

Community and Environmental Transportation Acceptability Process

(CETAP) – Riverside County to Orange County Corridor

Riverside County Transportation Commission

November 21, 2007

Mr. Hasan Ikhata
Director of Planning and Policy
Southern California Association of Governments
818 West Seventh Street, 12th Floor
Los Angeles, CA

Subject: CETAP Corridor Funding

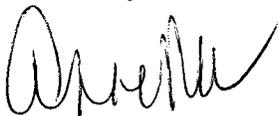
Dear Hasan:

This letter is to notify you of our funding commitment on the Community and Environmental Transportation Acceptability Process (CETAP) - Riverside County to Orange County Corridor. The Riverside County 2009 Measure A program identifies \$370 million for the planning and implementation of four corridors, two external and two internal corridors. An additional \$200 million of TUMF funding is also identified for the corridors.

As you are aware, we have completed a Major Investment Study (MIS) in conjunction with the Orange County Transportation Authority (OCTA) and Caltrans Districts 8 and 12 on the Riverside – Orange County CETAP corridor. This effort resulted in the receipt of \$15.8 million of federal funds for feasibility and technical studies for the Riverside – Orange County CETAP corridor. We will continue to seek future federal funds for subsequent project phases in addition to local and private funding.

Given our commitment of funding to implement this new corridor, it needs to be reflected in the 2008 Regional Transportation Plan. If you have any further questions regarding the CETAP corridor, please contact Cathy Bechtel at (951) 787-7141.

Sincerely,



Anne Mayer
Executive Director

2007



State Route 91 Implementation Plan



PREPARED FOR:



IN ASSOCIATION WITH:



PREPARED BY:



MAY 2007

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INTRODUCTION

Previous law authorized the California Department of Transportation (Caltrans) to enter into franchise agreements with private companies to construct and operate four demonstration toll road projects in California. This resulted in the development of the 91 Express Lanes facility in Orange County. The four-lane, 10-mile toll road runs along the median of State Route 91 (SR-91) in northeast Orange County between the Orange/Riverside County line and State Route 55 (SR-55). Since the 91 Express Lanes carried its first vehicle in December 1995, the facility has saved users millions of hours of commuting time.

While the 91 Express Lanes facility has improved travel time along the SR-91 corridor, provisions in the franchise agreement between Caltrans and the private franchisee, the California Private Transportation Company (CPTC), prohibited Caltrans and county transportation agencies from adding transportation capacity or operational improvements to the SR-91 corridor from Interstate 15 (I-15) in Riverside County to the Orange/Los Angeles Counties border through the year 2030. Consequently, the public agencies were barred from adding new lanes, improving interchanges, and adding other improvements to decrease congestion on the SR-91 freeway.

Recognizing the need to eliminate the non-compete provision of the franchise agreement, Governor Gray Davis signed Assembly Bill 1010 (Lou Correa) into law in September 2002, paving the way for much-needed congestion relief for thousands of drivers who use SR-91 to travel between Riverside and Orange Counties each day. The bill allowed the Orange County Transportation Authority (OCTA) to purchase the 91 Express Lane franchise and eliminate the existing clause that prohibited any capacity-enhancing improvements from being made to SR-91 until the year 2030. The purchase agreement for the 91 Express Lanes was completed in January 2003, placing the road in public hands at a cost of \$207.5 million. With the elimination of the non-compete provision through AB 1010 and the subsequent 91 Express Lanes purchase by the OCTA, Orange County and Riverside

County public officials and Caltrans Districts 8 and 12 have been coordinating improvement plans for SR-91.

AB 1010 also requires OCTA, in consultation with Caltrans and the Riverside County Transportation Commission (RCTC), to annually issue a plan and a proposed completion schedule for SR-91 improvements from I-15 to SR-55. This plan establishes a program of projects eligible for funding by the use of potential excess toll revenue and other funds.

This 2007 SR-91 Implementation Plan is the result of the requirement to provide the State Legislature with an annual Implementation Plan for SR-91 improvements and builds on the 2006 report, which was a major update of the previous annual Implementation Plans. This year's update includes projects identified in the Riverside County – Orange County Major Investment Study (MIS) as well as other project development efforts and funding programs such as the RCTC 10-Year Project Delivery Plan that outlines a number of projects such as the extension of Express Lanes from the Orange/Riverside County Line to I-15, the California Transportation Commission (CTC) Corridor Mobility Improvement Account (CMIA) that provides a funding source for transportation projects, and the Renewed Measure M program that provides funding for transportation projects in Orange County. The 2007 SR-91 Implementation Plan includes an overview, identification of issues and needs, time frames for project packages to improve mobility on SR-91, and are listed based on a logical sequence for implementation. Project descriptions include conceptual lane diagrams (as appropriate), cost estimates (in 2007 dollars), and discussion of key considerations that need to be addressed in the planning and development of each project. This plan will provide OCTA, RCTC, and Caltrans with a framework to implement SR-91 and other related improvements. Future annual plan updates will continue to refine the scope, cost, and schedule of each project included in this version of the plan.

SR-91 CORRIDOR CONDITIONS

Project Limits

The project study limits encompass the segment of SR-91 from west of the junction of SR-55 and SR-91 in the City of Anaheim in Orange County to east of the junction of SR-91 and I-15 in the City of Corona in Riverside County. The freeway segment is approximately 17.3 miles long, and includes approximately 9.7 miles within Orange County and approximately 7.6 miles within Riverside County.

Traffic Conditions Summary

A review of traffic conditions in the Corridor indicates that the existing carrying capacity of the facility is inadequate to accommodate current and future peak demand volumes, and that Level of Service (LOS) F prevails in the peak direction during the entire peak period, where LOS F is defined as the worst freeway operating condition and is defined as a density of more than 45 passenger cars/lane/mile. The results also indicate that there are several physical constraints that generate unacceptable traffic queues. The following list summarizes the deficiencies identified along the SR-91 Corridor:

- ❖ Heavy traffic volumes from I-15 (North and South) converge with SR-91. Weaving and merging condition is complicated by the close proximity of the Main Street off-ramp.
- ❖ High demand from several on-ramps within the eastern segment exacerbates traffic conditions during rush hours.
- ❖ The right eastbound (EB) general purpose (GP) lane is dropped at State Route 71 (SR-71).
- ❖ The second EB High Occupancy Vehicle (HOV) lane becomes a GP lane. Heavy downstream congestion forces traffic to exit at the Green River off-ramp. The backup caused by the off-ramp blocks the right lane of the mainline freeway.
- ❖ High traffic volumes from Gypsum Canyon Road and Santa Ana Canyon Road contribute to congestion on the mainline.
- ❖ SR-241 merges with SR-91 causing additional congestion in the EB direction. Both EB lanes are dropped prior to SR-71.
- ❖ Heavy traffic reentering the freeway merges at slow speeds from existing WB and EB truck scales,

impacting the general-purpose lanes.

- ❖ SR-55 merges with SR-91. The right EB lane on SR-91 is dropped at Lakeview Avenue and the second lane is dropped at Imperial Highway creating a severe merge condition.
- ❖ High demand from Weir Canyon Road, Imperial Highway and Lakeview Avenue.
- ❖ Westbound (WB) traffic entering SR-91 at Lakeview Avenue weaving through three lanes from WB SR-91 to southbound (SB) SR-55 causes a mainline backup.

PROJECT SUMMARY

Many of the projects identified in this 2007 Implementation Plan are based on the Riverside County – Orange County Major Investment Study (MIS) that was completed in January 2006. The projects are presented based on potential implementation schedules and priorities established in the MIS. Table 1 summarizes the various projects in the 2007 SR-91 Implementation Plan.

- ❖ The first set of projects will be completed by 2011 and include four improvements at a total cost of approximately \$150 million. The projects include the Green River Road interchange overcrossing replacement, Metrolink service improvements, Express Bus improvements, and the eastbound SR-91 lane addition from SR-241 to SR-71. These projects are in the process of preliminary engineering, final design, construction, or procurement and implementation, as noted in the project summaries.
- ❖ The 2015 improvements include five projects, with a total cost of approximately \$1.1 billion. The projects include new travel lanes between SR-55 and SR-241; the 5th lane project from SR-241 to Pierce Street that will add a fifth GP lane in each direction on SR-91 and potentially extend the 91 Express Lanes to I-15, interchange improvements at SR-71/SR-91, and collector-distributor (CD) roads for EB SR-91 to SR-71 and in both directions at I-15; an I-15/SR-91 direct connector; a WB lane at Tustin Avenue; and a potential new interchange at Fairmont Boulevard.
- ❖ Projects for implementation by 2020 include the SR-241/SR-91 HOV/HOT connector, a significant expansion of Metrolink service and station

enhancements, and SR-55/SR-91 interchange improvements. OCTA, RCTC, and Caltrans will be initiating some preliminary planning activities for these projects to ensure readiness when local, state, or federal funding becomes available. Consequently, there may be opportunities to advance these projects if additional funding is made available. Projects for implementation by 2020 would cost approximately \$775 million. Some of these projects may become components of 2030 and post-2030 projects.

- ❖ Projects for implementation by 2030 focus on longer-lead time projects. These three, multi-billion dollar potential projects require a significant amount of planning, design, and future policy and public input. In some cases, these projects may include previous projects as project components, such that all projects may not be implemented within this project summary.

Traffic Analysis

For the 2007 SR-91 Implementation Plan, the traffic impacts for major SR-91 capacity projects are analyzed. This analysis used the latest freeway operations software model available from UC Berkeley and 2007 traffic data. This freeway operations model provides a better depiction of actual travel delays experienced by motorists compared to traditional travel demand models. The model can be used to analyze freeway bottlenecks sometimes neglected in traditional travel demand models. This approach is especially important given high SR-91 traffic volumes and the potential for relatively few vehicles to significantly slow down traffic. For example, a minor freeway merging area can cause many vehicles to slow, cascading delay through the traffic stream, and suddenly both speed and volume rapidly decrease for major segments of the freeway.

The operations analysis quantified travel time savings for eastbound afternoon and westbound morning conditions for the following major projects:

- ❖ Eastbound lane addition from SR-241 to SR-71 by 2011 (Project 4).

Table 1 – SR-91 Implementation Plan Projects

Project No.	Project Summary	Cost (\$M)
<i>By Year 2011</i>		
1	Green River Road Overcrossing Replacement	24.3
2	Metrolink Short-Term Expansion Plan	35.4
3	Express Bus Improvements – Orange County to Riverside County	9.5
4	Eastbound Lane Addition from SR-241 to SR-71	80.5
SUBTOTAL		149.7
<i>By Year 2015</i>		
5	Widen SR-91 between SR-55 and SR-241 by Adding a 5 th GP lane in Each Direction	96
6	Widen SR-91 by One GP Lane in Each Direction East of SR-241, CD Roads at SR-71/SR-91 and I-15/ SR-91, Extension of Express Lanes to I-15, and System Interchange Improvements	585
7	I-15/SR-91 Direct Connector	229
8	SR-91 WB Lane at Tustin Avenue	95
9	New Interchange at Fairmont Boulevard	46 - 70
SUBTOTAL		1,051 - 1,075
<i>By Year 2020</i>		
10	SR-241/SR-91 HOV/HOT Connector	240
11	Metrolink Service and Station Improvements	335
12	SR-55/SR-91 Interchange Improvements	200
SUBTOTAL		775
<i>By Year 2030 and Post-2030</i>		
13	Elevated 4-Lane Facility (MIS Corridor A) from SR-241 to I-15	3,200
14	4-Lane Facility (MIS Corridor B) from SR-241/SR-133 to I-15/Cajalco Road	5,700
15	Anaheim to Ontario International Airport High Speed Rail	TBD
SUBTOTAL		8,900+

- ❖ New lanes in both directions from SR-55 to SR-241 by 2014 (Project 5).
- ❖ New lanes in both directions from SR-241 to I-15 by 2015 (Project 6).
- ❖ New capacity provided by Corridor A and Corridor B by 2030 as suggested by the 2006 Riverside County – Orange County Major Investment Study (Projects 13 and 14).

The results indicate that improvements planned for 2015 will significantly decrease travel time and increase travel speeds EB in the afternoon. These improvements, plus planned widening of SR-91 between SR-55 and SR-241 by 2015, will help manage the future growth in WB morning travel. However, the WB morning travel time remains nearly the same as today's conditions even with these improvements. The current design of the SR-55/SR-91 interchange limits the ability to move traffic into north and central Orange County via SR-55, and significant future vehicle delays may result without major interchange improvements and downstream capacity or diversion to other corridors.

The introduction of Corridors A and B by 2030 offer the potential capacity to manage future SR-91 demand in both directions. While both of these corridors are still concepts,

they provide substantial relief to EB and WB traffic congestion in the future. Further feasibility studies will determine if one or both concepts move forward in the project development process. The charts below describe the travel time benefits by year including these various project concepts.

Time period "2007 A" in Figure 1-1 represents the inclusion of an EB SR-91 restripe and median barrier reconstruction project that will remove the CHP enforcement area and will extend the auxiliary lane from SR-71 to the Serfas Club Drive off-ramp. The anticipated construction completion date is October 2007. Figure 1-2 includes an additional 2004 time period that can be compared with the 2005 travel time, which represents the inclusion of a WB SR-91 restripe project near the County Line.

Figure 1-1 – Mainline Eastbound SR-91 From SR-55 to I-15 P.M. Peak Hour Average Travel Time

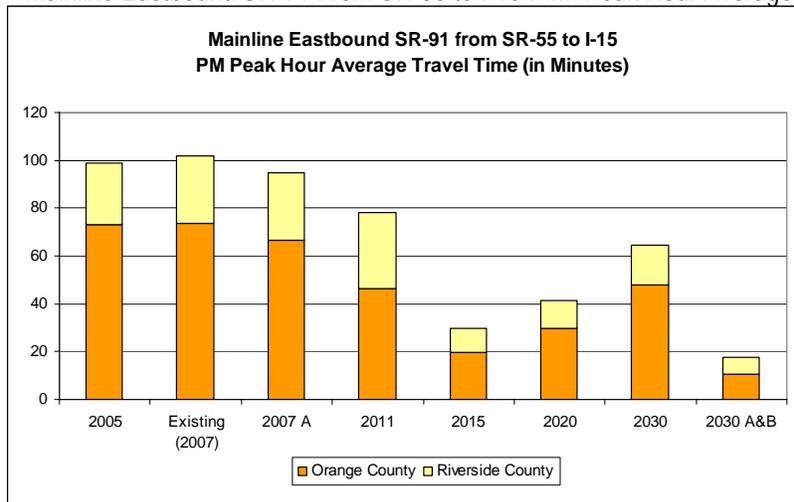
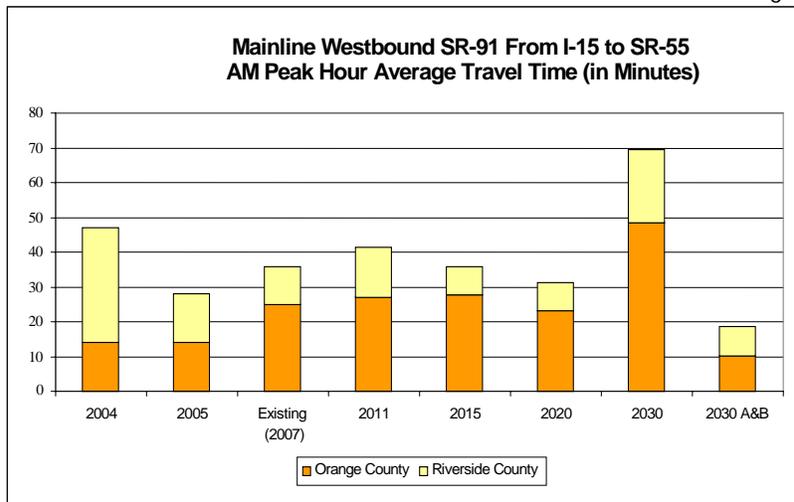


Figure 1-2 – Mainline Westbound SR-91 From I-15 to SR-55 A.M. Peak Hour Average Travel Time



PROJECT ACCOMPLISHMENTS

Much progress has been made since the initial 2003 Implementation Plan was approved.

Recently Completed Construction/Improvement Projects

As of May 2007, the following physical improvements have been constructed/implemented:

- ❖ Express Bus improvements are implemented for the Galleria at Tyler to South Coast Metro route.
- ❖ Westbound auxiliary lane extension between the County Line and SR-241. This project eliminated the lane drop at the 91 Express Lanes and extended the existing auxiliary lane from the County Line to SR-241 in the westbound direction. This improvement minimized the traffic delays at the lane drop area, resulting in improved vehicle progression.
- ❖ Westbound restripe project extended the auxiliary lane between SR-71 and the County Line resulting in a new continuous auxiliary lane between SR-71 & SR-241.
- ❖ Safety Improvements at Truck Scales. Existing shoulders were improved, lanes were re-striped, illumination improved, and signage was modified into and out of the eastbound facilities.

These projects provided enhanced freeway capacity and improved mobility for one of the most congested segments of the freeway.

Recently Completed PSR's and other Reports

In addition to the physical improvements in the corridor, there are several reports and PSR's that are completed or in draft form that identify improvements that will provide improved mobility. The reports and PSR's include:

- ❖ Project Report for Eastbound Lane from SR-241 to SR-71 (Expected 2007).
- ❖ Project Study Report "On State Route 91 Between the SR-91/SR-55 Interchange and the SR-91/SR-241 Interchange in Orange County" (April 2004).
- ❖ Project Study Report "On Route 91 from State Route 241 in Orange County to Pierce Street in the City of Riverside in Riverside County" (October 2006).
- ❖ Renewed Measure M Transportation Investment Plan (November 2006).

- ❖ Riverside County-Orange County Major Investment Study (MIS) – Final Project Report: Locally Preferred Strategy Report (January 2006).

Updates from the 2006 Implementation Plan

In addition, to the improvements and progress noted above, the following projects that were included in the 2006 SR-91 Implementation Plan have been modified or dropped for the 2007 Plan:

- ❖ SR-91 Reversible Lanes from the County Line to I-15 project has been dropped since the time table will interfere with implementation of the 5th lane addition project from SR-241 to Pierce Street. Potential reversible operation is noted for the Corridor A project under the project description.
- ❖ The Green River Road overcrossing replacement project has begun construction in March 2007.
- ❖ The widening of SR-91 from SR-55 to SR-241 by adding a 5th GP lane in each direction has been moved up from 2020 to 2014 since it has received \$22M in CMIA funding.
- ❖ The extension of Express Lanes to I-15 is added to the 5th lane project widening from SR-241 to I-15.
- ❖ The I-15/SR-91 direct connector project has been moved up from 2030 to 2015 to coincide with the schedule for 5th lane widening from SR-241 to I-15.
- ❖ The SR-241/SR-91 HOV/HOT connector project has been moved up from 2030 to 2020 because of the accelerated schedules for projects along SR-91 that may impact the project and to potentially reduce throw-away costs from implementation of earlier improvements.
- ❖ RCTC, on behalf of Riverside Orange Corridor Authority (ROCA), a Joint Powers Agreement (JPA), has submitted the permit application to the United States Department of Agriculture (USDA) Forest Service for geotechnical studies within the Cleveland National Forest for the Corridor B (Irvine-Corona Expressway) 4-lane facility from SR-241/SR-133 to I-15/Cajalco Road. RCTC anticipates completing the feasibility study by the end of 2008.

OVERVIEW

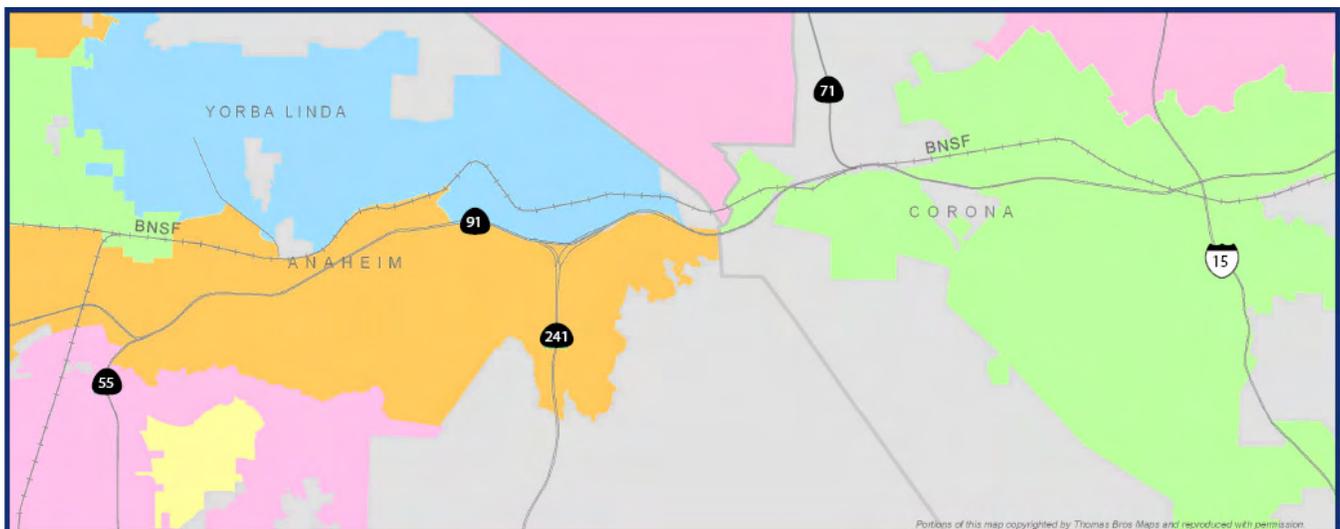
The 2007 SR-91 Implementation Plan describes projects, implementation schedules, key consideration, benefits, and costs (in 2007 dollars) for major projects through 2030. Most of the projects identified in this Implementation Plan are based on the Riverside County – Orange County Major Investment Study (MIS) that was completed in January 2006. The projects are presented based on potential implementation schedules and priorities established in the MIS. The schedules for implementation of the packages of projects include 2011, 2015, 2020, and 2030. The 2011 and 2015 projects are capable of being implemented through the project development process with minimal to moderate environmental constraints. Some of the longer-range projects for 2020 and 2030 require more significant planning and environmental assessment prior to design.

Each of the project improvements includes an estimate of project schedules. It is important to note that implementing various time saving measures, such as design-build or contractor incentives for early completion, may potentially reduce project schedules. The implementation phases are defined as follows:

- ❖ **Conceptual Engineering = Pre-Project Study Report (Pre-PSR)** – Conceptual planning and engineering for project scoping and feasibility prior to initiating the PSR phase.
- ❖ **Preliminary Engineering = Project Study Report (PSR)** – Conceptual planning and engineering phase that allows for programming of funds.
- ❖ **Environmental = Project Report/Environmental Documentation (PR/ED)** – The detailed concept design that provides environmental clearance for project and programs for final design and right of way acquisition. The duration for this phase is typically 2-3 years.
- ❖ **Design = Plans, Specifications and Estimates (PS&E)** – Provide detailed design to contractors for construction bidding and implementation.
- ❖ **Construction** = The project has completed construction and will provide congestion relief to motorists.

The intent of these implementation plan project packages is to provide an action list for OCTA, RCTC and Caltrans to pursue in the project development process or for initiating further studies.

Figure 2-1 – SR-91 Project Study Area from SR-55 to I-15

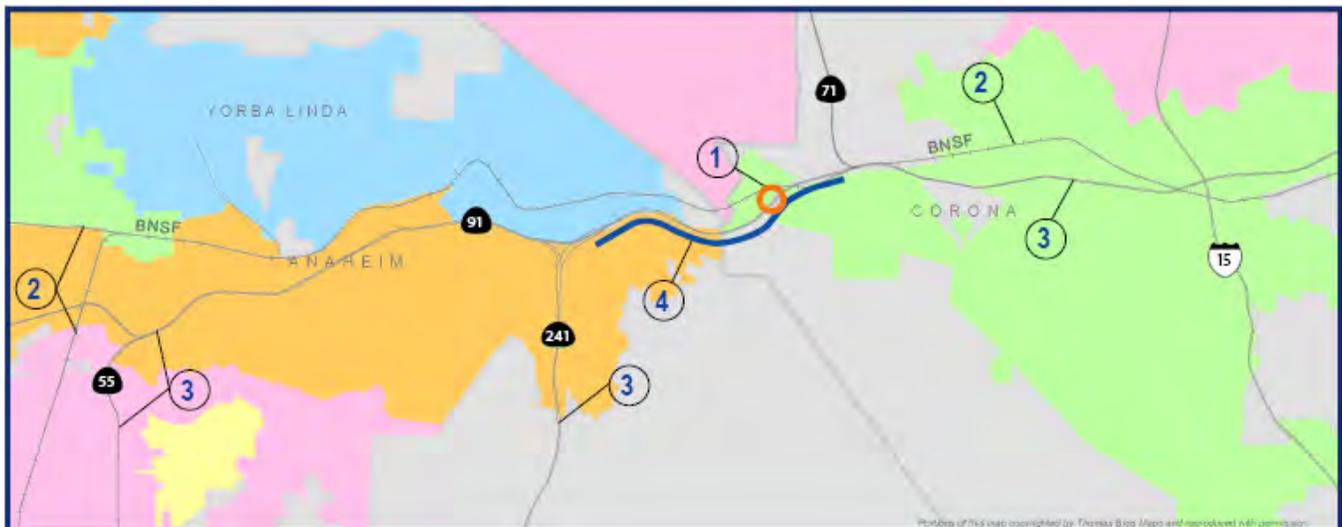


By Year 2011

The first set of projects will be completed by 2011 and include four improvements at a total cost of approximately \$150 million (in 2007 dollars). The projects include the Green River Road interchange overcrossing replacement, Metrolink service improvements, Express Bus improvements, and the EB SR-91 lane addition from near SR-241 to SR-71. Most of these projects are in the process of preliminary engineering, final design, construction, or procurement and implementation. These projects are recommended for the first few years of the plan and will provide mobility improvements to the corridor when implemented. Most of these near term projects provide immediate operational benefits (with the overcrossing replacement accommodating future SR-91 capacity) with a minimum of effort required relative to environmental documentation and Right-of-Way constraints.

Project No.	Project Summary	Cost (\$M)
1	Green River Road Overcrossing Replacement	24.3
2	Metrolink Short-Term Expansion Plan	35.4
3	Express Bus Improvements – Orange County to Riverside County	9.5
4	Eastbound Lane Addition from SR-241 to SR-71	80.5
SUBTOTAL		149.7

Figure 2-2 – Summary of Projects for Implementation By 2011



Green River Road Overcrossing Replacement

Project No: 1

Anticipated Completion: 2009

Project Cost Estimate

Capital Cost	\$ 21,000,000
Support Cost	\$ 3,000,000
R/W Cost	\$301,000
Total Project Cost	\$ 24,301,000

Project Schedule

Preliminary Engineering	Complete
Environmental	Complete
Design	Complete
Construction	2007-2009

Project Description

Improvements primarily consist of replacing the existing Green River Road overcrossing with a new six-lane wide, 4-span overcrossing to accommodate future widening of SR-91. The interior spans will accommodate up to eight mainline lanes in each direction including two HOV lanes. The exterior spans can accommodate two lanes, either for auxiliary lanes or collector distributor roads. Entrance and exit ramps will be realigned and widened to accommodate the new bridge, yet the interchange will retain its current configuration. New signals will be installed at the ramp intersections. Ramp and bridge improvements will be constructed within existing right of way.

Key Considerations

Design interface is required with Projects #4 and #6.

Benefits

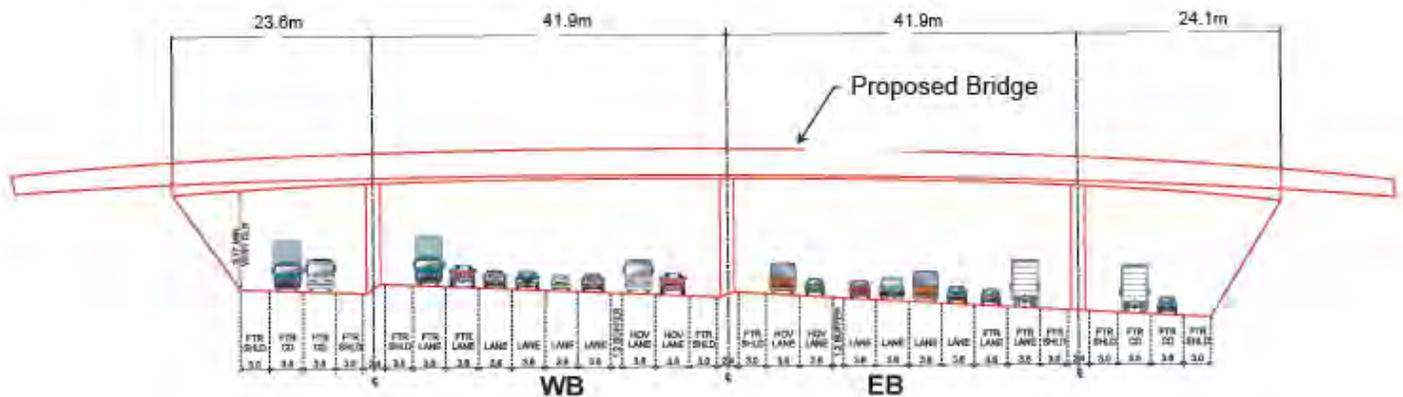
The project will improve level of service at ramp and local street intersections at the interchange. Improvements will reduce ramp queues that extend into the freeway's general purpose lanes, thus contributing to congestion relief on SR-91.

Current Status

Project began construction in March 2007 and is anticipated to be completed by March 2009.

Abbreviations:

- CD = Collector Distributor Lane
- FTR = Future
- HOV = High Occupancy Vehicle
- SHLD = Shoulder



PRELIMINARY CROSS-SECTION
GREEN RIVER BRIDGE

NOTE: All dimensions in meters and are approximate

Metrolink Short-Term Expansion Plan

Project No: 2

Anticipated Completion: 2010

Project Cost Estimate

OCTA Project Cost \$ 35,400,000

Project Schedule

To be completed by 2010

Project Description

OCTA, working with the Riverside County Transportation Commission, San Bernardino Associated Governments, and the Southern California Regional Rail Authority (SCRRA), plans a short-term expansion of train service from the Inland Empire to Orange County. More trains are planned on the Inland Empire - Orange County (IEOC) line that currently runs between San Bernardino, Riverside, and Orange Counties as well as the "91 Line" that goes from the Inland Empire to Los Angeles via Orange County, paralleling SR-91.

Currently, 16 trains a day run on the IEOC line and nine trains on the 91 Line for a total of 25 daily trains. The short-term expansion adds two additional IEOC trains and four additional 91 Line trains by 2010 for a total of 31 daily trains, subject to negotiations with BNSF, RCTC, and LACMTA. The planned short-term expansion is necessary to accommodate population and employment growth in the region as well as make the current service more convenient.

Key Considerations

Capital costs necessary for this expansion includes the purchase of engines and coaches to operate the new service. OCTA costs are estimated at \$35.4 million. The long-term plan (by 2020) adds more service and requires a significant capital investment (see Project #11 for long-term details). Coordination has been ongoing with the Metrolink extension studies (see also Project #11).

Benefits

Enables development of expanded Metrolink Service, which will contribute to congestion relief on SR-91.

Current Status

SCRRA equipment procurement is underway with Rotem Company for the purchase of trailer and cab cars, and also with MotivePower, Inc. for locomotives.



Express Bus Improvements Orange County to Riverside County

Project No: 3

Anticipated Completion: 2011

Project Cost Estimate

Total Capital Cost \$ 9,500,000

Total Annual Operating Cost \$ 900,000

Project Schedule

Riverside/Corona to South Coast Metro implemented Fall 2006

Riverside/Corona to Tyler to Irvine Business Complex/UCI in FY 2010/2011

Riverside/Corona to North East Anaheim and CSUF in FY 2010/2011

Riverside/Corona to Anaheim Resort in FY 2010/2011

Project Description

OCTA, working with the Riverside County Transportation Commission, and the Riverside Transit Agency, plans an extensive expansion of express bus service between Riverside and Orange Counties. Commuters lack direct transit connections to many Orange County employment centers, and new express bus service will provide connections to growing employment centers in Anaheim, Costa Mesa, Fullerton, and Irvine.

Four express bus routes are planned from Riverside County to the Northeast Anaheim Canyon Business Center and California State University Fullerton; Anaheim Civic Center, Western Medical Center, and Anaheim Resort; and Irvine Business Complex and UCI. Routes would run every 30 to 45 minutes in the peak period, and service will be tailored to match demand. Implementation began in Fall 2006 with the Riverside County to South Coast Metro route. The other routes are planned for implementation by Fiscal Year 2010/2011 contingent on future budget authority.

Key Considerations

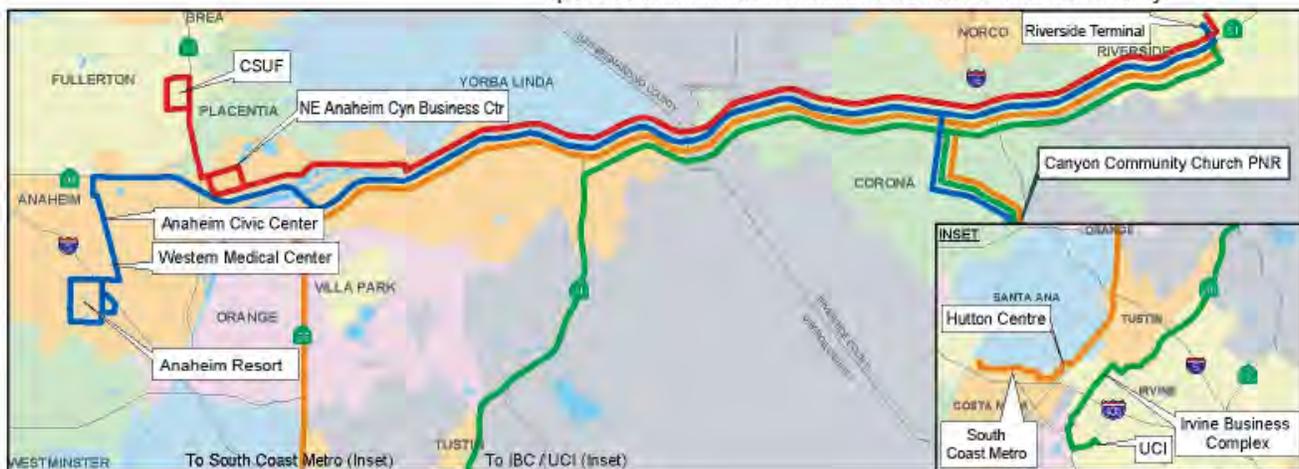
Operating costs are estimated at \$900,000 each year. Costs are shared by Orange and Riverside Counties.

Benefits

Development of Express Bus Services will contribute to congestion relief on SR-91.

Current Status

OCTA is developing a procurement plan to purchase additional vehicles. A cooperative agreement covering the Riverside/Corona to South Coast Metro service with Riverside County has been developed. The Riverside County to South Coast Metro express bus route is currently operating. Expansion of the program is dependent upon future financial commitments with Riverside County.



Eastbound Lane Addition from SR-241 to SR-71

Project No: 4

Anticipated Completion: 2011

Project Cost Estimate

Capital Cost	\$ 65,000,000
Support Cost	\$ 14,900,000
R/W Contingency	\$ 600,000
Total Project Cost	\$ 80,500,000

Project Schedule

Preliminary Engineering	Completed
Environmental	2004-2007
Design	2007-2009
Construction	2009-2011

Project Description

The project will provide an additional eastbound (EB) lane from the SR-91/SR-241 interchange to the SR-71/SR-91 interchange and will widen all EB lanes and shoulders to standard widths.

Key Considerations

Coordination with Green River Road Overcrossing Replacement (Project #1) will be required. Staged construction would be required for all ramp reconstruction and freeway widening. Freeway operations would most likely be affected by this project, however, freeway lane closures are not anticipated. An EB concrete shoulder will be constructed with a 12 foot width to provide for future widening as contemplated by Project #6 (5th lane addition).

Benefits

The lane addition would improve weaving between SR-241 and SR-71, as well as remove vehicles from the SR-91 mainline traffic flow that would be exiting at Green River Drive and SR-71.

Current Status

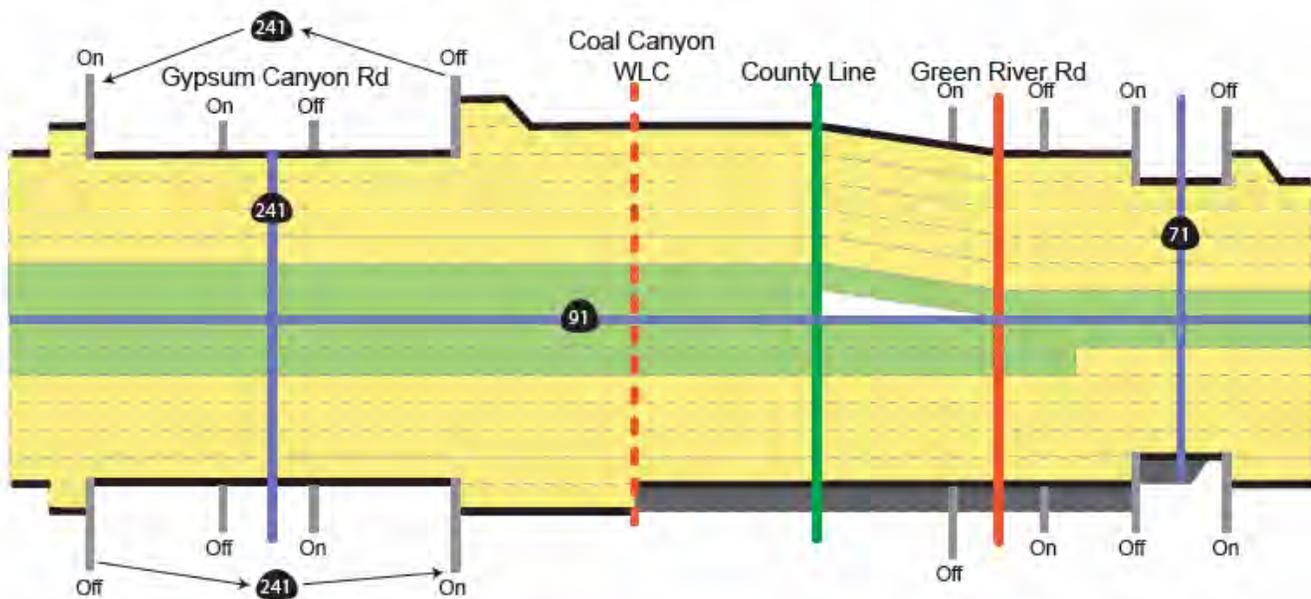
Project Report and Environmental Document are currently being prepared. Funding and schedule are from Corridor Mobility Improvement Account (CMIA) with CMIA funding of \$71.44M approved. Caltrans will perform design and right-of-way certification by March 2009. Construction is anticipated to begin in August 2009 and be completed by September 2011.

LEGEND

-  Existing Highway
-  Interchange/Ramp
-  County Line
-  HOV or HOT Lane
-  Existing Lane
-  Project Improvement Lane
-  Existing Lanes Outline

Project Schedule Caltrans Equivalents:

- Preliminary Engineering = PID
- Environmental = PA/ED
- Design = PS&E

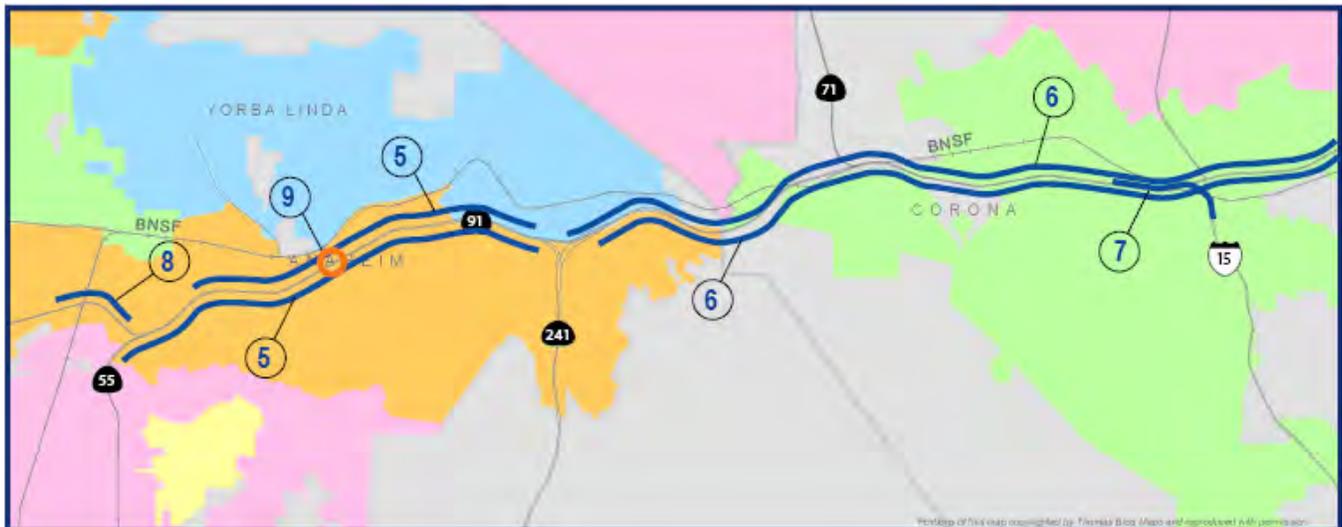


By Year 2015

The next set of improvements includes five projects, which would be implemented by 2015 at a total cost of approximately \$1.1 billion (in 2007 dollars). One of the projects includes SR-91 widening by one general purpose (GP) lane in each direction between SR-55 and SR-241. Another project is the 5th lane project from SR-241 to Pierce Street that adds a fifth GP lane in each direction on SR-91, improvements at the SR-71/SR-91 interchange, extension of the Express Lanes to I-15, an EB SR-91 collector-distributor (CD) road from Green River Road to SR-71, and CD roads in both directions just west of I-15. The other three projects that will be completed in this time frame include the I-15/SR-91 Direct Connector, a WB lane at Tustin Avenue, and a potential new interchange at Fairmont Boulevard.

Project No.	Project Summary	Cost (\$M)
5	Widen SR-91 between SR-55 and SR-241 by Adding a 5 th GP Lane in Each Direction	96
6	Widen SR-91 by One GP Lane in Each Direction East of SR-241, CD Roads at SR-71/SR-91 and I-15/ SR-91, Extension of Express Lanes to I-15 and System Interchange Improvements	585
7	I-15/SR-91 Direct Connector	229
8	SR-91 WB Lane at Tustin Avenue	95
9	New Interchange at Fairmont Boulevard	46 - 70
SUBTOTAL		1,051 - 1,075

Figure 2-3 – Summary of Projects for Implementation By 2015



Widen SR-91 between SR-55 and SR-241 by Adding a 5th GP Lane in Each Direction

Project No: 5

Anticipated Completion: 2014

Project Cost Estimate

Capital Cost	\$ 69,800,000
Support Cost	\$ 23,100,000
R/W Cost	\$ 3,100,000
Total Project Cost	\$ 96,000,000

Project Schedule

Preliminary Engineering	Complete
Environmental	2007-2009
Design	2009-2011
Construction	2011-2014

Project Description

This project proposes capacity and operational improvements by adding one general purpose (GP) lane on Eastbound (EB) SR-91 between SR-91/55 connector and east of Weir Canyon Road interchange and on Westbound (WB) SR-91 between east of Weir Canyon Road interchange and Imperial Highway (SR-90) interchange. Additionally, this project would modify the WB on-ramps from the Lakeview Avenue interchange.

Key Considerations

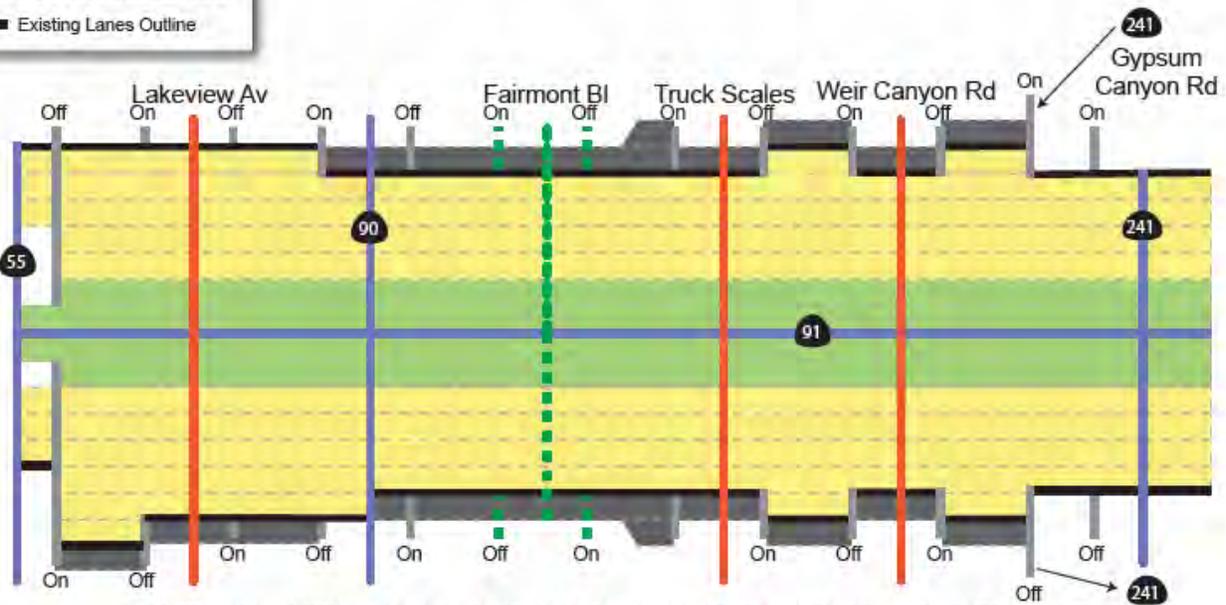
Coordination with the proposed Fairmont Boulevard interchange Project #9 will be required. R/W constraints need to be considered. Coordination is required for the proposed project to lengthen the WB on- and off-ramps at the truck scales as Caltrans is not considering relocation of the truck scales at this time. Coordination may be required with SR-55/SR-91 interchange improvement Project #12. Modification or reconfiguration of the WB Lakeview Avenue on-ramps may also be considered to improve weaving issues to SR-55. Separating traffic is a potential solution to the Lakeview Avenue merge issue.

Benefits

Alleviates congestion on SR-91 WB by eliminating the lane drop at the truck scales and providing a continuous general purpose (GP) lane to SR-90. Alleviates congestion on SR-91 EB by eliminating the lane drop for northbound SR-55 at SR-91 by providing an auxiliary lane to Lakeview Avenue, and at SR-90 by providing a continuous GP lane to Weir Canyon Road.

Current Status

A PSR was completed in April 2004. The PA/ED phase is anticipated to commence in 2007. The project received \$22M of CMIA funding and \$74M of other funds.



NOTE: FAIRMONT BLVD IS CONTINGENT UPON IMPLEMENTATION OF PROJECT #9



Widen SR-91 by One GP Lane in Each Direction East of SR-241, CD Roads at SR-71/SR-91 and I-15/SR-91, Extension of Express Lanes to I-15, and System Interchange Improvements

Project No: 6

Anticipated Completion: 2015

Project Cost Estimate*

Total Project Cost** \$ 585,000,000

Project Schedule

Preliminary Engineering	Completed
Environmental	2007-2010
Design/Construction	2010-2015

* Costs derived from RCTC 10-Year Delivery Plan

** Cost includes approximately \$78M for SR-71/SR-91 interchange

Project Description

The improvements primarily consist of constructing a new EB and WB 5th general purpose (GP) lane, replacing existing and adding new auxiliary lanes, extension of SR-91 Express Lanes to I-15, and new collector-distributor (CD) roads for freeway-to-freeway connectors at SR-71 and I-15. The project is planned to include space within the median for the planned I-15 HOV direct connectors.

Key Considerations

Implementation of MIS Corridor A (Project #13) within the SR-91 median would involve the placement of columns (mainline and outriggers) and access from the SR-91 median to I-15, both of which would require space within the SR-91 median in the Project #6 vicinity. Therefore, the loss of lanes during Corridor A construction could be two to four lanes assuming that Corridor A occurred as a separate project after completion of construction for Project #6. While Project #6 accommodates a total of two I-15 HOV direct connector lanes (Project #7), the four lanes for Corridor A at I-15 would require space that will be occupied by SR-91 lanes. Project #6 improvements need to be coordinated with the Green River Road overcrossing replacement Project #1. In the future, restriping to non-standard lane and shoulder widths could be accomplished to gain a 6th lane in each direction if needed. Multiple SR-91 Implementation Plan projects will interface within the project limits.

The approved Project Study Report (PSR) Alternative 4 includes a new direct connector flyover from EB SR-91 to NB SR-71, modifications to the existing west to north and south to west connectors, and a CD road from Green River Road and EB SR-91 to EB SR-91 and NB SR-71. Alternative 3 includes an ultimate SR-71/SR-91 interchange concept with flyover connectors for all movements and the Green River Road CD road (see Alt. 4). Alternative 2 modifies the existing SR-71/SR-91 connectors, most notably the SR-91 east to SR-71 north connector which is improved from a radius of 115 feet to 150 feet. A separate RFP has been released for SR-71/SR-91 improvements and will require close coordination with the other improvement elements of Project #6.

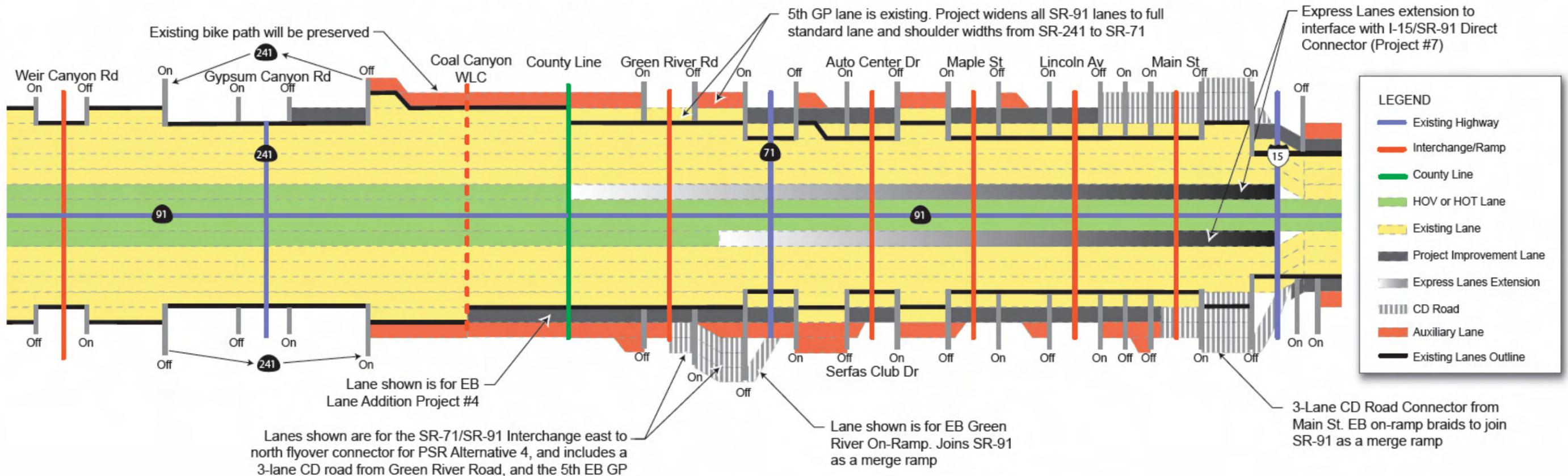
The RCTC 10-Year Delivery Plan intends to extend the Express Lanes, which could be phased and would be one additional lane beyond the originally approved PSR scope. Further, the SR-241/SR-91 direct connector (Project #10) will also require that additional Express Lanes lanes be extended between SR-241, potentially to SR-71, with a possible direct connection with SR-71. Provision for these direct connector lanes should be considered. Possible use of Design-Build will allow traffic use by 2015. The project adds approximately two lanes in each direction excluding CD roads and auxiliary lanes.

Benefits

Will reduce congestion by providing additional capacity from SR-241 to Pierce Street and by eliminating weaving conflicts on SR-91 at I-15 and SR-71 by the use of CD roads.

Current Status

A PSR has been prepared and approved by Caltrans. An RFP has been released by RCTC for the PA/ED phase, which is planned to commence in July 2007.



I-15/SR-91 Direct Connector

Project No: 7

Anticipated Completion: 2015

Project Cost Estimate*

Total Project Cost \$ 229,000,000

Project Schedule

Preliminary Engineering	2007-2010
Environmental	2007-2010
Design/Construction	2010-2015

* Costs derived from RCTC 10-Year Delivery Plan

Project Description

The improvements primarily consist of constructing a new freeway-to-freeway connector. The connector will carry northbound (NB) I-15 High Occupancy Vehicle (HOV) traffic to westbound SR-91 and eastbound SR-91 HOV traffic to southbound I-15, or to serve as a toll-to-toll connector based on the potential extension of the SR-91 Express Lanes and planned Express Lanes on I-15.

Key Considerations

Implementation of Major Investment Study (MIS) Corridor A (Project #13) may supercede the need for the direct connector improvements if the connector was to be HOV only. Coordination will be required with the extension of Express Lanes on SR-91 and potential HOV/HOT Lanes on I-15 per RCTC's 10-Year Delivery Plan. Toll collection issues will need to be resolved. Project #6 will be constructed with right-of-way allowance in the SR-91 median for connector columns between I-15 and Maple St to avoid outside widening on the SR-91 with this project. The project could be considered as a component of Project #6, widening from SR-241 to I-15. The need for a NB I-15 HOV connector would require further study.

Benefits

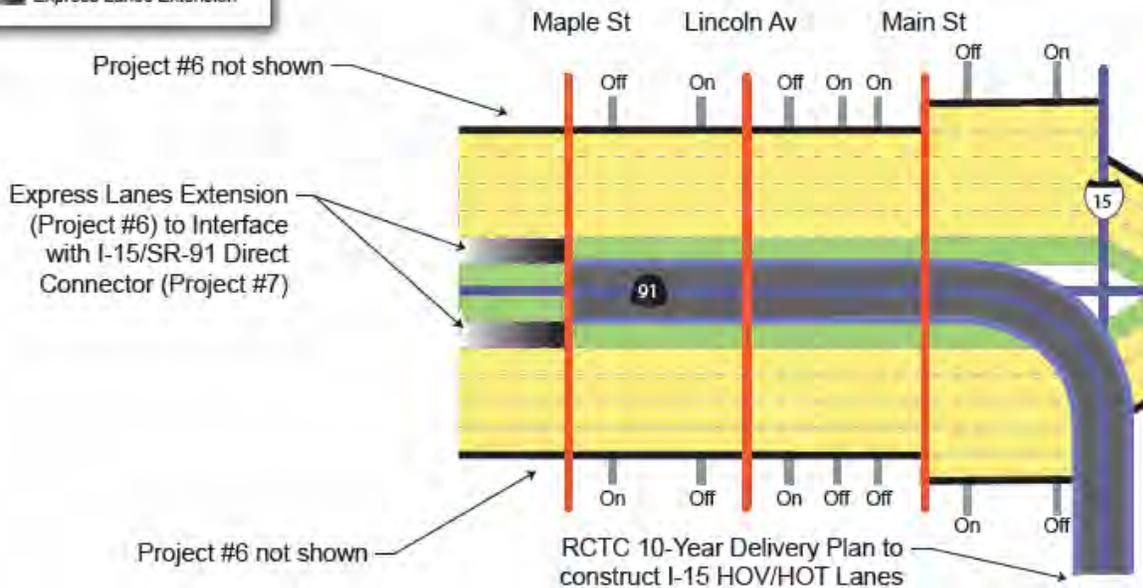
Will reduce congestion by providing additional capacity and eliminating weaving conflicts on SR-91 and I-15 for direct HOV access, or would provide direct toll-to-toll connection between potential SR-91 and I-15 Express Lanes.

Current Status

This project is identified in the Riverside County Transportation Improvement Plan. An RFP has been released by RCTC for the PA/ED phase (coincident with the 5th Lane Project #6), which is planned to commence in July 2007.

LEGEND

-  Existing Highway
-  Interchange/Ramp
-  Existing Interchange
-  HOV or HOT Lane
-  Existing Lane
-  Project Improvement Lane
-  Existing Lanes Outline
-  Express Lanes Extension



SR-91 WB Lane at Tustin Avenue

Project No: 8

Anticipated Completion: 2014

Project Cost Estimate

Capital Cost	\$ 74,200,000
Support Cost (25%)	\$ 18,600,000
R/W Cost	\$ 2,200,000
Total Project Cost	\$ 95,000,000

Project Schedule

Preliminary Engineering	Complete
Environmental	2007-2009
Design	2009-2011
Construction	2011-2014

* Costs are derived from CMIA fact sheet data

Project Description

The project will add a Westbound (WB) auxiliary lane on SR-91 beginning at the Northbound (NB) SR-55 to WB SR-91 connector through the Tustin Avenue interchange. Project will also reconstruct the Tustin Avenue overcrossing structure.

Key Considerations

The four build-alternatives within the Project Study Report (PSR), *On Westbound (WB) SR-91 Auxiliary Lane from the Northbound (NB) SR-55/WB SR-91 Connector to the Tustin Avenue Interchange*, require additional right-of-way. City of Anaheim utilities are within close proximity of the proposed widening section. Coordination may be required with SR-55/SR-91 interchange improvement Project #12. Replacement of the Tustin Avenue overcrossing and widening of the Santa Ana River bridge is required for all alternatives.

Benefits

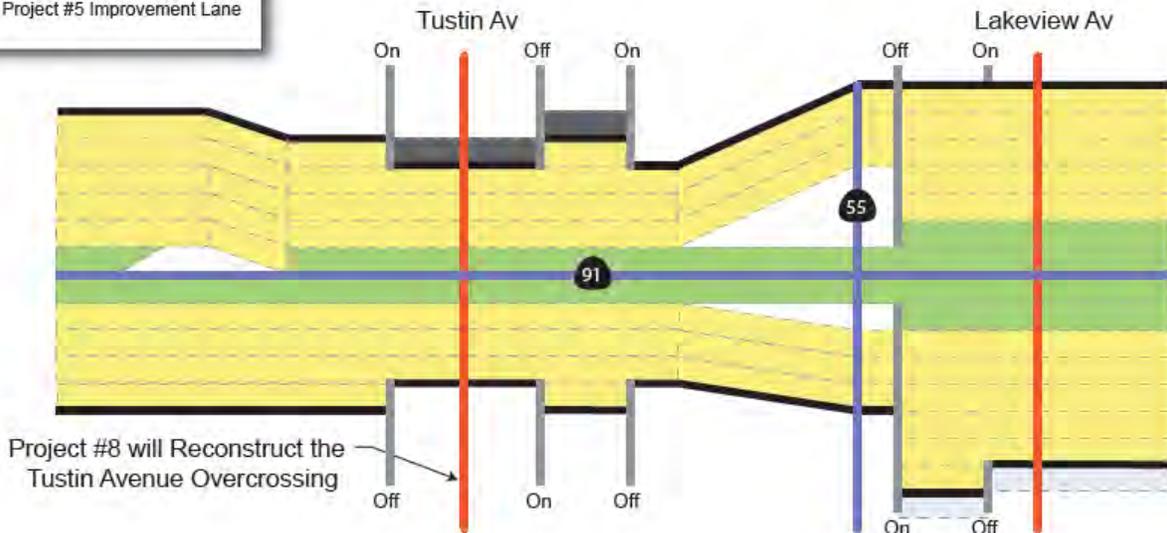
The project would reduce or eliminate operational problems and deficiencies on this section of WB SR-91 including weaving and merging maneuvers. This project would also address choke-point conditions, which are caused primarily by extensive weaving between the NB SR-55 to WB SR-91 connector and the WB Tustin Avenue off-ramp.

Current Status

The PSR was completed in July 2004. The PA/ED phase is planned to commence in 2007.

LEGEND

- Existing Highway
- Interchange/Ramp
- Existing Interchange
- HOV or HOT Lane
- Existing Lane
- Project Improvement Lane
- Existing Lanes Outline
- Project #5 Improvement Lane



New Interchange at Fairmont Boulevard

Project No: 9
Anticipated Completion: 2015

Project Cost Estimate (Option 1)

Capital Cost \$ 37,000,000
 Support Cost (25%) \$ 9,000,000
 Total Project Cost* \$ 46,000,000

Project Cost Estimate (Option 2)

Capital Cost \$ 56,000,000
 Support Cost (25%) \$ 14,000,000
 Total Project Cost* \$ 70,000,000

Project Schedule

Preliminary Engineering 2008-2009
 Environmental 2009-2011
 Design 2011-2013
 Construction 2013-2015

*R/W cost is undetermined at this time.
 Cost does not include potential impact to Santa Ana River.

Project Description

The project would provide a new interchange with SR-91 at Fairmont Boulevard. Two options are being considered as follows:

OPTION 1 - A new partial overcrossing at Fairmont Boulevard will provide northerly access for Yorba Linda. On- and off-ramps will connect Fairmont Boulevard to eastbound (EB) and westbound (WB) SR-91. No connection is proposed southerly into Anaheim.

OPTION 2 - A new partial overcrossing at Fairmont Boulevard will provide northerly access for Yorba Linda from the 91 Express Lanes. Drop ramps on the east side of the overcrossing provide an entrance to the EB Express Lanes and an exit from the WB express lanes. No connection is proposed southerly into Anaheim.

Key Considerations

For Option 2, toll collection for the drop ramp, traffic impacts to SR-91 Express Lanes, and drop ramps on the west side need to be considered. Coordination with SR-91 EB and WB widening project #5 is recommended as it may need to be constructed first or designed to accommodate the future interchange ramps. Interchange spacing and weaving (to SR-55) issues need to be evaluated for both options. Widening of SR-91 is needed to accommodate Option 2 ramps. A consideration for Option 1 would be to include only WB on- and off-ramps. Proximity of the Santa Ana River may require that the WB ramp junction for Option 1 be located north of the river.

Benefits

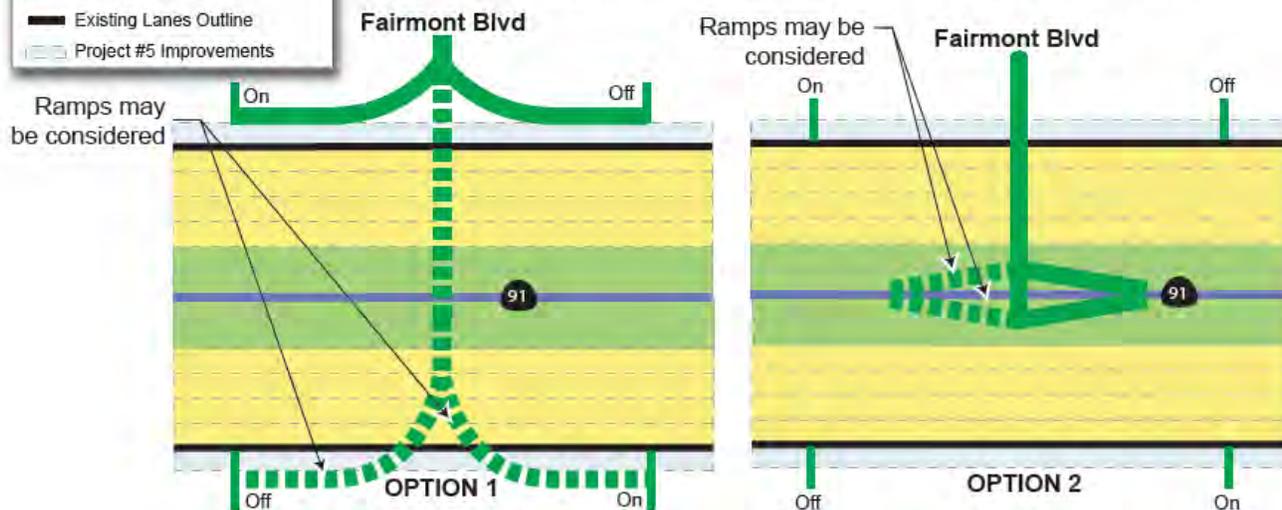
The interchange is expected to relieve congestion at SR-90, Lakeview Avenue, and Weir Canyon Road Interchanges. Additional accessibility with Option 2 is expected to increase utilization of the SR-91 Express Lanes and reduce congestion in the general purpose lanes. Modeling shows a 10-15% decrease in volumes at Weir Canyon and Imperial Highway interchanges with the Option 1 Fairmont Blvd interchange scenario.

Current Status

The City of Anaheim and Caltrans are discussing a potential PSR.

LEGEND

- Existing Highway
- Proposed Interchange Ramp
- Existing Interchange
- HOV or HOT Lane
- Existing Lane
- Proposed Interchange
- Existing Lanes Outline
- Project #5 Improvements

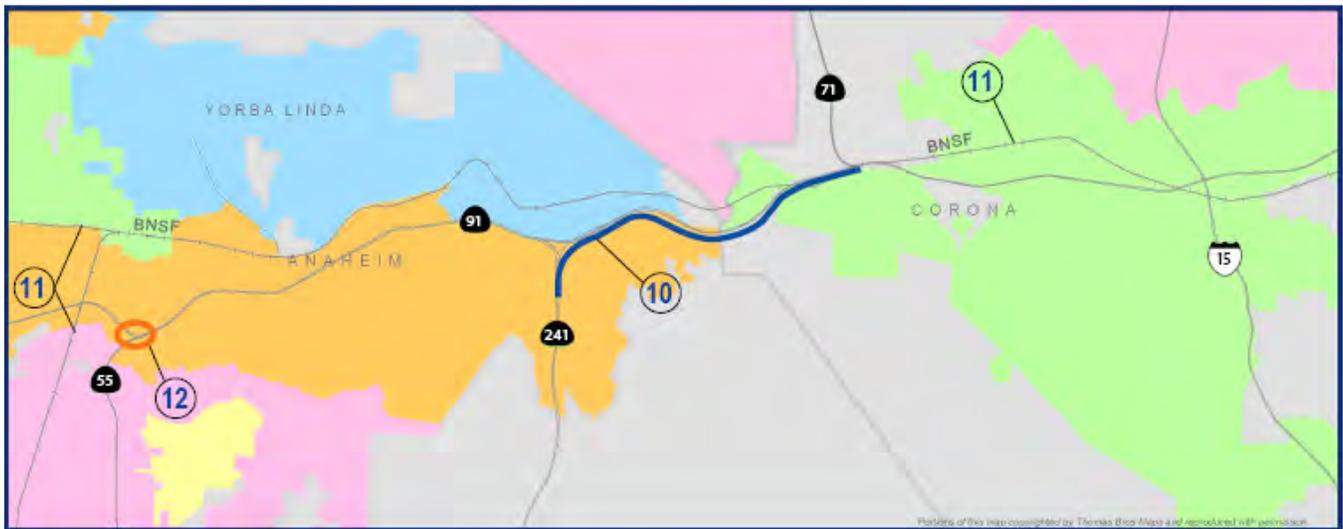


By Year 2020

Projects for implementation by 2020 include the SR-241/SR-91 HOV/HOT connector improvements, a significant expansion of Metrolink service and station improvements, and SR-55/SR-91 interchange enhancements. OCTA, RCTC, and Caltrans will be initiating preliminary planning activities on these projects to ensure readiness when local, state, or federal funding becomes available. Consequently, there may be opportunities to advance these projects if additional funding is made available. Projects for implementation by 2020 are expected to cost approximately \$775 million (in 2007 dollars).

Project No.	Project Summary	Cost (\$M)
10	SR-241/SR-91 HOV/HOT Connector	240
11	Metrolink Service and Station Improvements	335
12	SR-55/SR-91 Interchange Improvements	200
SUBTOTAL		775

Figure 2-4 – Summary of Projects for Implementation By 2020



SR-241/SR-91 HOV/HOT Connector

Project No: 10
Anticipated Completion: 2020

Project Cost Estimate

Capital Cost \$ 177,800,000
 Support Cost (25%) \$ 44,400,000
 R/W Contingency (10%) \$ 17,800,000
Total Project Cost* \$ 240,000,000

Project Schedule

Conceptual Engineering 2007-2008
 Preliminary Engineering 2013-2014
 Environmental 2014-2016
 Design 2016-2018
 Construction 2018-2020

*Assumed as a 2-lane connector from SR-241 to SR-91, ending near SR-71.

Project Description

The SR-241/SR-91 HOV/HOT connector will carry northbound SR-241 traffic to eastbound SR-91 Express Lanes and carry westbound SR-91 Express Lane traffic to southbound SR-241.

Key Considerations

Costs may vary significantly, depending on the implementation of earlier projects. The HOV/HOT connector merges in the median of SR-91 and requires outside widening of SR-91 and realignment of the Gypsum Canyon interchange. Implementation of MIS Corridor A (Project #13) may supercede the need for the HOV/HOT connector improvements. Project #10 may become the west leg of Corridor A. The HOV/HOT connector impact on SR-91 will depend upon whether the connectors are 4-lanes (toll-to-toll) or 2-lanes (HOV). The impact of the connector on the Express Lanes may require the connector lanes to be extended along SR-91 possibly to SR-71, which will require further evaluation. An optional project would include an extension of the HOV/HOT connector to and from SR-71. Toll collection issues will need to be resolved. Widening to accommodate the connector would impact the connectors to SR-71 and the lanes added by Project #6, including the potential extension of Express Lanes as currently proposed in RCTC's 10-Year Deliver Plan. Costs are based on a 2 lane connector to SR-91 ending near SR-71 and will vary widely depending on the key considerations noted. Also, the project could be considered as a component of Project #6, widening from SR-241 to I-15. Realignment of EB lanes will be required.

LEGEND

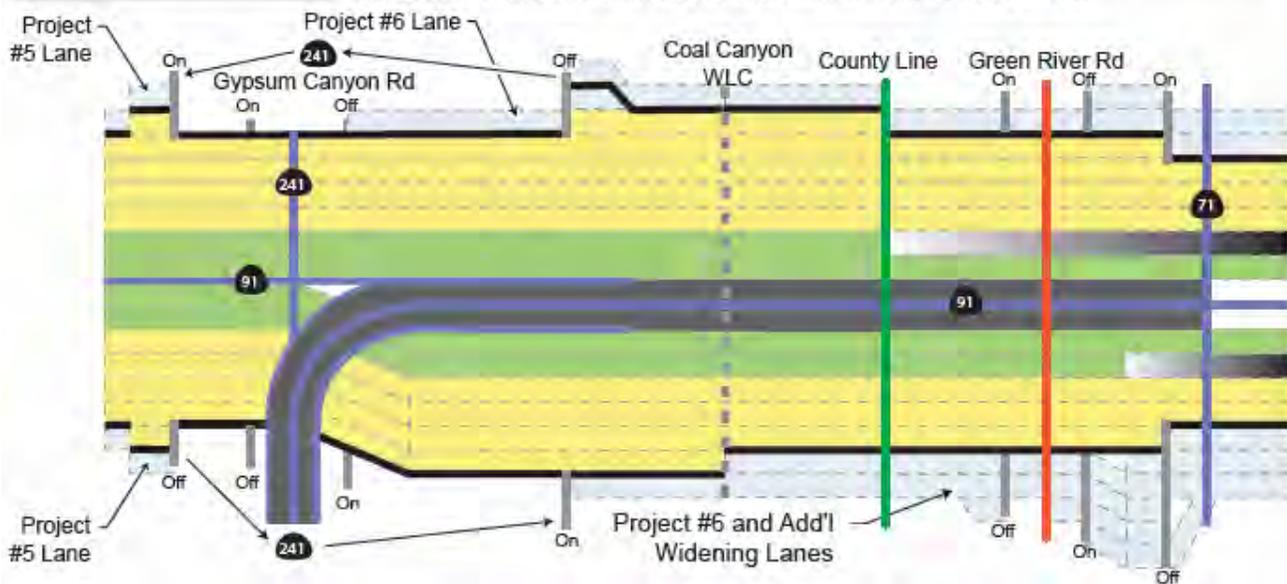
- Existing Highway
- Interchange/Ramp
- County Line
- HOV or HOT Lane
- Existing Lane
- Project Improvement Lane
- Existing Lanes Outline
- Project #5 & #6 Improvements
- Express Lanes Extension

Benefits

Improves access to SR-241 and South County for traffic that does not currently utilize SR-91 Express Lanes, which also improves SR-91 WB by eliminating the need for toll users to weave across four general purpose lanes to use the existing SR-241 connector. Alleviates congestion on SR-241 and EB SR-91 by allowing SR-241 toll and/or HOV users to bypass the general purpose EB SR-91 direct connector.

Current Status

Preliminary design concepts for a SR-241/SR-91 direct connector have been developed by TCA and Caltrans. Additional preliminary planning efforts (pre-PSR) are scheduled to commence in July 2007 to evaluate different options and considerations as noted above.



Metrolink Service and Station Improvements

Project No: 11

Anticipated Completion: 2020

Project Cost Estimate

Total Capital Cost \$ 335,000,000

Project Schedule

To be completed by 2020

Project Description

OCTA, working with the Riverside County Transportation Commission, San Bernardino Associated Governments, and the Southern California Regional Rail Authority (SCRRA), plans an extensive expansion of train service from the Inland Empire to Orange County. More trains are planned on the Inland Empire - Orange County (IEOC) line that currently runs between San Bernardino, Riverside, and Orange Counties as well as the "91 Line" that goes from the Inland Empire to Los Angeles via Orange County, paralleling State Route 91.

Currently, 16 trains a day run on the IEOC line and nine trains on the 91 Line. The long-term expansion plan builds on service levels that will be implemented by 2010. The "2010" plan includes two additional IEOC trains and four additional 91 Line trains for a total of 31 trains a day. The long-term plan adds another 10 IEOC trains and five 91 Line trains for a total of 46 daily trains. This planned expansion is necessary to accommodate population and employment growth in the region as well as make the current service more convenient.

Benefits

Enables development of new Metrolink Services, which will contribute to congestion relief on SR-91.

Current Status

The proposed expansion is included in the Measure M renewal.

Capital improvements necessary for this expansion include a third track on sections of the rail line in Orange, Riverside, and San Bernardino; new crossovers at critical locations to allow trains to pass one another; new storage tracks in San Bernardino; parking improvements at key stations; and purchase of engines and coaches to operate the new service.

Key Considerations

The capital program is estimated to cost \$335 million, and costs would be shared by the member agencies of SCRRA. Service levels are subject to negotiation with BNSF, RCTC, and LACMTA.



SR-55/SR-91 Interchange Improvements

Project No: 12

Anticipated Completion: 2020

Project Cost Estimate

Capital Cost	\$ 148,000,000
Support Cost (25%)	\$ 37,000,000
R/W Contingency (10%)	\$ 15,000,000
Total Project Cost	\$ 200,000,000

Project Schedule

Conceptual Engineering	2007-2008
Preliminary Engineering	TBD
Environmental	TBD
Design	TBD
Construction	TBD

Note: Project costs derived from the Riverside County - Orange County MIS, January 2006

Project Description

Improvements consist of adding SR-91 capacity by reconstructing the interchange, re-striping existing lanes, modifying SR-55 connectors to SR-91, and improving the connector from westbound SR-91 to southbound SR-55.

Key Considerations

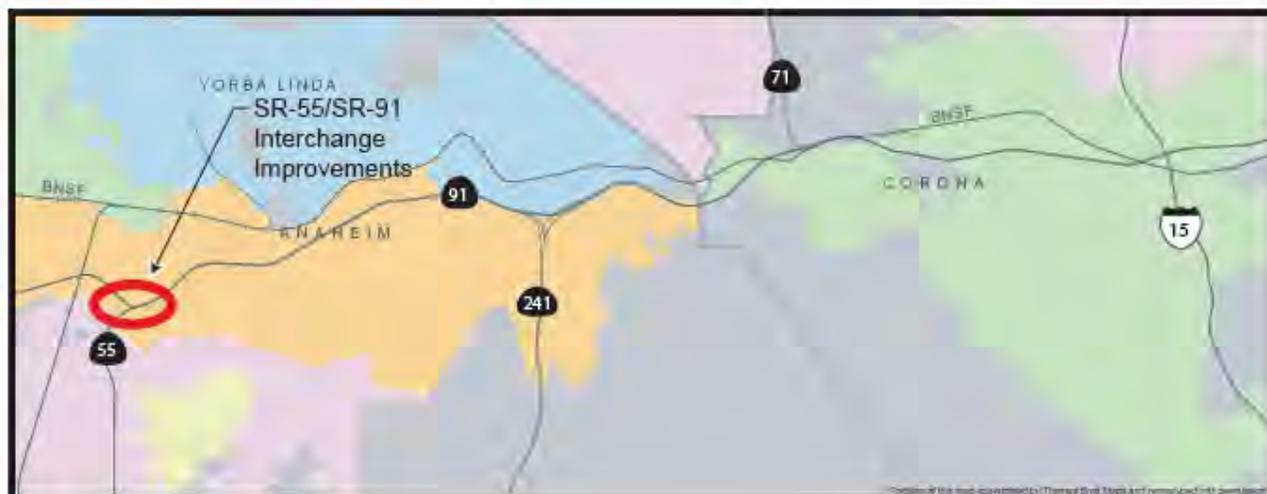
Right-of-way impacts, detailed SR-55/SR-91 interchange improvements, and downstream impacts to SR-55 require further evaluation in a subsequent phase of project development. Improvements will need to be coordinated with SR-91 widening from SR-55 to SR-241 (Project #5) and with Project #8 improvements at SR-91 and Tustin Avenue.

Benefits

Improvements are expected to provide congestion relief for westbound SR-91 traffic and improve the connection from westbound SR-91 to southbound SR-55.

Current Status

This project information was derived from the Final Alternatives Evaluation and Refinement Report, December 2005, by the Riverside County - Orange County Major Investment Study (MIS). Initial preliminary planning efforts (pre-PSR) are scheduled for 2007/2008.



By Year 2030

Projects for implementation by 2030 focus on longer-lead time projects. This multi-billion dollar program (in 2007 dollars) includes three potential projects that require a significant amount of planning, design, and future policy and public input. These 2030 projects are identified as having significant environmental constraints and right of way requirements. The Corridor A project may incorporate projects being developed in the earlier programs to provide significant capacity enhancements; therefore, all of the earlier projects may not be implemented in addition to Corridor A. In addition to the Corridor A project are Corridor B, which was identified in the MIS, and the Anaheim to Ontario International Airport high speed rail project for the 2030 and post-2030 horizon period.

Project No.	Project Summary	Cost (\$M)
13	Elevated 4-Lane Facility (MIS Corridor A) from SR-241 to I-15	3,200
14	4-Lane Facility (MIS Corridor B) from SR-241/SR-133 to I-15/Cajalco Road	5,700
15	Anaheim to Ontario International Airport High Speed Rail	TBD
SUBTOTAL		8,900+

Figure 2-5 – Summary of Projects for Implementation By 2030



Elevated 4-Lane Facility (MIS Corridor A) from SR-241 to I-15

Project No: 13

Anticipated Completion: TBD

Project Cost Estimate**

Capital Cost* \$ 2,100,000,000
 Support Cost (25%) \$ 525,000,000
 R/W Cost \$ 575,000,000
 Total Project Cost \$ 3,200,000,000

Project Schedule

Conceptual Engineering 2006-2008
 Preliminary Engineering TBD
 Environmental TBD
 Design TBD
 Construction TBD

*Capital costs include \$165M for environmental mitigation and \$470M for mainline SR-133/SR-241 improvements

**Costs derived from Riverside County - Orange County MIS, January 2006

Project Description

The improvements primarily consist of constructing a new 4-lane elevated expressway within the Santa Ana Canyon with freeway-to-freeway connectors at SR-241, SR-71 and I-15. The facility may include managed lanes and potential reversible operations.

Key Considerations

Choice of alignment will be key to determining net capacity increase. Implementation of Corridor A may supercede the need for the direct connector improvement Projects #7 and #10, depending on the potential extension of the Express Lanes. Extensive right-of-way will be required to implement the improvements. If Project #6 is constructed and a 4-lane elevated facility is proposed within the median of SR-91 through Corona, extensive freeway lane closures would be required (thus reducing SR-91 capacity).

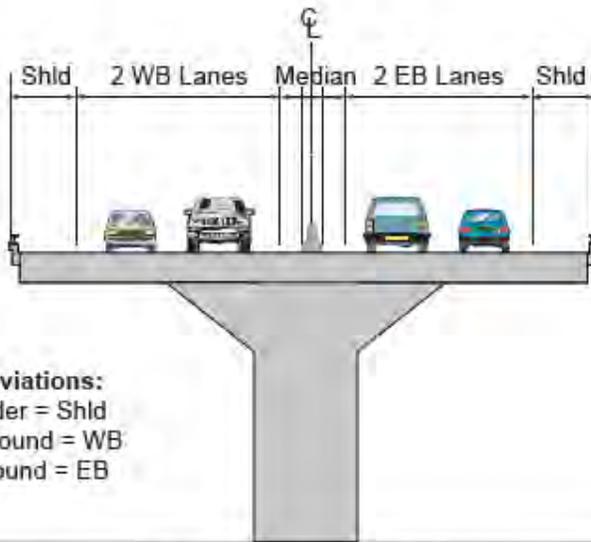
Potential considerations for co-locating the Maglev (see Project #15) adjacent to Corridor A (and also SR-91) include providing a two-column structure with a barrier between the trains and vehicles. Concepts for Corridor A and Maglev within the SR-91 median could complicate future opportunities for managed lanes within the SR-91 median, such as the extension of Express Lanes. The conceptual median viaduct study, completed after the MIS, shows the median elevated Corridor A with reduced SR-91 geometric standards to minimize R/W impacts. Also, direct connectors (such as for HOV at I-15/SR-91) to/from the median could be precluded by Maglev columns located within the same median area. Caltrans and Maglev highway R/W, maintenance, safety, and operations considerations would need to be analyzed if shared use with a Maglev facility were pursued.

Benefits

The project would provide significant congestion relief by allowing vehicles to bypass the at-grade freeway lanes and local arterial interchanges between SR-241 and I-15. Connections are provided directly between SR-91, SR-241, SR-71, and I-15.

Current Status

This project is identified in the Riverside County - Orange County MIS as part of the Locally Preferred Strategy to improve mobility between Riverside County and Orange County. The results of the RCTC's Corridor A Alignment Feasibility Study will be presented in June 2007.



Abbreviations:
 Shoulder = Shld
 Westbound = WB
 Eastbound = EB

Elevated 4-Lane Facility (MIS Corridor A) Cross-Section

4-Lane Facility (MIS Corridor B) from SR-241/SR-133 to I-15/Cajalco Road

Project No: 14

Anticipated Completion: TBD

Project Cost Estimate**

Capital Cost*	\$ 4,334,400,000
Support Cost (25%)	\$ 1,083,600,000
R/W Cost	\$ 282,000,000
Total Project Cost	\$ 5,700,000,000

Project Schedule

Conceptual Engineering	2007-2008
Preliminary Engineering	TBD
Environmental	TBD
Design	TBD
Construction	TBD

*Capital costs include \$281M for environmental mitigation

**Costs derived from Riverside County - Orange County MIS, January 2006

Project Description

The improvements primarily consist of constructing a new 4-lane highway facility through the Cleveland National Forest with freeway-to-freeway connectors at SR-241/SR-133 and I-15/ Cajalco Road. The facility may include managed lanes. The 4-lane facility would essentially be a continuation of SR-133 on the west end, and Mid County Parkway on the east end.

Key Considerations

Choice of alignment type will be key in determining the cost of implementation (nearly full-length tunnel, or other facility type with less tunneling). Determining groundwater levels will be key in determining alignments and allowable depths for the tunnel portions. Costs associated with Major Investment Study (MIS) Corridor B are shown for the nearly full-length tunnel option. Extensive right-of-way will be required to implement the improvements. Toll needs will also require further study.

Benefits

The project would provide significant congestion relief by providing an alternative route between Orange and Riverside Counties and would allow vehicles to bypass SR-91 between SR-241 and I-15. The project would not disrupt SR-91 traffic during construction and would allow for additional route selection for incident management, emergency evacuation, and for continuity of the highway network by linking SR-133 and the Mid County Parkway.

Current Status

This project is identified in the Riverside County - Orange County MIS as part of the Locally Preferred Strategy to improve mobility between Riverside County and Orange County. Geotechnical studies will be underway, and a permit application has been submitted to the USDA Forest Service for geotechnical borings within the Cleveland National Forest.

LEGEND

- Existing Highway
- Corridor B Representative Alignment



NOTE: REPRESENTATIVE ALIGNMENT SHOWN FOR ILLUSTRATIVE PURPOSES ONLY

The following documents and resources were used in the development of the 2007 SR-91 Implementation Plan. Data was provided by OCTA, RCTC, Caltrans Districts 8 and 12, TCA, and other agencies.

California Transportation Commission, Corridor Mobility Improvement Account (CMIA), February 2007

Final Plans, Specifications and Estimates for Green River Road Overcrossing, 2006

Project Study Report "On Route 91 from State Route 241 in Orange County to Pierce Street in the City of Riverside in Riverside County", October 2006

Riverside County-Orange County Major Investment Study (MIS) – Final Project Report: Locally Preferred Strategy Report, January 2006

Orange County Transportation Authority Renewed Measure M Transportation Investment Plan, November 2006

Preliminary design plans for Eastbound Lane Addition from SR-241 to SR-71, 2006

SR-91 Choke Point Elimination - City of Corona, Prepared by Parsons, November 19, 2005

Project Study Report "Westbound State Route 91 Auxiliary Lane from the NB SR-55/WB SR-91 Connector to the Tustin Avenue Interchange", July 2004

Project Study Report "On State Route 91 Between the SR-91/SR-55 Interchange and the SR-91/SR-241 Interchange in Orange County", April 2004

California – Nevada Interstate Maglev Project Report, Anaheim-Ontario Segment; California-Nevada Super Speed Train Commission, American Magline Group, August 2003

SR-91 Congestion Relief Alternatives Analysis, Caltrans, January 2003

Draft Technical Memorandum, "High Occupancy Vehicle Access Study at Routes 91 and 241 (Westbound Route 91 Express Lanes to Southbound Route 241 and Northbound Route 241 to Eastbound Route 91 Express Lanes)", Prepared for Foothill/Eastern Transportation Corridor Agency, Prepared by CH2MHill, November 7, 2001

Route Concept Reports for SR-91, Caltrans Districts 8 and 12

Various Preliminary Drawings and Cross Sections, Caltrans Districts 8 and 12
