

limits. The tolled express lanes, which are 11 or 12 ft wide depending on the location, begin west of the SR-91/State Route 55 (SR-55) interchange and terminate at the Orange/Riverside County line. The HOV lanes, which are 11 or 12 ft wide depending on the location, begin where the tolled express lanes end just east of the Orange/Riverside County line and extend east to Mary Street in the City of Riverside.

One project, which is under construction, and several approved or planned projects in the project study area may affect or require design coordination with the proposed project. These projects are:

- SR-91 Eastbound Lane Addition Project between SR-241 and State Route 71 (SR-71) (under construction)
- Santa Ana Mainstem Project – Santa Ana River Reach 9 Phase 2B Realignment/ Santa Ana River Interceptor Pipeline Reaches III and IV
- SR-91/SR-71 Interchange Improvement Project
- I-15 Corridor Improvement Project
- SR-241/SR-91 Direct Connector Project
- SR-91 between SR-55 and SR-241

In addition to these projects, a number of other transportation and land use projects are identified within the cumulative impact study area, including projects identified in the most current *SR-91 Implementation Plan* (Orange County Transportation Authority [OCTA]).

S.2 Purpose and Need

S.2.1 Project Purpose

The purpose of the proposed project is to:

1. Improve the vehicle, person, and goods movement within the SR-91 corridor to more effectively serve existing and future travel demand between and within Riverside and Orange Counties.
2. Provide improvements along the SR-91 and I-15 transportation corridors as well as to related local roads.

S.2.2 Project Need

SR-91 is the only major highway corridor that provides the home-to-work connection for Riverside and San Bernardino County residents working in Orange and Los Angeles Counties. SR-91 is currently used by more than 280,000 vehicles per day

(vpd) at the Orange/Riverside County line, and this volume continues to grow. At the same time, travel speeds on SR-91 are well below 30 miles per hour (mph) during the lengthy morning (westbound) and evening (eastbound) peak travel periods.

SR-91 is continuing to experience increased congestion as a result of population growth in Riverside and San Bernardino Counties and the increase in jobs in Orange and Los Angeles Counties. Demographic projections for the SCAG region (Orange, Los Angeles, Ventura, Santa Barbara, and Riverside Counties), show that population and employment in Riverside and Orange Counties are forecast to increase substantially by 2035. As a result, traffic volumes on SR-91 are expected to increase by approximately 50 percent by 2035, which would result in even greater congestion and delays on SR-91. The existing travel demand on SR-91 has led to a heavy directional commute pattern between Riverside and Orange/Los Angeles Counties that is projected to continue into the future.

Improvements are necessary to address existing and projected deficiencies regarding mobility, access, goods movement, and freeway capacity on the project segment of SR-91, which is the only major highway that links Riverside and Orange Counties.

S.3 Proposed Action

Both Build Alternatives would add one GP lane in each direction on SR-91 between SR-241 and I-15. Both Build Alternatives would include improvements to I-15 between the Cajalco Road interchange and the Hidden Valley Parkway interchange in the City of Corona.

The two Build Alternatives would provide auxiliary lanes or collector-distributor roads at interchanges and would modify the existing interchange geometrics within the project limits to improve traffic operations. The Build Alternatives would also upgrade existing SR-91 to standard shoulder, lane, and buffer widths where those upgrades can be accommodated.

Under Alternative 1, the existing HOV facilities and tolled express lanes on SR-91 would be maintained in their current configurations. Alternative 2 would provide two tolled express lanes in each direction on SR-91 between SR-241 and I-15. The existing HOV and express lanes would be incorporated into these two tolled express lanes. East of I-15, the HOV lanes in Alternative 1 and the tolled express lanes in Alternative 2 would transition to the existing HOV and GP lanes at approximately Mary Street.

Alternative 1 would provide one median HOV lane in each direction on I-15 between SR-91 and Ontario Avenue. Alternative 2 would provide one median tolled express lane in each direction on I-15 between Hidden Valley Parkway and Cajalco Road.

Existing local access to/from the existing interchanges is expected to be maintained except at West Grand Boulevard, where the existing half-diamond interchange ramps would be removed and replaced with improved local connectivity to the Lincoln Avenue interchange.

The Build and No Build Alternatives are described briefly in the following section.

S.3.1 Alternatives

S.3.1.1 No Build Alternative

The No Build Alternative would maintain existing SR-91 and I-15 in the project area. Under this alternative, there would be no additional GP lanes and no change in the existing express or HOV lanes on SR-91. No improvements on SR-91, I-15, or intersecting local roads would be provided. The *SR-91 Implementation Plan* would not be implemented under the No Build Alternative.

Under the future No Build Alternative, it is assumed the following independent projects have been constructed and are operational:

- SR-71/SR-91 Interchange Improvement Project
- SR-91 Eastbound Lane Addition Project between SR-241 and SR-71
- SR-91 Lane Addition from SR-55 to Weir Canyon Road north of SR-91
- State Route 57 (SR-57) Northbound Truck Climbing Lane
- SR-241/SR-91 HOV/High-Occupancy Toll (HOT) Connector

It is not anticipated that other major corridor improvements would be implemented on the project segments of SR-91 and I-15 under the No Build Alternative. However, it is anticipated that smaller localized projects could be considered, approved, and implemented in the future on their own merits.

The No Build Alternative provides a benchmark by which the public and decision-makers can compare the magnitude of the effects of the Build Alternatives.

S.3.1.2 Alternative 1: Add General-Purpose Lanes and Maintain HOV Lanes (GP + HOV Lanes)

One GP lane would be constructed in each direction on SR-91 from the SR-91/SR-241 interchange in the Cities of Anaheim and Yorba Linda to Pierce Street in the City of Riverside under Alternative 1. The existing HOV lanes on SR-91 between the Orange/Riverside County line and Pierce Street would be maintained. Alternative 1 proposes HOV lane connectors from eastbound SR-91 to southbound I-15 and from northbound I-15 to westbound SR-91. Those direct connectors would provide HOV lane direct access from northbound I-15 to westbound SR-91 and from eastbound SR-91 to southbound I-15. The direct connectors would allow vehicles in the HOV lanes to directly move from freeway to freeway, eliminating the need for those vehicles to transition through traffic in the GP lanes. One HOV lane would be constructed on I-15 in each direction from Ontario Avenue in the City of Corona to a proposed I-15/SR-91 HOV lane direct connector.

Alternative 1 would provide auxiliary lanes or collector-distributor roads at interchanges and would modify the existing interchanges within the project limits. Existing local access to/from the existing interchanges would be maintained except at West Grand Boulevard, where the existing nonstandard half-diamond interchange ramps would be removed and replaced with improved local connectivity to the Lincoln Avenue interchange. Alternative 1 also includes upgrades to existing SR-91 to standard shoulder, lane, and buffer widths where those upgrades can be accommodated.

Alternative 1 includes four design variations (1a through 1d) that provide different designs at Auto Center Drive/Maple Street (design variations 1a and 1b) and Lincoln Avenue/Grand Boulevard (design variations 1c and 1d). The construction of Alternative 1 will cost approximately \$990 million to \$1.0 billion, based on the design variation.

S.3.1.3 Alternative 2 (Locally Preferred Alternative): Add General-Purpose Lanes and Extend Tolled Express Lanes (GP + Tolled Express Lanes)

RCTC has identified Alternative 2 as the Locally Preferred Alternative (LPA), as discussed in Chapter 2, Project Alternatives.

Under Alternative 2, one GP lane would be constructed in each direction on SR-91, from the SR-91/SR-241 interchange in the Cities of Anaheim and Yorba Linda to

Pierce Street in the City of Riverside. The existing express lanes in Orange County would be extended east from the Orange/Riverside County line to I-15 in the City of Corona. The existing HOV lanes would be converted to tolled express lanes, and one additional tolled express lane would be added in each direction on SR-91 from the Orange/Riverside County line to I-15. The tolled express lanes would be available to HOVs with three or more people per vehicle at either no toll charge or a reduced charge. A single eastbound SR-91 tolled express lane would extend past I-15 to McKinley Street and then transition back to an HOV lane at Pierce Street in each direction. In the westbound direction, the existing HOV lanes and Pierce Street would transition to the two tolled express lanes. Alternative 2 would add one tolled express lane in each direction on I-15 extending from the proposed express lane connectors north to Hidden Valley Parkway and south to Cajalco Road.

Two express lane direct connectors between I-15 and SR-91 would provide access from northbound I-15 to westbound SR-91, extending on I-15 from SR-91 to the Hidden Valley Parkway interchange, and from eastbound SR-91 to southbound I-15, extending on I-15 from SR-91 to Cajalco Road. The direct connectors would allow express lane drivers to travel from the express lanes on one freeway into the express lanes on the other freeway without having to transition through the GP lanes.

Alternative 2 would also provide auxiliary lanes or collector-distributor roads at interchanges and would modify the existing interchanges within the project limits. Existing local access to/from the existing interchanges would be maintained except at West Grand Boulevard, where the existing nonstandard half-diamond interchange ramps would be removed and replaced with improved local connectivity to the Lincoln Avenue interchange. Alternative 2 also includes upgrades to existing SR-91 to standard shoulder, lane, and buffer widths where those upgrades can be accommodated.

Alternative 2 includes eight design variations (2a through 2h) that provide different design options at Auto Center Drive/Maple Street (two design options), Smith Avenue (two design options), and Lincoln Avenue (two design options). The construction of Alternative 2 will cost approximately \$1.345 to \$1.426 billion, depending on the design variation.

RCTC's designation of Alternative 2 as their LPA does not constitute selection of a Preferred Alternative or commit decision-makers to approving the project. After the public circulation period for the Draft EIR/EIS, all comments will be considered, and