

<b>RTIP ID# (required):</b> 20159901				
<b>TCWG Consideration Date:</b> May 24, 2016				
<b>Project Description (clearly describe project)</b>				
<p>San Bernardino Associated Governments (SANBAG), in cooperation with the California Department of Transportation (Caltrans), proposes to increase mainline capacity and enhance operations and mobility on Interstate 15 (I-15) from south of State Route 60 (SR-60) to north of State Route 210 (SR-210) (<b>Figure 1-1, Attachment 1</b>). Caltrans is the lead agency under both the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).</p> <p>This project (I-15 Corridor Project) is included in Southern California Association of Governments (SCAG) 2012-2035 Regional Transportation Plan (RTP) (RTP ID 4122006).</p> <p>The proposed I-15 Corridor Project extends for approximately 14 miles and would add two (2) Express Lanes in each direction along the I-15 corridor between SR-60 and SR-210, one (1) Express Lane in each direction between Cantu-Galleano Ranch Road and SR-60 and one (1) Express Lane in each direction between SR-210 and Duncan Canyon Road. The proposed project extends through three (3) freeway-to-freeway system interchanges including SR-60 in the cities of Eastvale and Jurupa Valley in Riverside County, Interstate 10 (I-10) in the City of Ontario in San Bernardino County and SR-210 in the cities of Rancho Cucamonga and Fontana in San Bernardino County. The project limits at the southerly end extend approximately 1.3 miles south of the Cantu-Galleano Ranch Road Overcrossing and at the northerly end extend approximately 1.6 miles north of Duncan Canyon Road Overcrossing to allow for the placement of advanced signage for Express Lanes.</p> <p>The complete Project Description has been included as <b>Attachment 1</b>.</p>				
<b>Type of Project (use Table 1 on instruction sheet):</b> Change to existing state highway				
<b>County</b> San Bernardino	<b>Narrative Location/Route &amp; Postmiles:</b> Interstate 15 in San Bernardino County and Riverside County (Riv 48.9/52.3 and SBd 0.0/12.6)			
<b>Caltrans Projects – EA#</b> 08-0R800				
<b>Lead Agency:</b> Caltrans				
<b>Contact Person</b> Keith Cooper	<b>Phone#</b> 213-312-1752	<b>Fax#</b> 213-312-1799	<b>Email</b> Keith.Cooper@icfi.com	
<b>Hot Spot Pollutant of Concern (check one or both)</b> <b>PM2.5</b> <input checked="" type="checkbox"/> <b>PM10</b> <input checked="" type="checkbox"/>				
<b>Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)</b>				
<b>Categorical Exclusion (NEPA)</b>	<input checked="" type="checkbox"/> <b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>	<b>Other</b>
<b>Scheduled Date of Federal Action:</b> March 2018				
<b>NEPA Assignment – Project Type (check appropriate box)</b>				
<b>Exempt</b>	<b>Section 326 –Categorical Exemption</b>	<input checked="" type="checkbox"/> <b>Section 327 – Non-Categorical Exemption</b>		
<b>Current Programming Dates (as appropriate)</b>				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	October 2014	June 2018	June 2018	March 2021
<b>End</b>	March 2018	March 2021	July 2020	March 2024
<b>Project Purpose and Need (Summary): (attach additional sheets as necessary)</b>				
See <b>Attachment 1</b> , Project Description.				

**Surrounding Land Use/Traffic Generators** (*especially effect on diesel traffic*)  
 Several warehouse developments, logistics and freight transportation facilities are present along the I-15 corridor and nearby areas. Additional uses present along the I-15 corridor include residential, retail and commercial developments. With respect to diesel traffic (i.e., medium and heavy truck volumes), Project improvements are unlikely to affect trip generation or travel distribution patterns. See discussion below about Project redistribution effects and congestion relief.

**Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

**Interstate 15 Segment Volumes – Project Opening Year 2024**

Mainline Segment NB + SB	No Build Alternative				Build Alternative			
	AADT	Truck AADT	Truck Percent AADT	LOS NB: AM/PM SB: AM/PM	AADT	Truck AADT	Truck Percent AADT	LOS* NB: AM/PM SB: AM/PM
Beech Ave to Duncan Canyon Rd	150,124	21,772	14.5%	NB: B/C SB: C/B	155,681	21,772	14.0%	NB: B/C SB: C/B
SR-210 to Beech Ave	160,514	21,676	13.5%	NB: B/C SB: F/B	167,931	21,676	12.9%	NB: B/C SB: F/B
Baseline Rd to SR-210	188,594	16,409	8.7%	NB: B/F SB: E/C	204,135	16,409	8.0%	NB: B/F SB: E/B
Foothill Blvd to Baseline Rd	201,157	16,454	8.2%	NB: B/D SB: F/C	222,337	16,454	7.4%	NB: B/D SB: D/B
Arrow St to Foothill Blvd	222,356	16,472	7.4%	NB: C/D SB: F/D	251,494	16,472	6.5%	NB: C/D SB: E/C
4th St to Arrow St	222,356	16,472	7.4%	NB: C/D SB: F/D	251,494	16,472	6.5%	NB: C/D SB: E/C
I-10 to 4th St	229,777	17,340	7.5%	NB: C/C SB: E/D	257,843	17,340	6.7%	NB: C/C SB: C/C
Jurupa St to I-10	252,823	16,899	6.7%	NB: F/F SB: F/E	277,287	16,899	6.1%	NB: F/F SB: F/D
SR-60 to Jurupa St	244,569	16,570	6.8%	NB: D/D SB: F/E	268,549	16,570	6.2%	NB: C/D SB: D/D

Source: WSP | Parsons Brinckerhoff, April 2016.

\* These Build Alternative LOS statistics represent general purpose lanes only. The Express Lanes will include dynamic pricing such that the fee adjusts to manage traffic demand and maintain an acceptable LOS for Express Lanes travel.

**RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

**Interstate 15 Segment Volumes – Project Design Year 2045**

Mainline Segment NB + SB	No Build Alternative				Build Alternative			
	AADT	Truck AADT	Truck Percent AADT	LOS NB: AM/PM SB: AM/PM	AADT	Truck AADT	Truck Percent AADT	LOS* NB: AM/PM SB: AM/PM
Beech Ave to Duncan Canyon Rd	206,666	34,439	16.7%	NB: C/D SB: E/C	231,288	34,439	14.9%	NB: B/C SB: C/B
SR-210 to Beech Ave	216,974	34,097	15.7%	NB: C/F SB: F/C	243,258	34,097	14.0%	NB: B/F SB: F/B
Baseline Rd to SR-210	236,956	27,020	11.4%	NB: C/F SB: F/C	282,056	27,020	9.6%	NB: C/F SB: E/C
Foothill Blvd to Baseline Rd	238,280	26,658	11.2%	NB: C/E SB: F/D	295,705	26,658	9.0%	NB: C/D SB: F/C
Arrow St to Foothill Blvd	253,836	26,525	10.4%	NB: D/E SB: F/D	321,896	26,525	8.2%	NB: C/E SB: F/D
4th St to Arrow St	262,970	26,994	10.3%	NB: D/E SB: F/E	337,132	26,994	8.0%	NB: D/E SB: F/D
I-10 to 4th St	272,264	28,012	10.3%	NB: D/D SB: E/F	344,959	28,012	8.1%	NB: D/D SB: E/F
Jurupa St to I-10	296,327	27,615	9.3%	NB: F/F SB: F/F	363,228	27,615	7.6%	NB: F/F SB: F/F
SR-60 to Jurupa St	288,381	27,033	9.4%	NB: E/E SB: F/F	356,792	27,033	7.6%	NB: E/E SB: F/F

Source: WSP | Parsons Brinckerhoff, April 2016.

\* These Build Alternative LOS statistics represent general purpose lanes only. The Express Lanes will include dynamic pricing such that the fee adjusts to manage traffic demand and maintain an acceptable LOS for Express Lanes travel.

**Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

The Build Alternative would include the reconstruction of the ramps at Jurupa Street interchange, Interstate 10 interchange, Fourth Street interchange, and Foothill Boulevard interchange to accommodate the proposed improvements. Reconstruction of the ramps and areas separating the ramps from freeway lanes (gore areas) is mainly due to the addition of auxiliary lanes for operational improvements at certain locations. Major modifications to the locations of the ramp tie-in points along the freeway mainline are currently not anticipated. Interchange capacity (i.e., number of lanes) would not be changed at any interchange location. All Project capacity improvements would be made to the I-15 mainline.

**RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

See above.

**Describe potential traffic redistribution effects of congestion relief** *(impact on other facilities)*

The I-15 Express Lanes capacity increases would be limited to passenger vehicles and light trucks only, as heavy- and medium trucks would be precluded from using the Express Lanes. With respect to passenger vehicles and light trucks, regional traffic modeling predicts that the added capacity created by the Express Lanes would attract new trips and redistribute some existing trips. However, no new or redistribution of heavy- or medium-truck trips are anticipated, as discussed below.

Unlike passenger vehicle and light truck trips, heavy- and medium truck trips are generally not discretionary, and have very specific origins and destinations that are based on land use distribution patterns and available access options. The Project-vicinity land uses that attract truck trips would be the same under the Build and No Build alternatives. Furthermore, the I-15 corridor would continue to be the only mainline route connecting the Inland Empire and Southern California metropolitan regions with the High Desert, Las Vegas and beyond, under the Build Alternative and No Build Alternative. Due to the unique geographic characteristics of the area, there are simply no parallel highways that provide comparable direct road travel capability. For these reasons, no change in regional heavy- and medium-trucks are anticipated to occur under the Build Alternative when compared to the No Build Alternative.

**Comments/Explanation/Details** (attach additional sheets as necessary)

The United States Environmental Protection Agency (EPA) specifies in 40 CFR 93.123(b)(1) that only "projects of air quality concern" (POAQC) are required to undergo a PM<sub>2.5</sub> and PM<sub>10</sub> hot-spot analysis. EPA defines POAQCs as certain highway and transit projects that involve significant levels of diesel traffic or any other project that is identified by the PM<sub>2.5</sub> SIP as a localized air quality concern. A discussion of the proposed project compared to POAQCs, as defined by 40 CFR 93.123(b)(1), is provided below:

**New or expanded highway projects that have a significant number of or significant increase in diesel vehicles.** The proposed Project would involve adding Express Lanes to the existing I-15 mainline within Project limits. Medium- and heavy-trucks would be excluded from Express Lanes use. While there would be increases in passenger vehicle and light truck traffic volumes within the I-15 Project limits, no change in medium- or heavy-truck volumes are foreseen to occur under the Build Alternative when compared to the No Build Alternative at Project Opening Year 2024 or Project Design Year 2045. See discussion above under "potential traffic redistribution effects of congestion relief" for detailed explanation.

**Projects affecting intersections that are at level –of –service (LOS) D, E, or F with a significant number of diesel vehicles or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.** As discussed above, the proposed Project would not increase the number of diesel vehicles operating in the Project vicinity relative to the No Build Alternative at Project Opening Year 2024 or Project Design Year 2045. Furthermore, the proposed Project would reduce congestion on the I-15 mainline at Project Opening Year 2024 and Project Design Year 2045 with Project implementation.

**New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location.** The proposed Project has no bus or rail terminal component, nor would it alter travel patterns to/from any existing bus or rail terminal.

**Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location.** The proposed Project would not expand any bus terminal, rail terminal, or related transfer point that would increase the number of diesel vehicles congregating at any single location.

**Projects in or affecting locations, areas, or categories of sites that are identified in the PM<sub>2.5</sub>- or PM<sub>10</sub>-applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.** The Project site is not in or affecting locations, areas, or categories of sites that are identified in a PM<sub>10</sub> or PM<sub>2.5</sub> implementation plan. The immediate Project area is not considered to be a site of violation or possible violation.

The discussion provided above indicates that the proposed Project would not be considered a Project of Air Quality Concern, as defined by 40 CFR 93.123(b)(1). Therefore, PM<sub>2.5</sub> and PM<sub>10</sub> hot-spot evaluations are not required. It is unlikely that the proposed Project would generate new air quality violations, worsen existing violations, or delay attainment of national AAQS for PM<sub>2.5</sub> or PM<sub>10</sub>.

**Attachment:**

1. *Project Description* for Interstate 15 Corridor Project

# **Interstate 15 Corridor Project**

## **1.1 Introduction**

San Bernardino Associated Governments (SANBAG), in cooperation with the California Department of Transportation (Caltrans), proposes to increase mainline capacity and enhance operations and mobility on Interstate 15 (I-15) from south of State Route 60 (SR-60) to north of State Route 210 (SR-210) (**Figure 1-1**). Caltrans is the lead agency under both the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

This project (I-15 Corridor Project) is included in Southern California Association of Governments (SCAG) 2012-2035 Regional Transportation Plan (RTP) (RTP ID 4122006).

The proposed I-15 Corridor Project extends for approximately 14 miles and would add two (2) Express Lanes in each direction along the I-15 corridor between SR-60 and SR-210, one (1) Express Lane in each direction between Cantu-Galleano Ranch Road and SR-60 and one (1) Express Lane in each direction between SR-210 and Duncan Canyon Road. The proposed project extends through three (3) freeway-to-freeway system interchanges including SR-60 in the cities of Eastvale and Jurupa Valley in Riverside County, Interstate 10 (I-10) in the City of Ontario in San Bernardino County and SR-210 in the cities of Rancho Cucamonga and Fontana in San Bernardino County. The project limits at the southerly end extend approximately 1.3 miles south of the Cantu-Galleano Ranch Road Overcrossing and at the northerly end extend approximately 1.6 miles north of Duncan Canyon Road Overcrossing to allow for the placement of advanced signage for Express Lanes.

Riverside County Transportation Commission (RCTC) has proposed improvements on an adjoining portion of I-15, identified as the I-15 Tolloed Express Lanes (I-15 TEL) project (EA 0J0800), which would include construction of two (2) tolloed express lanes in each direction from Hidden Valley Parkway on northbound I-15 and Second Street on southbound I-15, in Norco, to Cantu-Galleano Ranch Road in Eastvale and Jurupa Valley, and which would also include construction of one (1) tolloed express lane from Cantu-Galleano Ranch Road to SR-60, in Ontario. The SANBAG proposed I-15 Corridor Project, which would add one (1) Express Lane in each direction between Cantu-Galleano Ranch Road and SR-60 at the southerly end, provides continuity with the two Tolloed Express Lanes that would be constructed as part of RCTC's I-15 TEL project, up to the Cantu-Galleano Ranch Road interchange.

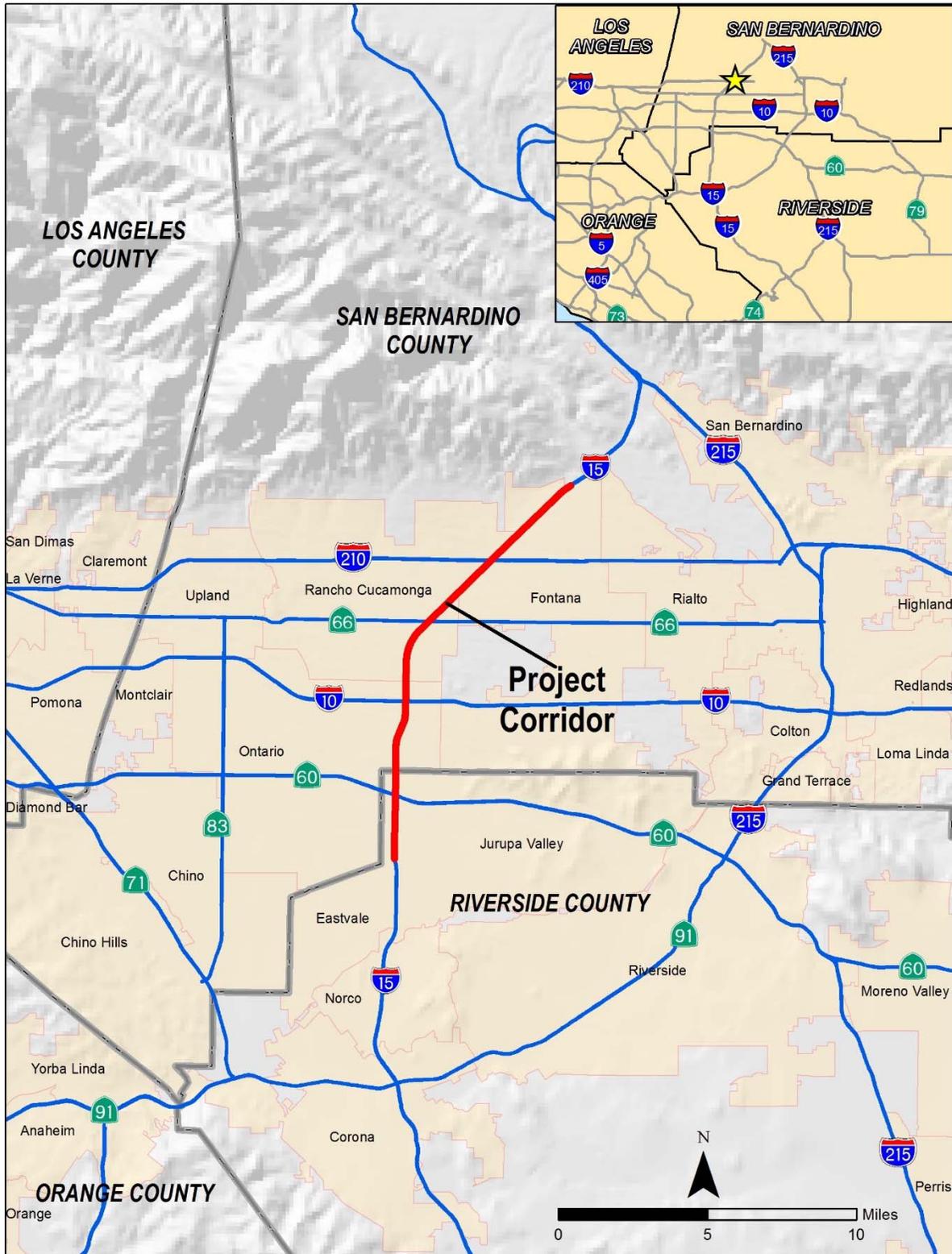
Within the project limits, I-15 has three existing General Purpose (GP) lanes in each direction between Cantu-Galleano Ranch Road interchange and SR-60. Between SR-60 interchange and Duncan Canyon Road overcrossing there are four existing GP lanes in each direction. Within the project limits there are existing auxiliary lanes between certain interchanges in each direction as shown in **Table 1-1**.

**Table 1-1. Existing Auxiliary Lane Locations**

<b>Location</b>	<b>Direction</b>	<b>No. of Auxiliary Lanes</b>
Cantu-Galleano Ranch Road to SR-60	Northbound (NB)	2
	Southbound (SB)	1
SR-60 to Jurupa Street	NB	None
	SB	None
Jurupa Street to I-10	NB	2
	SB	1
I-10 to Fourth Street	NB	2
	SB	2
Fourth Street to Foothill Boulevard	NB	None
	SB	None
Foothill Boulevard to Baseline Road	NB	None
	SB	None
Baseline Road to SR-210	NB	1
	SB	1
SR-210 to Summit Avenue	NB	1
	SB	1
Summit Avenue to Duncan Canyon Road*	NB	None
	SB	None

\*Note: The existing interchange north of Summit Avenue is located at Sierra Avenue. Duncan Canyon is a new interchange with expected end of construction in 2015.

Figure 1-1. Project Vicinity



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## 1.2 Background

Since being built to replace the historical US-66 (Foothill Boulevard), US-91, and former SR-31, I-15 has become a vital lifeline carrying people and freight to and from the Los Angeles metropolitan area – serving as a commuter corridor from the High Desert to jobs in the Los Angeles Basin, a freight corridor from Los Angeles to the rest of the continent, and the prime route for recreation trips to the high desert, Las Vegas, Rocky Mountain states and the Midwest. It is also an important link to Riverside and San Diego counties to the south. I-15 is part of the National Highway System and the Strategic Highway Corridor Network of National Defense.

In 2005, the I-15 Comprehensive Corridor Study was completed, prepared for SANBAG, SCAG and Caltrans, to examine future needs along I-15 in the San Bernardino and Victor Valleys. The proposed Express Lanes Build Alternative resulted from the evaluation of the availability of various revenue sources for improvements given the foreseeable project costs.

SANBAG performed an initial toll feasibility study for I-15 (as well as I-10 and SR-210) which was completed in 2010, in cooperation with Caltrans. The Preliminary Feasibility Study further investigated the availability of viable funding resources which also resulted in further reinforcing that additional build alternatives would not be financially feasible.

Upon consideration of the preliminary feasibility findings and after discussions with Caltrans, SANBAG continued forward with project initiation development work with completion of an advanced toll feasibility study. The focus of the advanced toll feasibility study was to conduct detailed traffic and revenue analysis to evaluate project feasibility. The analysis was completed and presented to the SANBAG Board in October 2013.

Starting in February 2012, SANBAG began preparation of a Project Study Report – Project Development Support (PSR-PDS) in order to gain approval for continuing studies of express lanes on I-15 to move into the Project Approval and Environmental Document (PA&ED) phase. The PSR-PDS identifies the preliminary alternatives, identifies the studies and environmental document necessary for project approval, and estimates the capital outlay support cost necessary to complete the studies. The PSR-PDS was completed in September 2014.

## 1.3 Purpose and Need

The purpose and need for the proposed project is described in the following sections.

### 1.3.1 Purpose

The main purpose of the I-15 Corridor Project is to increase mainline capacity and enhance operations and mobility on I-15 from SR-60 to SR-210 to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability, conforming to the Caltrans Mission Statement while minimizing impacts to the environment.

The following objectives are intended to accomplish the project purpose:

- Enhance operations and improve trip reliability, mobility options and travel times within the corridor;

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- Provide a facility that is compatible with transit and other modal options;
  - Implement the planning goals of SCAG’s 2012-2035, Regional Transportation Plan/Sustainable Communities Strategy; and
  - Provide a cost-effective project solution;

### 1.3.2 Need

The I-15 corridor is experiencing considerable performance problems due to a number of interrelated factors. These factors include high truck volumes (8 to 18 percent of the total traffic), heavy traffic demand on weekends as well as weekdays, as well as a lack of other reliable travel options. Congestion is typically worst on Friday afternoons and evenings in the northbound direction and Sunday afternoons and evenings in the southbound direction with demand being 10 to 15 percent higher than it is during typical weekday peak periods.

Due to the unique geographic characteristics of the area, the I-15 corridor remains the sole freeway route connecting the Inland Empire and Southern California metropolitan regions with the High Desert, Las Vegas and beyond. There are no parallel highways that provide comparable direct road travel capability. As a result, I-15 plays a unique and important role in serving the combined traffic demands arising from vacation, recreation, shopping, work commutes, combined with recurring regional and interstate freight and goods movement. Significant congestion delays on I-15, which already occur and are expected to grow in the future, could pose a severe burden on travel in the region.

Deficiencies on I-15 within the project limits are summarized below:

- ***A majority of the I-15 mainline General Purpose (GP) lanes are projected to exceed capacity in future years***

Based on review of traffic data available from Caltrans’ Performance Measurement System (PeMS), travel demand for the I-15 corridor has been growing 2.0 to 2.5 percent per year on average over the last ten years and is expected to double by 2040, substantially exacerbating performance problems;

- ***High percentage of truck traffic***

Southern California’s access to both national and international markets via ports in Los Angeles, Long Beach and San Diego is a key factor in the number of trucks using freeways in the region. The I-15 corridor is experiencing considerable performance problems due to truck volumes (8 to 18 percent of the total traffic). The effects of heavy warehouse development, logistics and freight transportation along the I-15 corridor further complicate truck circulation and goods movement along the route.

- ***Limited transit facility access***

I-15 corridor serves a large number of commuter trips between residential areas in the High Desert (Victor Valley and surrounding areas) and the San Bernardino Valley as well as more distant locations in Riverside, Orange and Los Angeles Counties. Victor Valley is served by the Victor Valley Transit Authority (VVTA), while Omnitrans provides public transportation in the San Bernardino Valley. Currently, VVTA operates a commuter bus service between

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the Victor Valley and San Bernardino Valley, but no commuter rail service currently exists between the valleys. VVTA and various employers continue to encourage and assist in the formation of vanpools. Currently, there does not appear to be viable transit options that would benefit I-15 within the current study area.

- ***Insufficient capacity to meet traffic demand, resulting in reduced levels of service***

Traffic demand on some sections of I-15 currently exceeds capacity during peak periods on both weekends and weekdays. Due to lack of other reliable travel options such as other parallel highways, commuter trains, and rapid bus service for commuters, traffic continues to grow and the periods of high congestion spread over longer periods of time. Current average daily traffic on I-15 varies from 214,000 at the Riverside/San Bernardino County line to 136,000 between SR-210 and I-215. Recurring congestion is observed on a daily basis during weekday peak periods and frequently on weekends. Options for increasing capacity are limited by existing freeway structures and columns, reduced right-of-way due to adjacent development, environmentally sensitive areas, and lack of traditional funding sources (motor fuel taxes, vehicle registration taxes, sales taxes, bonds, etc.).

- ***Unreliable travel times***

Factors that can adversely affect travel time reliability include:

- Insufficient capacity during peak hours resulting in delays;
- High traffic volumes during weekends due to the presence of retail locations such as the Victoria Gardens and Ontario Mills Malls;
- Special events at such venues as the California Speedway and San Manuel Amphitheater that generate high traffic volumes over time periods of several hours; and
- Significant congestion experienced during holidays and for recreational trips to the High Desert, Las Vegas and beyond.

## **1.4 Independent Utility and Logical Termini**

FHWA regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that a proposed project (action) be evaluated for independent utility and logical termini. Independent utility is a project's ability to address an existing need without the support of future improvements or other related projects. Independent utility considers a project's "whole" or combined actions in relationship to local socioeconomics, environment, and transportation needs. By considering the 'whole' of a project, the potential for unexpected side effects, which may require additional corrective actions, and segmentation (addressing a piece of a problem and considering a partial resolution) can be reduced.

"In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each environmental impact statement (EIS) or finding of no significant impact (FONSI) shall:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope;

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2. Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and
  3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.”

(<http://www.environment.fhwa.dot.gov/projde/tdmtermin.asp>; *The Development of Logical Project Termini*, FHWA, November 5, 1993)

The limits of a project should reasonably address the three interrelated criteria stated above; sufficient length, independent utility, and non alternative-restricting. Addressing these three criteria includes the appropriate consideration and selection of project limits or “logical termini”. The end points of a project should fully encompass the proposed transportation improvements and their related environmental effects.

The proposed I-15 Corridor Project shows independent utility and logical termini in that it addresses the need to increase capacity within the corridor and limits the improvements to the urbanized segment of I-15 that demonstrates an immediate project need.

As of 2013, I-15 is at capacity for several hours of the day carrying 215,000,000 vehicles per day, which is expected to increase up to 296,000 vehicles per day by 2045. This growth in vehicles per day is expected to negatively impact the movement of people and goods in the region if more capacity is not added. To remedy this situation, SANBAG evaluated the feasibility of Express Lanes for the I-10 and the I-15 corridors within San Bernardino County (Toll Feasibility Study, Parsons Brinckerhoff, 2008). Based on the results of the feasibility studies, SANBAG decided to further study the addition of Express Lanes for 35 miles along I-15 from south of SR-60 in Riverside County to US-395 in Hesperia (Project Study Report-Project Development Support [PSR-PDS], Parsons Brinckerhoff, 2014).

The Feasibility Study and PSR-PDS addressed the addition of two express lanes in each direction from SR-60 in Riverside County to US-395 in Hesperia. However, due to limited funding available for corridor improvements (including traditional Public Funds, Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan and Toll Revenue Bonds), a phased improvement approach is being initiated to address the immediate project needs within the urban section of the I-15. SANBAG’s programming documents and 10-year delivery plan for improvements within the I-15 corridor outline the following two-project development approach.

1. Project 1 – Riverside County line to I-15/Interstate 215 (I-215) Devore Interchange
2. Project 2 – I-15/I-215 Devore Interchange to US-395

A majority of Project 1 is located within San Bernardino County however a small segment is located within Riverside County, from the County line to SR-60. This segment was included because the travelled link between SR-60 and I-10 is important to ensure independent utility of the project.

SANBAG’s development approach is to build the project up to SR-210 first and program the remaining project up to US-395 to be built in the future when the traffic volumes would warrant

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a need for financially feasible Express Lanes improvements. A feasibility study was completed in June 2015, in cooperation with Caltrans, for the section from SR-210 to US-395.

In general, the most significant traffic demand that currently exists within the I-15 corridor study limits are between the Riverside County line and I-15/I-215 Devore Interchange. Studies conducted to date show that the Average Daily Traffic trends, which included all segments of the I-15 corridor between the Riverside County line and US-395, plus the Average Annual Daily Traffic (AADT) and Annual Average Percent Change (traffic growth) for various years from 1992 through 2046, showed the highest levels of congestion within the Project 1 limits.

Completion of Project 1 would address the highest, near-term traffic congestion, and therefore the Project 1 portion of I-15 forms the limits of this study. Significant growth (3 percent per annum and above) is expected for the High Desert region, which will generate an increasingly rapid rate of growth in AADT volumes from 2030 to 2046. Project 2 is intended to address that issue as it arises, were determined to occur within the Project 2 limits.

#### **1.4.1 Corridor and System Coordination**

A majority of the project is located within San Bernardino County; however, a small segment from Cantu-Galleano Ranch Road to Philadelphia Street is located within Riverside County. Construction of the segment in Riverside County will require coordination with the RCTC regarding the I-15 TEL project. The I-15 TEL project includes construction of two (2) tolled express lanes in each direction from Hidden Valley Parkway on northbound I-15 and Second Street on southbound I-15, in Norco, to Cantu-Galleano Ranch Road in Eastvale and Jurupa Valley, and which would also include construction of one (1) tolled express lane from Cantu-Galleano Ranch Road to SR-60, in Ontario. SANBAG's proposed I-15 Corridor Project, which would add one (1) Express Lane in each direction between Cantu-Galleano Ranch Road and SR-60 at the southerly end, provides continuity with the two Tolled Express Lanes that would be constructed as part of RCTC's I-15 TEL project, up to the Cantu-Galleano Ranch Road interchange.

Additional projects are programmed or under consideration at various locations along I-15 within the project limits. These projects include:

- I-15 Tolled Express Lanes south of SR-60 in Riverside County (EA 0J0800) – planned for completion by Fall 2020;
- New interchange at Arrow Highway (EA 1A450K) – project is currently on hold and not anticipated to be completed as planned;
- Interchange improvements at Baseline Road (EA 08-49710) – planned for completion by mid-2016;
- Pavement rehabilitation (EA 08-472224) at various locations along I-15 – planned for completion in summer 2016.

Addition or modification of local road interchanges will have minimal impact to this project. However, understanding of these planned projects will allow Express Lane access points to be configured to ensure compatibility with the associated interchange improvements.

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As described above, the portion of the project located within Riverside County provides a link between SR-60 and the I-15 corridor in San Bernardino County. Inclusion of this segment provides a more logical southern terminus than I-10 because it would provide greater system-wide mobility improvements by linking all three major east-west highway corridors along San Bernardino County's urbanized segment of I-15. In comparison, the RCTC I-15 TEL project is intended to provide mobility improvements by adding tolled express lane continuity with the SR-91 express lanes near the southern terminus of the TEL project corridor. While coordination between the two projects and the eventual link of tolled express lanes between the two projects would occur, both maintain independent utility as both have logical termini, are usable, and represent reasonable expenditures given the regional planning context of improvements programmed along I-15.

## **1.5 Project Description**

The proposed I-15 Corridor Project extends for approximately 14 miles and would add two (2) Express Lanes in each direction along the I-15 Corridor between SR-60 and SR-210, one (1) Express Lane in each direction between Cantu-Galleano Ranch Road and SR-60 at the southerly end, and one (1) Express Lane in each direction between SR-210 and Duncan Canyon Road at the northerly end. The proposed project extends through three (3) freeway-to-freeway system interchanges including SR-60 in the cities of Eastvale and Jurupa Valley in Riverside County, Interstate 10 (I-10) in the City of Ontario in San Bernardino County and SR-210 in the cities of Rancho Cucamonga and Fontana in San Bernardino County. The project limits at the southerly end extend approximately 1.3 miles south of the Cantu-Galleano Ranch Road Overcrossing to allow for the placement of advanced signage for Express Lanes. The project limits at the northerly end extend approximately 1.6 miles north of Duncan Canyon Road Overcrossing to accommodate the advanced signage.

The Express Lanes will be located within the median of the I-15 corridor. Two alternatives are proposed:

1. No-Build Alternative
2. Build Alternative

## **1.6 Alternatives**

### **1.6.1 Alternative 1 – No-Build Alternative**

Alternative 1, the No-Build Alternative consists of the existing lane configuration for I-15. Under the No-Build Alternative, except the RCTC I-15 TEL project (EA 0J0800), no other capital expenditures would be made to implement Express Lanes on I-15 within the project limits. Additional land areas would not be impacted and existing and projected traffic congestion would not be alleviated.

## 1.6.2 Alternative 2 – Build Alternative

Alternative 2, the Build Alternative, would include the following improvements to the identified portion of the I-15 Corridor:

- Two (2) Express Lanes in each direction between SR-60 and SR-210;
- One (1) Express Lane in each direction between Cantu-Galleano Ranch Road and SR-60 at the southerly end;
- One (1) Express Lane in each direction between SR-210 and Duncan Canyon Road at the northerly end;
- One (1) Auxiliary Lane in each direction between SR-60 and I-10; and
- One (1) Auxiliary Lane northbound between Fourth Street and Foothill Boulevard.

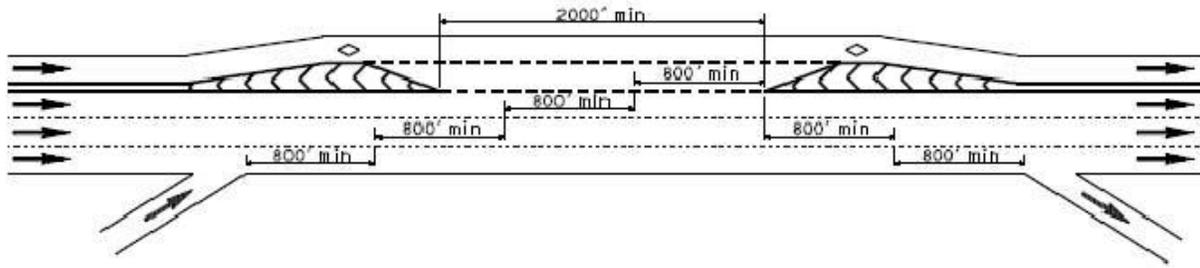
The Express Lanes will be separated from the General Purpose (GP) lanes with a 2-foot wide buffer implemented using painted striping. The RCTC TEL project ends just south of the SR-60 interchange. A two-foot buffer width is proposed on the RCTC TEL project. Due to the physical overlap in project limits with the RCTC TEL project between Cantu-Galleano Ranch Road and SR-60 a two-foot buffer width is proposed on the I-15 Corridor Project for consistency. In addition, the presence of existing connector columns in the median and on the outside at the I-10/I-15 separation structure limits both outside and median widening and hence requires a reduced buffer width of two feet as well. To maintain consistency, a buffer width of two feet is proposed throughout the project limits.

The Express Lanes will have limited access that will be restricted to specific locations and will provide optimal access to existing interchanges. Intermediate access locations are proposed to allow traffic access to and from local street and system interchanges and are anticipated to be generally co-located as combined ingress/egress points every two to three miles in each direction. The identified access locations are listed in **Table 1-2**. **Figure 1-2** shows the combined Ingress/Egress (I/E) access openings in relationship to freeway on-ramp or off-ramp.

**Table 1-2. Express Lane Access Points**

Location	PM	NB/SB	Access Type	Interchange(s) Served
Cantu-Galleano Ranch Road	Riv 50.3	NB/SB	Combined Ingress/Egress	Limonite Avenue, SR-60 and Jurupa Street
Jurupa Street	SBd 1.01	NB/SB	Combined Ingress/Egress	Cantu-Galleano Ranch Road, SR-60, I-10 and Fourth Street
*Arrow Highway	SBd 4.40	NB/SB	Combined Ingress/Egress	Jurupa Street, I-10, Fourth Street, Foothill Boulevard and Baseline Road
Baseline Road	SBd 6.71	NB/SB	Combined Ingress/Egress	Foothill Boulevard, SR-210 and Summit Avenue
Duncan Canyon Road	SBd 10.0	NB/SB	NB Egress/SB ingress	Duncan Canyon Road and Sierra Avenue
*Access geometry for the I-15 Corridor Project will require further coordination upon approval of the proposed I-15/Arrow Highway interchange configuration.				

**Figure 1-2. Combined Ingress/Egress (I/E)**



Source: Revised TOPD 11-02

Note: Per TOPD criteria, the total distance required to accommodate a Combined I/E is the sum of the length for ingress from an on-ramp plus the length of egress to an off-ramp. The length for ingress is calculated from the number of approaching lanes plus one and the length for egress is calculated from the number of departing lanes minus one. On I-15, there are typically four lanes in each direction. Therefore, the typical length required for ingress is 4,000 feet (4 + 1 = 5 x 800 feet/lane) and the typical length required for egress is 2,400 feet (4 – 1 = 3 x 800 feet/lane). In summary, the typical total distance required between an on-ramp and off-ramp for I/E on I-10 is 6,400 feet.

The Build Alternative would include the reconstruction of the ramps at Jurupa Street interchange, I-10 interchange, Fourth Street interchange, and Foothill Boulevard interchange to accommodate the proposed improvements. Reconstruction of the ramps and areas separating the ramps from freeway lanes (gore areas) is mainly due to the outside widening of the freeway. Major modifications to the locations of the ramp tie-in points along the freeway mainline are currently not anticipated.

The proposed Build Alternative would also require widening of 31 undercrossing bridge structures and six railroad overhead bridge structures (**Table 1-3**).

### 1.6.2.1 Structures

The Build Alternative would impact numerous existing structures along I-15. The structures affected and the proposed improvements are summarized in **Table 1-3**.

**Table 1-3. Structures Within the Project Limits**

Post Mile	Bridge Number	Bridge Name*	Southbound (Left)			Northbound (Right)		
			Rebuild/New	Outside Widening	Median Widening	Rebuild/New	Outside Widening	Median Widening
<b>Riverside County</b>								
51.26	56 0693	Riverside Avenue UC	-	-	-	-	-	-
51.45	56 0691	Route 15/60 Separation	-	-	X	-	-	X
51.95	56 0695	Mission Boulevard Overhead	-	-	X	-	-	X
52.27	06 0696	Philadelphia Street UC	-	-	-	-	-	-
<b>San Bernardino County</b>								
1.01	54 0971	Jurupa Street OC	-	-	-	-	-	-
2.05	54 0906	Airport Drive UC	-	-	-	-	X	-
2.05	54 0906G	Airport Drive UC (N15-E&W10 Conn)	-	-	-	-	-	-

Post Mile	Bridge Number	Bridge Name*	Southbound (Left)			Northbound (Right)		
			Rebuild/New	Outside Widening	Median Widening	Rebuild/New	Outside Widening	Median Widening
2.15	54 0907	Vina Vista Overhead	-	X	-	-	X	-
2.37	59 0909	Route 15/10 Separation	-	X	X	-	X	X
2.56	54 0911	Ontario Mills Parkway UC	-	X	-	-	X	-
3.05	54 0912	Fourth Street UC	-	X	-	-	X	-
3.81	54 0918	7 <sup>th</sup> Street UC	-	X	-	-	X	-
3.94	54 0986	MWD Pipeline UC	-	X	X	-	X	X
4.10	54 0919	Rochester Overhead	-	X	X	-	X	X
4.47	54 0920	Day Canyon Channel	-	X	X	-	X	X
4.61	54 0921	Arrow Route UC	-	X	X	-	X	X
5.28	54 0922	Route 15/66 Separation	-	X	X	-	X	X
5.97	54 0973	Etiwanda Avenue UC	-	-	X	-	X	-
6.71	54 0974	Baseline Road UC	-	-	X	-	-	X
7.08	54 0963	Etiwanda Overhead	-	-	X	-	-	X
7.44	54 0965	Victoria Street UC	-	-	X	-	-	X
7.56	54 0964	East Etiwanda Creek	-	-	X	-	-	X
8.35	54 0961	SR-210/I-15 Separation	-	-	-	-	-	-
8.83	54 0970	Cherry Avenue UC	-	-	X	-	-	X
9.60	54 0978	Summit Avenue OC	-	-	-	-	-	-
11.03	54 0980	Duncan Canyon Road OC	-	-	-	-	-	-

\*Abbreviations: Conn: Connector, OC: Overcrossing, Sep: Separation, UC: Undercrossing X- Indicates proposed structure improvements.

Structures that require work for the project include the preparation of Advanced Planning Studies (APS) and the assessment of additional seismic retrofit requirements.

### 1.6.2.2 Right-of-Way

No additional right-of-way is anticipated for the construction of the express lanes. Storm water best management practices (BMPs) to address storm water requirements and the treatment of surface-water runoff, as well as existing utility conflicts, may potentially require drainage easements, temporary construction easements and/or utility easements. BMPs include biofiltration swales, infiltration devices, and detention devices.

### 1.6.2.3 Utilities

Both underground and above ground utility conflicts are anticipated within the project corridor. Based on as-built plans obtained from Caltrans, the following utility owners are within the project limits:

- Southern California Edison (SCE)
- Southern California Gas Company

- Trans World Telecom (TWT)
- Inland Empire Utilities Agency (IEUA)
- Kinder Morgan (KM)
- MCI Worldcom (MCI)
- Metropolitan Water District of Southern California (MWD)
- Wiltel Communications
- City of Fontana

Identified overhead electrical lines are listed in **Table 1-4**. There is a major MWD underground pipeline crossing at Post Mile SBd 3.94. The structures at that location will require both inside and outside widening. Underground pipelines, which may be high risk facilities, are often co-located within railroad right-of-way. Since most of the railroad overhead structures will require widening, positive location of underground facilities will be required. Positive location, as determined from as-built plans and utility company records, of underground utilities in the project vicinity that may be in close proximity or conflict with proposed improvements is ongoing.

Relocation of towers is not anticipated for the overhead electrical lines. Towers adjacent to areas of outside widening are far away from existing right-of-way; hence, tower relocation will not be required.

Numerous drainage culverts and appurtenances may be affected. Some existing utilities may also be affected, though no major relocations are expected. Specific utility relocations and impacts along with dispositions of drainage culverts, utilities, and appurtenances have been determined as part of this study, however the exact details of utility relocations will be determined during final design. As-built plans were used to identify other existing utilities and major drainage culverts (diameter greater than 48 inches) and channels within the project limits. A list of these utilities and major drainage facilities is provided in **Table 1-5**. Coordination with the identified utility companies will continue during the final design and construction phases.

**Table 1-4. Overhead Electrical Crossings Within the Project Limits**

Post Mile	Facility
Riv 51.80	Steel tower west side of R/W (within I-15/SR-60 IC)
Riv 51.87	Steel towers away from R/W
SBd 0.00	Philadelphia Street pole line (with telephone)
SBd 1.22	Steel towers away from R/W
SBd 3.06	Fourth Street pole line
SBd 4.09	Pole line along BNSF RR R/W
SBd 4.36	Towers west of Day Canyon Channel
SBd 4.56	Post line east of Day Canyon Channel
SBd 4.60	Pole line along Arrow Route
SBd 9.96	Pole line crossing near Osprey Court
SBd 10.42	Steel towers near Roadrunner Road

**Table 1-5. Utilities and Major Drainage Facilities Within the Project Limits**

<b>Post Mile</b>	<b>Utility</b>	<b>Owner</b>
Riv 51.7	High Mast Lighting on centerline	Caltrans
Riv 51.85	High Mast Lighting not on centerline	Caltrans
Riv 52.02	High Mast Lighting on centerline	Caltrans
Riv 51.82	Electrical Transmission lines	SCE
Riv 51.85 – 51.91	Fiber Optic crossing and in median	Caltrans
Riv 52.04	Electrical Transmission lines	SCE
Riv 52.00 – 52.27	Fiber Optic crossing in the median	Caltrans
Riv 52.25	2-36" HP Gas lines in Philadelphia Avenue	SC Gas
SBd 2.04	Fiber Optic crossing and in median	Caltrans
SBd 0	UG Fiber Optic	TWT
SBd 0.51	36" VCP Sewer	IEUA
SBd 0.79	500 KV Electrical Transmission Lines	SCE
SBd 2.06	10" Gas Line in Airport Drive	SC Gas
SBd 2.16	16" Fuel Oil Line	KM
SBd 2.16	20" Fuel Oil Line	KM
SBd 2.37	UG Fiber Optic	MCI
SBd 3.95	14" Fuel oil Line	SCE
SBd 3.95	10" Fuel Oil Line	SCE
SBd 3.95	96" Water Line	MWD
SBd 4.34	Electrical Transmission lines	SCE
SBd 4.47	Day Canyon Channel Bridge	SBCFCD
SBd 4.51	Electrical Transmission lines	SCE
SBd 4.76	UG Fiber Optic	SC Gas
SBd 4.58	10" & 36" HP Gas	SC Gas
SBd 7.56	East Etiwanda Creek Bridge	SBCFCD
SBd 9.56 – 10.29	UG Fiber Optic - in northwest right of way	Wil-Tel
SBd 9.59	30" Water Line	City of Fontana
SBd 10.36	30" Water Line in 48" casing	City of Fontana
SBd 10.43	Electrical Transmission lines	SCE

### 1.6.2.4 Railroads

There are three (3) active and one (1) abandoned railroad crossings along I-15 within the project limits. All involve overhead structures with the highway passing over the railroad. All of the crossings will require structure widening work; proposed structure widening is summarized in **Table 1-3**. Railroad companies involved are summarized in **Table 1-6**. Coordination and agreements with the railroad companies will be carried out during the final design and construction phases.

**Table 1-6. Railroad Crossings Within the Project Limits**

Post Mile	Bridge Number	Railroad	Widen Structure
Riv 51.95	56 0695	Union Pacific	Yes
SBd 2.15	54 0907	Union Pacific	Yes
SBd 4.10	54 0919	BNSF	Yes
SBd 7.08	54 0963	Abandoned	Yes

## 1.7 Permits and Approvals Needed

**Table 1-7** identifies the permits, reviews, and approvals that would be required for project construction.

**Table 1-7. Permits and Approvals**

Agency	Permit/Approval	Status
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species (if needed) Review and Comment on 404 Permit	Obtain during PA/ED Obtain during Final Design
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States.	Obtain during Final Design
California Department of Fish and Wildlife	1602 Agreement for Streambed Alteration Section 2080.1 Agreement for Threatened and Endangered Species (if needed)	Obtain during Final Design Obtain during PA/ED
California Regional Water Quality Control Board	Section 401 Certification	Obtain during Final Design
County of San Bernardino, County of Riverside, City of Rancho Cucamonga, City of Ontario, City of Fontana, City of Eastvale, and City of Jurupa Valley	Freeway Agreements	Obtain during Final Design and/or prior to Construction

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