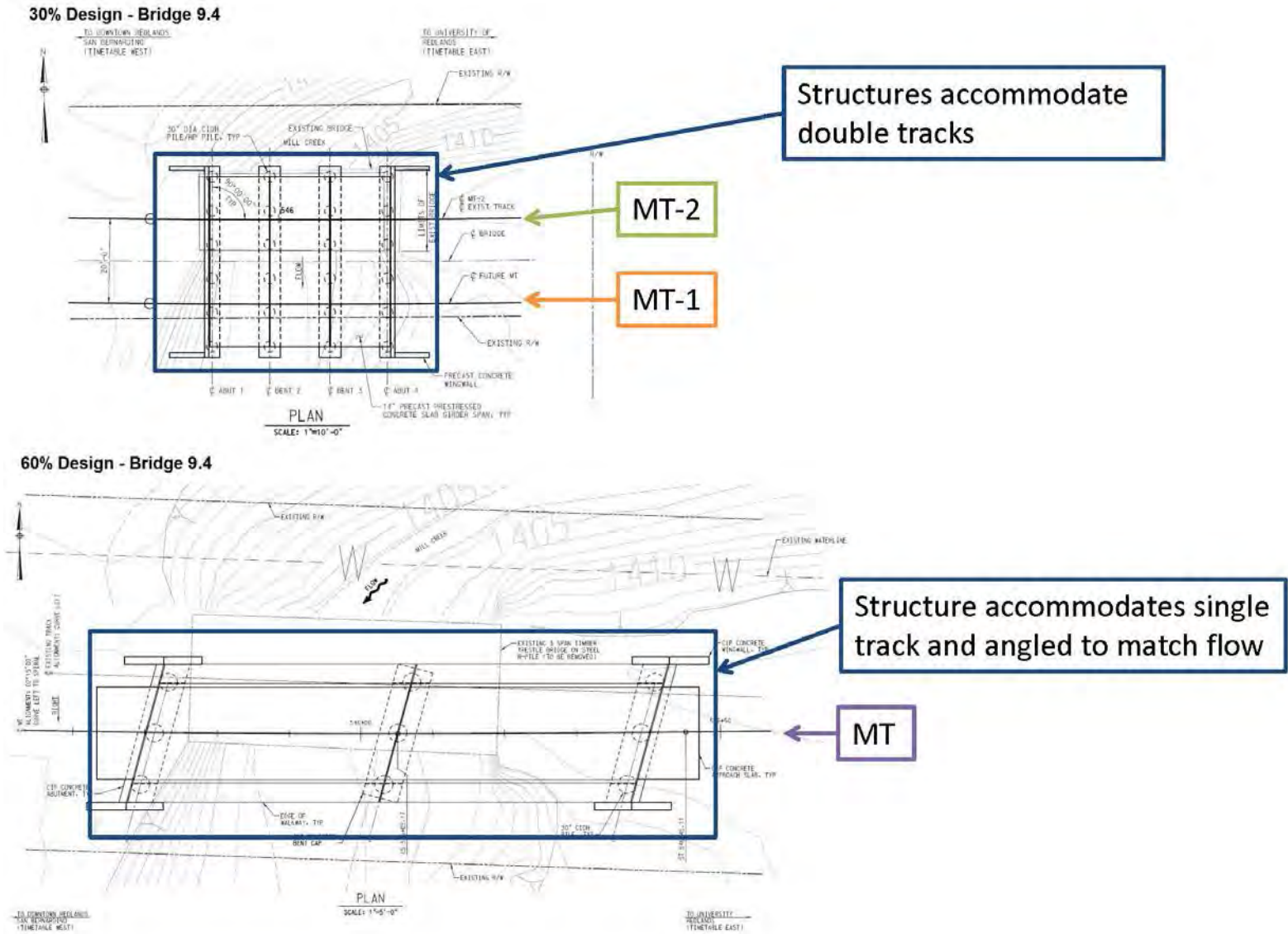


60% Design Plans - Bridge 3.4



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Figure 3: Single Track Bridge Structure at Mill Creek (Bridge 9.4)

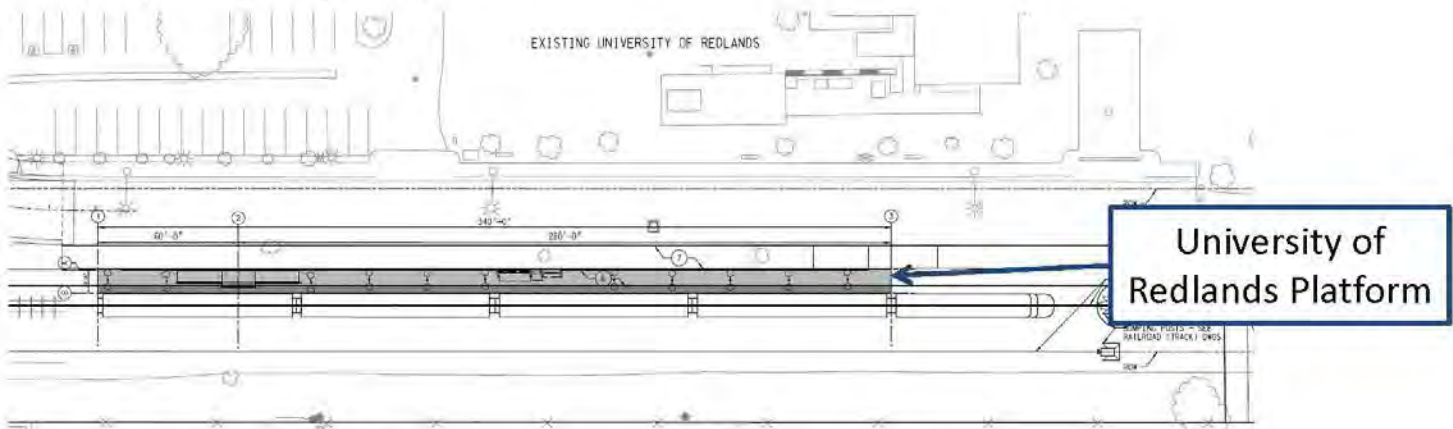


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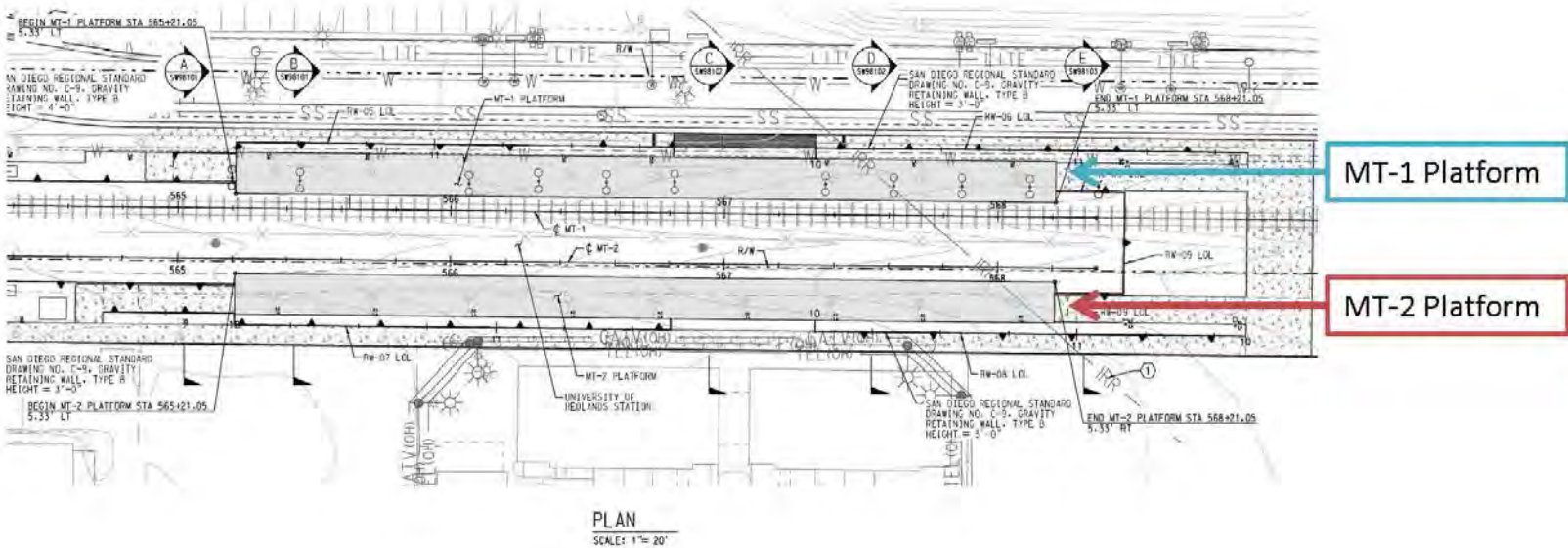


Figure 4: Two (2) Platform Edges at Terminal Stations (E Street and University of Redlands).

30% Design - Single Edge Platforms

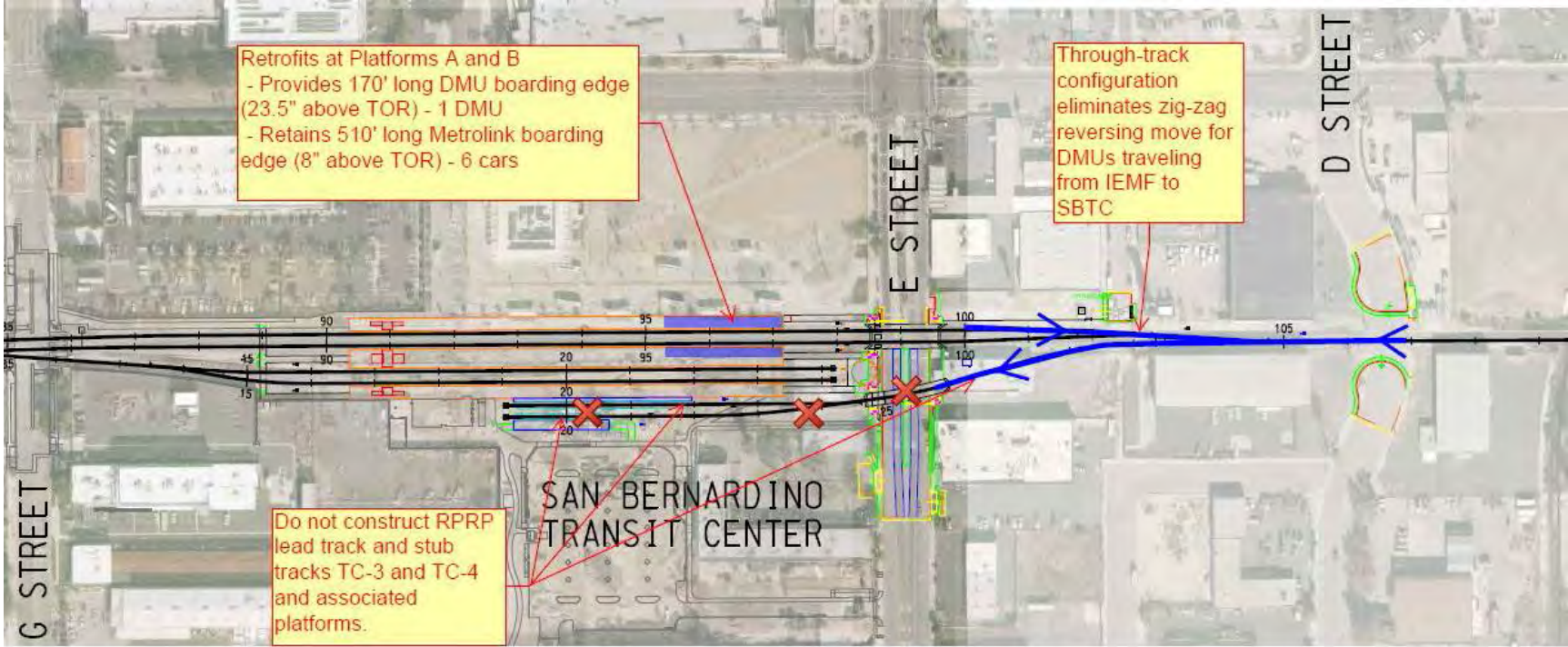


60% Design - Double Edge Platforms



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Figure 5: Reconfigure E Street Station Stop

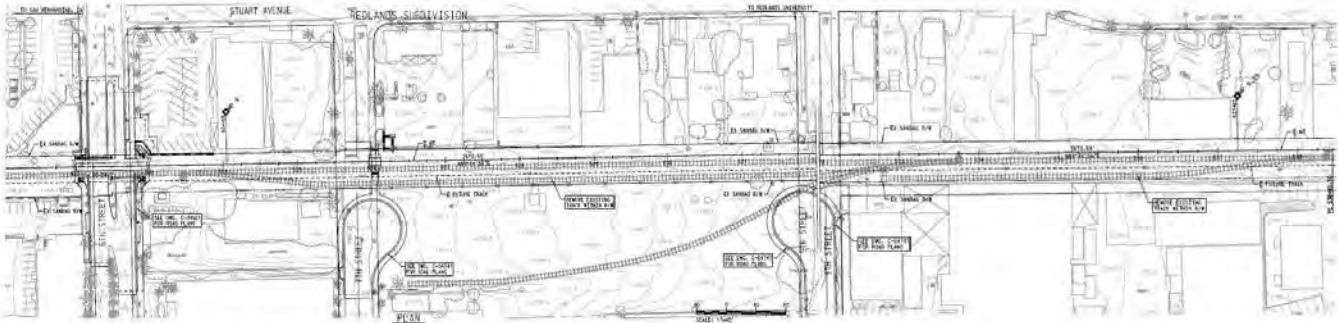


SCALE: 1"=200'

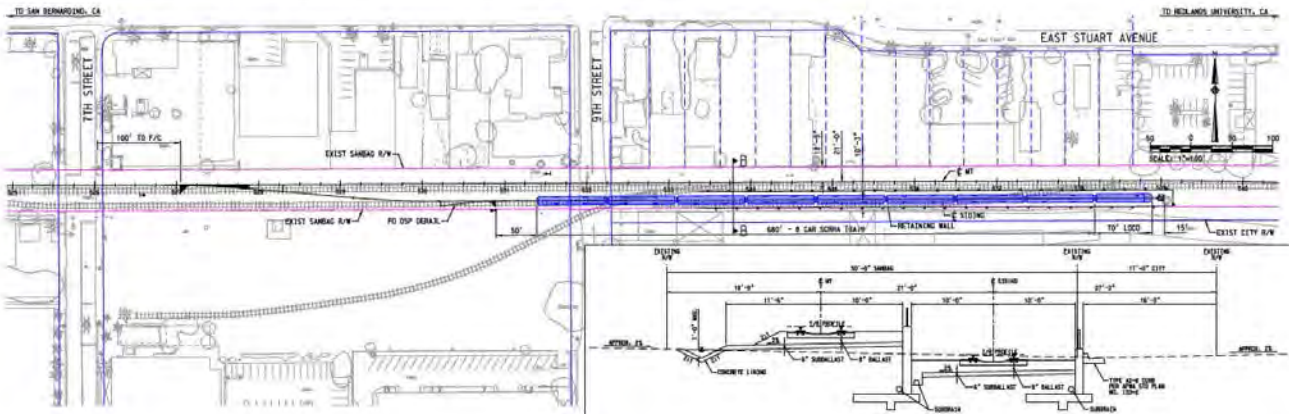


Figure 6: Downtown Metrolink Siding

30% Design – No Siding Built at 9<sup>th</sup> Street



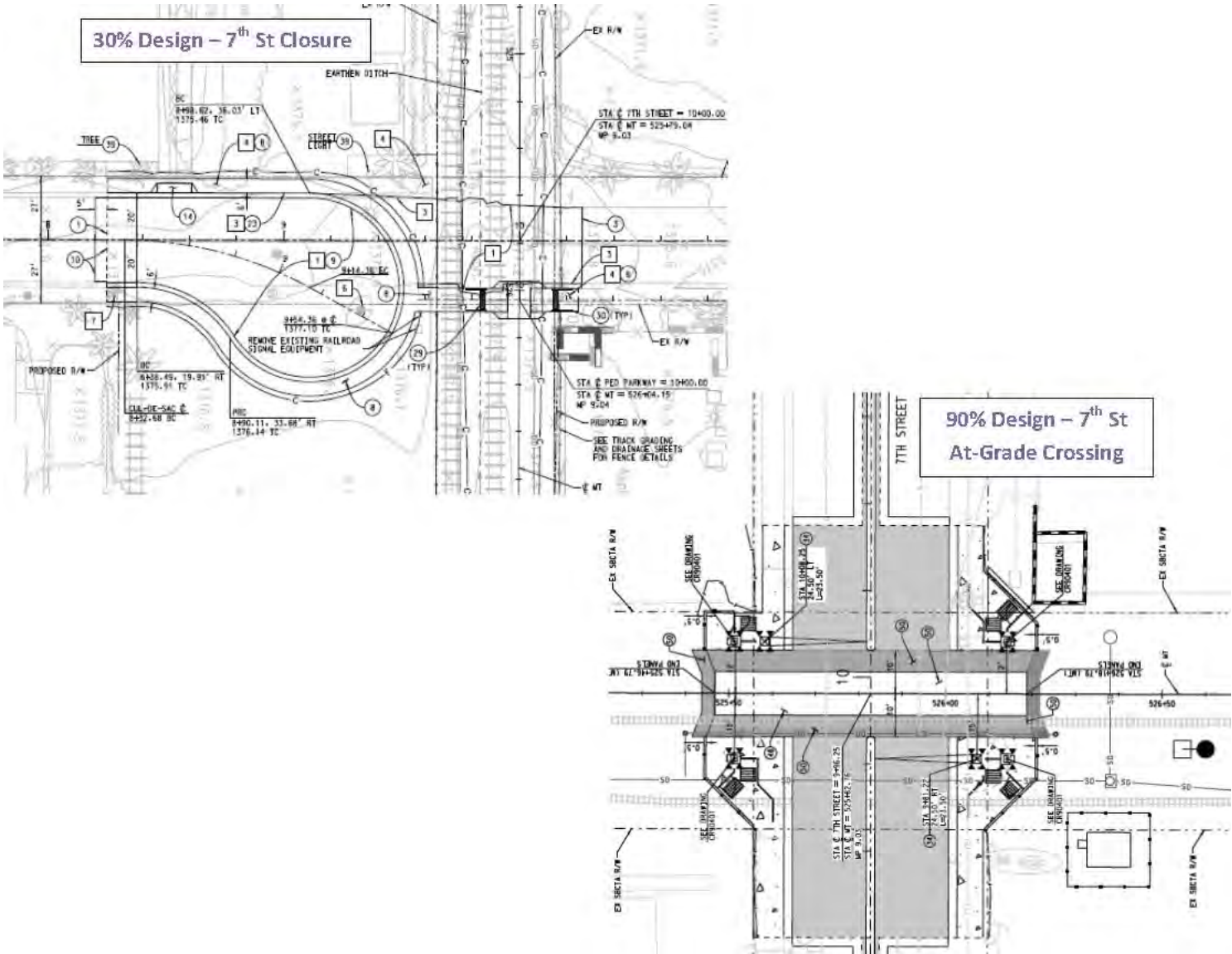
90% Design – Siding Between 9<sup>th</sup> Street and Church Street



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Figure 7: Retain 7th Street At-Grade Crossing



Communication: Draft Addendum 2 - Attachment A (Item 12)

Figure 8: Contractor Staging on private property northwest of Twin Creek



LEGEND

- Refined Project Footprint
- Construction Staging Area

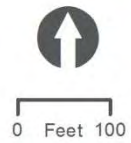
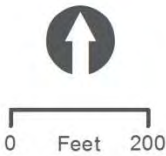


Figure 9: Contractor Staging and Access on private property northeast of Santa Ana River



LEGEND

- Refined Project Footprint
- Construction Staging Area



Communication: Draft Addendum 2 - Attachment A (Item 12)



Figure 10: Contractor Staging on SBCTA property in downtown Redlands



LEGEND

- Refined Project Footprint
- Construction Staging Area

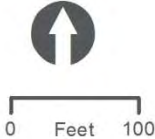


Figure 11: Contractor Staging within SBCTA ROW



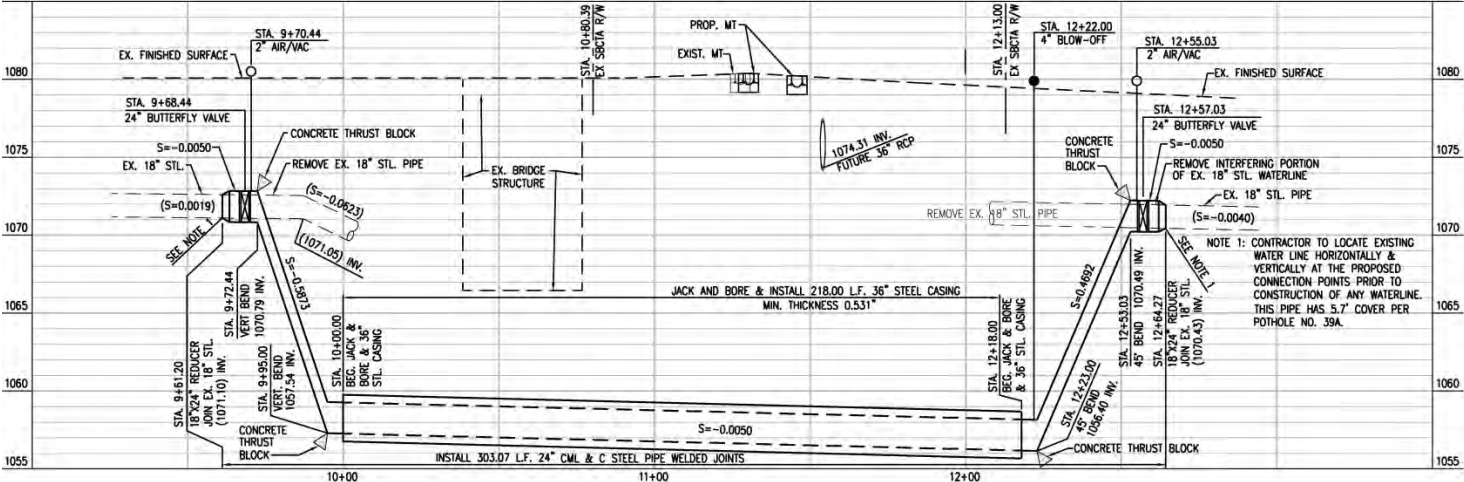
LEGEND

- Refined Project Footprint
- Construction Staging Area





Figure 12: Jack and Bore of Loma Linda Water Line

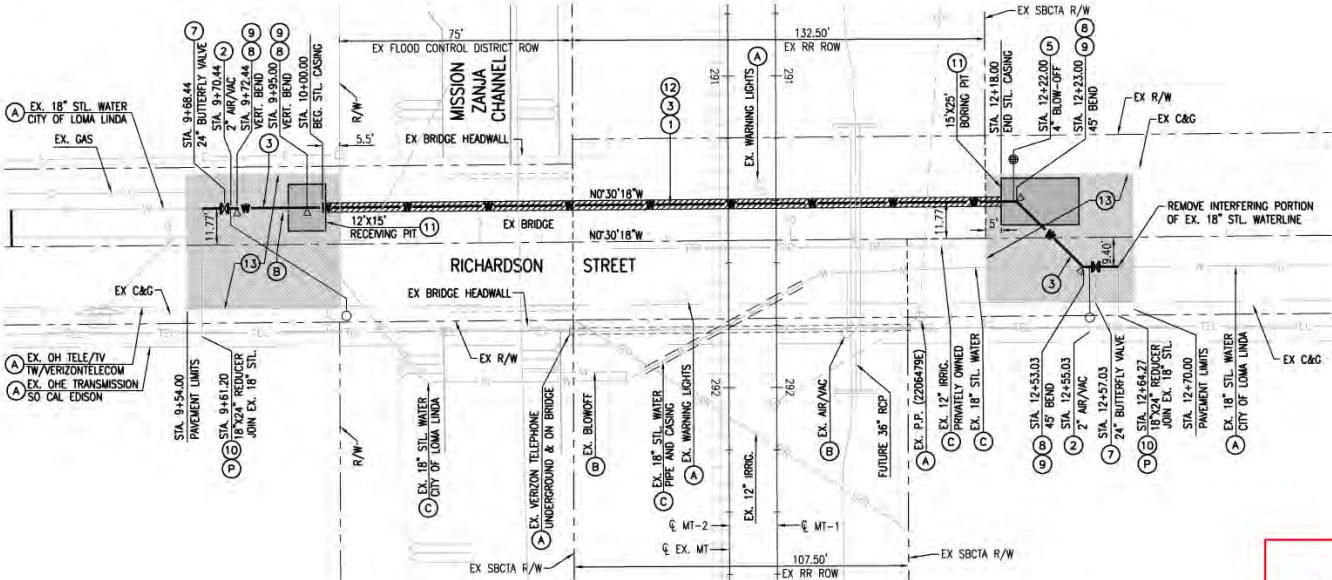


CONSTRUCTION NOTES

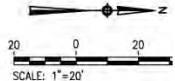
- ① - INSTALL STEEL PIPE CASING PER SCORRA ENGINEERING STD. ES5001
- ② - INSTALL 2" AIR/VACUUM VALVE ASSEMBLY PER CITY OF LOMA LINDA STD. DWG. W6.1
- ③ - INSTALL 24" CML & C STEEL PIPE WELDED JOINTS
- ⑤ - INSTALL 4" BLOW-OFF ASSEMBLY PER CITY OF LOMA LINDA STD. DWG. W
- ⑥ - N/A
- ⑦ - INSTALL 24" BUTTERFLY VALVE
- ⑧ - INSTALL 24" BEND, ANGLE PER PLAN & PROFILE PER PROJECT SPECIFIC
- ⑨ - INSTALL CONCRETE THRUST BLOCK PER CITY OF LOMA LINDA STD. DWG.
- ⑩ - INSTALL 18"x24" REDUCER
- ⑪ - BORING/ RECEIVING PIT
- ⑫ - JACK AND BORE
- ⑬ - LIMITS OF TRENCH REPAIR AND AC PAVEMENT OVERLAY PER CITY OF LOMA LINDA STD. NO. R-9

DISPOSITION NOTES

- (A) - PROTECT IN PLACE (TYPE PER PLAN)
- (B) - REMOVE & DISPOSE EXISTING FACILITY
- (C) - ABANDON EXISTING FACILITY
- (P) - CONTRACTOR TO POT HOLE EXIST. FACILITY PRIOR TO CONSTRUCTION

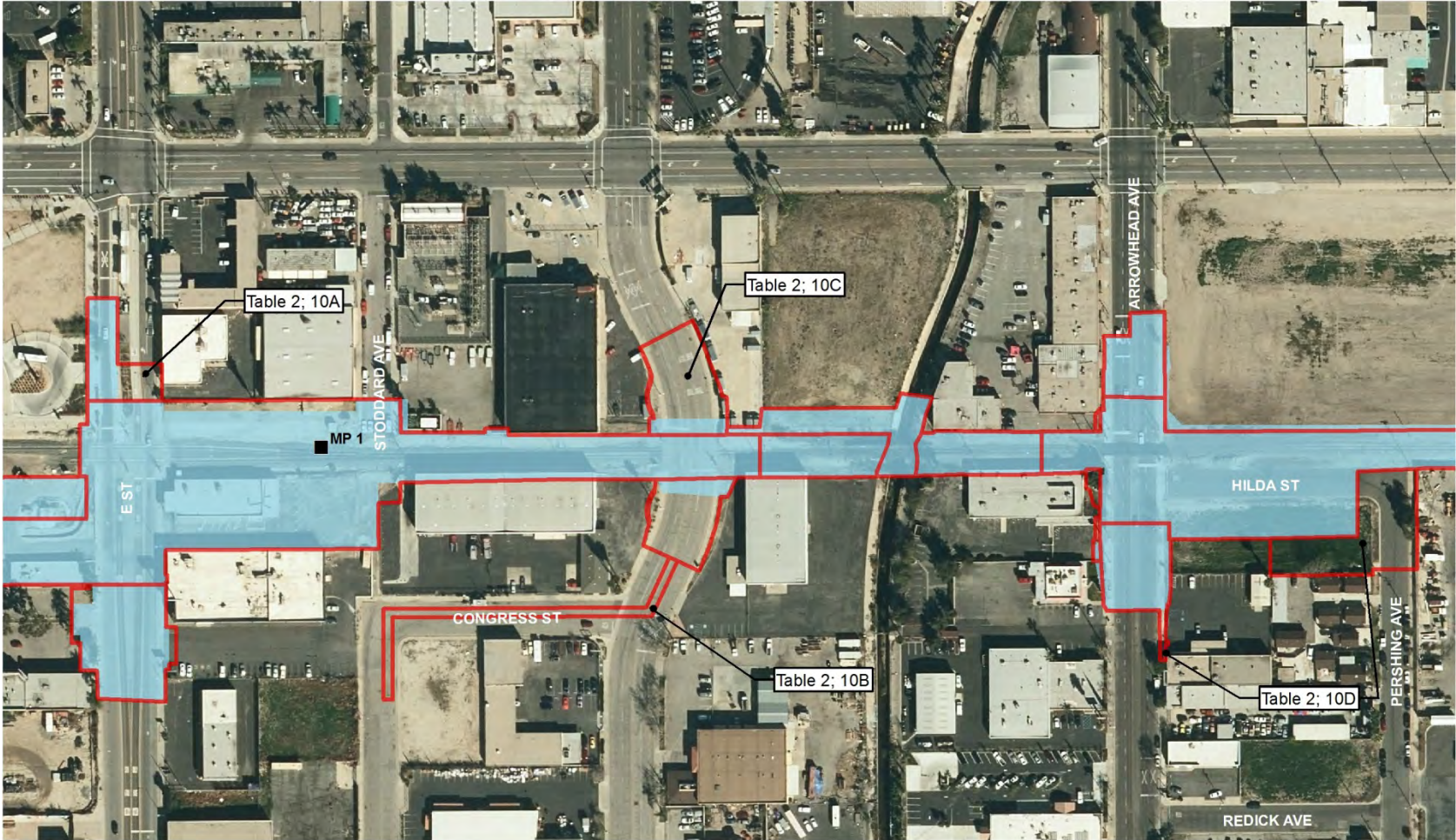


**DRAFT**  
NOT FOR CONSTRUCTION



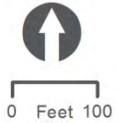
Communication: Draft Addendum 2 - Attachment A (Item 12)

Figure 13: Minor Refinements (E Street to Pershing Avenue)



LEGEND

- Refined Project Footprint
- Approved Project Footprint



Communication: Draft Addendum 2 - Attachment A (Item 12)

Figure 14: Minor Refinements (City Corp Yard)



LEGEND

- Refined Project Footprint
- Approved Project Footprint



Figure 15: Minor Refinements (Shay Street to Mill Street)



LEGEND

- Refined Project Footprint
- Approved Project Footprint

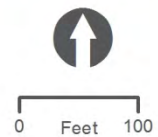


Figure 16: Minor Refinements (Signal House at Central Avenue)



**LEGEND**  
[Red Outline] Refined Project Footprint  
[Blue Shaded Area] Approved Project Footprint



Communication: Draft Addendum 2 - Attachment A (Item 12)

Figure 17: Minor Refinements (Ennis Street to Orange Show Road)



LEGEND

- Refined Project Footprint
- Approved Project Footprint



Communication: Draft Addendum 2 - Attachment A (Item 12)



Figure 18: Minor Refinements (East of SAR to Gage Canal)

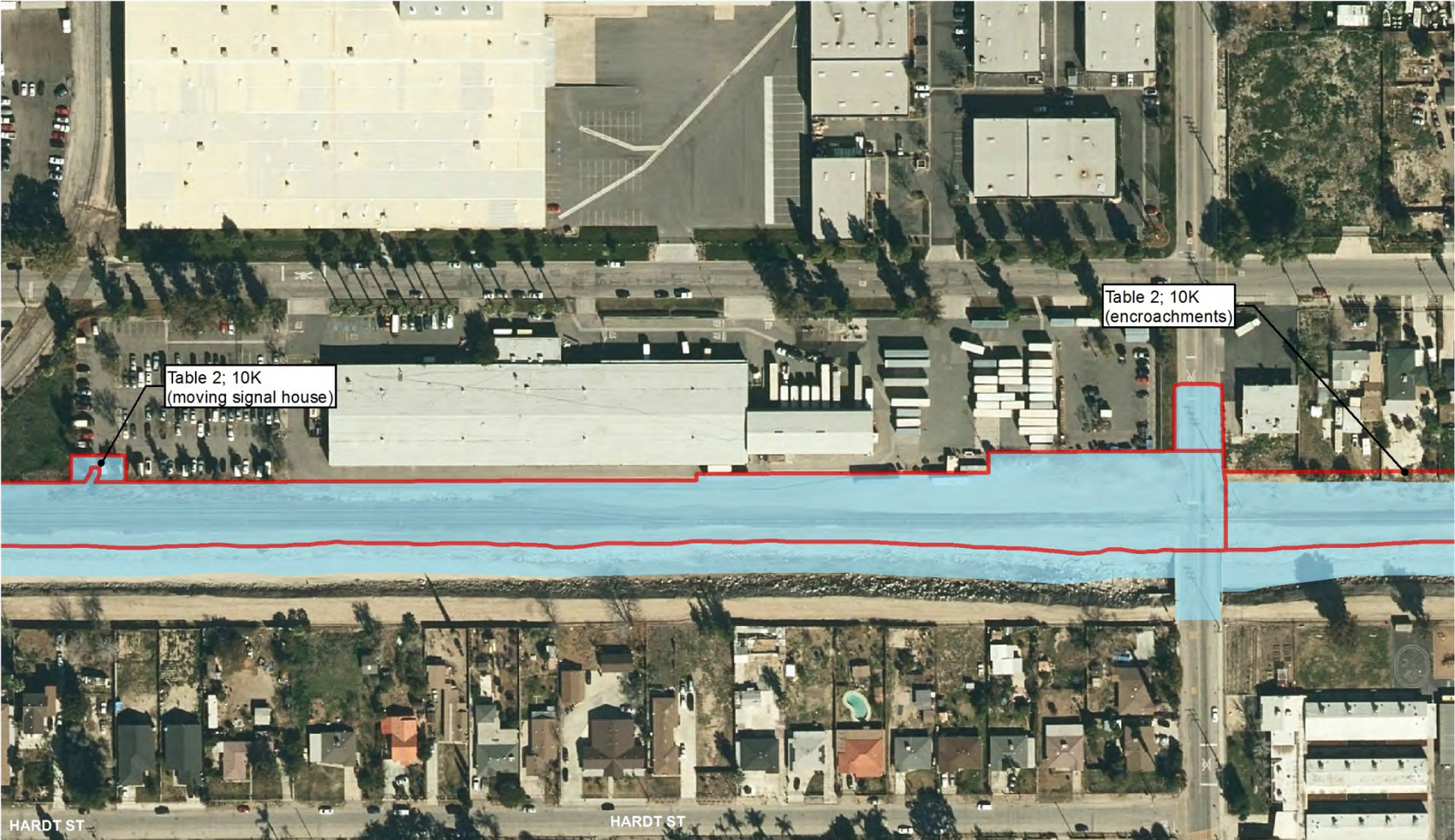


LEGEND

- Refined Project Footprint
- Approved Project Footprint

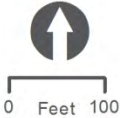


Figure 19: Minor Refinements (East of Tippecanoe Avenue to Richardson Street)



LEGEND

- Refined Project Footprint
- Approved Project Footprint



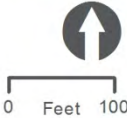
Communication: Draft Addendum 2 - Attachment A (Item 12)

Figure 20: Minor Refinements (Mountain View Avenue)



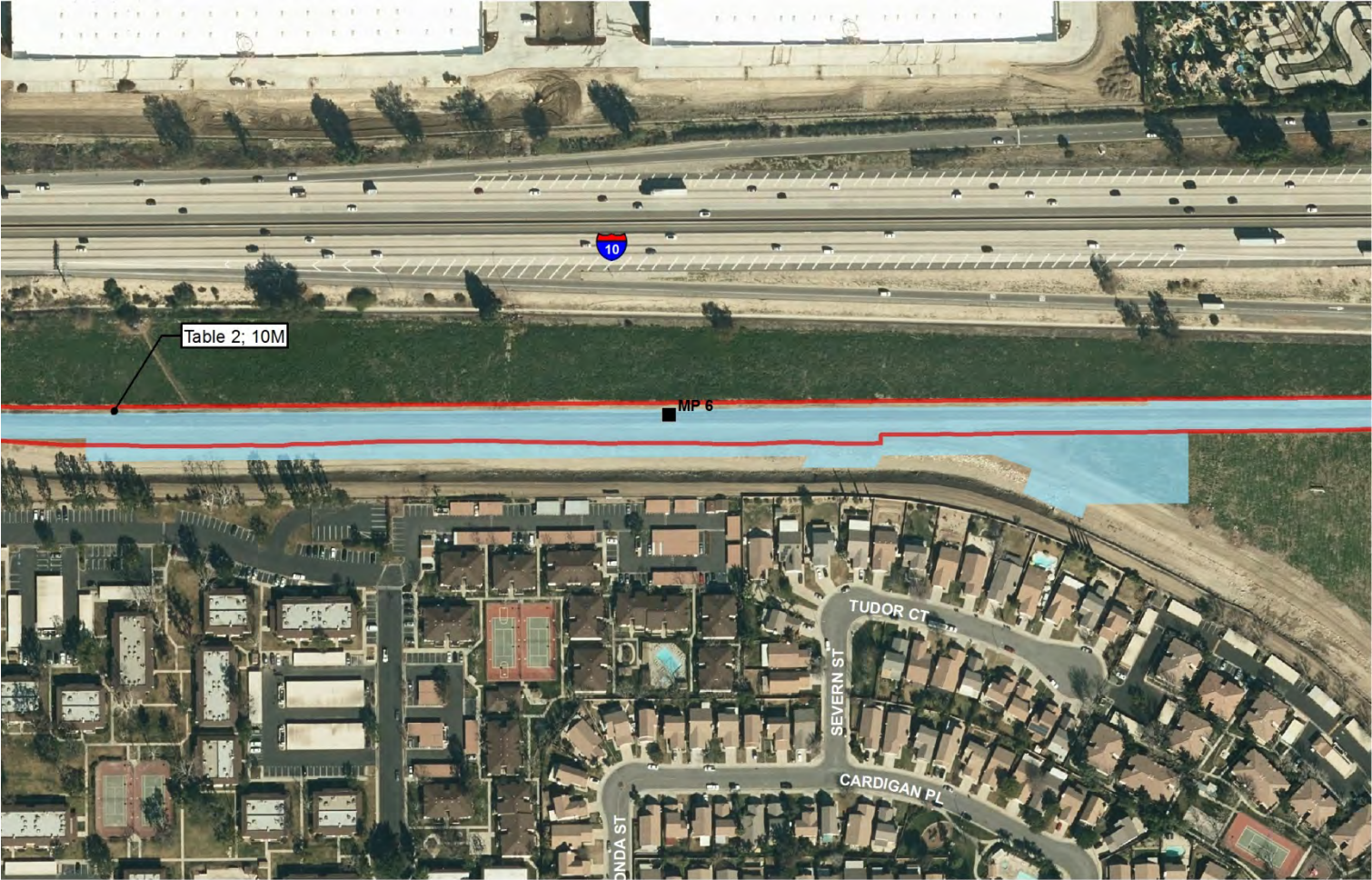
LEGEND

- Refined Project Footprint
- Approved Project Footprint



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Figure 21: Minor Refinements (Bryn Mawr Avenue)

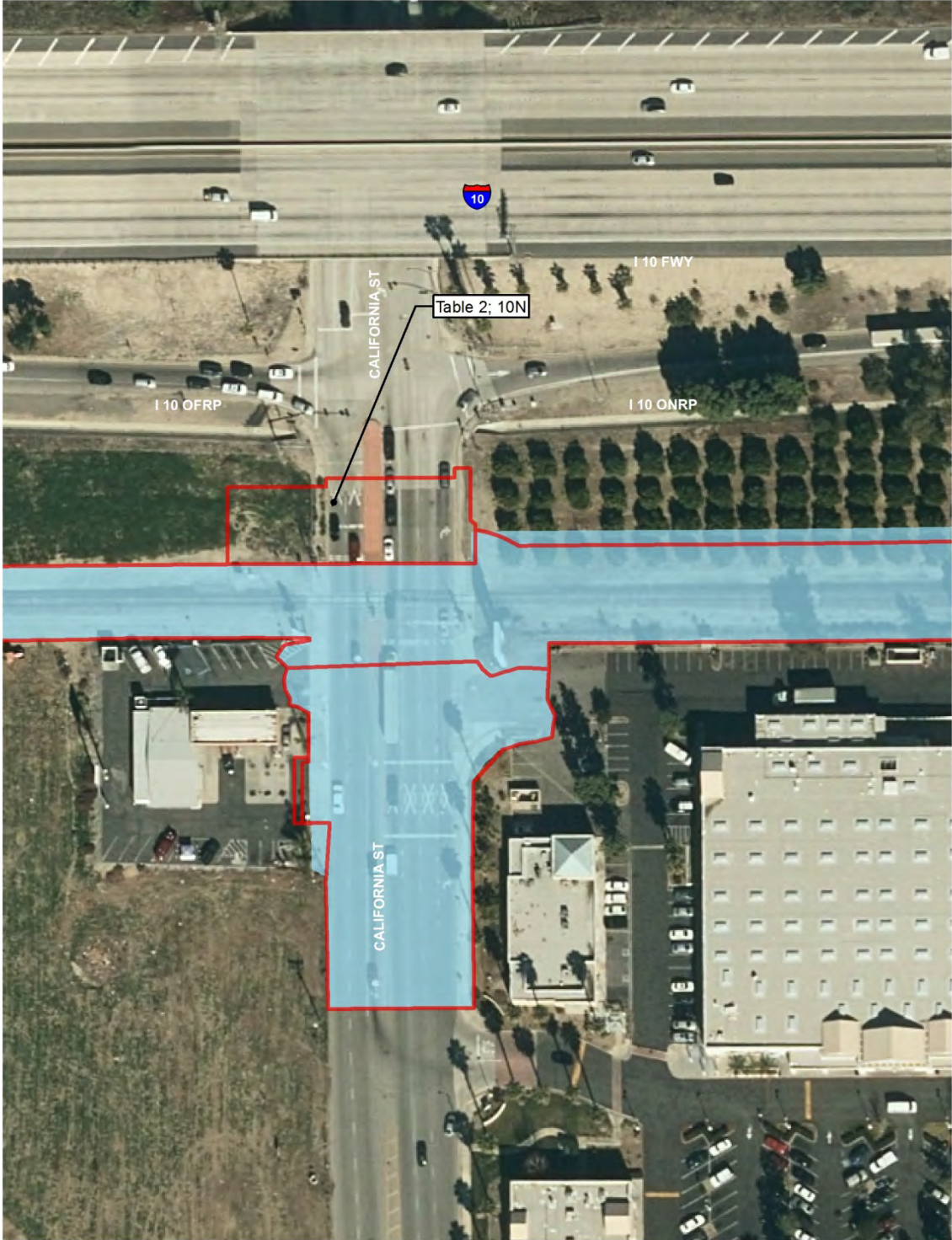


LEGEND

- Refined Project Footprint
- Approved Project Footprint



Figure 22: Minor Refinements (California Street)



LEGEND

-  Refined Project Footprint
-  Approved Project Footprint



0 Feet 100

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Figure 23: Minor Refinements (Alabama Street to East of Colton Avenue)



LEGEND

- Refined Project Footprint
- Approved Project Footprint



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Figure 24: Minor Refinements (Tennessee Street to New York Street)



LEGEND

- Refined Project Footprint
- Approved Project Footprint



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Figure 25: Minor Refinements (Texas Street)



LEGEND

- Refined Project Footprint
- Approved Project Footprint





Figure 26: Minor Refinements (6th Street)



LEGEND

- Refined Project Footprint
- Approved Project Footprint



# Memo

Date: Wednesday, July 26, 2017

Project: Addendum No. 2 to the EIR for the Redlands Passenger Rail Project

To: Justin Fornelli, P. E. Chief of Transit and Rail

From: Ingrid Eich, HDR Engineering, Inc.

Subject: Biological Letter Supporting Addendum No. 2 to the EIR for the Redlands Passenger Rail Project

## 1.0 Introduction

This biological memo addresses refinements to the Redlands Passenger Rail Project (RPRP or approved Project) that have occurred since the certification of the Final Environmental Impact Report (EIR) on March 4, 2015. Specifically, this memo addresses a collection of design refinements that would optimize Project operations or constructability, enhance safety, and/or reduce project costs.

The proposed refinements occur within and immediately adjacent to previously surveyed areas associated with the approved Project. Aerial imagery available on Google Earth ([www.googleearth.com](http://www.googleearth.com)) was used to identify land uses and potential biological resources within proposed refinement areas that occur adjacent to but outside of the original survey area covered in the Biological Technical Report (BTR) that was prepared in conjunction with the approved Project and included in Appendix of the Final EIR. These new areas generally occur within urban developed and disturbed areas. Sarah Barrera confirmed the findings of the desktop assessment during a field reconnaissance visit on March 10, 2017.

The BTR included a review of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB) Rarefind program and California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California for special-status species with potential to occur in the vicinity of the approved Project. The CNDDDB, and CNPS record search results are found in the BTR (HDR 2015) and are incorporated by reference for the purposes of the memo.

The USFWS on-line Critical Habitat Mapper was used to determine potential for federally-designated critical habitat to overlay the proposed improvements. Additional resources used to characterize existing site conditions included: USFWS National Wetland Inventory (NWI) dataset, Natural Resource Conservation Service (NRCS) Soil Mapping (HDR 2015), and aerial imagery available on Google Earth ([www.google earth.com](http://www.googleearth.com)).

### 1.1 Project Location

The refined Project improvements encompass the same general Study Area as described for the approved Project, which extends along existing railroad right-of-way (ROW) owned by



SBCTA between the cities of San Bernardino and Redlands, San Bernardino County, California (see Figure 1).

### 1.1.1 Refined Project

Subsequent to Project approval in 2015, SBCTA has advanced the Project's design to 90 percent. As part of the Project's final design, SBCTA is proposing several minor design refinements to the approved Project, as was previously defined and analyzed in the EIR. The design refinements comprise of a series of physical and operational improvements.

SBCTA is proposing ten (10) design refinements to the approved Project. Tables 1 and 2 provide a summary of these refinements in relation to the improvements originally contemplated in the approved Project (and EIR).

**Table 1. Comparison of Approved Project (2015 EIR) and Proposed Design Refinements (June 2017)**

Design Basin for Refinement	Refinement Tracking No.	Approved Project (2015 EIR)	Proposed Refinements (90% Design Refinements– June 2017)	Milepost(s)	Figure No.
Track Optimization: Single Track Bridge Structures	1a	<ul style="list-style-type: none"> <li>Double-track bridge and supporting structural foundations at Santa Ana Bridge</li> </ul>	<ul style="list-style-type: none"> <li>Single-track bridge and supporting structural foundations at mile post MP 3.4.</li> <li>The smaller bridge foundations would remain within the previously analyzed footprint</li> </ul>	3.4	--
	1b	<ul style="list-style-type: none"> <li>Double-track bridges and supporting structural foundations at Mill Creek Zanja (MCZ) Bridge</li> </ul>	<ul style="list-style-type: none"> <li>Single-track bridge and supporting structural foundations at mile post MP 9.4.</li> <li>The smaller and reduced number of bridge foundations would remain within the previously analyzed footprint</li> </ul>	9.4	--
Track Optimization: Single Track Alignment	2	<ul style="list-style-type: none"> <li>Construct a double-track (ready) alignment throughout the entire Project.</li> </ul>	<ul style="list-style-type: none"> <li>Construct a single-track alignment throughout</li> <li>Maintain passing siding from Richardson Street to California Street (approx. MP 5.5 and 7.4).</li> <li>Optimize track alignment for single track (expect from 5.5 to 7.4)</li> <li>Improvements confined to approved footprint</li> </ul>	1.0 to 5.5 7.4 to 10	--



Table 1. Comparison of Approved Project (2015 EIR) and Proposed Design Refinements (June 2017)

Design Basin for Refinement	Refinement Tracking No.	Approved Project (2015 EIR)	Proposed Refinements (90% Design Refinements– June 2017)	Milepost(s)	Figure No.
Operational Enhancements: Station Reconfigurations	3a	<ul style="list-style-type: none"> <li>New platforms with one (1) platform edge at each railway station.</li> </ul>	<ul style="list-style-type: none"> <li>New platforms to include two (2) platform edges at terminal stations (E Street Station and University of Redlands Station)</li> <li>Operational enhancement</li> <li>Improvements confined to approved footprint</li> </ul>	1.0, 4.2, 8, 8.8 and 10.0	--
	3b	<ul style="list-style-type: none"> <li>Platform edge lengths to range from 150-200 feet</li> </ul>	<ul style="list-style-type: none"> <li>Event platform at University Station</li> <li>Increase platform edge length at terminal stations to 350 feet.</li> <li>Increase platform lengths to 170 feet at intermediate stations</li> <li>Operational enhancement</li> <li>Improvements confined to approved footprint</li> </ul>	1.0, 8.9, and 10.0	--
Operational Enhancement: Reconfigure E Street Station Stop	4	<ul style="list-style-type: none"> <li>E Street Station – construct tracks south of station, in parallel with Metrolink tracks</li> </ul>	<ul style="list-style-type: none"> <li>No construction of parallel tracks, DMUs will arrive at SBTC from maintenance facility</li> <li>Operational enhancement</li> <li>Reduction from previously analyzed footprint</li> </ul>	1.0	--
Relocate Metrolink Train Turns to Downtown Redlands: Downtown Metrolink Siding	5	<ul style="list-style-type: none"> <li>Metrolink Train to stop and turn-around at University Station</li> </ul>	<ul style="list-style-type: none"> <li>Removal of stop and turn-around at University Station for Metrolink Trains</li> <li>Requested by University</li> <li>Improvements remain within approved Project footprint</li> </ul>	10.0	--
	6	<ul style="list-style-type: none"> <li>Construction of double track east of Church Street for Metrolink Train turns</li> </ul>	<ul style="list-style-type: none"> <li>Implement two-stage siding track east of Downtown Redlands Station.</li> <li>600-foot siding track to be placed east of 9th Street and west of Church Street (Option B). This would result in a 0.5 percent reduction in track slope.</li> <li>Improvements would be contained within SBCTA's ROW.</li> </ul>	9.0	--

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Table 1. Comparison of Approved Project (2015 EIR) and Proposed Design Refinements (June 2017)

Design Basin for Refinement	Refinement Tracking No.	Approved Project (2015 EIR)	Proposed Refinements (90% Design Refinements– June 2017)	Milepost(s)	Figure No.
Crossing Closures – Retain 7th Street At-Grade Crossing	7	<ul style="list-style-type: none"> <li>Close existing crossing at 7th Street; create cul-de-sac on south side of crossing; install guard post barricades on north side of crossing, and fencing; maintain pedestrian access</li> </ul>	<ul style="list-style-type: none"> <li>Retain 7th Street at-grade crossing</li> <li>Improvements confined to approved footprint</li> <li>Traffic analysis assumed worst case (closure with ped crossing); retention of crossing improves traffic flow</li> </ul>	9.0	--
Expanded Contractor Staging and Access	8	<ul style="list-style-type: none"> <li>Contractor staging within SBCTA ROW, vacated roadway (e.g. Hilda Street closure), and layover site at California Street</li> </ul>	<ul style="list-style-type: none"> <li>Contractor staging at:                             <ul style="list-style-type: none"> <li>Private property northwest of Twin Creek</li> <li>Private property northeast of Santa Ana River</li> </ul> </li> <li>Access along Gage Canal (from north)</li> <li>SBCTA property in downtown Redlands (between 7th and 9th Streets)</li> <li>SBCTA ROW (between Cook and Grove)</li> </ul>	2, 3.8, 9, and 10.1	2
Utility Relocation – Jack and Bore of Loma Linda Water Line	9	<ul style="list-style-type: none"> <li>Approved project contemplated new and relocated utilities, including water, sewer, storm drain, power, gas, fiber optic, and telephone lines.</li> </ul>	<ul style="list-style-type: none"> <li>Relocate Loma Linda Water Line located at Richardson Street. Proposed installation by jack and bore construction technique.</li> </ul>	4.5	3
Minor Refinements to Limits of Construction (Non-Sensitive Areas)	10	<ul style="list-style-type: none"> <li>Approved Project contemplated auxiliary improvements such as at-grade roadway crossings, pedestrian access, and new and relocated utilities. .</li> </ul>	<ul style="list-style-type: none"> <li>See Table 2 for a complete listing of minor Project refinements to the limits of construction in non-sensitive areas</li> </ul>	1 through 10	See Table 2

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Table 2. Minor Refinements to Limits of Construction (Non-Sensitive Areas)

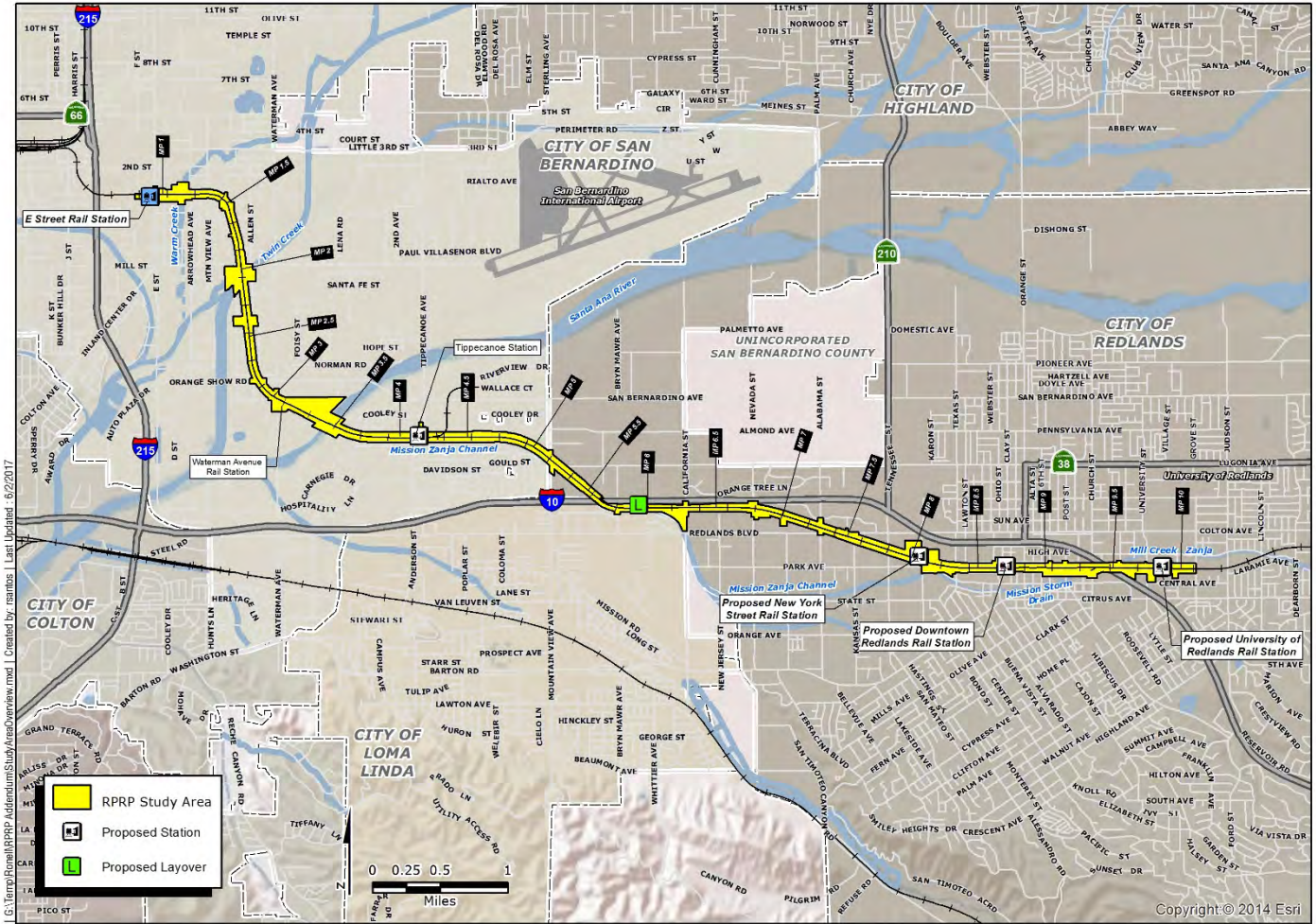
Refinement Tracking No.	Minor Refinements to the Limits of Construction	Figure No.
10A	Sidewalk extension at E Street (north)	4
10B	Include water line at Stoddard Ave.	
10C	D Street Cul-de-sac	
10D	Extend sidewalk on Arrowhead St. and Hilda extended closure	
10E	Extend work area at City Corp Yard south	5
10F	Add fencing easements (north of Mill; east of Sierra Ave)	6
10G	Add utility easement at NE quadrant at Mill and ROW; Add sidewalk on NE	
10H	Expanded area for signal house at Central (SW quadrant)	7
10I	Expanded area for utility and sidewalk improvements at Orange Show Road and Ennis Road	8
10J	Upland drainage connection, east of Tippecanoe Ave.	2
10K	Extend work area north to ROW line; east of Richardson for signal house	9
10L	Expanded work limits on Mountain View (north); add fencing	10
10M	Add ditch west of Bryn Mawr; expand ROW north 10 feet	11
10N	Expanded area for signal house and sidewalks at California Street crossing	12
10O	Expanded area for signal house and access at Alabama, Colton, and Redlands	13
10P	Extend construction limits south to Redland Blvd, east of Colton	
10Q	Expanded work area for sidewalks at Tennessee and Redlands Blvd.	14
10R	ESRI fiber network connection	
10S	Expanded work area for utilities, signal, access, and sidewalks at Texas Street and Redlands Blvd.	15
10T	Expanded work area for utilities at 6th Street	16



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Figure 1 Region and Vicinity Map







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## 2.0 Evaluation – Area of Potential Effect

### Special-Status Vegetation

Vegetation was classified using the R.F. Holland system of natural communities as described in *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland R.F. 1986). Detailed descriptions of vegetation communities and land cover types found within the refined Project area can be found in the 2015 BTR (HDR 2015), which is provided as Appendix I of the Final EIR. The refined Project improvements that extend beyond the approved Project footprint support three vegetation communities: disturbed habitat (DH; Holland Code 11300), non-native grassland (NNG; Holland Code 42200) and urban developed (UD; Holland Code 12000) (see Figure 2). In reviewing the CDFW Natural Communities List (CDFW 2010), no sensitive vegetation communities occur within the refined Project area where it has extended beyond the approved Project footprint.

Refinements 1 through 7 described within Table 1 are confined within the approved footprint and therefore result in the same or reduced impacts to biological resources as the approved project. Minor Modifications 10A, 10B, 10C, 10E, 10F, 10G, 10J, 10L, 10M, 10O, 10P, 10Q and 10R described in Table 2 are all located on developed lands with no potential to support special status biological resources. Therefore, these refinements are not further addressed in this report.

### Special-Status Species

Several sensitive botanical and zoological species are known to occur within the vicinity of the RPRP (HDR 2015).

Based on the updated survey, Refinement 8 (Gage Canal Access, SBCTA property in downtown Redlands (between 7th and 9th Streets) and Staging between Cook and Grove) and Minor Modifications to the Construction Limits 10D, 10H, 10I, 10K, 10N and 10S support suitable habitat for the following sensitive species:

- Smooth tarplant (*Centromadia pungens* ssp. *laevis*; CNPS list 1B.1) - low/moderate potential to occur
- Western burrowing owl (*Athene cunicularis hypugaea*; SSC<sup>1</sup>) - low/moderate potential to occur
- Loggerhead shrike (*Lanius ludovicianus*; SSC) (foraging only) - low/moderate potential to occur
- Migratory Bird Treaty Act (MBTA) protected avian species

Refinement 8 Staging Area northeast of the Santa Ana River Bridge is within 300 feet of potential least Bell's vireo and southwestern willow flycatcher habitat.

Additional information on these species can be found in the BTR (HDR 2015). Details

<sup>1</sup> SSC- State Species of Concern, CNPS – California Native Plant Society



## U.S. Army Corps of Engineers (USACE) and CDFW Jurisdictional Areas

Refinement 9, Loma Linda Water Line Relocation, crosses Mission Zanja Channel which is subject to USACE regulation pursuant to Section 404 of the Clean Water Act and to CDFW regulation pursuant to Section 1602 of the California Fish and Wildlife Code. This Project refinement consists of relocating the water line beneath the existing Mission Zanja Channel using jack and bore techniques. The bore pits are located in developed areas.

### 2.1 Direct Impacts

#### Sensitive Botanical and Zoological Species

##### Construction

Implementation of Refinement 8 (Gage Canal Access and Staging between Cook and Grove) and Minor Modifications 10D, 10H, 10I, 10K, 10N and 10S has the potential to directly impact suitable habitat for smooth tarplant (NNG and DH), burrowing owl (NNG), loggerhead shrike foraging (NNG) and ground-nesting migratory birds (NNG). Potential impacts to these species are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of Mitigation Measures **BIO-1, BIO3, BIO-4 and BIO-5**, as identified in SBCTA's adopted Mitigation Monitoring and Reporting Program (MMRP), included as Attachment A.

##### Operation

No direct impacts would result following construction of the proposed improvements. Similar to existing conditions, future operation and maintenance activities at Mission Zanja Channel would be conducted by the County Flood Control District and within the railroad ROW by SCRRA, including mowing. Long-term impacts would be less than significant.

#### USACE and CDFW Jurisdictional Areas

Implementation of proposed Refinement No. 9 (jack-and-bore under Mission Zanja Channel) has the potential to directly impact USACE and CDFW jurisdictional areas in the event of a frac-out. SBCTA will require the contractor to prepare a Frac-Out Contingency Plan that identifies Best Management Practices (BMPs) in the event of a frac-out during boring.

Potential impacts to USACE and CDFW jurisdiction are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of Mitigation Measure BIO-6 as identified in SBCTA's adopted Mitigation Monitoring and Reporting Program (MMRP), included as Attachment A..

## 2.2 Indirect Impacts

### Sensitive Botanical and Zoological Species

#### Construction

Should sensitive botanical or zoological species occur adjacent to the refined Project area, there is the potential to indirectly impact these species during construction. Indirect impacts to sensitive botanical and zoological species and migratory birds would generally be attributed to temporary construction-related dust and water quality effects. For example, hazardous materials leaks, such as fuel, hydraulic fluid, and/or lubricants, from equipment working in or around occupied habitat. In addition, construction-related noise levels at the staging area northeast of the Santa Ana River Bridge (Refinement 8) have the potential to indirectly impact least Bell's vireo. These impacts are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of the Mitigation Measures **BIO-1, BIO-2, BIO-4, BIO-3, BIO-5, HWQ-2** and **HWQ-3**), as identified in the MMRP.

#### Operation

Similar to existing conditions, Mission Zanja Channel will be maintained by the County Flood Control District and the railroad ROW will be maintained by SCRRA. No indirect impacts to special-status botanical or zoological species are expected as a result of these Project refinements once operational.

### USACE and CDFW Jurisdictional Areas

#### Construction

Similar to the approved Project, the proposed improvements could indirectly impact potential USACE WoUS and CDFW unvegetated streambed. Indirect impacts would mainly come in the form of indirect water quality impacts resulting from construction activities. Pollutants of concern for jurisdictional areas include erosion of soil materials and corresponding increases in sedimentation and the discharge of hazardous materials or debris from construction equipment. These impacts are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of the Mitigation Measures **BIO-6, HWQ-2, and HWQ-3** (see Attachment A).

#### Operation

The water line is being placed 5 feet below the channel bottom. Surface features will remain unchanged. Therefore, no indirect impacts to USACE and CDFW jurisdictional areas would be expected as a result of operation.



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Figure 2A: Proposed Project Refinement 8 Overlaid on Existing Biological Resources



LEGEND

- |                            |                          |  |
|----------------------------|--------------------------|--|
| Refined Project Footprint  | Disturbed Habitat        | Southern Cottonwood Willow Riparian Forest |
| Approved Project Footprint | Non Jurisdictional Ditch | Tamarisk Scrub                             |
|                            | Non-native Grassland     | Urban/Developed                            |
|                            | NonVegetated Channel     |  |



Figure 2B: Proposed Project Refinement 8 Overlaid on Existing Biological Resources



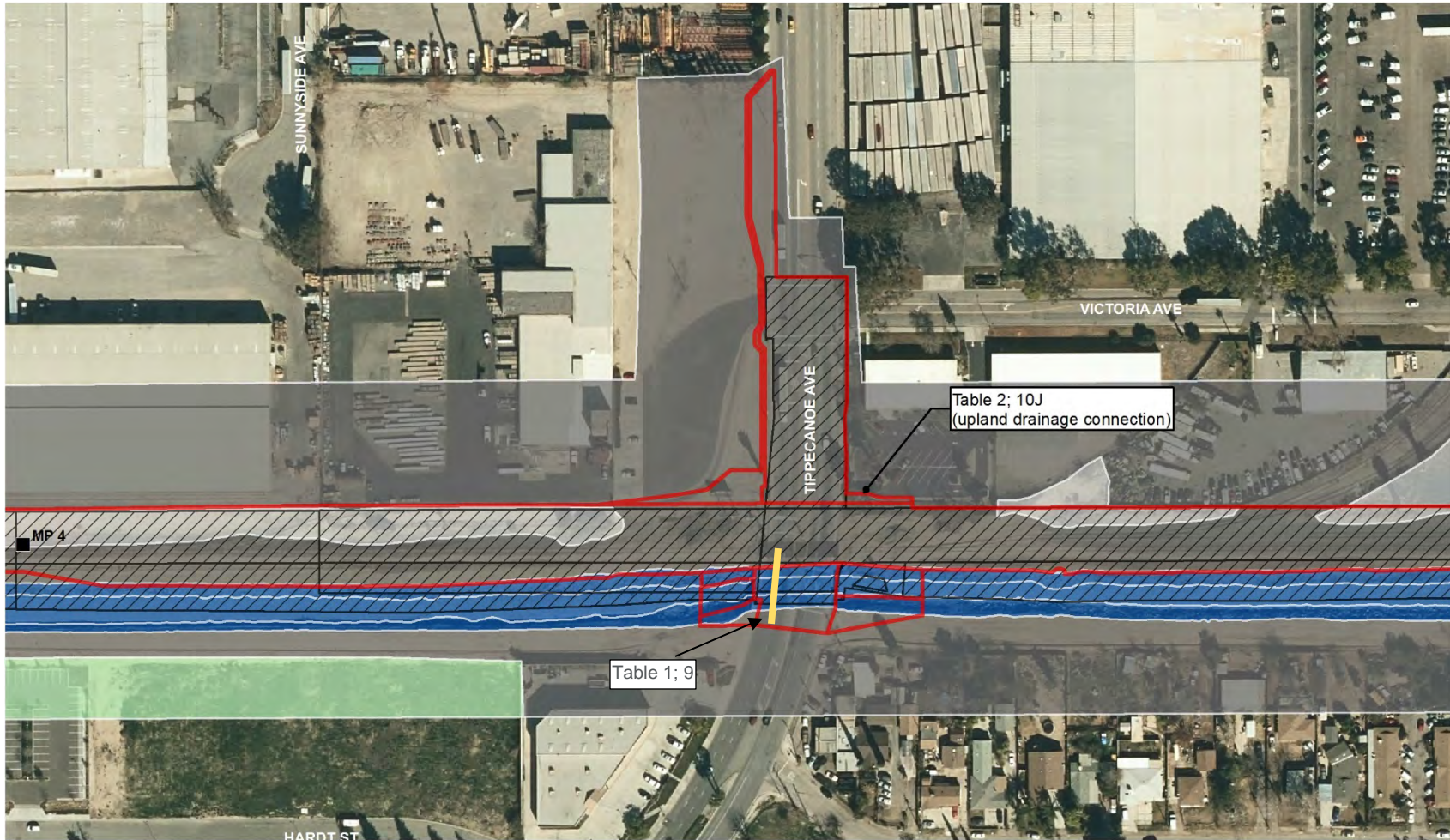
LEGEND

- Refined Project Footprint
- Approved Project Footprint
- Disturbed Habitat
- Non-native Grassland
- Oak Woodland
- Urban/Developed



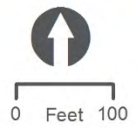
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Figure 3: Proposed Project Refinement 9 and 10J Overlaid on Existing Biological Resources



LEGEND

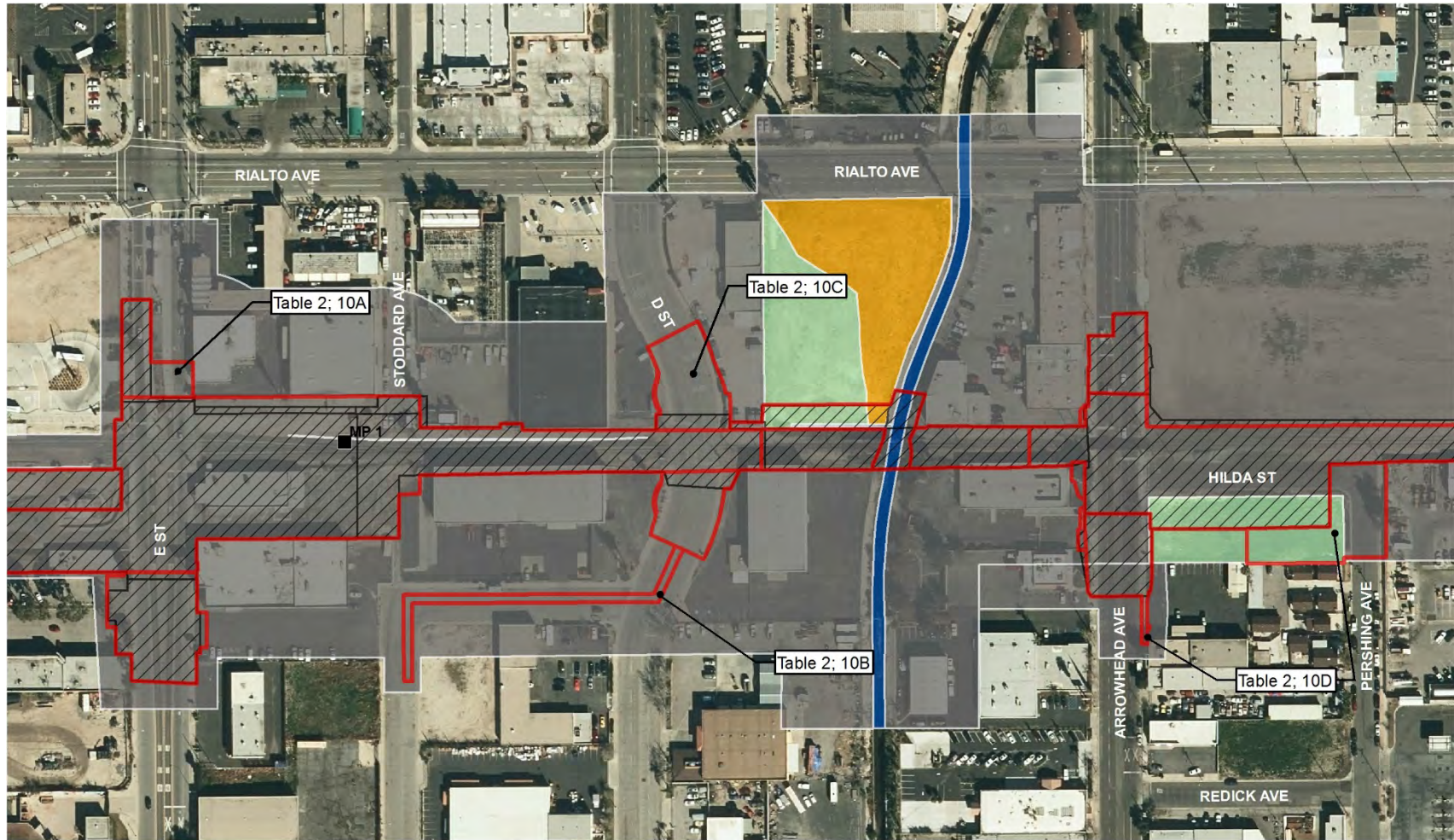
- Refined Project Footprint
- Disturbed Habitat
- NonVegetated Channel
- Approved Project Footprint
- Non-native Grassland
- Urban/Developed



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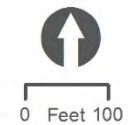


Figure 4: Proposed Project Refinements 10A-10D Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Flat-top Buckwheat Scrub
- Non-Vegetated Channel
- Approved Project Footprint
- Non-Jurisdictional Ditch
- Urban/Developed
- Non-native Grassland



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Figure 5: Proposed Project Refinement 10E Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Approved Project Footprint
- Non-native Grassland
- Urban/Developed



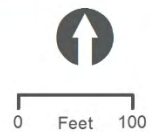
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Figure 6: Proposed Project Refinements 10F- 10G Overlaid on Existing Biological Resources



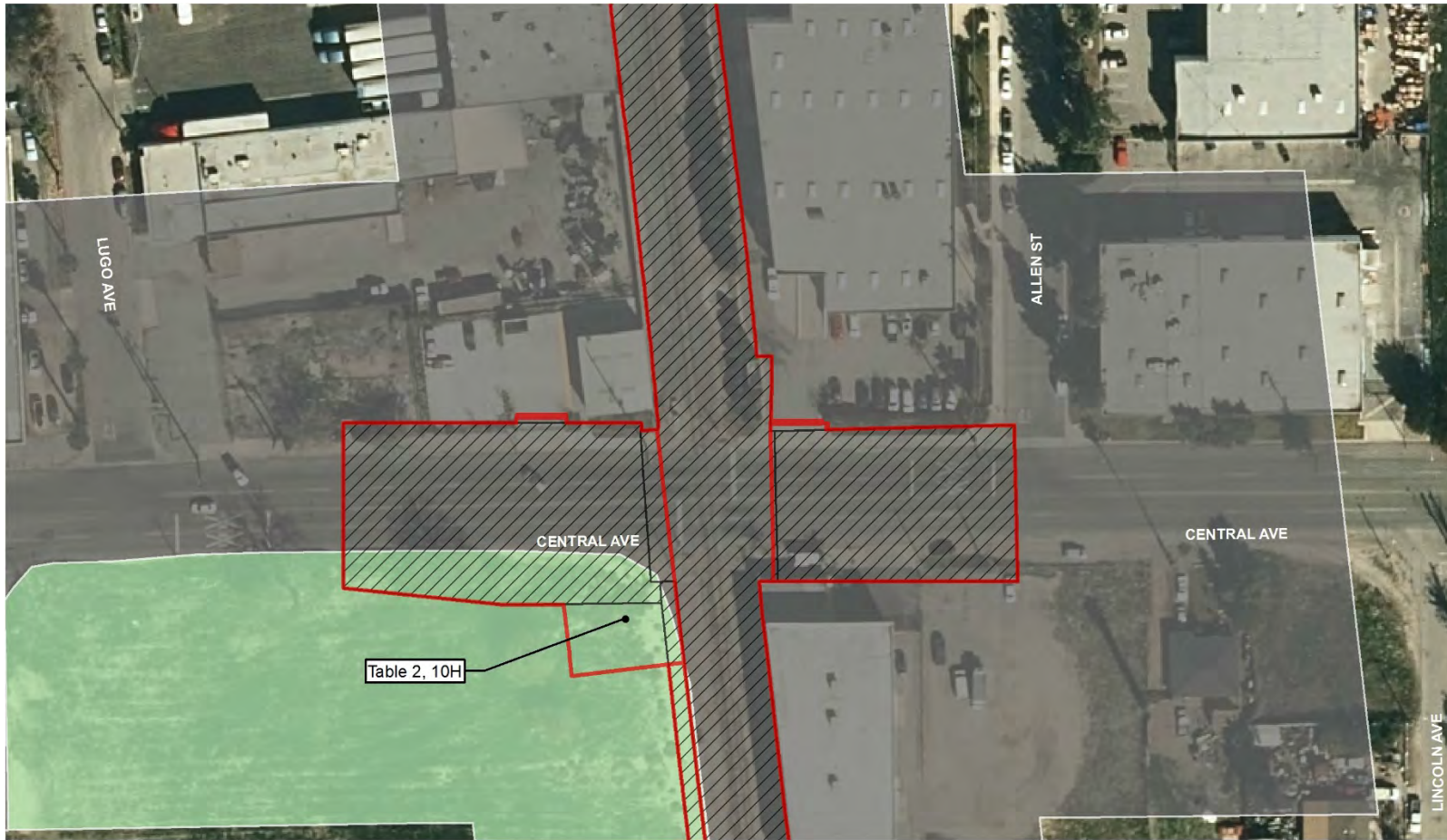
LEGEND

- Refined Project Footprint
- Approved Project Footprint
- Disturbed Habitat
- Non-native Grassland
- NonVegetated Channel
- Urban/Developed



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Figure 7: Proposed Project Refinement 10H Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Non-native Grassland
- Urban/Developed
- Approved Project Footprint





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Figure 8: Proposed Project Refinement 10I Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Approved Project Footprint
- Disturbed Habitat
- Non-native Grassland
- Urban/Developed



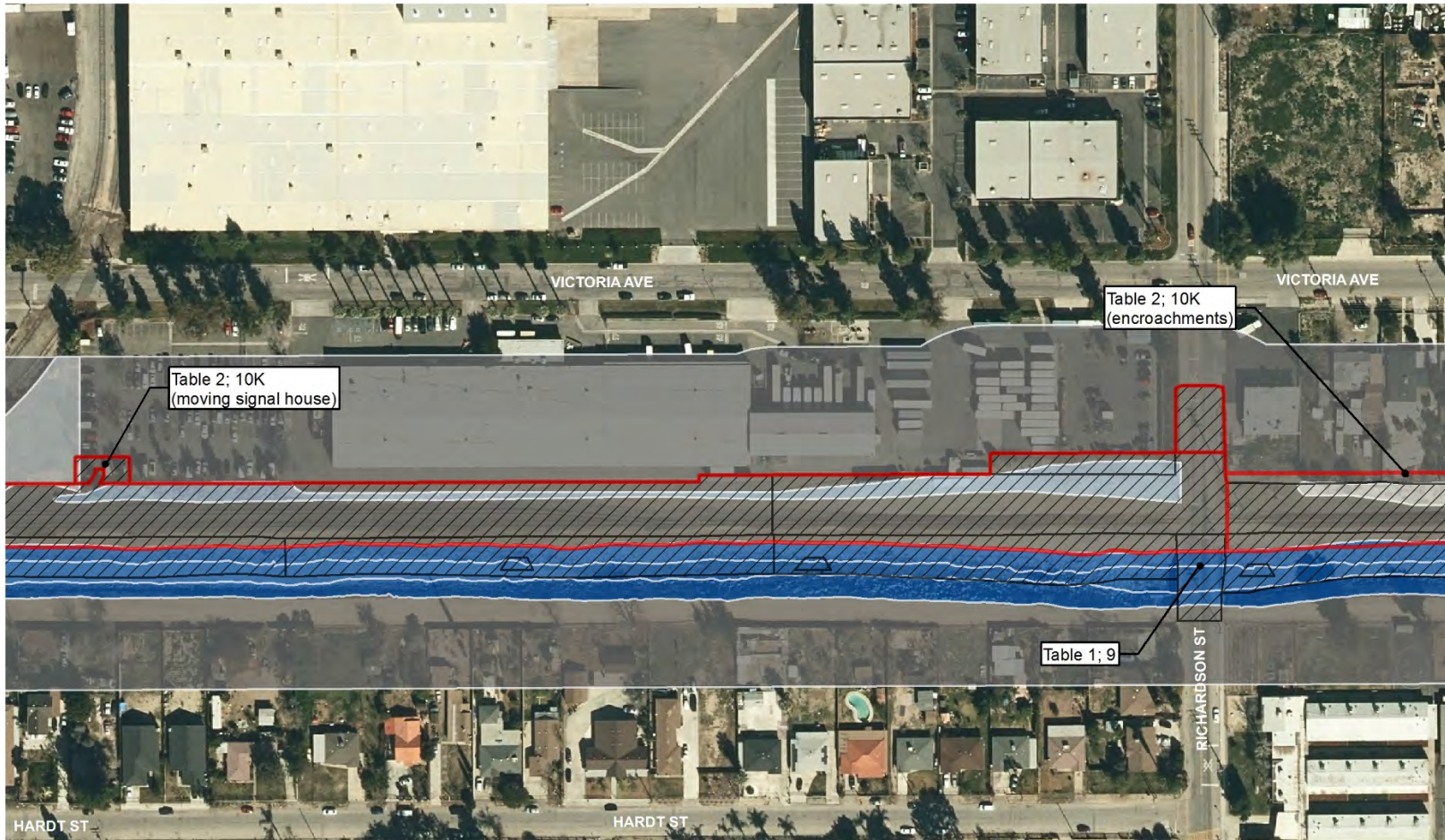
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Figure 9: Proposed Project Refinement 10K Overlaid on Existing Biological Resources



LEGEND

- Red outline: Refined Project Footprint
- Hatched box: Approved Project Footprint
- Light blue box: Disturbed Habitat
- Dark blue box: NonVegetated Channel
- Light blue box: Non Jurisdictional Ditch
- Grey box: Urban/Developed

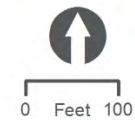






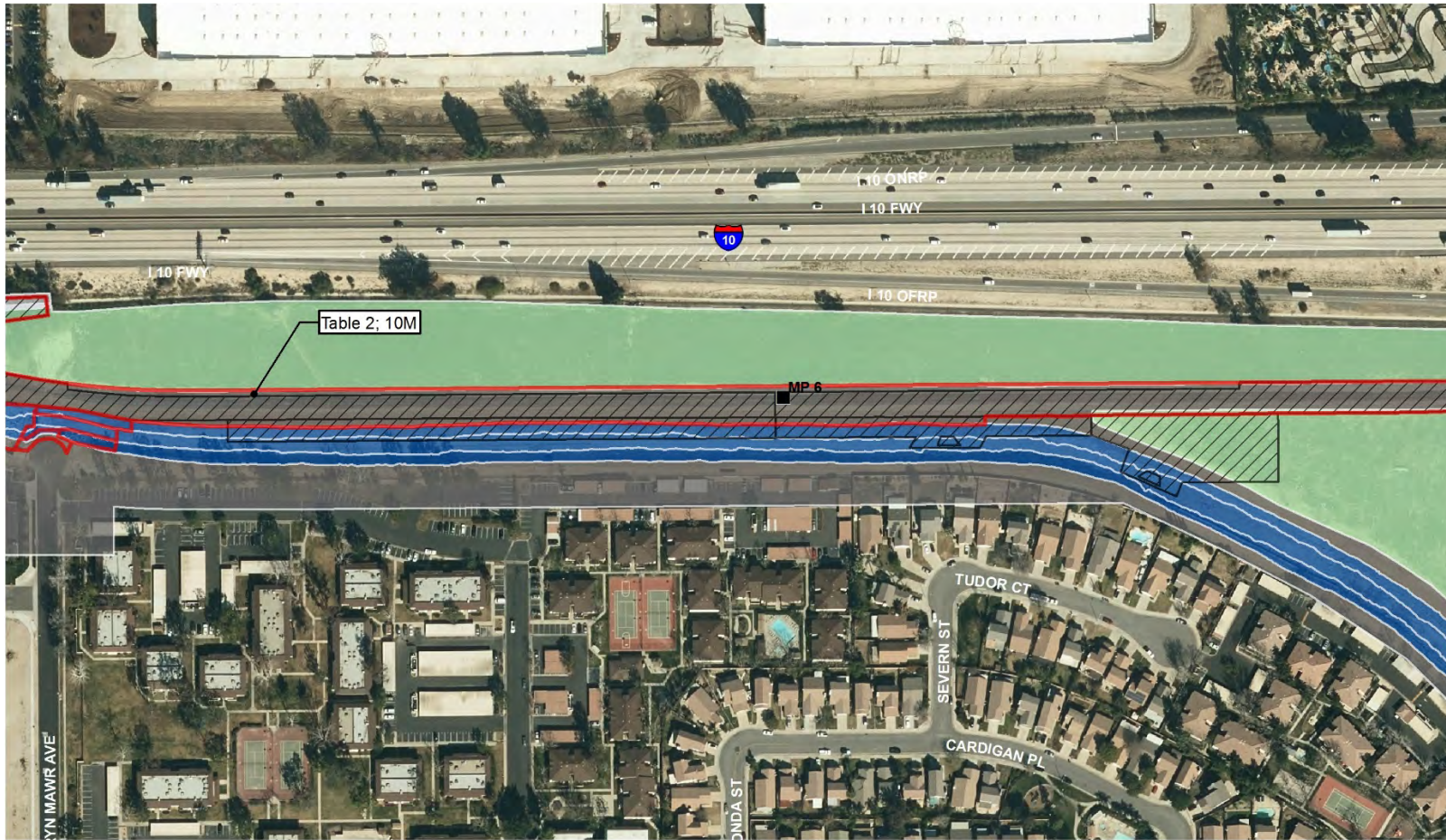
Figure 10: Proposed Project Refinement 10L Overlaid on Existing Biological Resources



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Figure 11: Proposed Project Refinement 10M Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Disturbed Habitat
- Non-Vegetated Channel
- Approved Project Footprint
- Non-Jurisdictional Ditch
- Urban/Developed
- Non-native Grassland



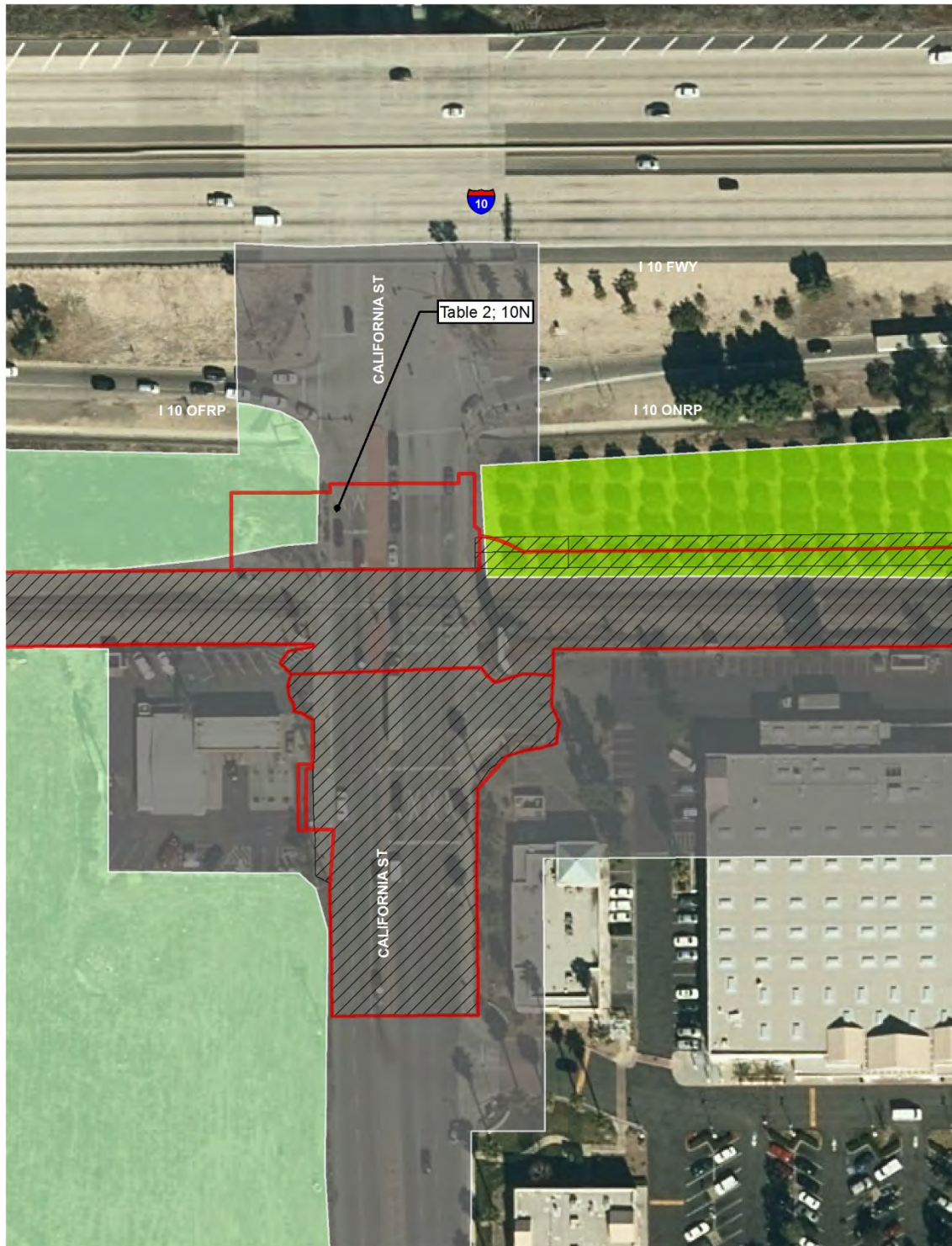
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Figure 12: Proposed Project Refinement 10N Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Approved Project Footprint
- Non-native Grassland
- Non-Vegetated Channel
- Orchard and Vineyards
- Urban/Developed



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Figure 13: Proposed Project Refinement 100-10P Overlaid on Existing Biological Resources



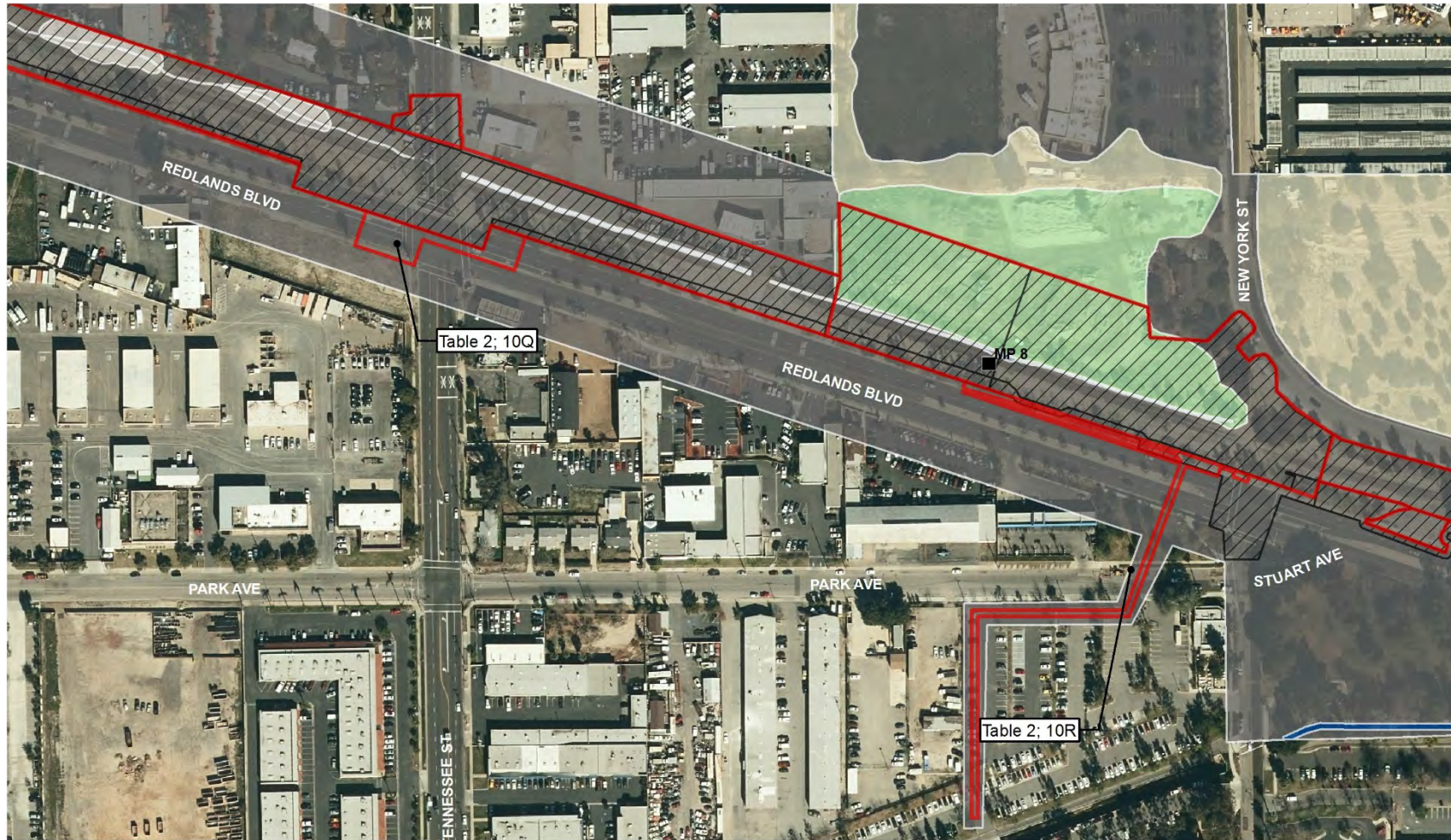
LEGEND

- Refined Project Footprint
- Disturbed Habitat
- Urban/Developed
- Approved Project Footprint
- Non Jurisdictional Ditch



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Figure 14: Proposed Project Refinement 10Q-10R Overlaid on Existing Biological Resources



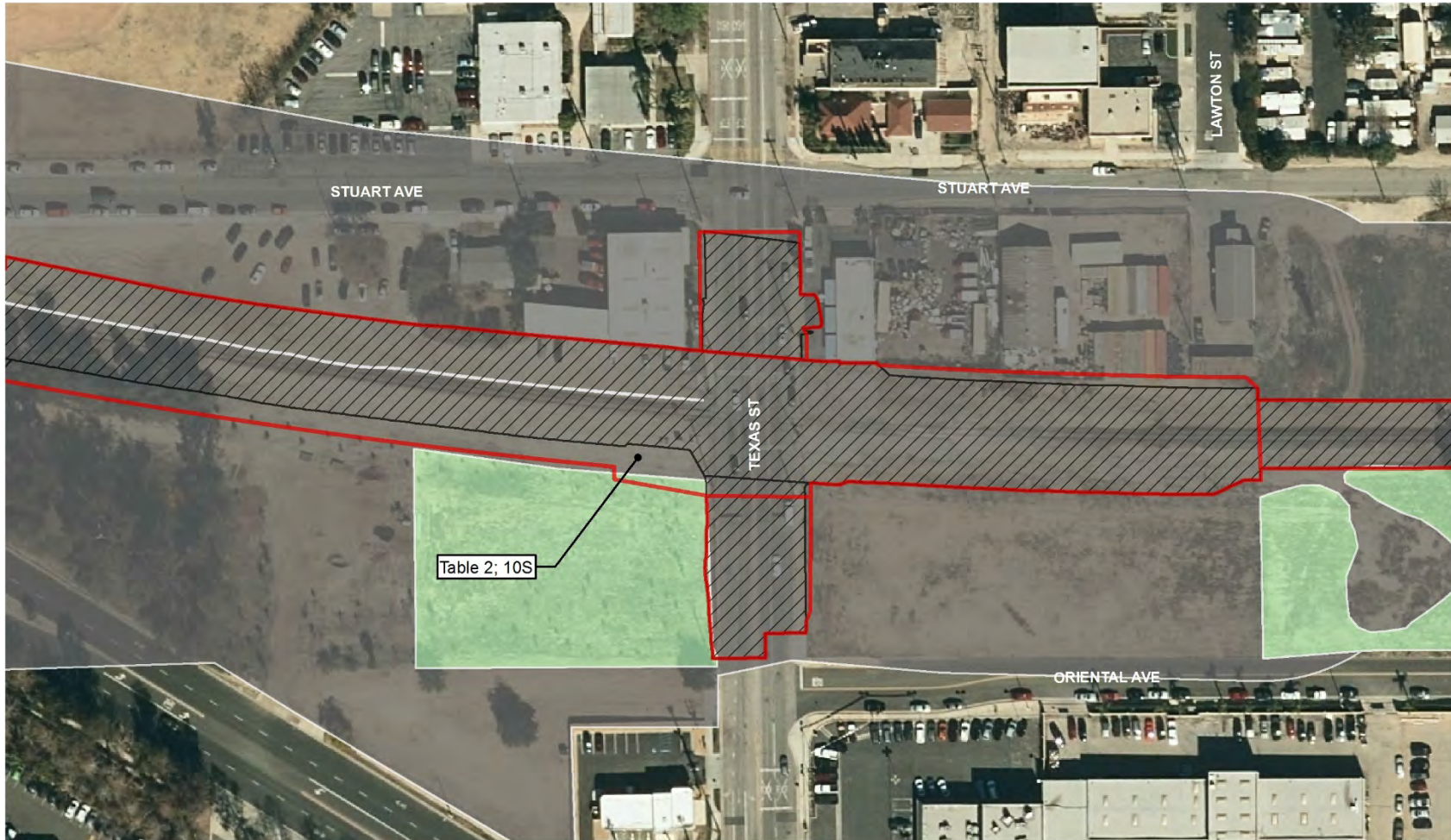
LEGEND

- Refined Project Footprint
- Disturbed Habitat
- NonVegetated Channel
- Approved Project Footprint
- Non Jurisdictional Ditch
- Oak Woodland
- Non-native Grassland
- Urban/Developed



Communication: Draft Addendum 2 - Attachment B (Item 12)

Figure 15: Proposed Project Refinement 10S Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Approved Project Footprint
- Non Jurisdictional Ditch
- Non-native Grassland
- Urban/Developed



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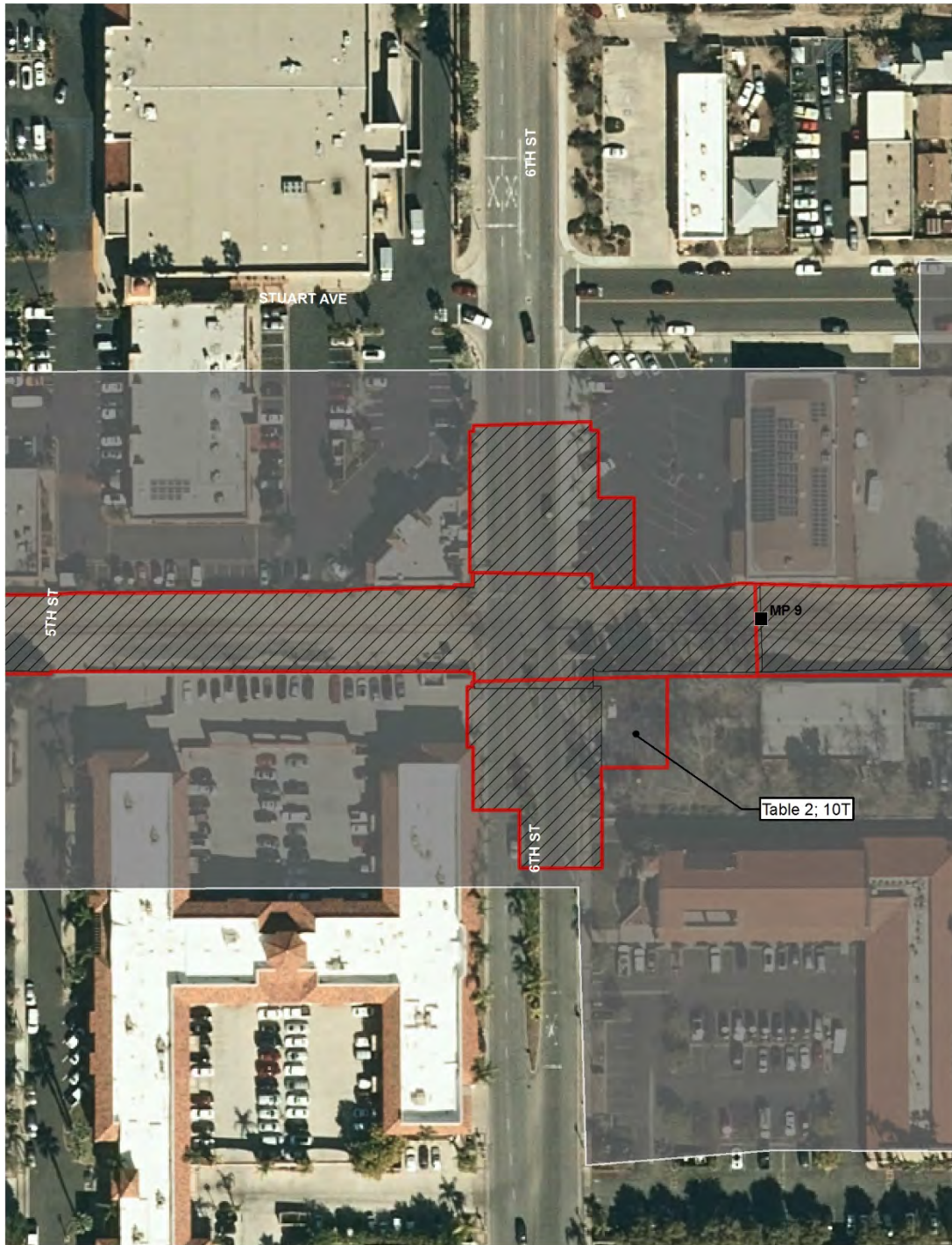




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Figure 16: Proposed Project Refinement 10T Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Approved Project Footprint
- Urban/Developed



Communication: Draft Addendum 2 - Attachment B (Item 12)



### 3.0 References

- CDFW 2012. California Department of Fish and Wildlife (CDFW) 2012 Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency, Sacramento. March 7, 2012.
- CDFW 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.
- HDR 2015. HDR Engineering. Revised Biological Technical Report for the Redlands Passenger Rail Project. Prepared January 2015.
- Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, Nongame-Heritage Program. 156p (amended).
- USFWS 2010. U. S. Fish and Wildlife Service. Publication date 2010. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/>

# Memo

Date: Monday, July 17, 2017

Project: SBCTA Redlands Passenger Rail Project Addendum

To: Justin Fornelli/Chief of Transit and Rail Programs, San Bernardino County Transportation Authority

From: Leesa Gratreak/Architectural Historian, HDR and Nina Delu/Environmental Planner & Registered Professional Archaeologist, HDR

Subject: **Cultural Resources Technical Memo**

HDR has performed a supplemental cultural resources technical analysis in response to advancements in engineering to 90 percent by the San Bernardino County Transportation Authority (SBCTA) on the Redlands Passenger Rail Project (Project). The Federal Transit Administration (FTA), Region IX, approved a Locally Preferred Alternative (LPA), in a Record of Decision, dated February 17, 2015, pursuant to the National Environmental Policy Act (NEPA). The approval of the Project was based on the findings of the Final Environmental Impact Statement (February 2015). SBCTA, the Lead Agency under the California Environmental Quality Act (CEQA), certified the Final Environmental Impact Record (EIR) (State Clearinghouse #2012041012) in March 2015. ICF International prepared a *Cultural Resources Technical Memorandum* in June 2014 that determined the Project would have no adverse effect on historic properties. The California Office of Historic Preservation (OHP) concurred with the findings of the report on August 14, 2014 (OHP reference number FTA120830A).

The purpose of this analysis is to identify whether any of the proposed design refinements to the LPA would affect the previous findings regarding cultural resources (both historic built environment and archaeological) within the previously-approved area of potential effects (APE), and to note any revisions to the APE needed, if any, to reflect these proposed design refinements.

## Project Background

The approved LPA proposes passenger rail operations along an approximately 9-mile corridor extending east from the City of San Bernardino to the City of Redlands. The approved Project also proposed local and express train service. Local service would occur via five station stops: E Street and Waterman Avenue located in the City of San Bernardino; and New York Street, Orange Street (Downtown Redlands) and University Street (University of Redlands) located in the City of Redlands. Metrolink express service would be limited to downtown Redlands and E Street. Components approved as part of the Project included replacement of the existing railroad tracks and ties, reconstruction or rehabilitation of existing bridge structures, construction of station platforms and train layover facility, and auxiliary improvements, such as parking, at-grade roadway crossings, and pedestrian access.



The 2015 approved Project was not expected to have an adverse effect on historic properties, inclusive of historic architecture and archaeological resources, under NEPA and Section 106 of the National Historic Preservation Act. Under CEQA, the proposed Project was not expected to have an impact on historic architecture or archaeological resources.

The Project has since advanced with the completion of the 90 percent design, anticipated in July 2017. SBCTA is proposing physical design refinements to the LPA as defined in the Final EIS (Environmental Impact Statement)/Final EIR as approved by FTA and adopted by SBCTA. The refinements considered in relation to impacts to cultural resources are comprised of refinements to the location of the Metrolink Siding for the Project, and retaining the 7th Street at-grade crossing (rather than closing it).

## Physical Design Refinements

The following provides a description of the proposed physical design refinements considered herein that SBCTA is proposing in response to advancements in the Project’s engineering design since the approval of the Final EIS/EIR in 2015 (see Table 1). The design refinements would result in the following physical refinements that have the potential to impact cultural resources:

- Implement a two stage-siding track in downtown Redlands. Install an approximately 600-foot siding track east of 9th street and west of Church Street (Figure 1). The proposed Metrolink Siding would be located within SBCTA’s right-of-way (ROW) and require the construction of a short retaining wall (less than 4 feet) along the southern edge of the ROW.
- Retain existing 7th Street at-grade crossing (Figure 2). May result in a slight reduction of the previous Project footprint.

**Table 1. Comparison of 2015 Approved Project and Proposed 2017 Physical Design Refinements**

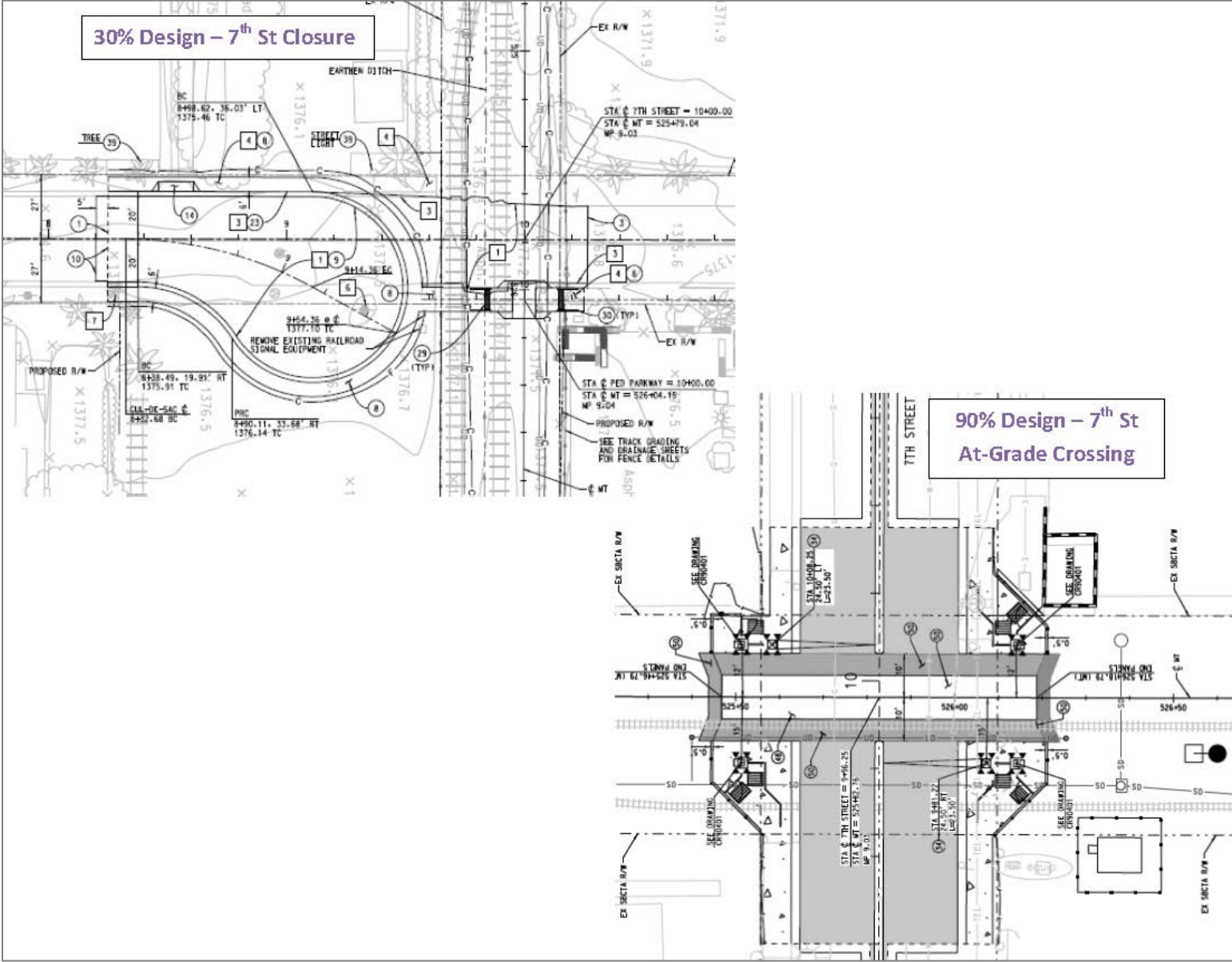
LPA in Certified EIS/EIR – 2015	90 Percent Design – 2017	Figure Reference
<ul style="list-style-type: none"> <li>• Construction of double track east of Church Street</li> </ul>	<ul style="list-style-type: none"> <li>• Implement a two stage- siding track near downtown Redlands Station. 600-foot siding track to be placed east of 9th street and west of Church Street. Requires construction of a short retaining wall (less than 4 feet) along southern edge of ROW.</li> </ul>	Figure 1
<ul style="list-style-type: none"> <li>• Close existing crossing at 7th street; create cul-de-sac on south side of crossing; install guard post barricades on north side of crossing, and fencing; maintain pedestrian access</li> </ul>	<ul style="list-style-type: none"> <li>• Retain 7th Street at-grade crossing</li> <li>• Improvements confined to approved footprint</li> </ul>	Figure 2

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Figure 2. 7th Street At-Grade Crossing (30 Percent versus 90 Percent Design)



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## Area of Potential Effects

The approved APE was originally created to take into consideration both archaeology and architectural resources, encompassing the maximum footprint for construction, ground-disturbance and grading, and generally extended one parcel past the limits of the above-ground Project improvements, and/or direct impacts for the gated crossings, tree removal areas, maintenance facilities, transit structures, raised medians, staging areas, property acquisitions, and ROW impacts. The APE also included previously recorded cultural resources located adjacent to the above-ground Project improvements and direct impact areas. In addition, the APE included parcels adjacent to the proposed Project footprint as part of the architectural history field surveys for properties that may be potentially indirectly affected by visual, audible, or atmospheric intrusions; shadow effects; vibrations from construction activities; or change in access or use. These areas of the APE would not be physically demolished, destroyed, relocated/removed, materially altered, or impacted from neglect or deterioration as a result of this Project.

The Project APE was compared to the proposed physical design refinements to the adopted LPA, and a no revisions or an expansion of the approved APE were found to be necessary. All physical design refinements proposed herein would be contained within the approved Project footprint or even reduce the amount of footprint used. In keeping with the previous methodology, both direct and indirect effects were taken into account while deciding whether to revise the APE, including areas where the streetcar and its project components will be visible and/or where there may be effects due to audible or atmospheric impacts or vibration impacts from construction.

## Identification of Historic Properties

As no APE expansion or revision was deemed necessary based on the proposed physical design refinements, an updated records search was not necessary. All identified historic properties within the APE of the design refinements were included in the *Cultural Resources Technical Memorandum*, prepared June 2014 and approved by OHP on August 14, 2014 (OHP reference number FTA120830A).

## Assessment of Project Effects

The assessment of Project effects is limited to the minor design refinements located within the approved APE. The Final EIS/EIR previously determined there would be no adverse effect on historic properties under NEPA, as well as no impact to historical resources under CEQA. The OHP concurred with the findings of the report on August 14, 2014 (OHP reference number FTA120830A). The minor proposed changes would be consistent with the Final EIS/EIR and the Project is recommended to maintain no adverse effect on historic properties and no impact to historical resources under CEQA.



## Archaeological Resources

There have been no archaeological resources identified within or adjacent to the areas proposed for minor design refinements. However, there is ground disturbing work associated with the proposed design refinement and the possibility exists for the discovery of unanticipated archaeological resources. The recommendation of Mitigation Measures CUL-4 to implement specific measures immediately following an unanticipated discovery remains unchanged and consistent with the 2015 EIS/EIR.

## Architectural Resources

The previous cultural resources evaluation for this Project identified 28 significant historic properties eligible for listing in the National Register of Historic Places, California Register of Historical Resources, or as historical resources for purposes of CEQA within the APE. Three of those properties are located within one parcel past the limits of the Project improvements adjacent to the proposed Metrolink Siding (east of the Downtown Redlands station) (Table 2). There are no currently listed resources located within one parcel past the limits of the Project improvements adjacent to the proposed Metrolink Siding. There are no significant or listed historic properties located adjacent to, or within one parcel of the existing 7th Street at-grade crossing that will now be retained (rather than permanently closed).

**Table 2. Historic Properties Located Adjacent to the Proposed Metrolink Siding**

Address	Type/Name	Eligibility	Previous Effect/Impact	Updated Effect/Impact
420 E Stuart Avenue	Second Baptist Church	<b>2S2:</b> Eligible with OHP concurrence (Criterion A)	No Adverse Effect	No Adverse Effect
510 E Stuart Avenue	Residence	<b>2S2:</b> Eligible with OHP concurrence (Criterion C)	No Adverse Effect	No Adverse Effect
610 E Stuart Avenue	Residence	<b>2S2:</b> Eligible with OHP concurrence (Criterion C)	No Adverse Effect	No Adverse Effect

The construction and operation of the proposed Project would not disrupt the essential form or integrity of the historic properties in the APE. Further, the minor design refinements would not result in visual, audible, or atmospheric intrusions beyond those noted in the 2014 cultural resources evaluation. As described in the previous evaluation, many of the proposed construction features such as staging and construction areas would be considered temporary or indirect effects, since no permanent improvement would occur. Other improvements would be considered minor changes to the built environment that would not have any direct effect or physical alteration to a character-defining feature of a historic property. These types of improvements include the removal of street landscaping (e.g., trees), new traffic signals, gated crossings, curb closures and repair, and pedestrian safety measures (e.g., cross-walks). Since construction of the proposed Project would be temporary and would not require acquisition or physical alterations with surrounding historical properties, the only potential for an adverse

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impact to occur during construction would result from indirect vibration effects that cause physical damage to historic structures. The properties in the APE located adjacent to the proposed Metrolink Siding would be set back at a distance far enough from construction activity that the vibration levels would be below the FTA threshold for historic structures.

The only minor design refinement that could have an effect on the surrounding viewshed of the proposed Metrolink Siding, the only proposed new vertical incursion, would be the introduction of a 4-foot-tall retaining wall located adjacent to the northern parcel boundary of 304 9th Street. The approximately 550-foot retaining wall would be very minimally or not at all visible from all three adjacent historic properties and would not affect their integrity of setting or diminish any of the character defining features of any of the three adjacent historic properties.

Overall, the proposed refinements/engineering refinements to the adopted LPA would not be considered to have an adverse effect to historic properties under NEPA, Section 106 of the National Historic Preservation Act, or an impact to historical resources under CEQA.

## Conclusions

The updated cultural resources analysis confirms that the proposed engineering refinements to the Project do not change the previous conclusions regarding cultural resources. No adverse effects are expected within the APE for the design refinements under NEPA. Under CEQA, a no impact finding would remain for the design refinements within the APE.

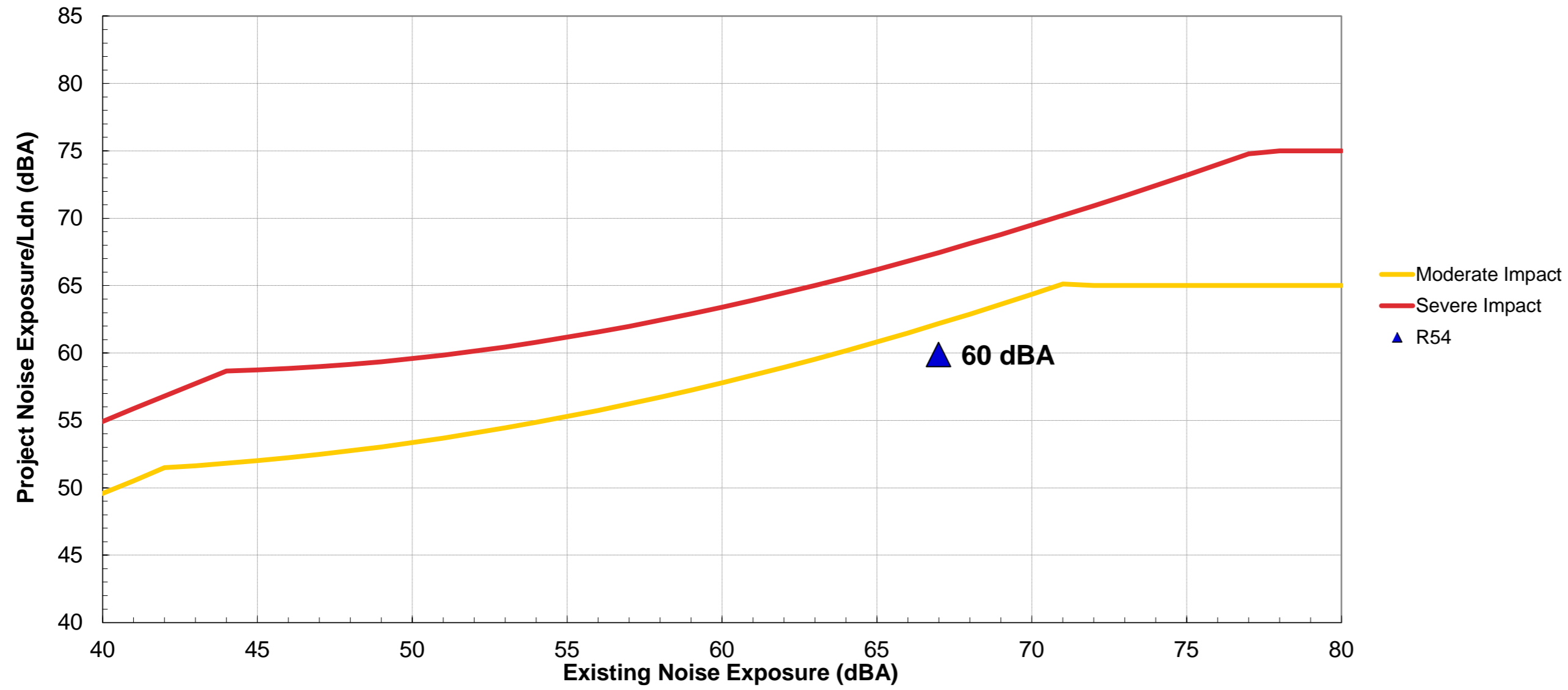
Attachment D

**Project:** RPRP  
**Receiver:** R54

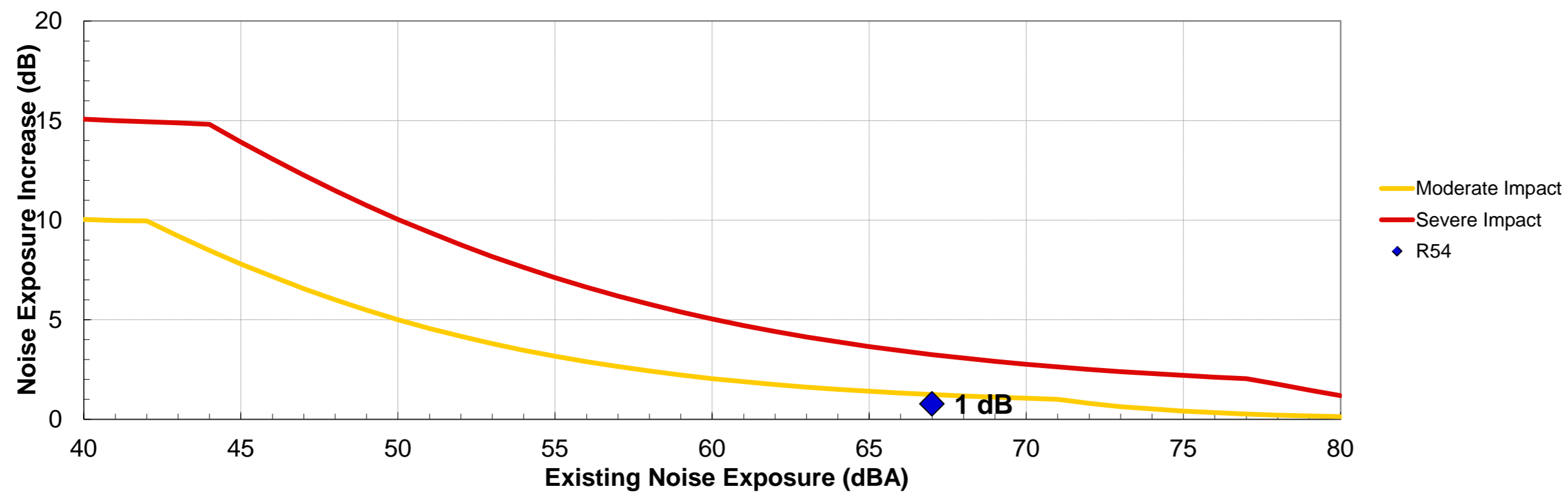
Source	Distance	Project Ldn	Existing Ldn	Noise Criteria		Impact?
				Mod. Impact	Sev. Impact	
1 Diesel Multiple Unit (DMU)	75 ft	54.8 dBA	67 dBA	62 dBA	67 dBA	None
2 Diesel Electric Locomotive	75 ft	57.3 dBA	67 dBA	62 dBA	67 dBA	None
3 Rail Car	75 ft	40.2 dBA	67 dBA	62 dBA	67 dBA	None
4 Crossovers	75 ft	30.0 dBA	67 dBA	62 dBA	67 dBA	None
5 Layover Tracks (commuter r	300 ft	50.5 dBA	67 dBA	62 dBA	67 dBA	None
6 Layover Tracks (commuter r	800 ft	39.9 dBA	67 dBA	62 dBA	67 dBA	None
<b>Combined Sources</b>		<b>60 dBA</b>	<b>67 dBA</b>	<b>62 dBA</b>	<b>67 dBA</b>	<b>None</b>

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**Noise Impact Criteria**  
(FTA Manual, Fig 3-1)



**Increase in Cumulative Noise Levels Allowed**  
(FTA Manual, Fig 3-2)

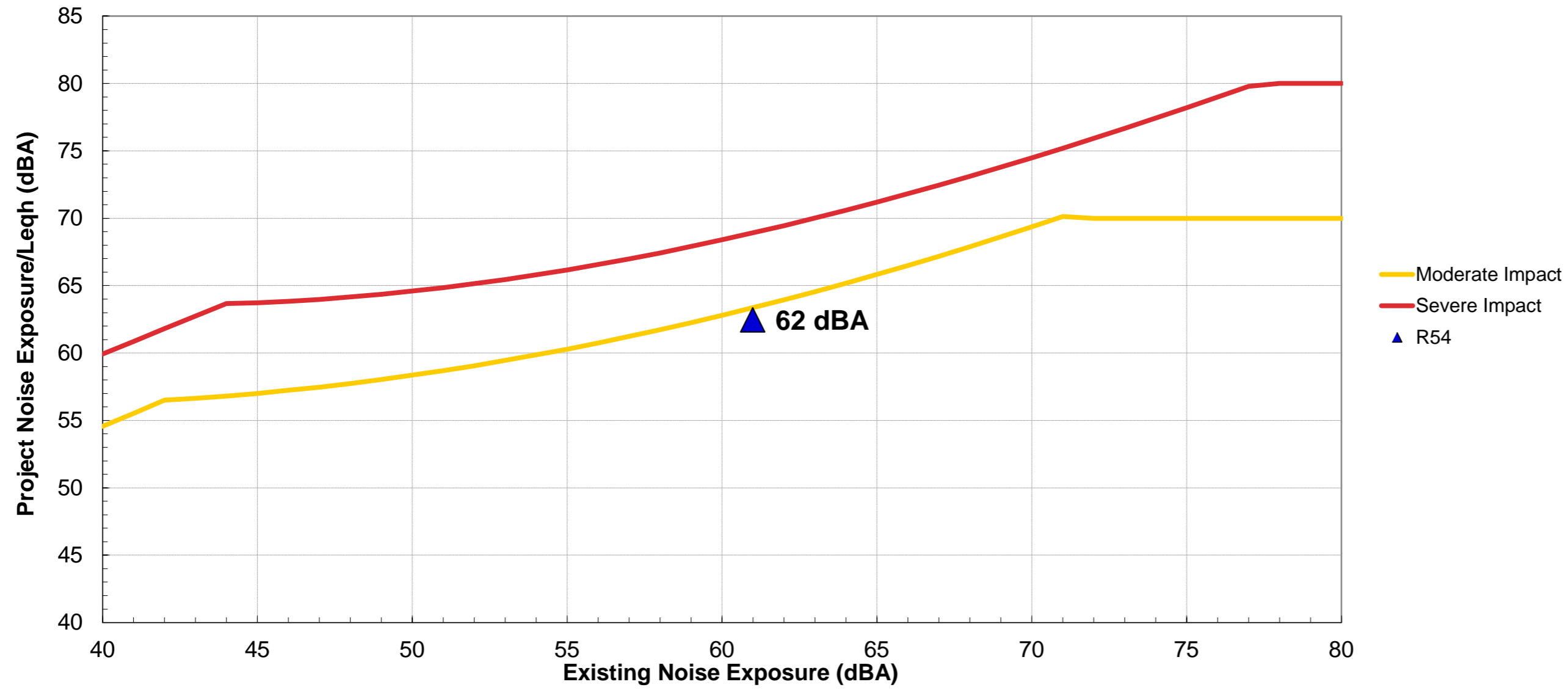


**Project:** RPRP  
**Receiver:** R55

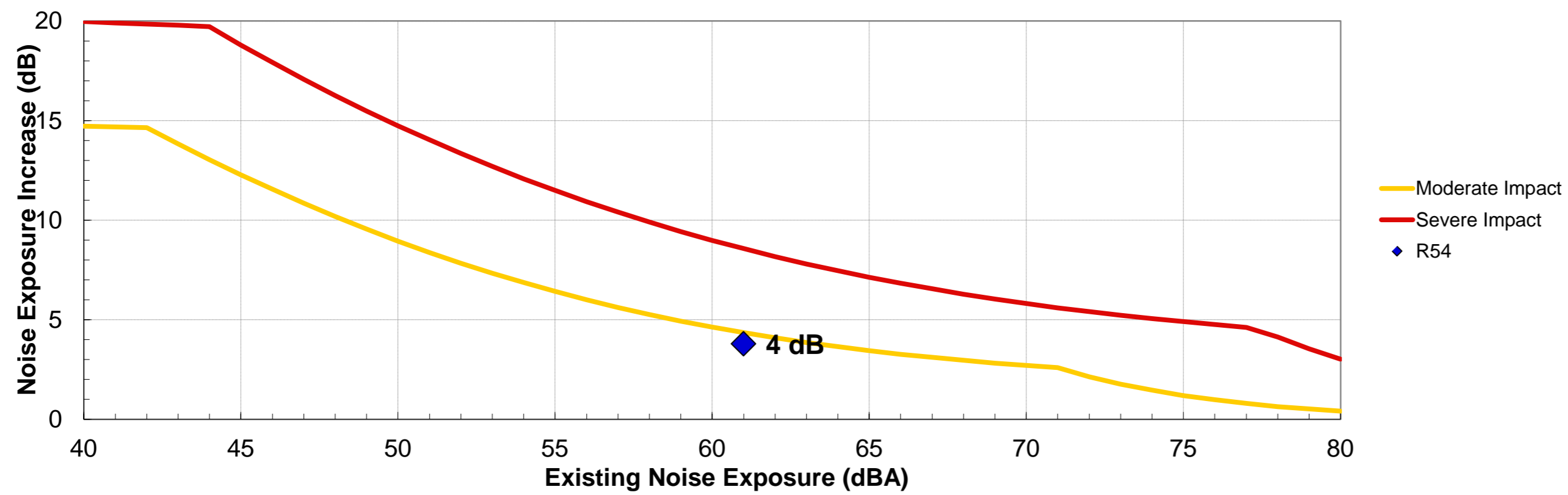
Source	Distance	Project Leqh	Existing Leqh	Noise Criteria		Impact?
				Mod. Impact	Sev. Impact	
1 Diesel Multiple Unit (DMU)	80 ft	54.1 dBA	61 dBA	63 dBA	69 dBA	None
2 Diesel Electric Locomotive	80 ft	60.3 dBA	61 dBA	63 dBA	69 dBA	None
3 Rail Car	80 ft	43.2 dBA	61 dBA	63 dBA	69 dBA	None
4 Crossovers	80 ft	32.7 dBA	61 dBA	63 dBA	69 dBA	None
5 Layover Tracks (commuter r	250 ft	55.9 dBA	61 dBA	63 dBA	69 dBA	None
6 Layover Tracks (commuter r	750 ft	44.0 dBA	61 dBA	63 dBA	69 dBA	None
<b>Combined Sources</b>		<b>62 dBA</b>	<b>61 dBA</b>	<b>63 dBA</b>	<b>69 dBA</b>	<b>None</b>

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**Noise Impact Criteria**  
(FTA Manual, Fig 3-1)



**Increase in Cumulative Noise Levels Allowed**  
(FTA Manual, Fig 3-2)



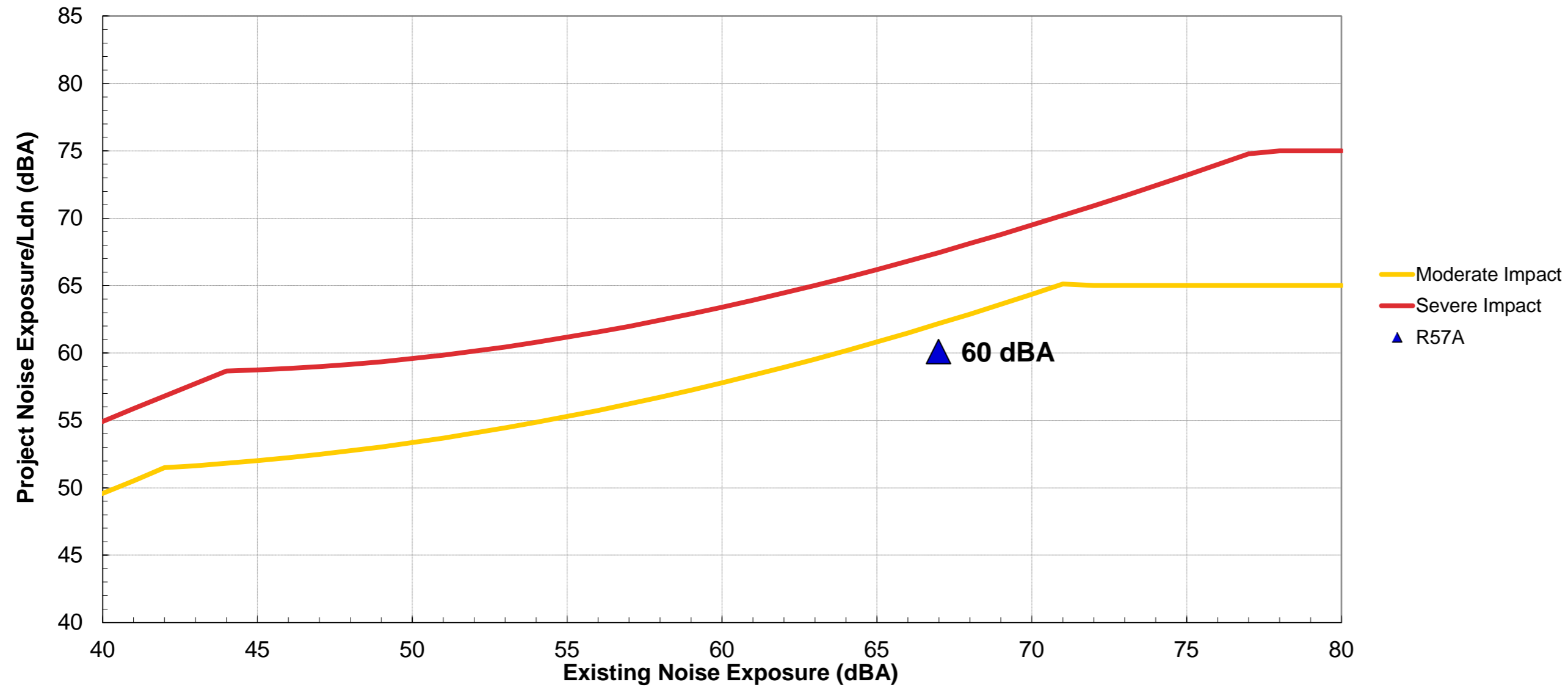
**Project:** RPRP  
**Receiver:** R57A

Source	Distance	Project Ldn	Existing Ldn	Noise Criteria		Impact?
				Mod. Impact	Sev. Impact	
1 Diesel Multiple Unit (DMU)	130 ft	51.2 dBA	67 dBA	62 dBA	67 dBA	None
2 Diesel Electric Locomotive	130 ft	53.8 dBA	67 dBA	62 dBA	67 dBA	None
3 Rail Car	130 ft	36.6 dBA	67 dBA	62 dBA	67 dBA	None
4 Crossovers	280 ft	15.7 dBA	67 dBA	62 dBA	67 dBA	None
5 Layover Tracks (commuter r	150 ft	58.1 dBA	67 dBA	62 dBA	67 dBA	None
6 Layover Tracks (commuter r	600 ft	43.0 dBA	67 dBA	62 dBA	67 dBA	None
<b>Combined Sources</b>		<b>60 dBA</b>	<b>67 dBA</b>	<b>62 dBA</b>	<b>67 dBA</b>	<b>None</b>

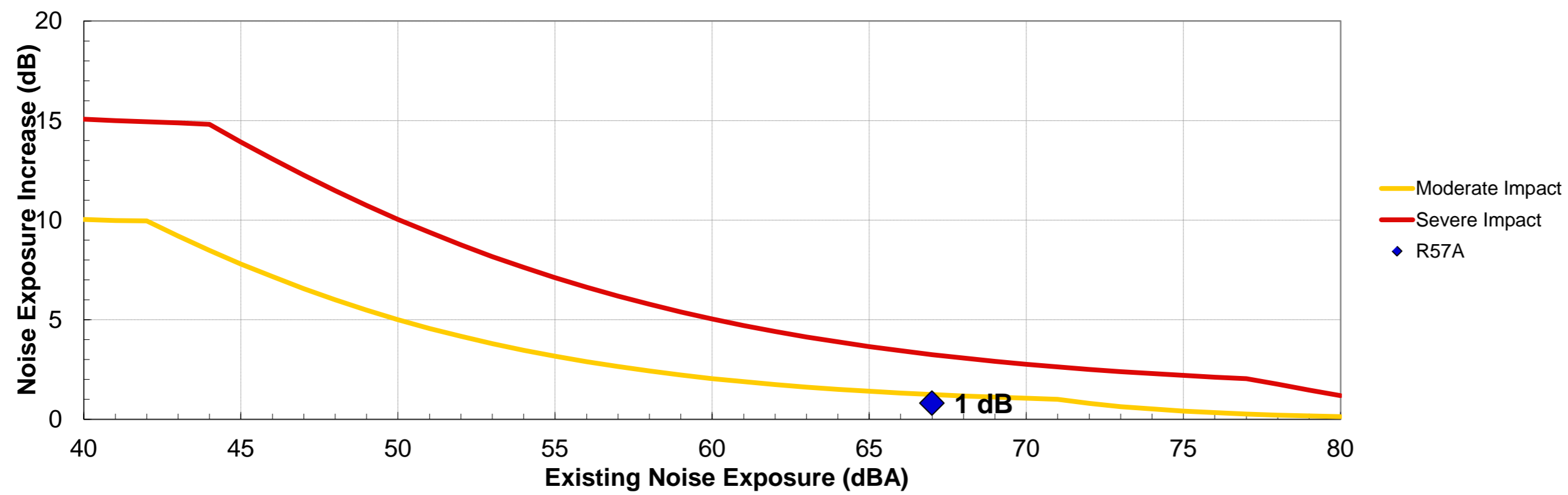
Communication: Draft Addendum 2 - Attachment D (Item 12)



**Noise Impact Criteria**  
(FTA Manual, Fig 3-1)



**Increase in Cumulative Noise Levels Allowed**  
(FTA Manual, Fig 3-2)

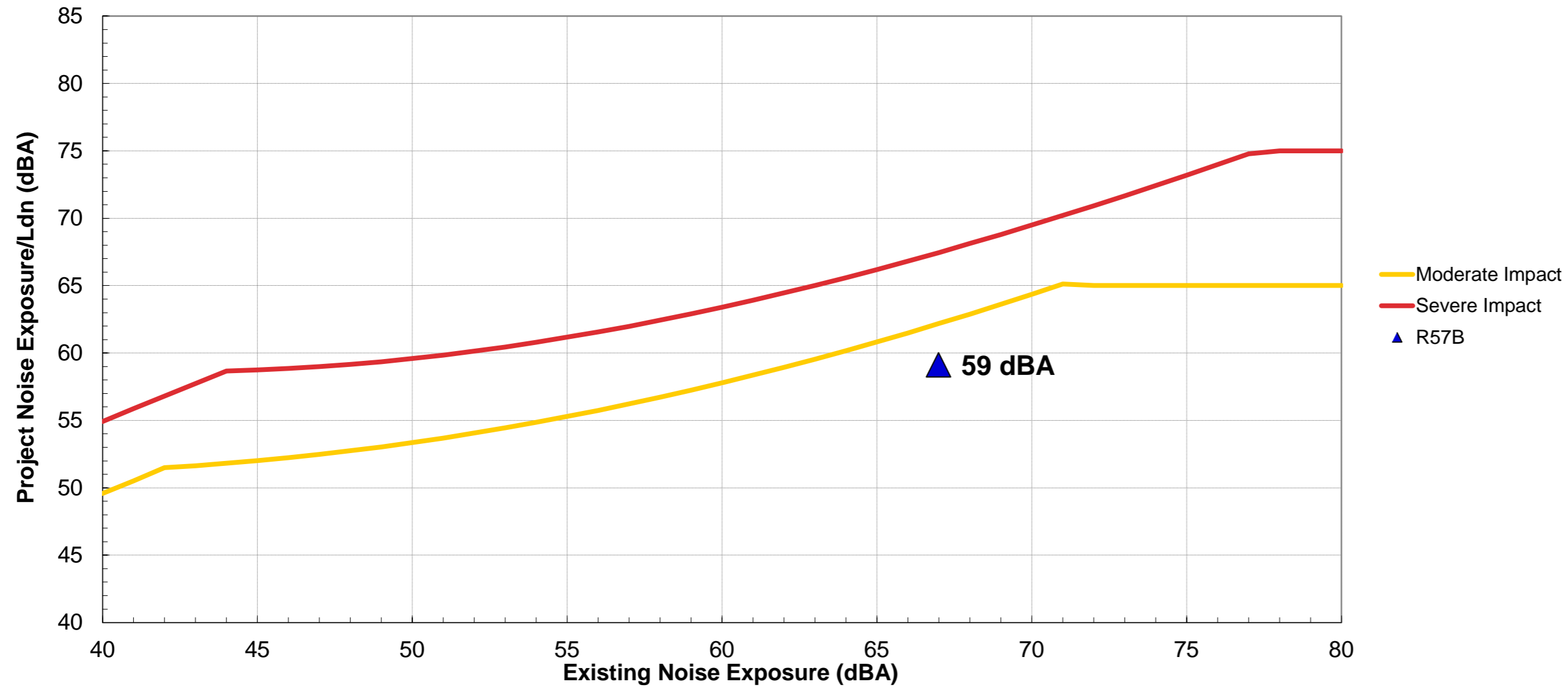


**Project:** RPRP  
**Receiver:** R57B

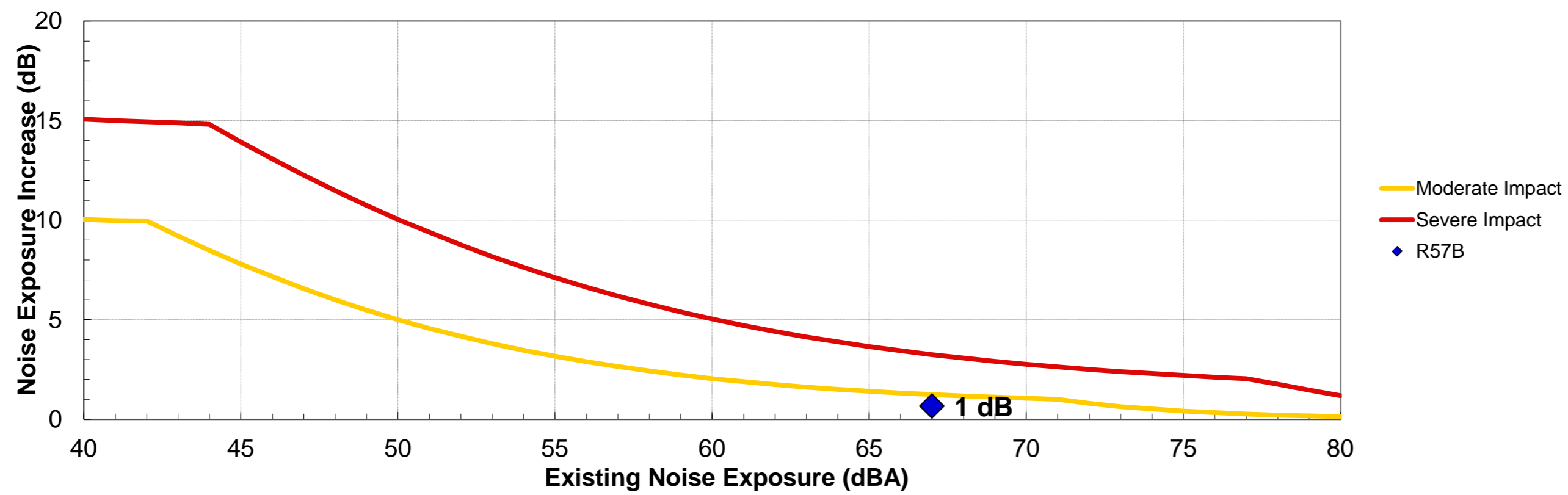
Source	Distance	Project Ldn	Existing Ldn	Noise Criteria		Impact?
				Mod. Impact	Sev. Impact	
1 Diesel Multiple Unit (DMU)	90 ft	53.6 dBA	67 dBA	62 dBA	67 dBA	None
2 Diesel Electric Locomotive	90 ft	56.2 dBA	67 dBA	62 dBA	67 dBA	None
3 Rail Car	90 ft	39.0 dBA	67 dBA	62 dBA	67 dBA	None
4 Crossovers	700 ft	5.8 dBA	67 dBA	62 dBA	67 dBA	None
5 Layover Tracks (commuter r	390 ft	47.7 dBA	67 dBA	62 dBA	67 dBA	None
6 Layover Tracks (commuter r	175 ft	56.4 dBA	67 dBA	62 dBA	67 dBA	None
<b>Combined Sources</b>		<b>59 dBA</b>	<b>67 dBA</b>	<b>62 dBA</b>	<b>67 dBA</b>	<b>None</b>

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**Noise Impact Criteria**  
(FTA Manual, Fig 3-1)



**Increase in Cumulative Noise Levels Allowed**  
(FTA Manual, Fig 3-2)





## MITIGATION MONITORING AND REPORTING PROGRAM

### 1.0 INTRODUCTION

The California Environmental Quality Act (CEQA) requires a lead or responsible agency to adopt a monitoring and reporting program (MMRP) when approving or carrying out a project (Section 21081.6 of the California Public Resources Code). The purpose of this program is to ensure that when an environmental document, either an Environmental Impact Report (EIR) or a mitigated negative declaration, identifies measures to reduce potential adverse environmental impacts to less than significant levels that those measures are implemented as detailed in the environmental document. As lead agency for the Project, the San Bernardino Associated Governments (SANBAG), acting in its roles as the San Bernardino County Transportation Commission, is responsible for implementation of this MMRP per the requirements of the (CEQA). In its role as the federal lead agency under the National Environmental Policy Act (NEPA), the Federal Transit Administration (FTA), Region IX, will use this MMRP for verifying the implementation of the mitigation measures proposed in conjunction with its issuance of the Record of Decision.

In this context, this MMRP was prepared to provide a monitoring strategy to ensure the implementation of the adopted mitigation measures. Once SANBAG adopts the MMRP, the mitigation monitoring/reporting requirements will be incorporated into the appropriate permits and construction documents (i.e., engineering specifications, engineering and construction plans, real estate entitlements, etc.). Therefore, in accordance with the aforementioned requirements, this MMRP lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties as detailed below in Section 3.

### 2.0 MONITORING AND REPORTING PROCEDURES

This MMRP was developed for the Locally Preferred Alternative (LPA) for SANBAG's Redlands Passenger Rail Project (RPRP or Project) (State Clearinghouse Number 2012041012). The MMRP will be in place through all phases of the Project, including design, construction, and operation, and will facilitate the implementation of mitigation measures proposed to avoid, minimize, or reduce significant environmental effects. SANBAG will be responsible for administering the MMRP and ensuring that all parties, including its contractors, comply with its provisions. SANBAG may delegate implementation and monitoring activities to staff, consultants, or contractors. SANBAG will require that its construction contractors submit an environmental compliance plan for approval by SANBAG and construction manager prior to the beginning construction activities. This plan shall document how the contractor intends to comply with all measures applicable to the contract, including the application of best management practices (BMPs) in accordance with instruction listed in the construction specifications. SANBAG also will ensure that monitoring is documented through systematic compliance verification and reporting and that deficiencies are promptly corrected. The designated environmental compliance manager will track and document compliance with mitigation measures, notify SANBAG of any problems or deficiencies, as appropriate, and take appropriate action to rectify problems.



### 3.0 MITIGATION MONITORING AND REPORTING PROGRAM IMPLEMENTATION

This MMRP was prepared to verify compliance with individual mitigation measures proposed in the Final Environmental Impact Statement (EIS)/EIR for the Project. Table 1 of this MMRP identifies each mitigation measure by discipline, the entity responsible for its implementation, and the performance standard required to demonstrate compliance with each measure. Certain inspections and reports may require preparation by qualified individuals and these are specified as needed. The timing and method of verification for each measure are also specified.

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Land Use, Planning, and Communities</b>					
<b>LU-1: Minimize Project Land Requirements and Comply with Federal and State Relocation Laws.</b> As part of final design, SANBAG shall maximize opportunities to minimize the Project's land requirements and associated property acquisition. In instances where avoidance is not feasible, SANBAG shall provide just compensation consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act and California Relocation Act. If the acquisition of one or more properties requires relocation of existing residences or businesses, SANBAG shall provide relocation assistance to residential and business tenants prior to the start of construction.	Final design	Entire Project	SANBAG	None	
<b>Transportation</b>					
<b>TR-1: Prepare a Traffic Management Plan.</b> SANBAG shall prepare a Traffic Management Plan prior to the start of construction, and the provisions of the Traffic Management Plan shall be implemented prior to, and during construction, as appropriate, to address traffic considerations of pedestrian and bicycle access and safety, and vehicular flow. The objective of the Traffic Management Plan will be to reduce construction related effects to traffic, non-motorized forms of transportation (e.g., bicycle and pedestrians), and existing public transit (e.g., buses) and will include the following: <ul style="list-style-type: none"> <li>• Construction detour plans and designated construction truck access routes for each phase of construction;</li> <li>• Maintain maximum travel lane capacity to the greatest extent possible during construction periods and provide advanced notice to drivers or roadway changes or closures;</li> </ul>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>• Signage indicating the construction limits, access routes, and entrances to individual business sites and community facilities that may be affected by construction activities. In addition, the construction contractor would supply “open for business” signs to encourage normal business activity during construction;</li> <li>• Pre-planning, outreach, and signage indicating pedestrian and bicycle routes detours;</li> <li>• Coordination with public transit service providers, as necessary;</li> <li>• Heavy trucks and other construction transport vehicles shall avoid the busiest commute hours to the greatest extent possible (weekdays 7 a.m. to 8 a.m. and 5 p.m. to 6 p.m. – High traffic intersections (Greater than 10,000 ADT) – 6:30 a.m. to 8:30 a.m. and 4:30 p.m. to 6:30 p.m.);</li> <li>• Early notification to emergency service providers and area drivers of any road closures or detours and the timeframes of the closures or detours. This information will be posted in a local newspaper, via SANBAG’s web site and will be updated on a monthly basis;</li> <li>• Coordination with the Cities of San Bernardino, Loma Linda, and Redlands for community events in the area to accommodate crowds and road closures;</li> <li>• Pavement damage resulting from project construction will be repaired prior to the completion of construction; and</li> <li>• SANBAG shall maximize opportunities for coordinated construction and installation of</li> </ul>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
improvements that occurs outside the SANBAG ROW with the Cities of San Bernardino, Loma Linda, and Redlands to the greatest extent practical.					
<p><b>TR-2: Existing LOS and V/C Year 2018 and 2038 Impact Roadway Improvements.</b> As part of the Project construction, SANBAG shall coordinate with the appropriate agency in which the intersection improvement is located (Cities of San Bernardino, Loma Linda, Redlands, or Caltrans) to pay SANBAG’s “fair share” of the identified roadway improvements prior to the start of operations of the Project in 2018:</p> <ul style="list-style-type: none"> <li> <b>California Street and I-10 Eastbound Off-Ramp –</b> SANBAG shall coordinate with Caltrans to fund its fair share of construction for a ramp improvement to include a right-turn pocket. The existing right-turn lane will become a shared right-turn lane to accommodate the high number of right turns. <u>The improvements will include replacing existing pedestrian and bicycle facilities, where present.</u> </li> </ul> <p>SANBAG shall provide its fair share for the funding of the following improvements prior to the year 2038:</p> <ul style="list-style-type: none"> <li> <b>California Street and I-10 West On-Ramp –</b> SANBAG shall coordinate with Caltrans to fund its fair share to the construction of a dual southbound right and a dual northbound left turn pocket. <u>The improvements will include replacing existing pedestrian and bicycle facilities, where present.</u> </li> <li> <b>Alabama Street and Industrial Avenue –</b> SANBAG shall coordinate with the City of Redlands to stripe an exclusive westbound right turn lane with 50-feet of storage to accommodate a high number of right turns. <u>The improvements will include</u> </li> </ul>	<p>Prior to the start of operations (2038 improvements will be evaluated at 5-year increments following 2018)</p>	<p>Roadway improvements</p>	<p>SANBAG</p>	<p>Cities of San Bernardino and Redlands; Caltrans</p>	

Communication: Draft Addendum 2 - Attachment E (Item 12)





**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<u>replacing existing pedestrian and bicycle facilities, where present.</u>					
<b>TR-3: Approval from CPUC for Grade Crossings and Safety Measures.</b> SANBAG shall coordinate with the CPUC prior to the start of construction for re-design and/or closure of all grade crossings to ensure that all grade crossings and safety improvements comply with CPUC standards. SANBAG shall provide verification to the CPUC that all rail safety measures identified in the hazard analysis as part of the "formal application" or "GO 88-B" authorization" from CPUC have been installed.	Final design and post-construction	Grade Crossings	SANBAG	CPUC	
<b>TR-4: Recommended Pre-Signals for Queuing.</b> Prior to the start of operations, pre-signals shall be implemented at the following grade crossing locations and shall be operational prior to the start of 2018: <ul style="list-style-type: none"> <li>• Eastbound I-10 Ramps and California Street crossing;</li> <li>• Industrial Park Avenue and Alabama Street crossing; and</li> <li>• Redlands Boulevard and Tennessee Street crossing.</li> </ul> Prior to 2038 and if warranted based on future intersection operations (as determined through reevaluation in 5-year increments by SANBAG following procedures in the Los Angeles Metropolitan Transportation Authority (MTA) Grade Crossing Policy for Light Rail Transit), pre-signals will be implemented at the following grade crossing locations: <ul style="list-style-type: none"> <li>• Waterman Avenue and Orange Show Road Crossing (Northbound Approach);</li> <li>• Orange Show Road and Waterman Avenue Crossing (Eastbound Approach);</li> </ul>	Prior to the start of operations (2038 improvements will be evaluated at 5-year increments following 2018)	Grade Crossings	SANBAG	CPUC, Cities of San Bernardino and Redlands	

Communication: Draft Addendum 2 - Attachment E (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>Redlands Boulevard and California Street Crossing; and Redlands Boulevard and Alabama Street Crossing.</li> </ul>					
<p><b>TR-5: Transit Operations Realignment.</b> SANBAG will work with affected transit service providers as part of their service realignment process (or major service change) to maximize transit efficiencies offered by interfacing existing transit service with Project operations. SANBAG shall develop a transit integration plan in coordination with local transit service providers to establish a framework for service integration. The plan shall, at a minimum, include an approach or strategy for coordinating existing transit scheduling with proposed train operations, maximizing route interfaces with the proposed station locations, and optimizing existing transit routes to minimize duplication in service.</p>	Prior to the start of operations	Project station stops	SANBAG	Omnitrans	
<b>Visual Quality and Aesthetics</b>					
<p><b>VQA-1: Screening of Construction Staging Areas.</b> For construction staging areas within 500 feet of a residence, park, or educational facility, the contractor will be required to shield the staging area to the extent feasible and coordinate with the local jurisdiction regarding the type and method of screening, which may include but is not limited to, the use of fence slats, netting, or mesh or tarps. SANBAG shall limit construction to daylight hours to the extent possible. If nighttime lighting or construction is necessary, the SANBAG shall ensure that unshielded lights, reflectors, or spotlights are not located and directed to shine toward or be directly visible from adjacent properties or streets. To the extent possible, SANBAG shall minimize the use of nighttime construction lighting within 500 feet of existing residences. This measure shall be identified on grading plans and in construction contracts.</p>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>VQA-2: Enhance Exterior Appearance of Structural Facilities.</b> The external appearance of the stations and layover facility, including the choice of color and materials, shall seek to reduce the visual impact of these facilities on adjacent land uses. Bright reflective materials and colors shall be avoided. As appropriate, the exterior design of these facilities should follow design guidelines provided in applicable land use plans. Minimum exterior design requirements shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Painting (with earth-colored tones) of structural façades to blend with surrounding land uses;</li> <li>• Maximize the use of textured or other non-reflective exterior surfaces and non-reflective glass to prevent glare;</li> <li>• Use of fencing or structural materials, shall be similar to those used by nearby land uses and compatible with surrounding architecture;</li> <li>• Development of a landscaping plan for each station and layover facility site that uses a combination of locally derived native vegetation, earthen features (e.g., boulders), and, if appropriate, topographical separations (e.g., berms) to maximize site appearance and shield the new facilities from nearby sensitive receptors to the extent feasible; and</li> <li>• Clustering of structural facilities to maximize open space buffering.</li> </ul> <p>SANBAG shall coordinate final design plans with the Cities of San Bernardino and Redlands prior to final approval.</p>	Final design	Stations	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>VQA-3: Tree Replacement.</b> Prior to construction, SANBAG shall have a registered arborist conduct a tree survey to identify native and ornamental trees requiring removal outside SANBAG's ROW. The arborist will identify measures to avoid and minimize indirect impacts on trees, where feasible, and develop a plan for the replacement of trees that cannot be avoided. The plan will include planting and irrigation design details and a weaning schedule for the establishment period. Trees with a diameter at breast height of 6 inches or greater will be replaced at a minimum ratios of 1:1 and consistent with City of Redlands and San Bernardino standards.	Prior to construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	
<b>VQA-4: Sound Barrier Screening and Surface Treatments.</b> To reduce effects associated with the sound walls, where SANBAG ROW widths allow, drought tolerant landscaping (i.e., trees, vines, and/or shrubs) shall be provided. If the SANBAG ROW width is insufficient to permit landscaping or if landscaping cannot adequately reduce visual impacts, surface treatments that are compatible with surrounding architecture shall be applied to the outside of the sound walls (residential or school facing side). Architectural detailing such as pilasters, wall caps, interesting block patterns, and offset wall layouts shall be used to add visual interest and reduce apparent height of the walls. SANBAG shall coordinate the final design plans with the Cities of San Bernardino and Redlands, as applicable, prior to final approval.	Final design (if constructed)	Sound wall locations	SANBAG	Cities of San Bernardino and Redlands	
<b>VQA-5: Minimize Exterior Lighting in Adjacent Uses.</b> To prevent unintended spillover of lighting, lighting fixtures constructed or relocated as part of the Project shall be oriented and focused onto the specific on-site location intended for illumination (e.g., parking lots) and shielded	Final design	Stations and Layover Facility	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
away from adjacent sensitive uses (e.g., schools, residential properties) and public rights of way to minimize light spillover onto off-site areas. New driveways shall be located and oriented into parking lots, to the extent feasible, in a manner that will not result in headlights from vehicles entering or exiting the parking areas oriented directly at off-site sensitive uses. SANBAG shall coordinate the final design plans with the Cities of San Bernardino and Redlands, as applicable, prior to final approval.					
<b>Noise and Vibration</b>					
<p><b>NV-1: Employ Noise-Reducing Measures during Construction.</b> SANBAG shall require its construction contractors to employ measures to minimize and reduce construction noise. Noise reduction measures that shall be implemented to reduce construction noise to acceptable levels may include but are not limited to the following:</p> <ul style="list-style-type: none"> <li>• Use available noise suppression devices and techniques, including: <ul style="list-style-type: none"> <li>- Equipping all internal combustion engine-driven equipment with mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that are in good operating condition and appropriate for the equipment (5 to 10 dB reduction possible).</li> <li>- Using “quiet” models of air compressors and other stationary noise sources where such technology exists.</li> <li>- Using electrically powered equipment instead of pneumatic or internal combustion-powered equipment, where feasible.</li> </ul> </li> </ul>	During Construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Using noise-producing signals, including horns, whistles, alarms, and bells, for safety-warning purposes only.</li> <li>- Locating stationary noise-generating equipment, construction parking, and maintenance areas as far as reasonable from sensitive receivers when sensitive receivers adjoin or are near the construction Project APE.</li> <li>- Prohibiting unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes).</li> <li>- Placing temporary soundwalls or enclosures around stationary noise-generating equipment when located near noise-sensitive areas (5 to 15 decibel reduction possible).</li> <li>- Ensuring that project-related public address or music systems are not audible at any adjacent receiver.</li> <li>- Notifying adjacent residents in advance of construction work.</li> </ul>					
<p><b>NV-2: Prepare a Community Notification Plan for Project Construction.</b> The construction contractor shall prepare and maintain a community notification plan to address project construction issues the community may have during construction. Components of the plan may include construction phasing to minimize the duration of noise or vibration at any one location. Initial information packets shall be prepared and mailed to all residences within a 500-foot radius of project construction, with updates prepared as necessary to indicate new scheduling or processes. A project liaison shall be identified who will be available to</p>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
respond to questions from the community or other interested groups.					
<p><b>NV-3: Establish Quiet Zones.</b> At-grade crossings shall be designed and constructed to be compatible with the formation of Quiet Zones. Prior to the operation, SANBAG shall coordinate with the City of San Bernardino, City of Loma Linda, and the City of Redlands, to construct and establish quiet zones at the following grade crossings:</p> <ul style="list-style-type: none"> <li>• South Arrowhead Avenue;</li> <li>• South Sierra Way;</li> <li>• West Central Avenue;</li> <li>• East Orange Show Road;</li> <li>• South Waterman Avenue;</li> <li>• South Tippecanoe Avenue;</li> <li>• South Richardson Street;</li> <li>• Mountain View Avenue;</li> <li>• West Colton Avenue;</li> <li>• Alabama Street</li> <li>• Tennessee Street;</li> <li>• Church Street; and</li> <li>• North University Street</li> </ul>	Prior to operation	Grade Crossing Locations	SANBAG	Cities of San Bernardino and Redlands; CPUC; FRA	
<p><b>NV-4: Construct Sound Barriers.</b> SANBAG shall install up to 12-foot in height sound barriers at priority locations along portions of the rail corridor to reduce noise levels at receivers identified with severe noise impacts following the application of quiet zones.</p>	During construction (if required in the absence of quiet zones)	See Figures 8-2A through G (without quiet zones) and 8-3A-F) of the Noise and Vibration TM (October 2014)– See Appendix H of the Final EIS/EIR)	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>NV-5: Wayside Rail Lubrication.</b> SANBAG shall install wayside applicators for all tight-radius curves on the project alignment prior to the start of Project operations. If the wayside applicators are not sufficient to reduce squeal to an acceptable level, additional reduction may be required through customized profiling of the rail to reduce the forces required for trains to negotiate the curve.	Final design and post-construction	All tight-radius curve locations on the project alignment	SANBAG	None	
<b>NV-6: Use Ballast Mats, Resiliently Supported Ties, or Measures of Comparable Effectiveness on Portions of the Rail near Sensitive Receivers.</b> SANBAG shall install track design specifications as part of project design to include the use of ballast mats or resiliently supported ties on portions of the track near sensitive receivers to minimize project-related ground-borne vibration and wheel rail noise generated when the trains pass sensitive receivers. The actual measures and their corresponding placement will be determined following more detailed vibration testing and analysis during final engineering design.	Final design and post-construction	Entire Project	SANBAG	None	
<b>NV-7: Provide Building Noise Insulation to Severe- and Moderate-Impact Residences.</b> For the ten residential structures represented by Receivers 3, 22, and 41, SANBAG will offer to install sound insulation. Treatments may include sealing and relocating vents, caulking and sealing gaps in the building façade and installing new doors and windows that are specially designed to meet acoustical transmission-loss requirements. Acoustical performance ratings are published in terms of Sound Transmission Class (STC) for these special windows. A minimum STC rating of 39 will be used on any window exposed to the noise source.	Final design and during construction	Applicable Receivers	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Biological and Wetland Resources</b>					
<b>BIO-1: Pre-Construction Survey - Conduct Preconstruction Survey for Special Status Plants and Wildlife and, if Found, Implement Avoidance and Compensation Measures.</b> Prior to construction, a qualified biologist retained by SANBAG shall conduct pre-construction surveys for special status plant species including woolly star, slender-horned spineflower, smooth tarplant, and salt spring checkerbloom. Pre-construction surveys will also be required for special status wildlife species including least Bell's vireo, southwestern willow flycatcher, San Bernardino kangaroo rat, yellow-billed cuckoo, burrowing owl, and western spadefoot toad to verify presence or absence in the Project area. If one or more species are detected, then SANBAG shall consult with the USFWS (or CDFW if appropriate) to develop additional minimization measures prior to project construction (if necessary). These additional measures may include construction timing restrictions and/or construction monitoring.	Prior to and during construction	Entire Project	SANBAG	U. S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)	
<b>BIO-2: Least Bells Vireo (LBV).</b> The following measures will be implemented to minimize direct and indirect impacts to LBV during construction: <ul style="list-style-type: none"> <li>a. Impacts associated with clearing and grubbing of Southern Cottonwood Willow Riparian Forest (SCWRF) and Southern Willow Scrub (SWS) will be timed to avoid the breeding season of the least Bell's vireo (March 15 to September 15), unless SANBAG provides survey documentation to USFWS that confirms the riparian habitat is not occupied by LBV.</li> <li>b. Temporary impact areas will be restored to pre-grade contours following bridge construction.</li> </ul>	Prior to and during construction	Mile Posts 3.3 to 4 (only)	SANBAG	USFWS	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>Natural recruitment is anticipated to occur rapidly due to the large amount of intact native riparian habitat that will remain as a seed source. Additionally, the riparian habitat being impacted is adapted to frequent disturbance. The individual species making up the community tend to have large quantities of seeds and very rapid growth that promote rapid re-establishment. Container planting and seeding has not been proposed due to potential conflicts with County Flood Control Maintenance requirements, high risk of plant material being washed out during subsequent storm events and potential conflicts with future Santa Ana River Trail construction. For erosion control purposes, temporarily impacted areas outside of the active floodplain will be hydroseeded with native grasses and shrubs.</p> <p>i. The temporarily impacted SCWRF and SWS habitat will be monitored annually for five years, until LBV is documented using the re-established habitat or until habitat attains 80 percent cover including both shrub and overstory stratum. If recruitment of SCWRF and SWS species is not evident within two years of project construction or habitat has not attained 60 percent cover within three years, impacts will be treated as permanent and additional mitigation for areas not meeting success criteria shall be provided through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 1:1.</p>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>ii. Temporary direct impacts to potentially suitable LBV habitat will be mitigated as follows: The temporal loss of occupied LBV habitat resulting from temporary removal of SCWRF associated with the Mission Zanja Channel shall be mitigated through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 3:1. The temporal loss of suitable unoccupied LBV habitat resulting from temporary removal of SCWRF and SWS shall be mitigated through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 2:1.</p> <p>c. Permanent direct impacts to occupied LBV habitat (SCWRF) shall be mitigated at a ratio of 3:1 through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration and/or creation of LBV habitat within the Santa Ana River watershed.</p> <p>d. If active LBV nests are identified during pre-construction surveys and noise levels at the nest exceed 60 dBA Leq, noise attenuation structures will be placed or other noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles) will be implemented to reduce noise levels at the nest to 60 dBA Leq (or ambient noise level if greater than 60 dBA Leq). During construction adjacent to these areas, noise monitoring shall occur during the LBV</p>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
breeding season and be reported daily to USFWS. Construction activities that create noise in excess of the aforementioned levels will cease operation until effective noise attenuation measures are in place to the extent practicable.					
<b>BIO-3: MBTA Covered Species.</b> Prior to habitat removal during the avian breeding season (February 15-August 31), a qualified biologist shall conduct a pre-construction nest survey (in suitable areas) no more than 3 days prior to ground disturbing activities for migratory birds. Pre-construction surveys will be preformed year-round between MP 3.3 and 4.0 with the timing and implementation done in coordination with the CDFW and USFWS. Should an active nest of any MBTA covered species occur within or adjacent to the project impact area, a 100-foot buffer (300 feet for raptors) shall be established around the nest and no construction shall occur within this area until a qualified biologist determines the nest is no longer active or the young have fledged.	Prior to and during construction	Mile Posts 3.3 to 4 (only)	SANBAG	USFWS	
<b>BIO-4: Protection of Sensitive Plants and Habitats.</b> SANBAG shall require the construction contractor to implement the following measures to protect sensitive plants and habitats during project-related construction. <ul style="list-style-type: none"> <li>SANBAG shall designate an approved biologist (project biologist) who will be responsible for overseeing compliance with protective measures for the biological resources during clearing and work activities within and adjacent to areas of native habitat. The project biologist will be familiar with the local habitats, plants, and wildlife and maintain communications with the contractor to ensure that issues relating to biological resources are</li> </ul>	Prior to and during construction	Mile Post 3.3 to 4	SANBAG	USFWS and CDFW	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>appropriately and lawfully managed. The project biologist will review final plans, designate areas that need temporary fencing, and monitor construction. The biologist will monitor activities within designated areas during critical times such as vegetation removal, the installation of Best Management Practices (BMPs) and fencing to protect native species, and ensure that all avoidance and minimization measures are properly constructed and followed.</p> <ul style="list-style-type: none"> <li>Project employees and contractors that will be on-site shall complete environmental worker-awareness training conducted by the project biologist. The training will advise workers of potential impacts to the sensitive habitat and listed species and the potential penalties for impacts to such habitat and species. At a minimum, the program will include the following topics: occurrences of the listed species and sensitive vegetation communities in the area, a physical description and their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violations of Federal and State laws, reporting requirements, and work features designed to reduce the impacts to these species; and to the extent practicable, promote continued successful occupation of areas adjacent to the work footprint. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos will be posted in the contractor and resident engineer's office, where they will remain through the duration of</li> </ul>					

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Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>the work. Photos of the habitat in which sensitive species are found will also be posted on-site. The contractor will be required to provide SANBAG with evidence of the employee training (e.g., sign in sheet or stickers) upon request. Employees and contractors will be instructed to immediately notify the project biologist of any incidents, such as construction vehicles that move outside of the work area boundary. The project biologist will be responsible for notifying the USFWS within 72 hours of any similar incident.</p> <ul style="list-style-type: none"> <li>• Prior to construction, SANBAG shall delineate the construction area (including staging and laydown areas) between Mile Posts 3.3 and 4.0 and erect exclusionary construction fencing along the perimeter of the identified construction area to protect adjacent sensitive habitats (SWS, SCWRF, RAFSS, and Santa Ana woolly star). Limits of the exclusionary fencing shall be confirmed by the project biologist prior to habitat clearing. Exclusionary fencing shall be maintained throughout the duration of construction work from Mile Posts 3.3 to 4.0. Exclusionary fencing can be removed at the conclusion of construction work as approved by the project biologist.</li> </ul> <p>All construction-related vehicles and equipment storage shall occur in the construction area and/or previously disturbed areas as approved by the project biologist. Project-related vehicle traffic shall be restricted to established access roads, construction areas, storage areas, and staging and parking areas.</p>					

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<p>If construction activity extends beyond the exclusionary fencing into sensitive vegetation communities, areas of disturbance shall be quantified and an appropriate restoration approach shall be developed in consultation with USFWS and CDFW. For example, if construction extends beyond the limits of the exclusionary fencing, temporarily disturbed areas shall be restored to the natural (preconstruction) conditions, which may include the following: salvage and stockpiling of topsoil, re-grading of disturbed sites with salvaged topsoil, and re-vegetation with native locally available species.</p>					
<p><b>BIO-5: Burrowing Owl.</b> SANBAG will conduct take avoidance (pre-construction) surveys for burrowing owl within 30 days prior to initiating ground disturbance activities. These surveys will be completed in no less than 14 days prior to construction. If burrowing owl is identified, the following shall apply:</p> <ul style="list-style-type: none"> <li>• If burrowing owl is identified during the breeding season (February 1 through August 31) then an appropriate buffer will be established by the biological monitor in accordance with the 2012 Staff Report on Burrowing Owl Mitigation (CDFW 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged and a CDFW-approved exclusion plan has been implemented. In addition to avoidance of the occupied habitat, off-site mitigation will be provided as described below: <ul style="list-style-type: none"> <li>- Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 (9.75) acres per pair or single bird.</li> </ul> </li> </ul>	<p>Prior to construction</p>	<p>Entire Project</p>	<p>SANBAG</p>	<p>CDFW</p>	

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<ul style="list-style-type: none"> <li>- Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 (13.0) acres per pair or single bird.</li> <li>- Replacement of occupied habitat with suitable unoccupied habitat: 3 times 6.5 (19.5) acres per pair or single bird.</li> <li>• If burrowing owl is identified during the non-breeding season (September 1 through January 31), then a 50 meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented.</li> </ul>					
<p><b>BIO-6: Secure Clean Water Act (CWA) Section 404 Permit and Implement All Permit Conditions to Ensure No Net Loss of Functions of Wetlands, Other Waters of the U.S., and Waters of the State).</b> Before the approval of grading or other ground disturbing activities within 50 feet of jurisdictional areas, SANBAG shall obtain a CWA Section 404 permit, Section 401 water quality certification, and CDFW 1602 Streambed Alteration Agreement.</p> <p>As part of the Section 404 permitting process, if the USACE (and/or CDFW) requires compensatory mitigation, a draft wetland mitigation and monitoring plan (MMP) shall be developed for the selected Build Alternative. The MMP shall be consistent with USACE's and EPA's April 10, 2008 Final Rule for Comp Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230).</p> <p>Potential mitigation for impacts to federal and state jurisdictional areas may occur at the following ratios:</p>	Prior to construction	Warm Creek (Historic), Twin Creek, Santa Ana River, Mission Zanja Channel, and Mill Creek Zanja	SANBAG	U. S. Army Corps of Engineers (USACE), Los Angeles District, CDFW, and Regional Water Quality Control Board (RWQCB), Santa Ana Region	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>• USACE Wetland               <ul style="list-style-type: none"> <li>- Permanent: 3:1</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> <li>• USACE Waters               <ul style="list-style-type: none"> <li>- Permanent: 1:1</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> <li>• CDFW Riparian               <ul style="list-style-type: none"> <li>- Permanent: 3:1 (SWS, RAFSS, and SCWRF)</li> <li>- Permanent: 1:1 (unvegetated stream bank)</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> </ul>					
<p><b>BIO-7. Reseeding for Woolly Star.</b> Seeds from the closest known occurrences of woolly-star plants found both upstream and downstream of Bridge 3.4 shall be collected in the fall prior to construction of the SAR crossing. If construction activities require the loss of the single woolly-star at the SAR crossing, the collected seeds will be broadcast in the temporary impact areas, near the impacted woolly-star plant, after construction activities are complete and soils have been restored to pre-Project contours.</p> <ol style="list-style-type: none"> <li>1. Seed collection and broadcast methodologies will be proposed by a qualified seed collector approved by the Service prior to seed collection in a Santa Ana Woolly-Star Management Plan.</li> <li>2. Seed harvest shall be from a minimum of three plants per collection location, limited to no more than 50 percent of the available seeds from any one woolly-star plant.</li> <li>3. Seeds shall be held at the appropriate temperature and humidity for the shortest length of time necessary prior to planting.</li> </ol>	Prior to, during, and following construction	Mile Posts 3.4 to 4	SANBAG	CDFW	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>4. Planting of seeds shall be coordinated to occur prior to the first rains of the season, typically during early fall.</p> <p>5. If the woolly-star plant known in the Project area is avoided, collected seeds will be hand broadcast near the parental plants where they were collected.</p> <p>If SANBAG confirms that removal of the one individual is required during final design, SANBAG will purchase ILF or mitigation credits from a qualified mitigation program to address the Project's temporal affect on woolly-star during the up to three-year construction period. Credits will be purchased to cover affects to the on-site individual and off-site parental plants.</p>					
<b>Floodplains, Hydrology, and Water Quality</b>					
<p><b>HWQ-1: Prepare Drainage Plan(s) for Structural Facilities.</b> SANBAG shall prepare a site specific Drainage Plan for all major structural facilities constructed in conjunction with the Project, including stations and parking areas, track improvements, and the proposed layover facility. The Final Drainage Plan shall incorporate measures to maintain on-site runoff during peak conditions to pre-construction discharge levels. Design specifications for the detention and/or infiltration facilities shall provide sufficient temporary storage capacity to attenuate runoff to pre-Project conditions. These improvements will be coordinated with the applicable jurisdictions, including the Cities of Redlands and San Bernardino and the SBCFCD, as appropriate.</p>	Final design	Entire Project	SANBAG	Cities of San Bernardino and Redlands, and the SBCFCD	
<p><b>HWQ-2: Prepare and Implement a SWPPP.</b> The construction contractor will develop a SWPPP that complies with the requirements of the NPDES General Construction Permit (Order 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ and 2012-0006-DWQ) for Risk Level 2</p>	Final design, during construction, and post-construction	Entire Project	SANBAG	RWQCB	

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<p>projects and implement the BMPs described in the SWPPP. The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by SANBAG prior to commencement of work and shall be made conditions of the contract with the contractor.</p> <p>The SWPPP shall be prepared by a qualified SWPPP developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure.</p> <p>Following construction, SANBAG will ensure the provision of sufficient drainage inlet and outlet protection through the use of energy dissipaters, vegetated riprap, and/or other appropriate BMPs to slow runoff velocities and prevent erosion at discharge locations from the rail station and parking areas.</p>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>HWQ-3: Prepare and Implement a Flow Diversion Plan for Construction.</b> SANBAG or SANBAG's construction contractor shall develop a Flow Diversion Plan(s) for in-channel construction activities proposed within Warm Creek (Historic)(Bridge 1.1); Twin Creek (Bridge 2.2), SAR (Bridge 3.4), Zanja Channel (Bridges 3.9, and 5.8, and bank improvements), and Mill Creek Zanja (Bridge 9.4). SANBAG's contractor shall incorporate measures to minimize changes to flood flow elevation(s) during construction, address accumulation of floating debris, provide measures that minimize sedimentation to surface waters, and include contingency measures in the event of substantial rainfall.	During construction	Warm Creek (Historic)(Bridge 1.1); Twin Creek (Bridge 2.2), SAR (Bridge 3.4), Zanja Channel (Bridges 3.9, and 5.8, and bank improvements), and Mill Creek Zanja (Bridge 9.4).	SANBAG		
<b>HWQ-4: Prepare a Natural Hazard Management Plan.</b> SANBAG shall develop a Natural Hazard Management Plan for the Project. The Natural Hazard Management Plan will include a flood monitoring and evacuation plan for all Project infrastructure located within a delineated 100-year flood zone based on the most recent FEMA mapping. The Plan shall include protocols and procedures for emergency response in the event of a flood, the investigation and repair of track, station, and bridge facilities following inundation, and the provision of interim transit until Project operations resume.	Prior to operation	Entire Project	SANBAG	None	
<b>HWQ-5: Flood-Proofing of Critical Infrastructure.</b> Where feasible, stations and building pads for the proposed train layover facility shall be designed such that the finished floor elevation will be one-foot above the base 100-year flood elevation, where established.	Final design	Stations at Downtown Redlands and University Street	SANBAG	None	
<b>HWQ-6: Incorporate Post-Construction Runoff BMPs into Project Drainage Plan, Final WQMP, and Industrial SWPPP.</b> The Project Drainage Plan, Final WQMP, and the	Final design and post-construction	Entire Project	SANBAG	None	

Communication: Draft Addendum 2 - Attachment E (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>NPDES Industrial SWPPP shall demonstrate treatment, control, and management of the on- and off-site discharge of stormwater to existing drainage systems or drainage features. The final Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and the final WQMP will ensure sufficient treatment of runoff generated from Project impervious surfaces prior to off-site discharge.</p> <p>SANBAG shall ensure the provision of sufficient outlet protection through the use of energy dissipaters, vegetated rip-rap, soil protection, and/or other appropriate BMPs to slow runoff velocities and prevent erosion at discharge locations for the station platforms, parking areas, and layover facility. A long-term maintenance plan shall be developed and implemented to support the functionality of drainage control devices. The layover facility layout(s) shall also include sufficient container storage and on-site containment and pollution-control devices for drainage facilities to avoid the off-site release of water quality pollutants, including, but not limited to oil and grease, fertilizers, treatment chemicals, and sediment. These measures shall be reflected in the final Industrial SWPPP and WQMP for applicable facilities. The NPDES Industrial SWPPP shall incorporate required maintenance practices and housekeeping to maximize the long-term effectiveness of post-construction BMPs.</p>					
<b>Geology, Soils, and Seismicity</b>					
<p><b>GEO-1: Prepare Final Geotechnical Report for the Project and Implement Recommended Measures.</b> Facility design for all Project components shall comply with the site-specific design recommendations as provided by a licensed geotechnical or civil engineer to be retained by SANBAG.</p>	Design, prior to and post-construction	Entire Project	SANBAG	None	

Communication: Draft Addendum 2 - Attachment E (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>The final geotechnical and/or civil engineering report shall address and make recommendations on the following:</p> <ul style="list-style-type: none"> <li>• Site preparation;</li> <li>• Soil bearing capacity;</li> <li>• Appropriate sources and types of fill;</li> <li>• Liquefaction;</li> <li>• Lateral spreading;</li> <li>• Settlement;</li> <li>• Landslides (with emphasis on improvements that border the Mission Zanja Flood Control Channel);</li> <li>• Hydroconsolidation;</li> <li>• Compressible/Collapsible soils;</li> <li>• Corrosive soils;</li> <li>• Structural foundations; and</li> <li>• Grading practices.</li> </ul> <p>In addition to the recommendations for the conditions listed above, the geotechnical report shall include subsurface testing of soil and groundwater conditions, and shall determine appropriate foundation designs that are consistent with the latest version of the CBC, as applicable at the time building and grading permits are pursued. All recommendations contained in the final geotechnical engineering report shall be implemented by SANBAG.</p>					
<b>Hazardous Waste and Materials</b>					
<p><b>HAZ-1: Prepare and Implement a Construction Hazardous Materials Management Plan and Operational Hazardous Materials Business Plan.</b> Prior to operation, SANBAG shall prepare and implement a Hazardous Materials Management Plan (HMMP) and Hazardous</p>	Prior to construction (HMMP) and operation (HMBP)	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>Materials Business Plan (HMBP) for the Project. The HMMP shall provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project construction, including the proper disposal of waste materials. The HMBP will provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project operations. The HMMP and HMBP shall include, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• A description of hazardous materials and hazardous wastes used;</li> <li>• A description of handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste;</li> <li>• Preparedness, prevention, contingency, and emergency procedures, including emergency contact information;</li> <li>• A description of personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility;</li> <li>• Instructions on keeping Materials Safety and Data Sheets (MSDS) on-site for each on-site hazardous chemical; and</li> <li>• Identification of the locations of hazardous material storage areas, including temporary storage areas, which shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank.</li> </ul>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>HAZ-2: Pre-Demolition Investigation.</b> Prior to the demolition of any structures within the Project footprint, a survey shall be conducted for the presence of hazardous building materials such as asbestos-containing materials, lead based paints, and other materials falling under Universal Waste requirements. The results of this survey shall be submitted to SANBAG and the City of San Bernardino's Department of Environmental Health or City of Redlands Department of Environmental Health, as applicable. If any hazardous building materials are discovered, a plan for their proper removal shall be prepared in accordance with applicable requirements of the California Division of Occupational Safety and Health and the County of San Bernardino Environmental Health Services. The contractor performing the work will be required to have a license in the State of California, and possess a C-21, A or B classification. Further and if required, the contractor or their subcontractor will be required to possess a California Contractor License (ASB) to perform any asbestos related work. Prior to any demolition activities, the contractor will be required to secure the site and ensure the disconnection of utilities.</p>	Prior to demolition of any structures	Entire Project	SANBAG	City of San Bernardino Department of Environmental Health or City of Redlands Department of Health, as applicable	
<p><b>HAZ-3: Prepare Phase I and/or Phase II ESA for Indeterminate or High-Risk Sites.</b> Prior to grading, further investigation at any of the identified sites of concern with an indeterminate or high risk-ranking shall be conducted, if it is known that ground disturbance at those sites would exceed 18 inches within 50 feet of the site of concern. The additional investigation shall be in the form of a site-specific ASTM-compliant Phase I ESA investigation. The Phase I ESA recommendation would determine if a Phase II Preliminary Site Investigation (drilling and sampling) would be required, as appropriate. Both the Phase I and Phase II</p>	Prior to construction	Entire Project	SANBAG	None	

Communication: Draft Addendum 2 - Attachment E (Item 12)





**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
ESA investigations would be completed prior to parcel acquisition (therefore, prior to any construction activity). The Project shall comply with recommendations provided in the Phase I ESA and/or Phase II ESA(s).					
<b>HAZ-4: Halt Construction Work if Potentially Hazardous Materials are Encountered.</b> All construction contractors shall immediately stop all subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall follow all applicable local, state, and federal regulations regarding discovery, response, disposal, and remediation for hazardous materials encountered during the construction process.	During construction	Entire Project	SANBAG	None	
<b>HAZ-5: Keep Construction Area Clear of Combustible Materials.</b> SANBAG shall ensure, through the enforcement of contractual obligations that during construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. The contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	During construction	Entire Project (Emphasis Mile Posts 3 to 6)	SANBAG		
<b>HAZ-6: Provide Accessible Fire Suppression Equipment.</b> Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. All off-road equipment using internal combustion engines shall be equipped with spark arrestors.	During construction	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Cultural and Historic Resources</b>					
<b>CUL-1: Structural Evaluations.</b> In order to determine the structural stability of the Redlands Depot, Cope Commercial Company Warehouse, Haight Packing House, Redlands City Transfer, and the brick warehouse at 440 Oriental Avenue, structural evaluations shall be prepared by a qualified engineer for these five buildings prior to the commencement of construction. The structural evaluations will also address maximum allowable levels of vibration during construction and, if appropriate, will recommend reduced levels of stabilization in conjunction with vibration monitoring. Qualified recommendations within the structural evaluation shall be adhered to, as appropriate. Permanent stabilization will follow the Secretary of the Interior's guidelines for the treatment of historic properties; if the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings will be restored to their pre-construction condition when the stabilization measures are removed.	Final design and prior to construction	Redlands Depot, Cope Commercial Company Warehouse, Haight Packing House, Redlands City Transfer, and the brick warehouse at 440 Oriental Avenue	SANBAG	State Historic Preservation Officer (SHPO), if required	
<b>CUL-2a: Minimize Indirect Visual Effects of Potential Sound Barriers.</b> Visual surface treatments and drought-tolerant landscaping will be implemented as necessary to minimize indirect effects on the setting and feeling of the Redlands Lawn Bowling Club portion of Sylvan Park and the Second Baptist Church from introduction of sound barriers (if constructed). The surface treatments and landscaping for the sound barrier at the Redlands Lawn Bowling Club will be designed and implemented to harmonize the barrier with the surrounding pastoral park landscape. If a sound barrier is necessary at the Second Baptist Church, surface treatments will be designed and implemented to harmonize the barrier with the Spanish Colonial Revival architecture of the church building. Drought tolerant landscaping will be incorporated into the design of the barrier at the church as needed.	Final design and post-construction (if required)	Redlands Lawn Bowling Club portion of Sylvan Park and the Second Baptist Church	SANBAG	Cities of Redlands and San Bernardino	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>CUL-2b: Conduct Potential Noise Insulation Work at Second Baptist Church in Accordance with Secretary of Interior Standards and Guidelines and Applicable Preservation Briefs.</b> Sound-attenuating insulation may be necessary for the Second Baptist Church building. If sound-attenuating insulation measures are implemented at the church building, the work will be conducted in accordance with the Secretary of the Interior's Standards for Rehabilitation with Guidelines for Applying the Standards (Hume et al. 1990) and applicable National Park Service preservation briefs, including #3 (Improving Energy Efficiency in Historic Buildings); #22 (The Preservation and Repair of Historic Stucco); #24 (Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches); and # 30 (The Preservation and Repair of Historic Clay Tile Roofs). SANBAG will select and implement the recommended insulation measures in coordination with the property owner and SHPO.</p>	Prior to operations (if required)	Second Baptist Church	SANBAG	SHPO, if required	
<p><b>CUL-3: Off-Site Replacement of Citrus Trees Removed from California/I-10-Grove.</b> SANBAG shall coordinate with the City of Redlands, including the Citrus Preservation Commission, to provide for the planting of citrus trees at properties within the Redlands Historical Preserve of Citrus to compensate for the trees removed from the California/I-10 Grove in association with the Preferred Project Alternative. The number of citrus trees planted will be equal to the number of trees removed from the California/I-10 Grove. The types of trees to be planted will be determined through consultation between SANBAG and the City of Redlands, including the Citrus Preservation Commission.</p>	Prior to construction	California/I-10 Grove	SANBAG	City of Redlands, Citrus Preservation Commission	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>CUL-4: Construction Monitoring.</b> Full-time monitoring for archaeological deposits will be conducted in the Project APE in the vicinity of the Redlands Chinatown site (and a 50-foot buffer on each side of the site boundary) during ground disturbing construction activities. Monitoring will be conducted in accordance with a Construction Monitoring and Discovery Plan to be prepared for the project. Monitoring will occur under the supervision of an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards.</p> <p><i>Unanticipated Discoveries.</i> In the event an unanticipated discovery of archaeological resources occurs during construction, the following measures will be implemented immediately following the discovery:</p> <ul style="list-style-type: none"> <li>• All construction within a 50-foot radius of the resource will be halted until a qualified archaeologist can evaluate the resource.</li> <li>• FTA and SHPO will be notified in the event of an unanticipated discovery.</li> <li>• If the discovery is determined to be significant or potentially significant by the qualified archaeologist, the adverse effects under Section 106 to portions of archeological resources determined to be eligible for the NRHP would be resolved in consultation with SHPO through the following tasks:               <ul style="list-style-type: none"> <li>- Discussion with project engineers to determine if impacts can be avoided/minimized, including consideration of preservation in place</li> <li>- Recovery and analysis of archaeological material and associated data</li> </ul> </li> </ul>	<p>During construction</p>	<p>Project APE in the vicinity of the Redlands Chinatown site</p>	<p>SANBAG</p>	<p>SHPO, if required</p>	

Communication: Draft Addendum 2 - Attachment E (Item 12)



**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Preparation of a data recovery report or other reports</li> <li>- Recovered archaeological material shall be provided to an accredited archaeological repository.</li> </ul> <p>Archaeological monitor qualification requirements, detailed approaches to archaeological monitoring of various project elements, and the procedures to follow in the event that unanticipated archaeological resources or human remains are discovered will be defined in the Construction Monitoring and Discovery Plan.</p> <p><i>Stop Work if Unanticipated Human Remains Are Encountered.</i> If human remains are exposed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to PRC 5097.98. If the coroner determines the remains to be Native American, the coroner must contact the Native American Heritage Commission and the Project must comply with state laws relating to the disposition of Native American burials that are under the jurisdiction of the Native American Heritage Commission (PRC Section 5097). Construction must halt in the area of the discovery of human remains, the area must be protected, and consultation and treatment would occur as prescribed by law.</p>					
<b>Parklands, Community Services, and Other Public Facilities</b>					
<p><b>PCS-1: Coordinate Trail Planning with Local Jurisdictions.</b> SANBAG will implement the following activities to minimize Project-related conflicts with proposed trails:</p>	Final design	Bridge 3.4 and Orange Blossom Trail	SANBAG	San Bernardino County Parks and Recreation Department and Public Works	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>Santa Ana River Trail - SANBAG shall coordinate final design and construction of Bridge 3.4 with the San Bernardino County Department of Public Works, Transportation Design Division, and Parks and Recreation Department to integrate the trail as contemplated in the SANBAG's Non-Motorized Transportation Plan (2011) (NMTP), so as to maintain it's planned future continuity along the Santa Ana River. If the trail is constructed and operational in advance of the bridge structure, SANBAG will maintain trail access during the course of construction, to the extent feasible. In instances, where trail closures are required the construction contractor will be required to minimize the duration of the closure and support the County with any noticing, outreach, or implementation of temporary detours.</li> <li>Orange Blossom Trail - SANBAG shall update the NMTP (2011) as part of it's next cycle update, to include the realignment of the trail segment of the Orange Blossom Trail that is currently shown as being located within the railroad right-of-way, so as to not conflict with the proposed project. SANBAG will coordinate with the City of Redlands and the County Flood Control District to determine available rights-of-way for the placement of the trail and, if necessary, realign the trail to take advantage of connections via existing roadway and other public right-of-ways.</li> </ul>				Department, City of Redlands, and the San Bernardino County Flood Control District	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Safety and Security</b>					
<p><b>SS-1: Develop Safety and Security Management Plan.</b> Prior to construction, SANBAG shall coordinate and consult with local safety and crime prevention authorities to develop a Safety and Security Management Plan (SSMP) for the track alignment, bridges, parking facilities, and station areas. The SSMP shall include a station surveillance element to be developed in coordination with the local jurisdiction and private properties owners, as applicable. If a non-FRA compliant DMU vehicle type is selected for the Project, the SSMP shall include a plan element that includes appropriate levels of safety as may be necessary to facilitate a shared-use operation.</p>	Final design and post construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	
<p><b>SS-2: Fencing.</b> SANBAG's contractor shall erect temporary fencing and visual screening for staging areas and provide security personnel during construction to minimize trespassing and vandalism throughout the duration of construction.</p>	Prior to and during construction	Entire Project	SANBAG	None	

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**DATE FILED & POSTED**

Posted On: 9/13/17

Removed On: 10/26/17

Receipt No: 36-091317-543

**Notice of Determination**

**Appendix D**

**To:**

Office of Planning and Research  
U.S. Mail: Street Address:  
P.O. Box 3044 1400 Tenth St., Rm 113  
Sacramento, CA 95812-3044 Sacramento, CA 95814

County Clerk  
County of: San Bernardino  
Address: 222 W. Hospitality Lane, 1st Floor  
San Bernardino, CA 92415-0022

**From:**

Public Agency: San Bernardino County Transportation Authority  
Address: 1170 W. 3rd Street, 2nd Floor  
San Bernardino, CA 92410  
Contact: Justin Fornelli  
Phone: (909) 884-8276

Lead Agency (if different from above):  
Address: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_

**SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.**

State Clearinghouse Number (if submitted to State Clearinghouse): 2012041012

Project Title: Redlands Passenger Rail Project (RPRP)

Project Applicant: San Bernardino County Transportation Authority (SBCTA)

Project Location (include county): San Bernardino County, City of San Bernardino, South Washington St.

**Project Description:**

The Redlands Passenger Rail Project is an approximately nine mile corridor extending east from the City of San Bernardino to the City of Redlands and includes local and express train service. SBCTA certified a Final EIR for the project in March of 2015. The final EIR considered drainage improvements throughout the corridor; including off-site connections. SBCTA is proposing a new side-drain connection at Twin Creek that would accept drainage from an existing culvert at mile post 2.63 that would be replaced as part of the approved Project.

This is to advise that the San Bernardino County Transportation Authority has approved the above  
( Lead Agency or  Responsible Agency)

described project on 9/6/17 and has made the following determinations regarding the above  
(date)  
described project.

1. The project [ will  will not] have a significant effect on the environment.
2.  An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
 A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [ were  were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [ was  was not] adopted for this project.
5. A statement of Overriding Considerations [ was  was not] adopted for this project.
6. Findings [ were  were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval or the negative Declaration, is available to the General Public at:  
1170 W. 3rd Street, 2nd Floor, San Bernardino, CA 92410

Signature (Public Agency): [Signature] Title: Director of Transit & Rail Programs

Date: 9/07/17 Date Received for filing at OPR: \_\_\_\_\_

CLERK OF THE BOARD OF SUPERVISORS  
COUNTY OF SAN BERNARDINO  
CALIFORNIA  
2017 SEP 13 PM 3:45





State of California - Department of Fish and Wildlife  
**2017 ENVIRONMENTAL FILING FEE CASH RECEIPT**  
 DFW 753.5a (Rev. 01/01/17) Previously DFG 753.5a

**Print**      **StartOver**      **Finalize&Email**

RECEIPT NUMBER:  
 36 — 091317 — 543  
 STATE CLEARINGHOUSE NUMBER (If applicable)  
 2012041012

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY: San Bernardino County Transportation Authority      LEAD AGENCY EMAIL:      DATE: 091317

COUNTY/STATE AGENCY OF FILING: San Bernardino      DOCUMENT NUMBER:

PROJECT TITLE: Redlands Passenger Rail Project (RPRP) Addendum No. 2 to the EIR

PROJECT APPLICANT NAME: San Bernardino County Transportation Authority      PROJECT APPLICANT EMAIL:      PHONE NUMBER: (909) 884-8276

PROJECT APPLICANT ADDRESS: 1170 W. 3rd Street, 2nd Floor      CITY: San Bernardino      STATE: CA      ZIP CODE: 92410

PROJECT APPLICANT (Check appropriate box)  
 Local Public Agency       School District       Other Special District       State Agency       Private Entity


CHECK APPLICABLE FEES:

<input checked="" type="checkbox"/> Environmental Impact Report (EIR)	\$3,078.25	\$	<u>3,078.25</u>
<input type="checkbox"/> Mitigated/Negative Declaration (MND)(ND)	\$2,216.25	\$	<u>0.00</u>
<input type="checkbox"/> Certified Regulatory Program document (CRP)	\$1,046.50	\$	<u>0.00</u>

Exempt from fee  
 Notice of Exemption (attach)  
 CDFW No Effect Determination (attach)  
 Fee previously paid (attach previously issued cash receipt copy)

<input type="checkbox"/> Water Right Application or Petition Fee (State Water Resources Control Board only)	\$850.00	\$	<u>0.00</u>
<input checked="" type="checkbox"/> County documentary handling fee		\$	<u>50.00</u>
<input type="checkbox"/> Other		\$	<u>0.00</u>

PAYMENT METHOD: **CK# 624769**  
 Cash       Credit       Check       Other      TOTAL RECEIVED \$ 3,128.25

SIGNATURE:       AGENCY OF FILING PRINTED NAME AND TITLE: Mariela Barrera, Deputy Clerk



# Addendum No. 3 to the EIR

San Bernardino County Transportation Authority | Redlands Passenger Rail Project

*SCH No. 2012041012*

July 26, 2017

Communication: Draft Addendum 3 (Item 12)





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Attachment B. Biology Letter Report

Attachment C. Mitigation Monitoring and Reporting Program



# 1 Purpose and Background

On March 4, 2015, the San Bernardino Associated Governments (now referred to as the San Bernardino County Transportation Authority [SBCTA]) certified the Final Environmental Impact Report (EIR) for the Redlands Passenger Rail Project (RPRP or Project) (State Clearinghouse No. 2012041012). The approved Project will provide passenger rail operations along an approximately 9-mile corridor extending east from the City of San Bernardino to the City of Redlands. As approved, the Project will include local and express train service via five station stops; two in the City of San Bernardino; and three in the City of Redlands.

Following additional coordination with local stakeholders, including the San Bernardino County Flood Control District (District), and engineering design for the approved Project, SBCTA is proposing a new drainage connection at Twin Creek; approximately 1,200 feet south of Central Avenue in the City of San Bernardino, California. As previously described in Section 2.4.2.13 of the EIR, SBCTA contemplated drainage improvements at multiple locations along the railroad corridor, including reconstruction of existing culverts and the placement of new drainage facilities. In general, the proposed drainage connection would be consistent with this previous description.

SBCTA has prepared this addendum to the EIR for the approved Project (State Clearinghouse No. 2012041012) to address the potential environmental impacts associated with the proposed drainage connection to Twin Creek (refined Project). This addendum is prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code § 21000, et. seq.) and the CEQA Guidelines (California Administrative Code, Title 14, § 15000, et. seq.).

## 1.1 Applicability and Use of an Addendum

SBCTA's intent through preparation of this addendum is to demonstrate whether the previously adopted CEQA document (i.e., Final EIR), including mitigation measures, are still both adequate and valid for the refined Project. Pursuant to Public Resources Code Section 21166 and the CEQA Guidelines, Sections 15162 through 15164, SBCTA as the lead agency is required to conduct a fact-based evaluation of proposed changes to a project to determine whether supplemental environmental documentation is required. CEQA Guidelines, Sections 15162(a), states that when an EIR is certified for a project, no Subsequent or Supplemental EIR shall be prepared for that project unless the lead agency determines that one of the conditions described in Section 15162(a) has occurred.

Based on the analysis set forth in this addendum, SBCTA has concluded that the refined Project does not trigger any of these circumstances, and that an addendum is the appropriate form of documentation to comply with CEQA.

## 1.2 Format of This Addendum

The previously certified EIR serves as the initial environmental compliance document for the Project, and this addendum provides additional clarification and information about the

refined Project. This addendum should be read together with the full text of the previously certified EIR (2015). All mitigation measures applicable from the EIR would be applicable to the refined Project and, therefore, are incorporated by reference into this addendum.

This addendum relies on the use of an Environmental Checklist Form (Checklist), as suggested in Section 15063(d)(3) of the CEQA Guidelines.

### 1.3 Summary of Findings

Based upon the Checklist prepared for the refined Project and supporting responses (Section 3), implementation of the refined Project would not result in substantial changes requiring major revisions to the EIR. Further, the refined Project would not result in any environmental impacts that have not already been addressed in the EIR, and no new mitigation measures are required for the refined Project. Since only minor additions and clarifications are required to the EIR, and none of the conditions described in Public Resources Code Section 21166 or CEQA Guideline 15162 requiring preparation of a subsequent EIR or negative declaration have occurred, SBCTA finds that the preparation of an addendum to the EIR is appropriate and consistent with Public Resources Code Section 21166 and CEQA Guidelines section 15162.

### 1.4 Lead Agency and Discretionary Approvals

This addendum and the previously adopted EIR are intended to serve as the environmental documentation for the design refinements being proposed under the refined Project. SBCTA is the lead agency under CEQA and maintains authority to approve the addendum.

## 2 Description of Refined Project

### 2.1 Introduction

The approved Project will facilitate passenger rail operations along an approximately 9-mile corridor extending east from the City of San Bernardino to the City of Redlands. The approved Project will include both local and express train service. Local service would occur via five station stops: E Street and Tippecanoe Avenue<sup>1</sup> located in the City of San Bernardino; and New York Street, Orange Street (Downtown Redlands) and University Street (University of Redlands) located in the City of Redlands. Metrolink express service would be limited to downtown Redlands and E Street. Components approved as part of the Project include replacement of the existing railroad tracks and ties, reconstruction or rehabilitation of existing bridge structures, and construction of station platforms and train layover facility. The EIR also analyzed auxiliary improvements such as parking, at-grade roadway crossings, pedestrian access, and new and relocated utilities, including water, sewer, storm drain, power, gas, fiber optic, and telephone lines.

### 2.2 Project Location

The refined Project encompasses the same general Study Area as described for the approved Project in Section 2.3, which extends along existing railroad right-of-way (ROW) owned by SBCTA between the cities of San Bernardino and Redlands, San Bernardino County, California (see Attachment A, Figure 1). The proposed refinement to the approved Project would be constructed in the south-central portion of San Bernardino, south of Central Avenue on the north, north of Orange Show Road, and west of Waterman Avenue. The proposed drainage connection would extend from an existing culvert in SBCTA's existing right-of-way (ROW) at mile post (MP) 2.63 on the east to the Twin Creek Channel on the west (see Attachment A, Figure 2).

### 2.3 Description of Refined Project

SBCTA is proposing the replacement of an existing wooden box culvert in SBCTA's ROW with a new reinforced concrete box (RCB) culvert as part of the approved Project's final design. Historically and as documented in the Section 3.8 and Appendix J1, Existing Drainage Conditions Memo of the Final EIR, drainage runoff along the corridor from MP 2.5 to 3.0 flows east to west (and southwest) and towards Twin Creek. More locally and as illustrated in Figure 3 of Attachment A, runoff from an approximately 45-acre drainage area is funneled west through the existing culvert and towards Twin Creek. Based on a recent reconnaissance of the railroad (and culvert) during the approved Project's final design, the existing culvert was observed to be partially obstructed and in need of maintenance. The replacement of the existing culvert was a component of the approved Project that was considered as part of the Final EIR.

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<sup>1</sup> SBCTA has considered the environmental effects of relocating the station stop at Waterman Avenue, as proposed in the Final EIR, to Tippecanoe Avenue. Addendum #1 to the EIR provides an assessment of the station relocation to Tippecanoe Avenue, as considered as part of the Preferred Alternative in the EIR.



Due to the level topography in the vicinity of the culvert and following more detailed drainage analysis, SBCTA has determined that replacement of the existing culvert will require corresponding drainage improvements to the west of SBCTA's ROW in order to maintain and improve the functional hydraulic grade between the railroad and Twin Creek. As shown in Figure 4 of Attachment A, in conjunction with the culvert's replacement, the refined Project includes the construction of an approximately 1,000-foot, trapezoidal, rock-lined ditch that would convey runoff from SBCTA's ROW (and areas to the east) to Twin Creek. The ditch would range from 1.5 to 3 feet in depth. The base of the ditch would range from 2 to 6 feet in width. The ditch would include a 24-inch RCB at South Washington Avenue and the District's eastern access road along Twin Creek.

As part of the refined Project, SBCTA is proposing the installation of a new side-drain connection at the western end of the ditch where it confluences with Twin Creek, south of Central Avenue and west of Washington Avenue. The new side-drain connection would include the placement of sufficient outlet protection (e.g. riprap) to minimize the potential for scour at the point of discharge to Twin Creek. The refined Project will require up to 15 feet of excavation to install the new 24-inch RCP storm drain and side drain connection to enable gravity flow into Twin Creek. The excavated material will be stockpiled to the east of the District's access road to maintain the greatest separation possible between stockpiles and the channel.

Twin Creek is an Army Corps of Engineers (USACE) constructed facility, which is maintained and operated by the District. As a result, the proposed side drain connection is subject to the USACE's authorization under the Rivers and Harbors Act.

## 2.4 Status of Currently Approved Project

SBCTA is nearing completion of the 90 percent plans and specification for the approved Project. Construction of the approved Project will be phased into three major construction contracts: (1) E Street Demo; (2) Early Utilities; (3) and Mainline Construction. The E Street Demo work will occur in the second half of 2017. Construction of the Early Utilities is scheduled to start in the second half of 2017 and extend into early 2018. Construction of the mainline track improvements, including station platforms, is scheduled to start in 2018 and extend into 2020.



### 3 Environmental Analysis Checklist

The following Environmental Analysis Checklist (Checklist) (Table 1) was developed for projects with previously certified/approved environmental documents. This Checklist takes into consideration the preparation of an environmental document prepared at an earlier stage of a project (e.g. RPRP), evaluates the adequacy of the earlier document in assessing potential environmental impacts resulting from refinements proposed to the approved Project, and is consistent with Section 21166 of the Public Resources Code and Section 15162 of the CEQA Guidelines. The results of this evaluation are summarized below with the detailed analysis provided in subsequent sections.

**Table 1. Environmental Analysis Checklist Summary**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
1. Aesthetics (Table 2)	Yes	No	No	No
2. Agriculture and Forestry Resources (Table 3)	Yes	No	No	No
3. Air Quality (Table 4)	Yes	No	No	No
4. Biological Resources (Table 5)	Yes	No	No	No
5. Cultural Resources (Table 6)	Yes	No	No	No
6. Geology/Soils (Table 7)	Yes	No	No	No
7. Greenhouse Gas Emissions (Table 8)	Yes	No	No	No
8. Hazards and Hazardous Materials (Table 9)	Yes	No	No	No
9. Hydrology and Water Quality (Table 10)	Yes	No	No	No
10. Land Use and Planning (Table 11)	Yes	No	No	No
11. Mineral Resources (Table 12)	Yes	No	No	No
12. Noise (Table 13)	Yes	No	No	No
13. Population and Housing (Table 14)	Yes	No	No	No
14. Public Services (Table 15)	Yes	No	No	No
15. Recreation (Table 16)	Yes	No	No	No
16. Transportation/Traffic (Table 17)	Yes	No	No	No
17. Utilities and Service Systems (Table 18)	Yes	No	No	No

**Table 1. Environmental Analysis Checklist Summary**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
18. Mandatory Findings(Table 19)	Yes	No	No	No
Note: See preceding checklist sections for detailed discussion of each environmental issue area.				



**Table 2. Aesthetics**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Have a substantial adverse effect on a scenic vista?	Yes	No	No	No
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	Yes	No	No	No
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Yes	No	No	No
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the aesthetics environment as described in Section 3.4, Visual Quality and Aesthetics, of the Final EIR. The refined Project features would generally be located at-or below grade, once constructed. The refined Project features are generally located within the previously described Study Area, which is urbanized, and does not contain any designated scenic vistas or scenic resources. Further, the refined Project features are not located within the viewshed of a State designated scenic highway. As a result, no substantial changes or major revisions to the previous EIR analysis are required.

The EIR concluded that with implementation of Mitigation Measures VQA-1, VQA-2, VQA-3, and VQA-5, the Project would not substantially degrade the existing visual character or quality of the site and its surroundings or create significant sources of light or glare. These mitigation measures would continue to apply to the refined Project features, as applicable. In this context, the refined Project would not result in new or substantially more severe impacts to aesthetics and no new mitigation measures would be required.

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**Table 3. Agricultural Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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*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.*

**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?	Yes	No	No	No
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Yes	No	No	No
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))?	Yes	No	No	No
d) Result in the loss of forest land or conversion of forest land to non-forest use?	Yes	No	No	No
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?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the agricultural environment as described in Section 5.4, Less Than Significant Impacts of the Build Alternatives and Design Options, of the Final EIR. The proposed drainage connection and side-drain would be constructed within land identified as “Urban and Built-up” as previously identified in the Final EIR. Therefore, the refined Project would not result in new or substantially more severe impacts and no new mitigation measures would be required.

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**Table 4. Air Quality**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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*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?	Yes	No	No	No
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Yes	No	No	No
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)?	Yes	No	No	No
d) Expose sensitive receptors to substantial pollutant concentrations?	Yes	No	No	No
e) Create objectionable odors affecting a substantial number of people?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the air quality environment as described in Section 3.5, Air Quality and Climate Change, and Appendix G of the Final EIR. The EIR identified that the approved Project would generate short-term construction emissions due to construction activities that include drainage improvements. The refined Project would require additional construction activities associated with the installation of the RCP and connecting culverts and side-drain connection at Twin Creek. These impacts were determined to be less than significant based on detailed air quality modeling completed in support of the EIR and included in Appendix G. The refined Project features would require similar construction activities of comparable duration and intensity as described for the approved Project and analyzed in the EIR. In this context, the construction of the refined Project features would not result in a substantial increase in construction activities and related emissions as analyzed in the EIR. As a result, the refined Project would not result in new or substantially more severe construction-related air quality impacts and no mitigation would be required.

Similar to the approved Project, the refined Project does not include any new trip-generating uses that would generate additional traffic on area roadways; therefore, no corresponding increase in operational air emissions would occur. Likewise, the refined Project operations would remain similar to that as described in the EIR; therefore, comparable operational emissions would result over the long-term. As a result, the refined Project would not result in new or substantially more severe operational air quality impacts and no mitigation would be required.

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**Table 5. Biological Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
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?	Yes	No	No	No
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Yes	No	No	No
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?	Yes	No	No	No
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	Yes	No	No	No
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Yes	No	No	No
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?	Yes	No	No	No



**Table 5. Biological Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions as described in Section 3.7, Biological and Wetland Resources and Appendix I, of the Final EIR. Similar to the approved Project, the refined Project features constructed in upland areas (e.g. proposed rock-lined ditch) would be located within previously disturbed areas. Like the approved Project, the refined Project would be required limited construction work within Twin Creek.</p> <p>Based on a field reconnaissance of the areas beyond approved Project footprint and related vegetation mapping, as provided in Attachment B, the Project Area contains suitable habitat for burrowing owl, loggerhead shrike, smooth tarplant and breeding migratory birds, all of which were considered in the EIR. Compliance with Mitigation Measures BIO-1 and BIO-3 through BIO-5 would minimize the potential for any impacts to these species. At Twin Creek, the refined Project would be extended into a small linear area mapped as non-vegetated channel (see Attachment B). These areas include State and Federal jurisdictional areas beyond the limits of those identified in the 2013 Preliminary Jurisdictional Determination (PJD). Attachment B includes a delineation of the State and Federal jurisdictional areas that would be directly impacted by the refined Project features, including the proposed side-drainage connection. Similar to the approved Project, compliance with Mitigation Measure BIO-6 would be required to minimize these direct impacts to a less than significant level.</p> <p>Based on the conclusions of the biological letter report contained in Attachment B, no new or more severe biological resources impacts would occur as a result of the refined Project features. All mitigation measures adopted as part of SBCTA's MMRP, including Mitigation Measures BIO-1, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7, would continue to apply to the refined Project features, as applicable, and potential impacts to biological resources would be mitigated to a less than significant level. No new mitigation would be required.</p>				

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**Table 6. Cultural Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	Yes	No	No	No
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Yes	No	No	No
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Yes	No	No	No
d) Disturb any human remains, including those interred outside of formal cemeteries?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions for historic architectural and archaeological resources as described in Section 3.12, Cultural and Historic Resources, and Appendix M of the Final EIR. A portion of the refined Project is located within the previously analyzed approved Project footprint and area of potential effect (APE). Those features that would extend beyond the previously analyzed footprint (and APE), including the proposed rock-lined ditch and side-drain connection, would generally be constructed in previously disturbed urbanized locations (e.g. developed lots, roadways, etc.).

SBCTA prepared an evaluation of the refined Project to determine if it would affect the previous findings regarding cultural resources (both historic built environment and archaeological) within the previously-approved Area of Potential Effects (APE). The replacement of the existing culvert would be contained within SBCTA's existing ROW and previously considered APE, as approved by the State Historic Preservation Officer (SHPO). The previous analysis concluded a finding of no adverse affect, which the Office of Historic Preservation (OHP) concurred on August 14, 2014 (OHP reference number FTA120830A).

There have been no historical or archaeological resources identified within or adjacent to the areas identified for the refined Project improvements. However, there is ground disturbing work associated with the proposed design refinement and the possibility exists for the discovery of unanticipated archaeological resources. The recommendation of Mitigation Measures CUL-4 to implement specific measures immediately following an unanticipated discovery remains unchanged and consistent with the Final EIR.

Overall, the refined Project would not be considered to have a significant impact to historical or archaeological resources under CEQA. The updated cultural resources analysis confirms that the proposed engineering refinements to the approved Project do not change the previous conclusions regarding cultural resources. No new or more severe cultural resources impacts would occur and Mitigation Measures CUL-1, CUL-3, and CUL-4 as contained in SBCTA's MMRP for the approved Project would continue to apply the refined Project features. There would be no changes required to the prior Cultural Resources Technical Memorandum (Appendix M of the Final EIR). No new mitigation is required.

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**Table 7. Geology and Soils**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Yes	No	No	No
j) Strong seismic ground shaking?	Yes	No	No	No
k) Seismic-related ground failure, including liquefaction?	Yes	No	No	No
l) Landslides?	Yes	No	No	No
b) Result in substantial soil erosion or the loss of topsoil?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No

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**Table 7. Geology and Soils**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> Since the adoption of the Final EIR, there have been no substantial changes to the geological environment as described in Section 3.9, Geology, Soils and Seismicity, and Appendix K of the Final EIR. The refined Project features would be constructed in the same general vicinity as the approved Project and would not be located within 500 feet of a major active fault or fault zone. Similar to the approved Project, the refined Project does not include the construction of structures that would be used for human occupancy and, therefore, the Project would not expose people to potential substantial adverse effects, including the risk of loss, injury, or death as a result of significant ground shaking and related secondary hazards. Similar to the approved Project, the refined Project features would be required to be in conformance with applicable seismic standards in the Uniform Building Code and Mitigation Measure GEO-1 as contained in SBCTA's MMRP. No new or more severe geological impacts would occur and the proposed mitigation would continue to apply to the refined Project. No new mitigation would be required.</p>				



**Table 8. Greenhouse Gas Emissions**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment?	Yes	No	No	No
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions as described in Section 3.5, Air Quality and Climate Change, and Appendix G of the Final EIR. The refined Project features would be constructed and operated consistent with the assumptions applied in the Final EIR. No increase in the emission of GHGs would result from the proposed refinements. As a result, no new or more severe impacts would occur with the refined Project and no mitigation is required.

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**Table 9. Hazards and Hazardous Materials**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes	No	No	No
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	Yes	No	No	No
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	Yes	No	No	No
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?	Yes	No	No	No
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	Yes	No	No	No
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?	Yes	No	No	No
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Yes	No	No	No



**Table 9. Hazards and Hazardous Materials**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
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**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the existing environment conditions as described in Section 3.10, Hazardous Waste and Materials, and Appendix L of the Final EIR. Similar to the approved Project, a majority of the refined Project features would be located within the approved Project footprint as previously evaluated in the Final EIR. In instances where the refined Project features extend beyond the previously approved footprint, SBCTA would comply with Mitigation Measure HAZ-3, which requires an updated Phase 1 Environmental Site Assessment (ESA) and Phase 2 Investigation, if necessary. No additional demolition of existing structures would be required that would otherwise require the implementation of Mitigation Measure HAZ-2.

Similar to the approved Project, the transport, use, and storage of hazardous materials during construction would be conducted in accordance with all applicable State and Federal laws. For this reason, the refined Project features, as applicable, would be subject to the hazardous materials management requirements contained in Mitigation Measure HAZ-1.

Based on a review of the Department of Toxic Substance's Control EnviroStor Database, the refined Project features are not identified as being located on a hazardous materials site compiled pursuant to Government Code Section 65962.5. Mitigation Measure HAZ-4 would continue to apply to the refined Project in order to reduce the potential impacts associated with the discovery of hazardous materials and/or contaminants. Mitigation Measures HAZ-5 and HAZ-6 would also continue to be applicable to the refined Project features, where construction within very high wildlife hazard areas.

Based on the above analysis, no new or more severe hazards and hazardous materials impacts would occur as a result of the refined Project features. All mitigation measures adopted as part of SBCTA's MMRP for the Project would continue to apply to the refined Project, as applicable. No new mitigation measures would be required.

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**Table 10. Hydrology and Water Quality**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	Yes	No	No	No
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)?	Yes	No	No	No
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Yes	No	No	No
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	Yes	No	No	No
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?	Yes	No	No	No
f) Otherwise substantially degrade water quality?	Yes	No	No	No
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?	Yes	No	No	No
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	Yes	No	No	No



**Table 10. Hydrology and Water Quality**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

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?	Yes	No	No	No
j) Inundation by seiche, tsunami, or mudflow?	Yes	No	No	No

**Discussion:** Since the certification of the Final EIR, there have been no substantial changes to the existing hydrological environment as described in Section 3.8, Floodplain and Hydrology, and Appendix J of the Final EIR. Similar to the approved Project, the refined Project features would be located within the approved footprint as previously evaluated in the Final EIR. Where the refinements extend beyond the previously approved footprint, the improvements would be located within previously disturbed or paved areas. The refined Project features are required as a means to comply with Mitigation Measure HWQ-1, which requires the preparation of a site-specific drainage plan for all structural components associated with the approved Project and sufficient outlet protection to minimize the potential for scour. Similar to the approved Project, the treatment of project-related stormwater would be addressed through compliance with Mitigation Measure HWQ-6, such that long-term water quality impacts would be less than significant.

Similar to the approved Project, the refined Project features would include grading and land disturbance activities that would require compliance Mitigation Measure HWQ-2, which requires compliance with the NPDES General Construction Permit. Construction of the refined Project would entail the same types of construction activities as analyzed in the final EIR and, therefore, no greater or more severe water quality impacts are expected from the construction of the refined Project features. Since the proposed side-drain connection would be constructed within the limits of Twin Creek, in-channel construction activities will be required to comply with Mitigation Measure HWQ-3.

Similar to the approved Project, the refined Project features would be constructed within areas subject to flooding during a 100-year storm event. Figure 5 in Attachment A illustrated the limits of the 100-year flood plain as delineated by FEMA. As a result, these improvements would be subject to compliance with Mitigation Measures HWQ-4 and HWQ-5, as applicable, and would not to exacerbate existing flooding conditions within the Project area. The proposed improvements are expected to improve flooding conditions within the vicinity of the refined Project features by including drainage improvements that would be capable of conveying the 10-year storm event and avoiding the uncontrolled discharge of runoff onto adjacent properties. Following implementation of the refined Project, existing drainage patterns within the catchment would be similar to existing conditions, including the point of discharge to Twin Creek. In this context, with the implementation of the required mitigation, the drainage impacts result from the refined Project features would be less than significant.

Based on the above analysis, no new or more severe hydrology or water quality impacts would occur as a result of the proposed refinements. All mitigation measures adopted as part of SBCTA’s MMRP for the approved Project, including Mitigation Measures HWQ-1, HWQ-2, HWQ-3, HWQ-4, HWQ-5, and HWQ-6 would continue to apply to the refined Project, as applicable. No new mitigation is required.

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**Table 11. Land Use and Planning**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Physically divide an established community?	Yes	No	No	No
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?	Yes	No	No	No
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the existing environmental conditions as described in Section 3.2, Land Use, Planning and Communities, and Appendix D of the Final EIR. The refined Project features would be located within or in close proximity to the approved Project footprint as previously evaluated in the Final EIR. As proposed, the refined Project features would not introduce new land uses that were not otherwise previously considered as part of the Final EIR. For this reason, the no substantive changes to the previous analysis of plan consistency would result and the previous less than significant determination would continue to apply.

Similar to the approved Project, the refined Project features would not physically divide the community or conflict with any applicable habitat conservation plan or natural communities' conservation plan. Temporary and permanent encroachments into adjacent properties, as applicable to the refined Project features, would be required to comply with Mitigation Measure LU-1.

Based on the above evaluation, no new or more severe land use, planning and communities impacts would occur as a result of the refined Project features. Mitigation adopted as part of SBCTA's MMRP for the Project would continue to apply to the refined Project, as applicable. No new mitigation measures would be required.

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**Table 12. Mineral Resources**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
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?	Yes	No	No	No
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?	Yes	No	No	No
<p><b>Discussion:</b> Since the certification of the Final EIR, there have been no changes to the existing environmental conditions as described in Section 5.4, Less Than Significant Impacts of the Build Alternatives and Design Options, of the Final EIR. The refined Project feature would be located within the same general vicinity of the approved Project as previously evaluated in the Final EIR. As a result, the refined Project is not located on a site that is designated as an important local or State mineral resource recovery site. As a result, implementation of the refined Project would not result in the loss of a known mineral resource and no new or more severe impacts would result from the refined Project.</p>				

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Table 13. Noise

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project result in:</b>				
a) 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?	Yes	No	No	No
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Yes	No	No	No
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes	No	No	No
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes	No	No	No
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Yes	No	No	No
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Yes	No	No	No



Table 13. Noise

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> Since the certification of the Final EIR, there have been no substantial changes to the noise environment as described in Section 3.6, Noise and Vibration, and Appendix H of the Final EIR. The refined Project would be located within the same general vicinity of the approved Project as previously evaluated in the Final EIR. The refined Project features would result in construction noise levels similar to that evaluated in the Final EIR. Construction of the refined Project features would be subject to the requirements of Mitigation Measure NV-1 and NV-2; however, similar to the approved Project temporary construction noise could remain significant.</p> <p>Operational noise levels and related impacts to noise sensitive land uses associated within the refined Project would be similar to the approved Project. No appreciable changes to the approved Project operations would occur as a result of the refined Project features.</p> <p>Construction and operational vibration were also considered in the Final EIR. Similar to the approved Project, construction-related vibration levels for the refined Project features would require compliance with Mitigation Measures NV-1 and NV-2. The refined Project features would not result in any changes to the analysis of operational vibration as provided in the Final EIR and the required Mitigation Measures NV-5 and NV-6 would continue to apply to the refined Project, where applicable.</p> <p>Based on the evaluation above, no new or more severe noise impacts would occur as a result of the Refined Project. Mitigation Measures NV-1, NV-2, NV-3, NV-5, NV-6, and NV-7 as contained in SBCTA's MMRP for the approved Project would continue to apply to the refined Project. No new mitigation measures would be required.</p>				

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**Table 14. Population and Housing**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Yes	No	No	No
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Yes	No	No	No
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	Yes	No	No	No

**Discussion:** The refined Project features would not increase the relocation or displacement impacts of the approved Project. No new land uses are proposed as part of the refinements that would otherwise increase the population estimates contained in the Final EIR. Based on these considerations, no new or more severe population and housing impacts would occur. No new mitigation would be required.



**Table 15. Public Services**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

a) Fire Protection?	Yes	No	No	No
b) Police Protection?	Yes	No	No	No
c) Schools?	Yes	No	No	No
d) Parks?	Yes	No	No	No
e) Other public facilities?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the environment as described in Section 3.13, Parklands, Community Services, and Other Public Facilities, of the Final EIR. Similar to the approved Project, the refined Project is limited to railroad and drainage improvements and would not generate population growth that would otherwise place new demands on local public service providers. Additionally, the refined Project does not include a residential component which would otherwise result in an incremental increase in demand on public services. Based on these considerations, no new or more severe public or community services and other facilities impacts would occur as a result of the refined Project. No new mitigation would be required.

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**Table 16. Recreation**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Would the project:**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Yes	No	No	No
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	Yes	No	No	No

**Discussion:** Since the adoption of the Final EIR, there have been no substantial changes to the environment as described in Section 3.13, Parklands, Community Services, and Other Public Facilities, of the Final EIR. Similar to the approved Project, the refined Project would not contribute to population growth that could result in an increased use of existing neighborhood and regional parks nor does it include or require construction or expansion of recreational facilities. The refined Project does not propose substantial changes that require major revisions to the EIR’s discussion of potential impacts to recreation. No new or more severe impacts to parks and recreation would occur under the refined Project. Mitigation Measure PCS-1 would continue to apply to the refined Project and no new mitigation is required.

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**Table 17. Transportation/Traffic**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
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?	Yes	No	No	No
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 county congestion management agency for designated roads or highways?	Yes	No	No	No
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that result in substantial safety risks?	Yes	No	No	No
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Yes	No	No	No
e) Result in inadequate emergency access?	Yes	No	No	No
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?	Yes	No	No	No

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**Table 17. Transportation/Traffic**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<p><b>Discussion:</b> The existing traffic and circulations conditions described in Section 3.3, Transportation and Circulation, and Appendix E of the Final EIR have not substantially changed since the EIR's certification. Similar to the approved Project, implementation of the refined Project would include drainage improvements that would result short-term construction activities along local roadways, including South Washington Avenue. Construction of these improvements would require compliance with Mitigation Measure TR-1 to minimize impacts to existing roadway and intersection LOS, including emergency access, during construction of the refined Project.</p> <p>Over the long-term, the proposed refinements would not degrade LOS at the intersections analyzed in Section 3.14 and Appendix E of the EIR. Mitigation Measures TR-2 and TR-3 would still be required to maintain acceptable LOS, where applicable.</p> <p>No non-motorized transportation facilities are located within the vicinity of the refined Project features. Therefore, no new impacts would result from the refined Project.</p> <p>Based on this evaluation, no new or more severe traffic impacts would occur as a result of the refined Project features. Mitigation Measures TR-1, TR-2, TR-3, TR-4, and TR-5 as contained in SBCTA's MMRP would continue to apply to the refined Project. No new mitigation measures would be required.</p>				

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**Table 18. Utilities and Service Systems**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
<b>Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Yes	No	No	No
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?	Yes	No	No	No
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?	Yes	No	No	No
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Yes	No	No	No
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Yes	No	No	No
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Yes	No	No	No
g) Comply with federal, state, and local statutes and regulations related to solid waste?	Yes	No	No	No

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**Table 18. Utilities and Service Systems**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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**Discussion:** The Final EIR concluded that the approved Project would not result in significant environmental impacts as it relates to utilities and service systems (see Section 5.5 of the Final EIR). As provided in Chapter 2 of the EIR, the approved Project contemplated the placement of new or relocated utility infrastructure. The refined Project features include these types of utility improvements, which are now better defined based on the additional engineering design completed. The refined Project does not entail any substantial changes (or new improvements) that require major revisions to the EIR’s discussion regarding utilities and service systems.

Similar to the approved Project, new drainage infrastructure proposed in conjunction with the refined Project would be constructed in compliance with Mitigation Measure HWQ-1, which requires the attenuation of post-project runoff to pre-project levels. No new or more severe utilities and service systems impacts would occur as a result of the refined Project. No new mitigation measures would be required.



**Table 19. Mandatory Findings**

Environmental Issue Area:	Was Impact Analyzed in Prior Environmental Document(s)?	Do Project Modifications Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	Yes	No	No	No
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Yes	No	No	No
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	Yes	No	No	No

**Discussion:** Cumulative impacts were evaluated for each of the environmental issue areas in Chapter 3 of the Final EIR. Similar to the approved Project, the refined Project would be required to comply with mitigation requirements relating to traffic, noise, hydrology and water quality, and vibration. With mitigation, these impacts would be minimized to a less than significant level for the refined Project features and not cumulatively considerable.

As discussed in the Biological and Cultural Resources Sections, the refined Project features would not create new or more severe impacts when compared to the approved Project. With the implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7, the refined Project would not 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, or reduce the number or restrict the range of a rare or endangered plant or animal. Similar to the approved Project, the refined Project would not eliminate important examples of the major periods of California history or prehistory through compliance with Mitigation Measures CUL-1, CUL-3, and CUL-4.

Based on this evaluation, the proposed refinements to the approved Project would not result in any significant cumulative impacts or any new or substantially more severe cumulative impacts. Mitigation measures adopted by SBCTA for the approved Project would be effective in minimizing adverse environmental effects on human beings. Therefore, the refined Project would not result in substantially more severe cumulative impacts and no new mitigation measures would be required.

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### Environmental Determination

Based upon the evidence in light of the whole record documented in the attached environmental checklist explanation, cited incorporations and attachments, I find that the Project:

- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document.
- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. **Minor additions and/or clarifications** are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA §15164).
- Has previously been analyzed** as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or **substantial changes have occurred** requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163.

Signed: \_\_\_\_\_

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## 4 Mitigation Measures

A listing of applicable mitigation measures from the Redlands Passenger Rail Project's EIR is provided as Attachment C of this EIR Addendum. All mitigation measures adopted as part of SBCTA's MMRP for the Project would continue to apply following the approval of the proposed Project. SBCTA, as the CEQA lead agency, is responsible for adopting and implementing the approved mitigation.



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# Attachment A. Figures

Communication: Draft Addendum 3 (Item 12)



## Attachment A – Figures

Figure 1. Regional Location

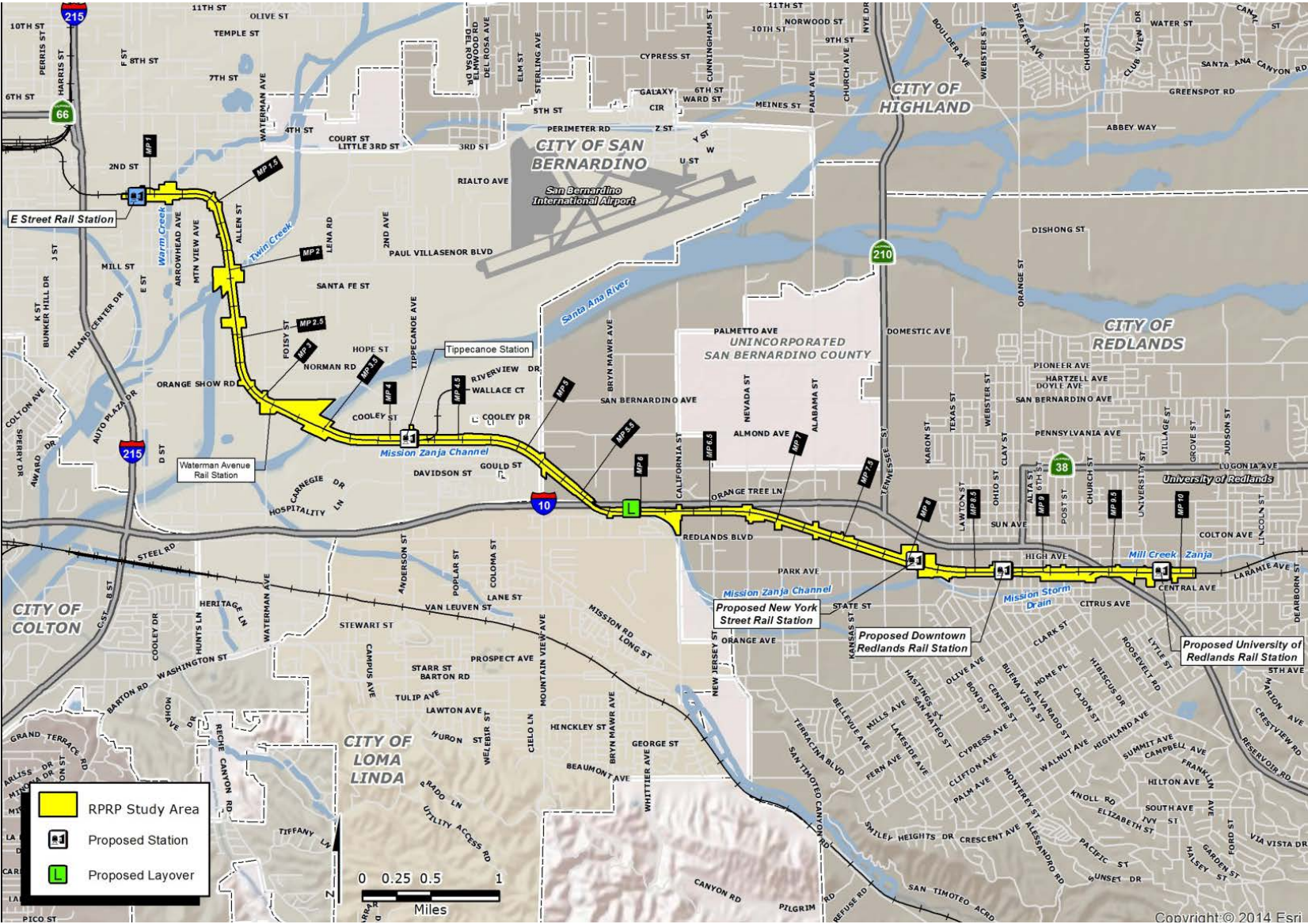
Figure 2. Proposed Drainage Connection Footprint

Figure 3. Local Watershed Area

Figure 4. Proposed Engineering Design (90 Percent)

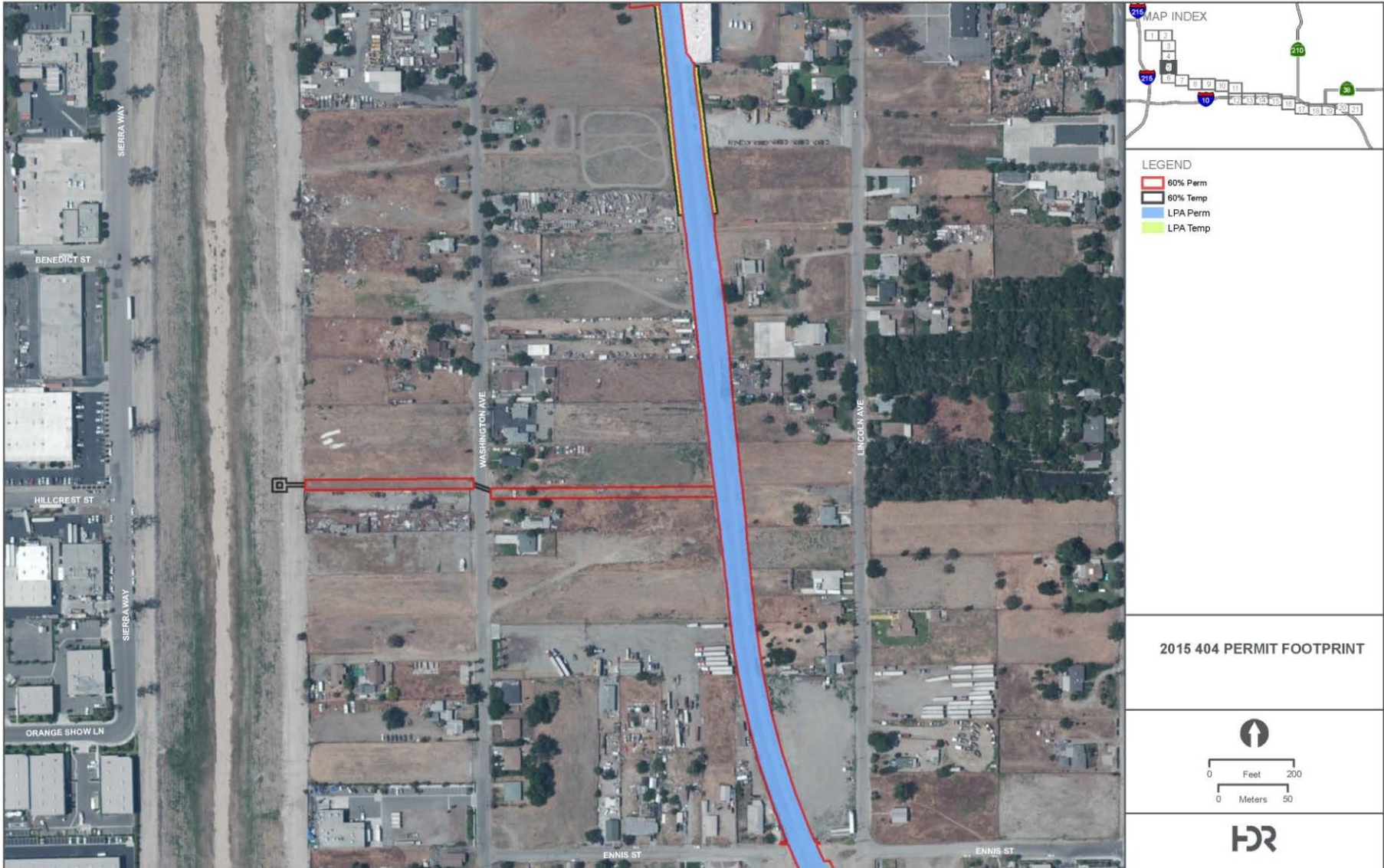
Figure 5. FEMA Flood Zones

Figure 1. Regional Location



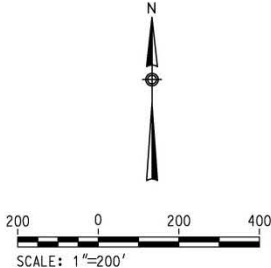
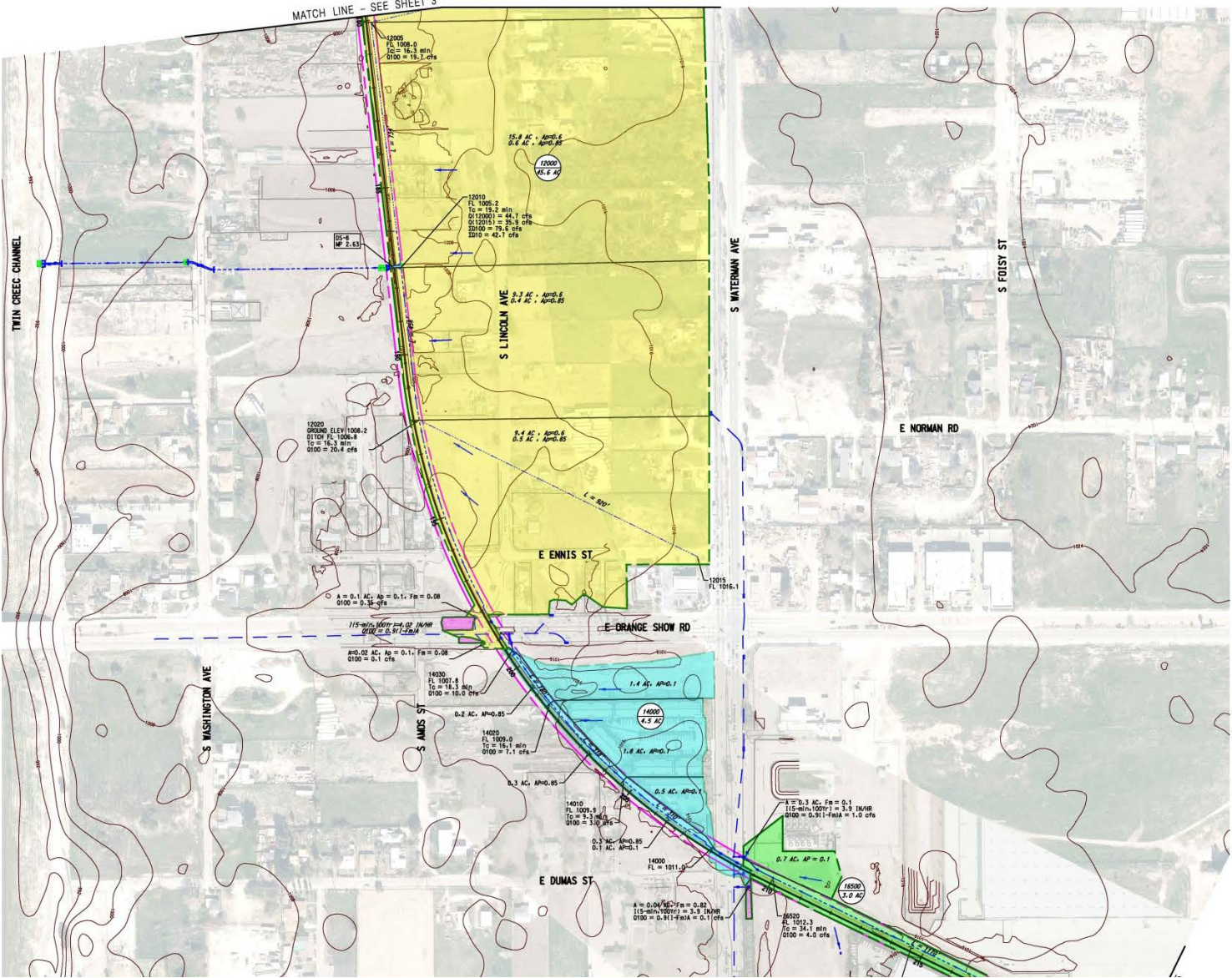
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Figure 2. Proposed Drainage Connection Footprint



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Figure 3. Local Watershed Area



**LEGEND**

- RAIL TRACK
- MAJOR DRAINAGE AREA
- DRAINAGE SUB AREA
- RIGHT OF WAY
- NODE LOCATION
- DRAINAGE DIRECTION
- FLOW PATH
- PROPOSED SUBRAIN
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

CATCHMENT NAME  
CATCHMENT ACREAGE

X.X AC SUBAREA ACREAGE

FL ELEVATION AT SURFACE

INV PIPE FLOW LINE ELEVATION

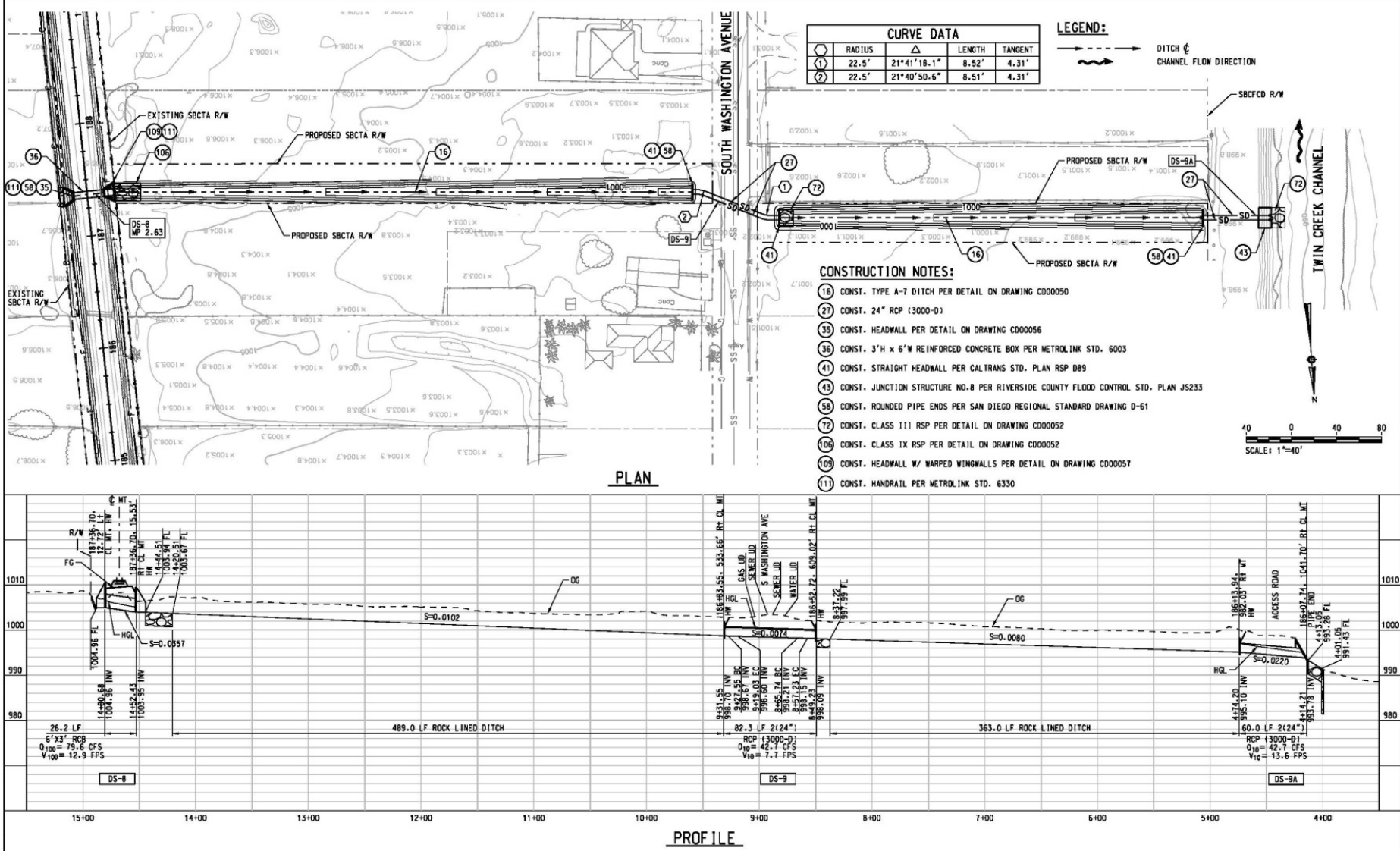
Q SUBAREA Q

ΣQ TOTAL Q

Ap PERVIOUS AREA

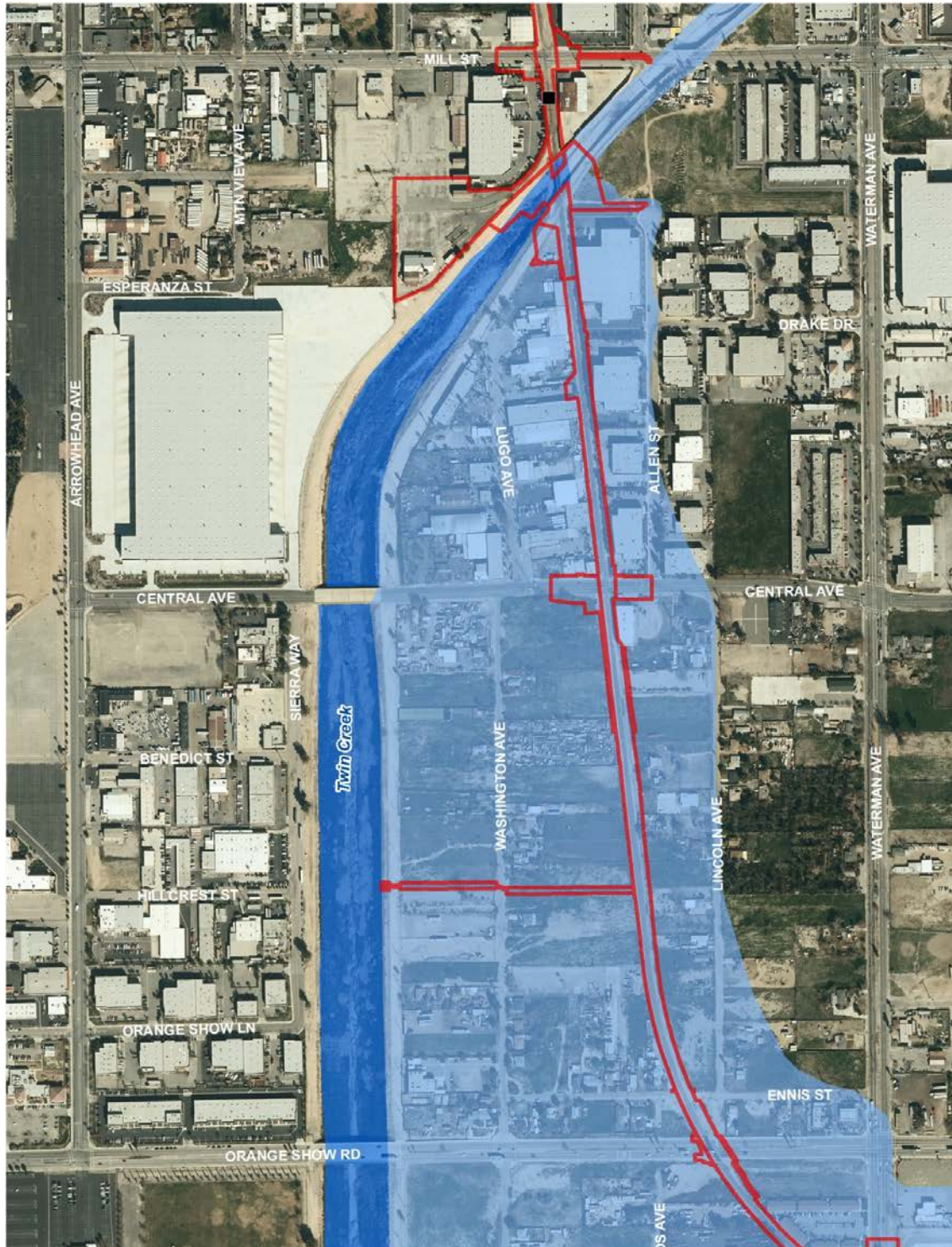
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Figure 4. Proposed Engineering Design (90 Percent)



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Figure 5. FEMA Flood Zones



LEGEND

- Refined Project Footprint
- FEMA Flood Area
  - 1% Annual Chance Flood (AE)
  - 1% Annual Chance Flood (A)



# Attachment B. Biology Letter Report

Communication: Draft Addendum 3 (Item 12)

# Memo

Date: Monday, July 24, 2017

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Project: Addendum No. 3 to the EIR for the Redlands Passenger Rail Project

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To: Justin Fornelli, P. E. Chief of Transit and Rail

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From: Ingrid Eich, HDR Engineering, Inc.

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Subject: Biological Letter Supporting Addendum No. 3 to the EIR for the Redlands Passenger Rail Project

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## 1.0 Introduction

This biological memo addresses a refinement to the Redlands Passenger Rail Project (RPRP or approved Project) that has occurred since the certification of the Final Environmental Impact Report (EIR) on March 4, 2015. Specifically, this memo addresses a new drainage connection to Twin Creek that would extend west from the approved Project (near mile post [MP] 2.63). As previously analyzed in the EIR, improvements to existing drainage facilities would be necessary along the railroad corridor as part of the Project; including the replacement of existing culverts.

HDR biologist Sarah Barrera, conducted a biological survey of the area for the proposed drainage improvement (and easement) on March 10, 2017. The proposed improvement extends just west of the original survey area covered in the Biological Technical Report (BTR) that was prepared in conjunction with the approved Project and included in Appendix of the Final EIR. The BTR included a review of the California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Database (CNDDDB) Rarefind program and California Native Plant Society’s (CNPS) Inventory of Rare and Endangered Plants of California for special-status species with potential to occur in the vicinity of the approved Project. The CNDDDB, and CNPS record search results are found in the RPRP BTR (HDR 2015) and is incorporated by reference for the purposes of the memo.

The USFWS on-line Critical Habitat Mapper was used to determine potential for federally-designated critical habitat to overlay the proposed drainage improvement. Additional resources used to characterize existing site conditions included: USFWS National Wetland Inventory (NWI) dataset, Natural Resource Conservation Service (NRCS) Soil Mapping (HDR 2015), and aerial imagery available on Google Earth ([www.google.com/earth](http://www.google.com/earth)).

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## 1.1 Project Location

The refined Project improvements encompass the same general Study Area as described for the approved Project, which extends along existing railroad right-of-way (ROW) owned by SBCTA between the cities of San Bernardino and Redlands, San Bernardino County, California (Figure 1). The proposed refinement to the approved Project would be constructed in the south-central portion of San Bernardino, south of Central Avenue on the north, north of Orange Show Road, and west of Waterman Avenue. The proposed drainage connection would extend approximately 1,000 feet west from an existing culvert in SBCTA's existing ROW at mile post (MP) 2.63 to the east bank of Twin Creek.

### 1.1.1 Refined Project

The proposed improvements include the replacement of an existing wooden box culvert with a six foot wide by three foot high reinforced concrete box (RCB) culvert. A new rock-lined ditch would be constructed from the RCB outlet to convey surface flows to Twin Creek. The ditch would tie into the channel via 24-inch reinforced concrete pipe (RCP) and side-drain connection with 1-foot by 1-foot concrete pipe bulkhead. Scour protection will consist of a 13'7" long, 18' wide and 19" thick riprap pad and 10' deep riprap cutoff wall. Once constructed, drainage patterns within this portion of the railroad corridor would remain similar to existing conditions. Figure 2 illustrates the proposed improvements.

Figure 1. Region and Vicinity Map

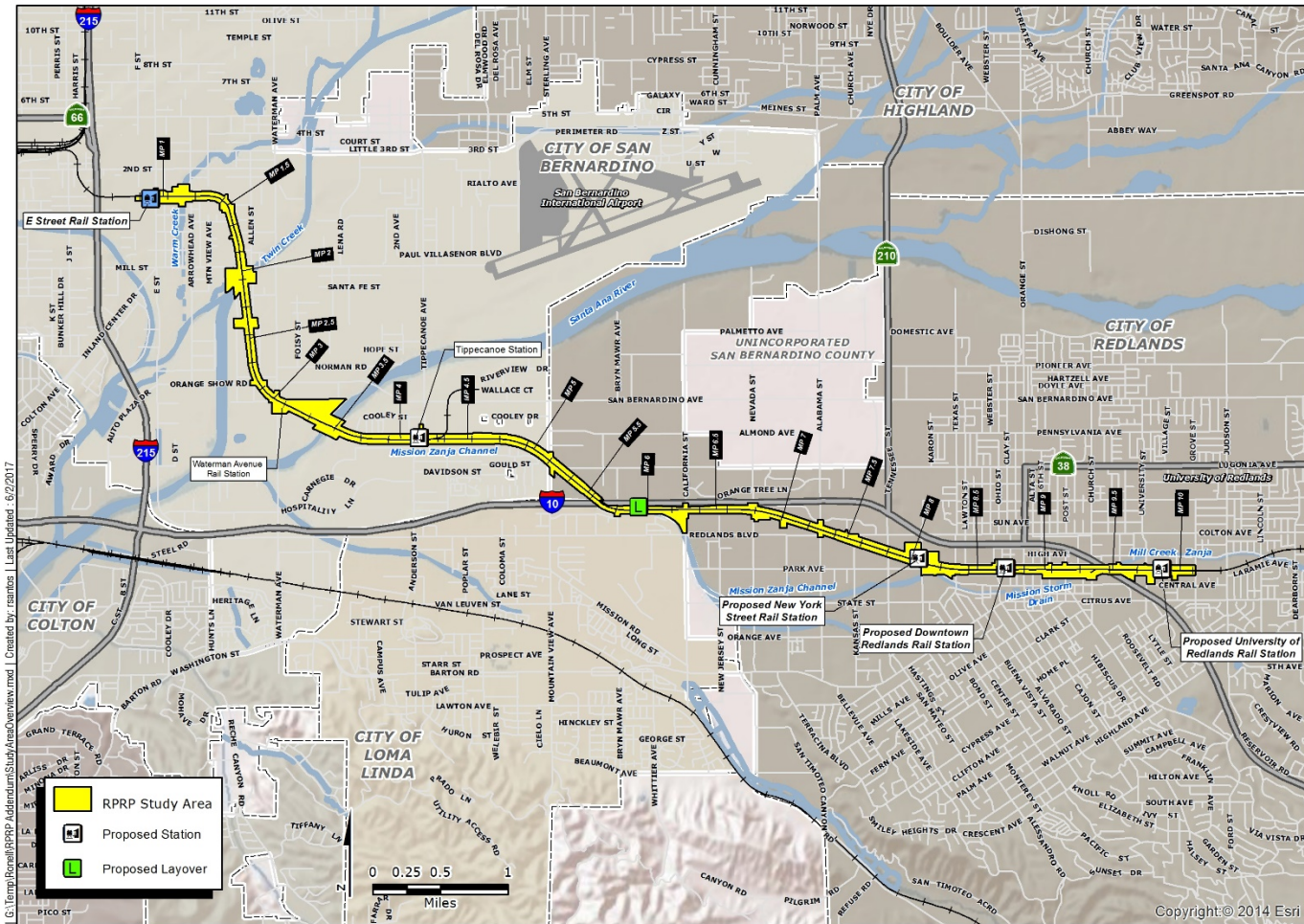
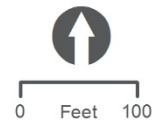


Figure 2. Proposed Drainage Improvements Overlaid on Existing Biological Resources



LEGEND

- Refined Project Footprint
- Disturbed Habitat
- Non-vegetated Channel
- USACE Jurisdiction
- Approved Project Footprint
- Non-native Grassland
- Urban/Developed
- USACE and CDFW Jurisdiction



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## 2.0 Evaluation – Area of Potential Effect

Vegetation was classified using the R.F. Holland system of natural communities as described in *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland R.F. 1986). Detailed descriptions of vegetation communities found within the refined Project area can be found in the 2015 BTR (HDR 2015), which is provided as Appendix I of the Final EIR. The refined Project area supports three vegetation communities: disturbed habitat (DH; Holland Code 11300), non-native grassland (NNG; Holland Code 42200) and urban developed (UD; Holland Code 12000) (see Figure 2). In reviewing the CDFW Natural Communities List (CDFW 2010), no sensitive vegetation communities occur within the refined Project area.

Several sensitive botanical and zoological species are known to occur within the vicinity of the RPRP (HDR 2015). Based on the updated survey, the refined Project area supports suitable habitat for the following sensitive species:

- Smooth tarplant (*Centromadia pungens* ssp. *laevis*; CNPS list 1B.1) - low/moderate potential to occur
- Western burrowing owl (*Athene cunicularis hypugaea*; SSC<sup>1</sup>) - low/moderate potential to occur
- Loggerhead shrike (*Lanius ludovicianus*; SSC) - low/moderate potential to occur
- Migratory Bird Treaty Act (MBTA) protected avian species

Additional information on these species can be found in the RPRP BTR (HDR 2015).

### USACE and CDFW Jurisdictional Areas

A narrow band along the center of the creek is mapped as NWI riverine (USFWS 2017). Based on the updated field survey, potential U.S. Army Corps of Engineers (USACE) regulated waters of the U.S. (WoUS) occur along the centerline of the 300 foot wide channel for Twin Creek. Potential WoUS consist of a 40-foot wide, unvegetated, low-flow channel supporting a sandy substrate (Photographs 1-3). The floodplain is densely vegetated by ripgut brome (*Bromus diandrus*) and fiddleneck (*Amsinckia* sp.) and is regularly mowed/maintained based on a review of aerial photographs from 1994 to 2016<sup>2</sup>. The outlet and scour protection at Twin Creek do not extend into WoUS which are located almost 150 feet to the west of the proposed outlet (Figure 2).

CDFW unvegetated streambed is mapped to the top of the bank associated with Twin Creek. Within this section of Twin Creek, the creek banks are unvegetated, moderately sloped, and consist of soil and rock riprap (Photographs 1-3).

<sup>1</sup> SSC- State Species of Concern, CNPS – California Native Plant Society

<sup>2</sup> Google Earth imagery dating from 1994 to 2016 shows annual vegetation maintenance throughout the entire Twin Creek floodplain.



Photograph 1. View east towards railroad tracks and proposed connection outfall structure.



Photograph 2. View looking south towards W. Orange Show Road.



Photograph 3. View looking north towards West Central Ave.

## 2.1 Direct Impacts

### Sensitive Botanical and Zoological Species

#### Construction

Addition of the proposed drainage structure has the potential to directly impact suitable habitat for smooth tarplant (NNG and DH), burrowing owl (NNG), loggerhead shrike (NNG) and nesting migratory birds (NNG) (Table 1).

**Table 1: Summary of Impacts to Vegetation/Land Cover Types**

<b>Vegetation/ Land Cover Types</b>	<b>Permanent Impacts (ac)</b>	<b>Temporary Impacts (ac)</b>
Disturbed	0.06	0.04
Developed	0.02	0.01
Non-Native Grassland	0.68	0.04
<b>Total</b>	<b>0.76</b>	<b>0.09</b>

Potential impacts to smooth tarplant, burrowing owl, loggerhead shrike and nesting migratory birds are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of Mitigation Measures **BIO-1, BIO3, BIO-4 and BIO-5**, as identified in SBCTA’s adopted Mitigation Monitoring and Reporting Program (MMRP) and included as Attachment A.

#### Operation

No direct impacts would result following construction of the drainage improvements. Similar to existing conditions, future operation and maintenance activities would be conducted by the County Flood Control District, including mowing. Long-term impacts would be less than significant.

### **USACE and CDFW Jurisdictional Areas**

Construction of the proposed side-drain structure would not directly impact potential USACE WoUS (Figure 2). Approximately 245 square feet (sf) of CDFW jurisdictional unvegetated streambed would be permanently impacted. An additional 1,750 sf would be temporarily impacted for construction. CDFW streambed consisting of non-native grassland and unvegetated streambed habitats would be directly impacted by construction of the proposed drainage connection (Figure 2). These impacts are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of Mitigation Measure BIO-6, as identified in SBCTA's adopted MMRP as provided in Attachment A.

## **2.2 Indirect Impacts**

### **Sensitive Botanical and Zoological Species**

#### Construction

Should sensitive botanical or zoological species occur adjacent to the refined Project area, there is the potential to indirectly impact these species during construction. Indirect impacts to sensitive botanical and zoological species and migratory birds would generally be attributed to temporary construction-related dust and water quality effects. For example, hazardous materials leaks, such as fuel, hydraulic fluid, and/or lubricants, from equipment working in or around occupied habitat. In addition, construction-related noise levels have the potential to indirectly impact sensitive zoological species, particularly nesting avian species. These impacts are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of Mitigation Measures **BIO-1, BIO-4, BIO-3, BIO-5, HWQ-2** and **HWQ-3** (See Attachment A).

#### Operation

Similar to existing conditions, Twin Creek would continue to be maintained by the County Flood Control District. The drainage easement between the railroad and Twin Creek would be maintained in a similar manner. No indirect impacts to special-status botanical or zoological species are expected once operational.

### **USACE and CDFW Jurisdictional Areas**

#### Construction

Similar to the approved Project, the proposed improvement could indirectly impact USACE WoUS and CDFW unvegetated streambed. Indirect impacts would mainly come in the form of

indirect water quality impacts resulting from construction activities. Pollutants of concern for jurisdictional areas include erosion of soil materials and corresponding increases in sedimentation and the discharge of hazardous materials or debris from construction equipment. These impacts are consistent with impacts identified in the EIR for the approved Project and would be less than significant after application of Mitigation Measures BIO-6, HWQ-2, and HWQ-3 as identified in the MMRP (see Attachment A).

### Operation

Similar to the approved Project, once constructed the Project facilities would be subject to routine maintenance, which would be subject to standardized O&M practices in compliance with Mitigation Measures HWQ-6 (see Attachment A). The proposed ditch would be permeable (rock-lined) allowing for infiltration of stormwater flows and settling of sediment and other contaminants. Therefore, no indirect impacts to biological resources from adverse water quality discharges would be less than significant.

## 3.0 References

- CDFW 2012. California Department of Fish and Wildlife (CDFW) 2012 Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency, Sacramento. March 7, 2012.
- CDFW 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.
- HDR 2015. HDR Engineering. Revised Biological Technical Report for the Redlands Passenger Rail Project. Prepared January 2015.
- Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, Nongame-Heritage Program. 156p (amended).
- USFWS 2010. U. S. Fish and Wildlife Service. Publication date 2010. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/>



# Attachment C. Mitigation Monitoring and Reporting Program

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# MITIGATION MONITORING AND REPORTING PROGRAM

## 1.0 INTRODUCTION

The California Environmental Quality Act (CEQA) requires a lead or responsible agency to adopt a monitoring and reporting program (MMRP) when approving or carrying out a project (Section 21081.6 of the California Public Resources Code). The purpose of this program is to ensure that when an environmental document, either an Environmental Impact Report (EIR) or a mitigated negative declaration, identifies measures to reduce potential adverse environmental impacts to less than significant levels that those measures are implemented as detailed in the environmental document. As lead agency for the Project, the San Bernardino Associated Governments (SANBAG), acting in its roles as the San Bernardino County Transportation Commission, is responsible for implementation of this MMRP per the requirements of the (CEQA). In its role as the federal lead agency under the National Environmental Policy Act (NEPA), the Federal Transit Administration (FTA), Region IX, will use this MMRP for verifying the implementation of the mitigation measures proposed in conjunction with its issuance of the Record of Decision.

In this context, this MMRP was prepared to provide a monitoring strategy to ensure the implementation of the adopted mitigation measures. Once SANBAG adopts the MMRP, the mitigation monitoring/reporting requirements will be incorporated into the appropriate permits and construction documents (i.e., engineering specifications, engineering and construction plans, real estate entitlements, etc.). Therefore, in accordance with the aforementioned requirements, this MMRP lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties as detailed below in Section 3.

## 2.0 MONITORING AND REPORTING PROCEDURES

This MMRP was developed for the Locally Preferred Alternative (LPA) for SANBAG's Redlands Passenger Rail Project (RPRP or Project) (State Clearinghouse Number 2012041012). The MMRP will be in place through all phases of the Project, including design, construction, and operation, and will facilitate the implementation of mitigation measures proposed to avoid, minimize, or reduce significant environmental effects. SANBAG will be responsible for administering the MMRP and ensuring that all parties, including its contractors, comply with its provisions. SANBAG may delegate implementation and monitoring activities to staff, consultants, or contractors. SANBAG will require that its construction contractors submit an environmental compliance plan for approval by SANBAG and construction manager prior to the beginning construction activities. This plan shall document how the contractor intends to comply with all measures applicable to the contract, including the application of best management practices (BMPs) in accordance with instruction listed in the construction specifications. SANBAG also will ensure that monitoring is documented through systematic compliance verification and reporting and that deficiencies are promptly corrected. The designated environmental compliance manager will track and document compliance with mitigation measures, notify SANBAG of any problems or deficiencies, as appropriate, and take appropriate action to rectify problems.

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### 3.0 MITIGATION MONITORING AND REPORTING PROGRAM IMPLEMENTATION

This MMRP was prepared to verify compliance with individual mitigation measures proposed in the Final Environmental Impact Statement (EIS)/EIR for the Project. Table 1 of this MMRP identifies each mitigation measure by discipline, the entity responsible for its implementation, and the performance standard required to demonstrate compliance with each measure. Certain inspections and reports may require preparation by qualified individuals and these are specified as needed. The timing and method of verification for each measure are also specified.

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Land Use, Planning, and Communities</b>					
<b>LU-1: Minimize Project Land Requirements and Comply with Federal and State Relocation Laws.</b> As part of final design, SANBAG shall maximize opportunities to minimize the Project's land requirements and associated property acquisition. In instances where avoidance is not feasible, SANBAG shall provide just compensation consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act and California Relocation Act. If the acquisition of one or more properties requires relocation of existing residences or businesses, SANBAG shall provide relocation assistance to residential and business tenants prior to the start of construction.	Final design	Entire Project	SANBAG	None	
<b>Transportation</b>					
<b>TR-1: Prepare a Traffic Management Plan.</b> SANBAG shall prepare a Traffic Management Plan prior to the start of construction, and the provisions of the Traffic Management Plan shall be implemented prior to, and during construction, as appropriate, to address traffic considerations of pedestrian and bicycle access and safety, and vehicular flow. The objective of the Traffic Management Plan will be to reduce construction related effects to traffic, non-motorized forms of transportation (e.g., bicycle and pedestrians), and existing public transit (e.g., buses) and will include the following: <ul style="list-style-type: none"> <li>• Construction detour plans and designated construction truck access routes for each phase of construction;</li> <li>• Maintain maximum travel lane capacity to the greatest extent possible during construction periods and provide advanced notice to drivers or roadway changes or closures;</li> </ul>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>• Signage indicating the construction limits, access routes, and entrances to individual business sites and community facilities that may be affected by construction activities. In addition, the construction contractor would supply “open for business” signs to encourage normal business activity during construction;</li> <li>• Pre-planning, outreach, and signage indicating pedestrian and bicycle routes detours;</li> <li>• Coordination with public transit service providers, as necessary;</li> <li>• Heavy trucks and other construction transport vehicles shall avoid the busiest commute hours to the greatest extent possible (weekdays 7 a.m. to 8 a.m. and 5 p.m. to 6 p.m. – High traffic intersections (Greater than 10,000 ADT) – 6:30 a.m. to 8:30 a.m. and 4:30 p.m. to 6:30 p.m.);</li> <li>• Early notification to emergency service providers and area drivers of any road closures or detours and the timeframes of the closures or detours. This information will be posted in a local newspaper, via SANBAG’s web site and will be updated on a monthly basis;</li> <li>• Coordination with the Cities of San Bernardino, Loma Linda, and Redlands for community events in the area to accommodate crowds and road closures;</li> <li>• Pavement damage resulting from project construction will be repaired prior to the completion of construction; and</li> <li>• SANBAG shall maximize opportunities for coordinated construction and installation of</li> </ul>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
improvements that occurs outside the SANBAG ROW with the Cities of San Bernardino, Loma Linda, and Redlands to the greatest extent practical.					
<p><b>TR-2: Existing LOS and V/C Year 2018 and 2038 Impact Roadway Improvements.</b> As part of the Project construction, SANBAG shall coordinate with the appropriate agency in which the intersection improvement is located (Cities of San Bernardino, Loma Linda, Redlands, or Caltrans) to pay SANBAG’s “fair share” of the identified roadway improvements prior to the start of operations of the Project in 2018:</p> <ul style="list-style-type: none"> <li> <b>California Street and I-10 Eastbound Off-Ramp –</b> SANBAG shall coordinate with Caltrans to fund its fair share of construction for a ramp improvement to include a right-turn pocket. The existing right-turn lane will become a shared right-turn lane to accommodate the high number of right turns. <u>The improvements will include replacing existing pedestrian and bicycle facilities, where present.</u> </li> </ul> <p>SANBAG shall provide its fair share for the funding of the following improvements prior to the year 2038:</p> <ul style="list-style-type: none"> <li> <b>California Street and I-10 West On-Ramp –</b> SANBAG shall coordinate with Caltrans to fund its fair share to the construction of a dual southbound right and a dual northbound left turn pocket. <u>The improvements will include replacing existing pedestrian and bicycle facilities, where present.</u> </li> <li> <b>Alabama Street and Industrial Avenue –</b> SANBAG shall coordinate with the City of Redlands to stripe an exclusive westbound right turn lane with 50-feet of storage to accommodate a high number of right turns. <u>The improvements will include</u> </li> </ul>	<p>Prior to the start of operations (2038 improvements will be evaluated at 5-year increments following 2018)</p>	<p>Roadway improvements</p>	<p>SANBAG</p>	<p>Cities of San Bernardino and Redlands; Caltrans</p>	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<u>replacing existing pedestrian and bicycle facilities, where present.</u>					
<b>TR-3: Approval from CPUC for Grade Crossings and Safety Measures.</b> SANBAG shall coordinate with the CPUC prior to the start of construction for re-design and/or closure of all grade crossings to ensure that all grade crossings and safety improvements comply with CPUC standards. SANBAG shall provide verification to the CPUC that all rail safety measures identified in the hazard analysis as part of the "formal application" or "GO 88-B" authorization" from CPUC have been installed.	Final design and post-construction	Grade Crossings	SANBAG	CPUC	
<b>TR-4: Recommended Pre-Signals for Queuing.</b> Prior to the start of operations, pre-signals shall be implemented at the following grade crossing locations and shall be operational prior to the start of 2018: <ul style="list-style-type: none"> <li>• Eastbound I-10 Ramps and California Street crossing;</li> <li>• Industrial Park Avenue and Alabama Street crossing; and</li> <li>• Redlands Boulevard and Tennessee Street crossing.</li> </ul> Prior to 2038 and if warranted based on future intersection operations (as determined through reevaluation in 5-year increments by SANBAG following procedures in the Los Angeles Metropolitan Transportation Authority (MTA) Grade Crossing Policy for Light Rail Transit), pre-signals will be implemented at the following grade crossing locations: <ul style="list-style-type: none"> <li>• Waterman Avenue and Orange Show Road Crossing (Northbound Approach);</li> <li>• Orange Show Road and Waterman Avenue Crossing (Eastbound Approach);</li> </ul>	Prior to the start of operations (2038 improvements will be evaluated at 5-year increments following 2018)	Grade Crossings	SANBAG	CPUC, Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>Redlands Boulevard and California Street Crossing; and Redlands Boulevard and Alabama Street Crossing.</li> </ul>					
<p><b>TR-5: Transit Operations Realignment.</b> SANBAG will work with affected transit service providers as part of their service realignment process (or major service change) to maximize transit efficiencies offered by interfacing existing transit service with Project operations. SANBAG shall develop a transit integration plan in coordination with local transit service providers to establish a framework for service integration. The plan shall, at a minimum, include an approach or strategy for coordinating existing transit scheduling with proposed train operations, maximizing route interfaces with the proposed station locations, and optimizing existing transit routes to minimize duplication in service.</p>	Prior to the start of operations	Project station stops	SANBAG	Omnitrans	
<b>Visual Quality and Aesthetics</b>					
<p><b>VQA-1: Screening of Construction Staging Areas.</b> For construction staging areas within 500 feet of a residence, park, or educational facility, the contractor will be required to shield the staging area to the extent feasible and coordinate with the local jurisdiction regarding the type and method of screening, which may include but is not limited to, the use of fence slats, netting, or mesh or tarps. SANBAG shall limit construction to daylight hours to the extent possible. If nighttime lighting or construction is necessary, the SANBAG shall ensure that unshielded lights, reflectors, or spotlights are not located and directed to shine toward or be directly visible from adjacent properties or streets. To the extent possible, SANBAG shall minimize the use of nighttime construction lighting within 500 feet of existing residences. This measure shall be identified on grading plans and in construction contracts.</p>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>VQA-2: Enhance Exterior Appearance of Structural Facilities.</b> The external appearance of the stations and layover facility, including the choice of color and materials, shall seek to reduce the visual impact of these facilities on adjacent land uses. Bright reflective materials and colors shall be avoided. As appropriate, the exterior design of these facilities should follow design guidelines provided in applicable land use plans. Minimum exterior design requirements shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Painting (with earth-colored tones) of structural façades to blend with surrounding land uses;</li> <li>• Maximize the use of textured or other non-reflective exterior surfaces and non-reflective glass to prevent glare;</li> <li>• Use of fencing or structural materials, shall be similar to those used by nearby land uses and compatible with surrounding architecture;</li> <li>• Development of a landscaping plan for each station and layover facility site that uses a combination of locally derived native vegetation, earthen features (e.g., boulders), and, if appropriate, topographical separations (e.g., berms) to maximize site appearance and shield the new facilities from nearby sensitive receptors to the extent feasible; and</li> <li>• Clustering of structural facilities to maximize open space buffering.</li> </ul> <p>SANBAG shall coordinate final design plans with the Cities of San Bernardino and Redlands prior to final approval.</p>	Final design	Stations	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>VQA-3: Tree Replacement.</b> Prior to construction, SANBAG shall have a registered arborist conduct a tree survey to identify native and ornamental trees requiring removal outside SANBAG's ROW. The arborist will identify measures to avoid and minimize indirect impacts on trees, where feasible, and develop a plan for the replacement of trees that cannot be avoided. The plan will include planting and irrigation design details and a weaning schedule for the establishment period. Trees with a diameter at breast height of 6 inches or greater will be replaced at a minimum ratios of 1:1 and consistent with City of Redlands and San Bernardino standards.	Prior to construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	
<b>VQA-4: Sound Barrier Screening and Surface Treatments.</b> To reduce effects associated with the sound walls, where SANBAG ROW widths allow, drought tolerant landscaping (i.e., trees, vines, and/or shrubs) shall be provided. If the SANBAG ROW width is insufficient to permit landscaping or if landscaping cannot adequately reduce visual impacts, surface treatments that are compatible with surrounding architecture shall be applied to the outside of the sound walls (residential or school facing side). Architectural detailing such as pilasters, wall caps, interesting block patterns, and offset wall layouts shall be used to add visual interest and reduce apparent height of the walls. SANBAG shall coordinate the final design plans with the Cities of San Bernardino and Redlands, as applicable, prior to final approval.	Final design (if constructed)	Sound wall locations	SANBAG	Cities of San Bernardino and Redlands	
<b>VQA-5: Minimize Exterior Lighting in Adjacent Uses.</b> To prevent unintended spillover of lighting, lighting fixtures constructed or relocated as part of the Project shall be oriented and focused onto the specific on-site location intended for illumination (e.g., parking lots) and shielded	Final design	Stations and Layover Facility	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>away from adjacent sensitive uses (e.g., schools, residential properties) and public rights of way to minimize light spillover onto off-site areas. New driveways shall be located and oriented into parking lots, to the extent feasible, in a manner that will not result in headlights from vehicles entering or exiting the parking areas oriented directly at off-site sensitive uses. SANBAG shall coordinate the final design plans with the Cities of San Bernardino and Redlands, as applicable, prior to final approval.</p>					
<b>Noise and Vibration</b>					
<p><b>NV-1: Employ Noise-Reducing Measures during Construction.</b> SANBAG shall require its construction contractors to employ measures to minimize and reduce construction noise. Noise reduction measures that shall be implemented to reduce construction noise to acceptable levels may include but are not limited to the following:</p> <ul style="list-style-type: none"> <li>• Use available noise suppression devices and techniques, including:               <ul style="list-style-type: none"> <li>- Equipping all internal combustion engine-driven equipment with mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that are in good operating condition and appropriate for the equipment (5 to 10 dB reduction possible).</li> <li>- Using “quiet” models of air compressors and other stationary noise sources where such technology exists.</li> <li>- Using electrically powered equipment instead of pneumatic or internal combustion-powered equipment, where feasible.</li> </ul> </li> </ul>	During Construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Using noise-producing signals, including horns, whistles, alarms, and bells, for safety-warning purposes only.</li> <li>- Locating stationary noise-generating equipment, construction parking, and maintenance areas as far as reasonable from sensitive receivers when sensitive receivers adjoin or are near the construction Project APE.</li> <li>- Prohibiting unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes).</li> <li>- Placing temporary soundwalls or enclosures around stationary noise-generating equipment when located near noise-sensitive areas (5 to 15 decibel reduction possible).</li> <li>- Ensuring that project-related public address or music systems are not audible at any adjacent receiver.</li> <li>- Notifying adjacent residents in advance of construction work.</li> </ul>					
<p><b>NV-2: Prepare a Community Notification Plan for Project Construction.</b> The construction contractor shall prepare and maintain a community notification plan to address project construction issues the community may have during construction. Components of the plan may include construction phasing to minimize the duration of noise or vibration at any one location. Initial information packets shall be prepared and mailed to all residences within a 500-foot radius of project construction, with updates prepared as necessary to indicate new scheduling or processes. A project liaison shall be identified who will be available to</p>	Prior to and during construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
respond to questions from the community or other interested groups.					
<p><b>NV-3: Establish Quiet Zones.</b> At-grade crossings shall be designed and constructed to be compatible with the formation of Quiet Zones. Prior to the operation, SANBAG shall coordinate with the City of San Bernardino, City of Loma Linda, and the City of Redlands, to construct and establish quiet zones at the following grade crossings:</p> <ul style="list-style-type: none"> <li>• South Arrowhead Avenue;</li> <li>• South Sierra Way;</li> <li>• West Central Avenue;</li> <li>• East Orange Show Road;</li> <li>• South Waterman Avenue;</li> <li>• South Tippecanoe Avenue;</li> <li>• South Richardson Street;</li> <li>• Mountain View Avenue;</li> <li>• West Colton Avenue;</li> <li>• Alabama Street</li> <li>• Tennessee Street;</li> <li>• Church Street; and</li> <li>• North University Street</li> </ul>	Prior to operation	Grade Crossing Locations	SANBAG	Cities of San Bernardino and Redlands; CPUC; FRA	
<p><b>NV-4: Construct Sound Barriers.</b> SANBAG shall install up to 12-foot in height sound barriers at priority locations along portions of the rail corridor to reduce noise levels at receivers identified with severe noise impacts following the application of quiet zones.</p>	During construction (if required in the absence of quiet zones)	See Figures 8-2A through G (without quiet zones) and 8-3A-F) of the Noise and Vibration TM (October 2014)– See Appendix H of the Final EIS/EIR)	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>NV-5: Wayside Rail Lubrication.</b> SANBAG shall install wayside applicators for all tight-radius curves on the project alignment prior to the start of Project operations. If the wayside applicators are not sufficient to reduce squeal to an acceptable level, additional reduction may be required through customized profiling of the rail to reduce the forces required for trains to negotiate the curve.	Final design and post-construction	All tight-radius curve locations on the project alignment	SANBAG	None	
<b>NV-6: Use Ballast Mats, Resiliently Supported Ties, or Measures of Comparable Effectiveness on Portions of the Rail near Sensitive Receivers.</b> SANBAG shall install track design specifications as part of project design to include the use of ballast mats or resiliently supported ties on portions of the track near sensitive receivers to minimize project-related ground-borne vibration and wheel rail noise generated when the trains pass sensitive receivers. The actual measures and their corresponding placement will be determined following more detailed vibration testing and analysis during final engineering design.	Final design and post-construction	Entire Project	SANBAG	None	
<b>NV-7: Provide Building Noise Insulation to Severe- and Moderate-Impact Residences.</b> For the ten residential structures represented by Receivers 3, 22, and 41, SANBAG will offer to install sound insulation. Treatments may include sealing and relocating vents, caulking and sealing gaps in the building façade and installing new doors and windows that are specially designed to meet acoustical transmission-loss requirements. Acoustical performance ratings are published in terms of Sound Transmission Class (STC) for these special windows. A minimum STC rating of 39 will be used on any window exposed to the noise source.	Final design and during construction	Applicable Receivers	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Biological and Wetland Resources</b>					
<b>BIO-1: Pre-Construction Survey - Conduct Preconstruction Survey for Special Status Plants and Wildlife and, if Found, Implement Avoidance and Compensation Measures.</b> Prior to construction, a qualified biologist retained by SANBAG shall conduct pre-construction surveys for special status plant species including woolly star, slender-horned spineflower, smooth tarplant, and salt spring checkerbloom. Pre-construction surveys will also be required for special status wildlife species including least Bell's vireo, southwestern willow flycatcher, San Bernardino kangaroo rat, yellow-billed cuckoo, burrowing owl, and western spadefoot toad to verify presence or absence in the Project area. If one or more species are detected, then SANBAG shall consult with the USFWS (or CDFW if appropriate) to develop additional minimization measures prior to project construction (if necessary). These additional measures may include construction timing restrictions and/or construction monitoring.	Prior to and during construction	Entire Project	SANBAG	U. S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)	
<b>BIO-2: Least Bells Vireo (LBV).</b> The following measures will be implemented to minimize direct and indirect impacts to LBV during construction: <ul style="list-style-type: none"> <li>a. Impacts associated with clearing and grubbing of Southern Cottonwood Willow Riparian Forest (SCWRF) and Southern Willow Scrub (SWS) will be timed to avoid the breeding season of the least Bell's vireo (March 15 to September 15), unless SANBAG provides survey documentation to USFWS that confirms the riparian habitat is not occupied by LBV.</li> <li>b. Temporary impact areas will be restored to pre-grade contours following bridge construction.</li> </ul>	Prior to and during construction	Mile Posts 3.3 to 4 (only)	SANBAG	USFWS	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>Natural recruitment is anticipated to occur rapidly due to the large amount of intact native riparian habitat that will remain as a seed source. Additionally, the riparian habitat being impacted is adapted to frequent disturbance. The individual species making up the community tend to have large quantities of seeds and very rapid growth that promote rapid re-establishment. Container planting and seeding has not been proposed due to potential conflicts with County Flood Control Maintenance requirements, high risk of plant material being washed out during subsequent storm events and potential conflicts with future Santa Ana River Trail construction. For erosion control purposes, temporarily impacted areas outside of the active floodplain will be hydroseeded with native grasses and shrubs.</p> <p>i. The temporarily impacted SCWRF and SWS habitat will be monitored annually for five years, until LBV is documented using the re-established habitat or until habitat attains 80 percent cover including both shrub and overstory stratum. If recruitment of SCWRF and SWS species is not evident within two years of project construction or habitat has not attained 60 percent cover within three years, impacts will be treated as permanent and additional mitigation for areas not meeting success criteria shall be provided through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 1:1.</p>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>ii. Temporary direct impacts to potentially suitable LBV habitat will be mitigated as follows: The temporal loss of occupied LBV habitat resulting from temporary removal of SCWRF associated with the Mission Zanja Channel shall be mitigated through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 3:1. The temporal loss of suitable unoccupied LBV habitat resulting from temporary removal of SCWRF and SWS shall be mitigated through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration or establishment of LBV habitat at a ratio of 2:1.</p> <p>c. Permanent direct impacts to occupied LBV habitat (SCWRF) shall be mitigated at a ratio of 3:1 through in-lieu fee payment to an appropriate mitigation bank for enhancement, restoration and/or creation of LBV habitat within the Santa Ana River watershed.</p> <p>d. If active LBV nests are identified during pre-construction surveys and noise levels at the nest exceed 60 dBA Leq, noise attenuation structures will be placed or other noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles) will be implemented to reduce noise levels at the nest to 60 dBA Leq (or ambient noise level if greater than 60 dBA Leq). During construction adjacent to these areas, noise monitoring shall occur during the LBV</p>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
breeding season and be reported daily to USFWS. Construction activities that create noise in excess of the aforementioned levels will cease operation until effective noise attenuation measures are in place to the extent practicable.					
<b>BIO-3: MBTA Covered Species.</b> Prior to habitat removal during the avian breeding season (February 15-August 31), a qualified biologist shall conduct a pre-construction nest survey (in suitable areas) no more than 3 days prior to ground disturbing activities for migratory birds. Pre-construction surveys will be preformed year-round between MP 3.3 and 4.0 with the timing and implementation done in coordination with the CDFW and USFWS. Should an active nest of any MBTA covered species occur within or adjacent to the project impact area, a 100-foot buffer (300 feet for raptors) shall be established around the nest and no construction shall occur within this area until a qualified biologist determines the nest is no longer active or the young have fledged.	Prior to and during construction	Mile Posts 3.3 to 4 (only)	SANBAG	USFWS	
<b>BIO-4: Protection of Sensitive Plants and Habitats.</b> SANBAG shall require the construction contractor to implement the following measures to protect sensitive plants and habitats during project-related construction. <ul style="list-style-type: none"> <li>SANBAG shall designate an approved biologist (project biologist) who will be responsible for overseeing compliance with protective measures for the biological resources during clearing and work activities within and adjacent to areas of native habitat. The project biologist will be familiar with the local habitats, plants, and wildlife and maintain communications with the contractor to ensure that issues relating to biological resources are</li> </ul>	Prior to and during construction	Mile Post 3.3 to 4	SANBAG	USFWS and CDFW	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>appropriately and lawfully managed. The project biologist will review final plans, designate areas that need temporary fencing, and monitor construction. The biologist will monitor activities within designated areas during critical times such as vegetation removal, the installation of Best Management Practices (BMPs) and fencing to protect native species, and ensure that all avoidance and minimization measures are properly constructed and followed.</p> <ul style="list-style-type: none"> <li>Project employees and contractors that will be on-site shall complete environmental worker-awareness training conducted by the project biologist. The training will advise workers of potential impacts to the sensitive habitat and listed species and the potential penalties for impacts to such habitat and species. At a minimum, the program will include the following topics: occurrences of the listed species and sensitive vegetation communities in the area, a physical description and their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violations of Federal and State laws, reporting requirements, and work features designed to reduce the impacts to these species; and to the extent practicable, promote continued successful occupation of areas adjacent to the work footprint. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos will be posted in the contractor and resident engineer's office, where they will remain through the duration of</li> </ul>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>the work. Photos of the habitat in which sensitive species are found will also be posted on-site. The contractor will be required to provide SANBAG with evidence of the employee training (e.g., sign in sheet or stickers) upon request. Employees and contractors will be instructed to immediately notify the project biologist of any incidents, such as construction vehicles that move outside of the work area boundary. The project biologist will be responsible for notifying the USFWS within 72 hours of any similar incident.</p> <ul style="list-style-type: none"> <li>• Prior to construction, SANBAG shall delineate the construction area (including staging and laydown areas) between Mile Posts 3.3 and 4.0 and erect exclusionary construction fencing along the perimeter of the identified construction area to protect adjacent sensitive habitats (SWS, SCWRF, RAFSS, and Santa Ana woolly star). Limits of the exclusionary fencing shall be confirmed by the project biologist prior to habitat clearing. Exclusionary fencing shall be maintained throughout the duration of construction work from Mile Posts 3.3 to 4.0. Exclusionary fencing can be removed at the conclusion of construction work as approved by the project biologist.</li> </ul> <p>All construction-related vehicles and equipment storage shall occur in the construction area and/or previously disturbed areas as approved by the project biologist. Project-related vehicle traffic shall be restricted to established access roads, construction areas, storage areas, and staging and parking areas.</p>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>If construction activity extends beyond the exclusionary fencing into sensitive vegetation communities, areas of disturbance shall be quantified and an appropriate restoration approach shall be developed in consultation with USFWS and CDFW. For example, if construction extends beyond the limits of the exclusionary fencing, temporarily disturbed areas shall be restored to the natural (preconstruction) conditions, which may include the following: salvage and stockpiling of topsoil, re-grading of disturbed sites with salvaged topsoil, and re-vegetation with native locally available species.</p>					
<p><b>BIO-5: Burrowing Owl.</b> SANBAG will conduct take avoidance (pre-construction) surveys for burrowing owl within 30 days prior to initiating ground disturbance activities. These surveys will be completed in no less than 14 days prior to construction. If burrowing owl is identified, the following shall apply:</p> <ul style="list-style-type: none"> <li>• If burrowing owl is identified during the breeding season (February 1 through August 31) then an appropriate buffer will be established by the biological monitor in accordance with the 2012 Staff Report on Burrowing Owl Mitigation (CDFW 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged and a CDFW-approved exclusion plan has been implemented. In addition to avoidance of the occupied habitat, off-site mitigation will be provided as described below:             <ul style="list-style-type: none"> <li>- Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 (9.75) acres per pair or single bird.</li> </ul> </li> </ul>	Prior to construction	Entire Project	SANBAG	CDFW	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 (13.0) acres per pair or single bird.</li> <li>- Replacement of occupied habitat with suitable unoccupied habitat: 3 times 6.5 (19.5) acres per pair or single bird.</li> <li>• If burrowing owl is identified during the non-breeding season (September 1 through January 31), then a 50 meter buffer will be established by the biological monitor. Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented.</li> </ul>					
<p><b>BIO-6: Secure Clean Water Act (CWA) Section 404 Permit and Implement All Permit Conditions to Ensure No Net Loss of Functions of Wetlands, Other Waters of the U.S., and Waters of the State).</b> Before the approval of grading or other ground disturbing activities within 50 feet of jurisdictional areas, SANBAG shall obtain a CWA Section 404 permit, Section 401 water quality certification, and CDFW 1602 Streambed Alteration Agreement.</p> <p>As part of the Section 404 permitting process, if the USACE (and/or CDFW) requires compensatory mitigation, a draft wetland mitigation and monitoring plan (MMP) shall be developed for the selected Build Alternative. The MMP shall be consistent with USACE's and EPA's April 10, 2008 Final Rule for Comp Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230).</p> <p>Potential mitigation for impacts to federal and state jurisdictional areas may occur at the following ratios:</p>	Prior to construction	Warm Creek (Historic), Twin Creek, Santa Ana River, Mission Zanja Channel, and Mill Creek Zanja	SANBAG	U. S. Army Corps of Engineers (USACE), Los Angeles District, CDFW, and Regional Water Quality Control Board (RWQCB), Santa Ana Region	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>• USACE Wetland               <ul style="list-style-type: none"> <li>- Permanent: 3:1</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> <li>• USACE Waters               <ul style="list-style-type: none"> <li>- Permanent: 1:1</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> <li>• CDFW Riparian               <ul style="list-style-type: none"> <li>- Permanent: 3:1 (SWS, RAFSS, and SCWRF)</li> <li>- Permanent: 1:1 (unvegetated stream bank)</li> <li>- Temporary: restoration (in-kind)</li> </ul> </li> </ul>					
<p><b>BIO-7. Reseeding for Woolly Star.</b> Seeds from the closest known occurrences of woolly-star plants found both upstream and downstream of Bridge 3.4 shall be collected in the fall prior to construction of the SAR crossing. If construction activities require the loss of the single woolly-star at the SAR crossing, the collected seeds will be broadcast in the temporary impact areas, near the impacted woolly-star plant, after construction activities are complete and soils have been restored to pre-Project contours.</p> <ol style="list-style-type: none"> <li>1. Seed collection and broadcast methodologies will be proposed by a qualified seed collector approved by the Service prior to seed collection in a Santa Ana Woolly-Star Management Plan.</li> <li>2. Seed harvest shall be from a minimum of three plants per collection location, limited to no more than 50 percent of the available seeds from any one woolly-star plant.</li> <li>3. Seeds shall be held at the appropriate temperature and humidity for the shortest length of time necessary prior to planting.</li> </ol>	Prior to, during, and following construction	Mile Posts 3.4 to 4	SANBAG	CDFW	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>4. Planting of seeds shall be coordinated to occur prior to the first rains of the season, typically during early fall.</p> <p>5. If the woolly-star plant known in the Project area is avoided, collected seeds will be hand broadcast near the parental plants where they were collected.</p> <p>If SANBAG confirms that removal of the one individual is required during final design, SANBAG will purchase ILF or mitigation credits from a qualified mitigation program to address the Project's temporal affect on woolly-star during the up to three-year construction period. Credits will be purchased to cover affects to the on-site individual and off-site parental plants.</p>					
<b>Floodplains, Hydrology, and Water Quality</b>					
<p><b>HWQ-1: Prepare Drainage Plan(s) for Structural Facilities.</b> SANBAG shall prepare a site specific Drainage Plan for all major structural facilities constructed in conjunction with the Project, including stations and parking areas, track improvements, and the proposed layover facility. The Final Drainage Plan shall incorporate measures to maintain on-site runoff during peak conditions to pre-construction discharge levels. Design specifications for the detention and/or infiltration facilities shall provide sufficient temporary storage capacity to attenuate runoff to pre-Project conditions. These improvements will be coordinated with the applicable jurisdictions, including the Cities of Redlands and San Bernardino and the SBCFCD, as appropriate.</p>	Final design	Entire Project	SANBAG	Cities of San Bernardino and Redlands, and the SBCFCD	
<p><b>HWQ-2: Prepare and Implement a SWPPP.</b> The construction contractor will develop a SWPPP that complies with the requirements of the NPDES General Construction Permit (Order 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ and 2012-0006-DWQ) for Risk Level 2</p>	Final design, during construction, and post-construction	Entire Project	SANBAG	RWQCB	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>projects and implement the BMPs described in the SWPPP. The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions and shall be reviewed and approved by SANBAG prior to commencement of work and shall be made conditions of the contract with the contractor.</p> <p>The SWPPP shall be prepared by a qualified SWPPP developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. Emphasis for BMPs shall be placed on controlling discharges of oxygen-depleting substances, floating material, oil and grease, acidic or caustic substances or compounds, and turbidity. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (inadvertent petroleum release) is required to determine adequacy of the measure.</p> <p>Following construction, SANBAG will ensure the provision of sufficient drainage inlet and outlet protection through the use of energy dissipaters, vegetated riprap, and/or other appropriate BMPs to slow runoff velocities and prevent erosion at discharge locations from the rail station and parking areas.</p>					

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>HWQ-3: Prepare and Implement a Flow Diversion Plan for Construction.</b> SANBAG or SANBAG's construction contractor shall develop a Flow Diversion Plan(s) for in-channel construction activities proposed within Warm Creek (Historic)(Bridge 1.1); Twin Creek (Bridge 2.2), SAR (Bridge 3.4), Zanja Channel (Bridges 3.9, and 5.8, and bank improvements), and Mill Creek Zanja (Bridge 9.4). SANBAG's contractor shall incorporate measures to minimize changes to flood flow elevation(s) during construction, address accumulation of floating debris, provide measures that minimize sedimentation to surface waters, and include contingency measures in the event of substantial rainfall.	During construction	Warm Creek (Historic)(Bridge 1.1); Twin Creek (Bridge 2.2), SAR (Bridge 3.4), Zanja Channel (Bridges 3.9, and 5.8, and bank improvements), and Mill Creek Zanja (Bridge 9.4).	SANBAG		
<b>HWQ-4: Prepare a Natural Hazard Management Plan.</b> SANBAG shall develop a Natural Hazard Management Plan for the Project. The Natural Hazard Management Plan will include a flood monitoring and evacuation plan for all Project infrastructure located within a delineated 100-year flood zone based on the most recent FEMA mapping. The Plan shall include protocols and procedures for emergency response in the event of a flood, the investigation and repair of track, station, and bridge facilities following inundation, and the provision of interim transit until Project operations resume.	Prior to operation	Entire Project	SANBAG	None	
<b>HWQ-5: Flood-Proofing of Critical Infrastructure.</b> Where feasible, stations and building pads for the proposed train layover facility shall be designed such that the finished floor elevation will be one-foot above the base 100-year flood elevation, where established.	Final design	Stations at Downtown Redlands and University Street	SANBAG	None	
<b>HWQ-6: Incorporate Post-Construction Runoff BMPs into Project Drainage Plan, Final WQMP, and Industrial SWPPP.</b> The Project Drainage Plan, Final WQMP, and the	Final design and post-construction	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>NPDES Industrial SWPPP shall demonstrate treatment, control, and management of the on- and off-site discharge of stormwater to existing drainage systems or drainage features. The final Drainage Plan shall provide both short- and long-term drainage solutions to ensure the proper sequencing of drainage facilities and the final WQMP will ensure sufficient treatment of runoff generated from Project impervious surfaces prior to off-site discharge.</p> <p>SANBAG shall ensure the provision of sufficient outlet protection through the use of energy dissipaters, vegetated rip-rap, soil protection, and/or other appropriate BMPs to slow runoff velocities and prevent erosion at discharge locations for the station platforms, parking areas, and layover facility. A long-term maintenance plan shall be developed and implemented to support the functionality of drainage control devices. The layover facility layout(s) shall also include sufficient container storage and on-site containment and pollution-control devices for drainage facilities to avoid the off-site release of water quality pollutants, including, but not limited to oil and grease, fertilizers, treatment chemicals, and sediment. These measures shall be reflected in the final Industrial SWPPP and WQMP for applicable facilities. The NPDES Industrial SWPPP shall incorporate required maintenance practices and housekeeping to maximize the long-term effectiveness of post-construction BMPs.</p>					
<b>Geology, Soils, and Seismicity</b>					
<p><b>GEO-1: Prepare Final Geotechnical Report for the Project and Implement Recommended Measures.</b> Facility design for all Project components shall comply with the site-specific design recommendations as provided by a licensed geotechnical or civil engineer to be retained by SANBAG.</p>	Design, prior to and post-construction	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>The final geotechnical and/or civil engineering report shall address and make recommendations on the following:</p> <ul style="list-style-type: none"> <li>• Site preparation;</li> <li>• Soil bearing capacity;</li> <li>• Appropriate sources and types of fill;</li> <li>• Liquefaction;</li> <li>• Lateral spreading;</li> <li>• Settlement;</li> <li>• Landslides (with emphasis on improvements that border the Mission Zanja Flood Control Channel);</li> <li>• Hydroconsolidation;</li> <li>• Compressible/Collapsible soils;</li> <li>• Corrosive soils;</li> <li>• Structural foundations; and</li> <li>• Grading practices.</li> </ul> <p>In addition to the recommendations for the conditions listed above, the geotechnical report shall include subsurface testing of soil and groundwater conditions, and shall determine appropriate foundation designs that are consistent with the latest version of the CBC, as applicable at the time building and grading permits are pursued. All recommendations contained in the final geotechnical engineering report shall be implemented by SANBAG.</p>					
<b>Hazardous Waste and Materials</b>					
<p><b>HAZ-1: Prepare and Implement a Construction Hazardous Materials Management Plan and Operational Hazardous Materials Business Plan.</b> Prior to operation, SANBAG shall prepare and implement a Hazardous Materials Management Plan (HMMP) and Hazardous</p>	Prior to construction (HMMP) and operation (HMBP)	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p>Materials Business Plan (HMBP) for the Project. The HMMP shall provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project construction, including the proper disposal of waste materials. The HMBP will provide for safe storage, containment, and disposal of chemicals and hazardous materials related to Project operations. The HMMP and HMBP shall include, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• A description of hazardous materials and hazardous wastes used;</li> <li>• A description of handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste;</li> <li>• Preparedness, prevention, contingency, and emergency procedures, including emergency contact information;</li> <li>• A description of personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility;</li> <li>• Instructions on keeping Materials Safety and Data Sheets (MSDS) on-site for each on-site hazardous chemical; and</li> <li>• Identification of the locations of hazardous material storage areas, including temporary storage areas, which shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank.</li> </ul>					

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**Table 1. MMRP Mitigation Measures**

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<p><b>HAZ-2: Pre-Demolition Investigation.</b> Prior to the demolition of any structures within the Project footprint, a survey shall be conducted for the presence of hazardous building materials such as asbestos-containing materials, lead based paints, and other materials falling under Universal Waste requirements. The results of this survey shall be submitted to SANBAG and the City of San Bernardino's Department of Environmental Health or City of Redlands Department of Environmental Health, as applicable. If any hazardous building materials are discovered, a plan for their proper removal shall be prepared in accordance with applicable requirements of the California Division of Occupational Safety and Health and the County of San Bernardino Environmental Health Services. The contractor performing the work will be required to have a license in the State of California, and possess a C-21, A or B classification. Further and if required, the contractor or their subcontractor will be required to possess a California Contractor License (ASB) to perform any asbestos related work. Prior to any demolition activities, the contractor will be required to secure the site and ensure the disconnection of utilities.</p>	Prior to demolition of any structures	Entire Project	SANBAG	City of San Bernardino Department of Environmental Health or City of Redlands Department of Health, as applicable	
<p><b>HAZ-3: Prepare Phase I and/or Phase II ESA for Indeterminate or High-Risk Sites.</b> Prior to grading, further investigation at any of the identified sites of concern with an indeterminate or high risk-ranking shall be conducted, if it is known that ground disturbance at those sites would exceed 18 inches within 50 feet of the site of concern. The additional investigation shall be in the form of a site-specific ASTM-compliant Phase I ESA investigation. The Phase I ESA recommendation would determine if a Phase II Preliminary Site Investigation (drilling and sampling) would be required, as appropriate. Both the Phase I and Phase II</p>	Prior to construction	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
ESA investigations would be completed prior to parcel acquisition (therefore, prior to any construction activity). The Project shall comply with recommendations provided in the Phase I ESA and/or Phase II ESA(s).					
<b>HAZ-4: Halt Construction Work if Potentially Hazardous Materials are Encountered.</b> All construction contractors shall immediately stop all subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall follow all applicable local, state, and federal regulations regarding discovery, response, disposal, and remediation for hazardous materials encountered during the construction process.	During construction	Entire Project	SANBAG	None	
<b>HAZ-5: Keep Construction Area Clear of Combustible Materials.</b> SANBAG shall ensure, through the enforcement of contractual obligations that during construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. The contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	During construction	Entire Project (Emphasis Mile Posts 3 to 6)	SANBAG		
<b>HAZ-6: Provide Accessible Fire Suppression Equipment.</b> Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. All off-road equipment using internal combustion engines shall be equipped with spark arrestors.	During construction	Entire Project	SANBAG	None	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Cultural and Historic Resources</b>					
<b>CUL-1: Structural Evaluations.</b> In order to determine the structural stability of the Redlands Depot, Cope Commercial Company Warehouse, Haight Packing House, Redlands City Transfer, and the brick warehouse at 440 Oriental Avenue, structural evaluations shall be prepared by a qualified engineer for these five buildings prior to the commencement of construction. The structural evaluations will also address maximum allowable levels of vibration during construction and, if appropriate, will recommend reduced levels of stabilization in conjunction with vibration monitoring. Qualified recommendations within the structural evaluation shall be adhered to, as appropriate. Permanent stabilization will follow the Secretary of the Interior's guidelines for the treatment of historic properties; if the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings will be restored to their pre-construction condition when the stabilization measures are removed.	Final design and prior to construction	Redlands Depot, Cope Commercial Company Warehouse, Haight Packing House, Redlands City Transfer, and the brick warehouse at 440 Oriental Avenue	SANBAG	State Historic Preservation Officer (SHPO), if required	
<b>CUL-2a: Minimize Indirect Visual Effects of Potential Sound Barriers.</b> Visual surface treatments and drought-tolerant landscaping will be implemented as necessary to minimize indirect effects on the setting and feeling of the Redlands Lawn Bowling Club portion of Sylvan Park and the Second Baptist Church from introduction of sound barriers (if constructed). The surface treatments and landscaping for the sound barrier at the Redlands Lawn Bowling Club will be designed and implemented to harmonize the barrier with the surrounding pastoral park landscape. If a sound barrier is necessary at the Second Baptist Church, surface treatments will be designed and implemented to harmonize the barrier with the Spanish Colonial Revival architecture of the church building. Drought tolerant landscaping will be incorporated into the design of the barrier at the church as needed.	Final design and post-construction (if required)	Redlands Lawn Bowling Club portion of Sylvan Park and the Second Baptist Church	SANBAG	Cities of Redlands and San Bernardino	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>CUL-2b: Conduct Potential Noise Insulation Work at Second Baptist Church in Accordance with Secretary of Interior Standards and Guidelines and Applicable Preservation Briefs.</b> Sound-attenuating insulation may be necessary for the Second Baptist Church building. If sound-attenuating insulation measures are implemented at the church building, the work will be conducted in accordance with the Secretary of the Interior's Standards for Rehabilitation with Guidelines for Applying the Standards (Hume et al. 1990) and applicable National Park Service preservation briefs, including #3 (Improving Energy Efficiency in Historic Buildings); #22 (The Preservation and Repair of Historic Stucco); #24 (Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches); and # 30 (The Preservation and Repair of Historic Clay Tile Roofs). SANBAG will select and implement the recommended insulation measures in coordination with the property owner and SHPO.</p>	Prior to operations (if required)	Second Baptist Church	SANBAG	SHPO, if required	
<p><b>CUL-3: Off-Site Replacement of Citrus Trees Removed from California/I-10-Grove.</b> SANBAG shall coordinate with the City of Redlands, including the Citrus Preservation Commission, to provide for the planting of citrus trees at properties within the Redlands Historical Preserve of Citrus to compensate for the trees removed from the California/I-10 Grove in association with the Preferred Project Alternative. The number of citrus trees planted will be equal to the number of trees removed from the California/I-10 Grove. The types of trees to be planted will be determined through consultation between SANBAG and the City of Redlands, including the Citrus Preservation Commission.</p>	Prior to construction	California/I-10 Grove	SANBAG	City of Redlands, Citrus Preservation Commission	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<p><b>CUL-4: Construction Monitoring.</b> Full-time monitoring for archaeological deposits will be conducted in the Project APE in the vicinity of the Redlands Chinatown site (and a 50-foot buffer on each side of the site boundary) during ground disturbing construction activities. Monitoring will be conducted in accordance with a Construction Monitoring and Discovery Plan to be prepared for the project. Monitoring will occur under the supervision of an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards.</p> <p><i>Unanticipated Discoveries.</i> In the event an unanticipated discovery of archaeological resources occurs during construction, the following measures will be implemented immediately following the discovery:</p> <ul style="list-style-type: none"> <li>• All construction within a 50-foot radius of the resource will be halted until a qualified archaeologist can evaluate the resource.</li> <li>• FTA and SHPO will be notified in the event of an unanticipated discovery.</li> <li>• If the discovery is determined to be significant or potentially significant by the qualified archaeologist, the adverse effects under Section 106 to portions of archeological resources determined to be eligible for the NRHP would be resolved in consultation with SHPO through the following tasks:               <ul style="list-style-type: none"> <li>- Discussion with project engineers to determine if impacts can be avoided/minimized, including consideration of preservation in place</li> <li>- Recovery and analysis of archaeological material and associated data</li> </ul> </li> </ul>	<p>During construction</p>	<p>Project APE in the vicinity of the Redlands Chinatown site</p>	<p>SANBAG</p>	<p>SHPO, if required</p>	

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Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>- Preparation of a data recovery report or other reports</li> <li>- Recovered archaeological material shall be provided to an accredited archaeological repository.</li> </ul> <p>Archaeological monitor qualification requirements, detailed approaches to archaeological monitoring of various project elements, and the procedures to follow in the event that unanticipated archaeological resources or human remains are discovered will be defined in the Construction Monitoring and Discovery Plan.</p> <p><i>Stop Work if Unanticipated Human Remains Are Encountered.</i> If human remains are exposed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to PRC 5097.98. If the coroner determines the remains to be Native American, the coroner must contact the Native American Heritage Commission and the Project must comply with state laws relating to the disposition of Native American burials that are under the jurisdiction of the Native American Heritage Commission (PRC Section 5097). Construction must halt in the area of the discovery of human remains, the area must be protected, and consultation and treatment would occur as prescribed by law.</p>					
<b>Parklands, Community Services, and Other Public Facilities</b>					
<p><b>PCS-1: Coordinate Trail Planning with Local Jurisdictions.</b> SANBAG will implement the following activities to minimize Project-related conflicts with proposed trails:</p>	Final design	Bridge 3.4 and Orange Blossom Trail	SANBAG	San Bernardino County Parks and Recreation Department and Public Works	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<ul style="list-style-type: none"> <li>Santa Ana River Trail - SANBAG shall coordinate final design and construction of Bridge 3.4 with the San Bernardino County Department of Public Works, Transportation Design Division, and Parks and Recreation Department to integrate the trail as contemplated in the SANBAG's Non-Motorized Transportation Plan (2011) (NMTP), so as to maintain it's planned future continuity along the Santa Ana River. If the trail is constructed and operational in advance of the bridge structure, SANBAG will maintain trail access during the course of construction, to the extent feasible. In instances, where trail closures are required the construction contractor will be required to minimize the duration of the closure and support the County with any noticing, outreach, or implementation of temporary detours.</li> <li>Orange Blossom Trail - SANBAG shall update the NMTP (2011) as part of it's next cycle update, to include the realignment of the trail segment of the Orange Blossom Trail that is currently shown as being located within the railroad right-of-way, so as to not conflict with the proposed project. SANBAG will coordinate with the City of Redlands and the County Flood Control District to determine available rights-of-way for the placement of the trail and, if necessary, realign the trail to take advantage of connections via existing roadway and other public right-of-ways.</li> </ul>				Department, City of Redlands, and the San Bernardino County Flood Control District	

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**Table 1. MMRP Mitigation Measures**

Mitigation Measure	Timing	Applicable Project Location/ Feature	Primary Responsible Party	Secondary Responsible Party	Verification
<b>Safety and Security</b>					
<p><b>SS-1: Develop Safety and Security Management Plan.</b> Prior to construction, SANBAG shall coordinate and consult with local safety and crime prevention authorities to develop a Safety and Security Management Plan (SSMP) for the track alignment, bridges, parking facilities, and station areas. The SSMP shall include a station surveillance element to be developed in coordination with the local jurisdiction and private properties owners, as applicable. If a non-FRA compliant DMU vehicle type is selected for the Project, the SSMP shall include a plan element that includes appropriate levels of safety as may be necessary to facilitate a shared-use operation.</p>	Final design and post construction	Entire Project	SANBAG	Cities of San Bernardino and Redlands	
<p><b>SS-2: Fencing.</b> SANBAG's contractor shall erect temporary fencing and visual screening for staging areas and provide security personnel during construction to minimize trespassing and vandalism throughout the duration of construction.</p>	Prior to and during construction	Entire Project	SANBAG	None	

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