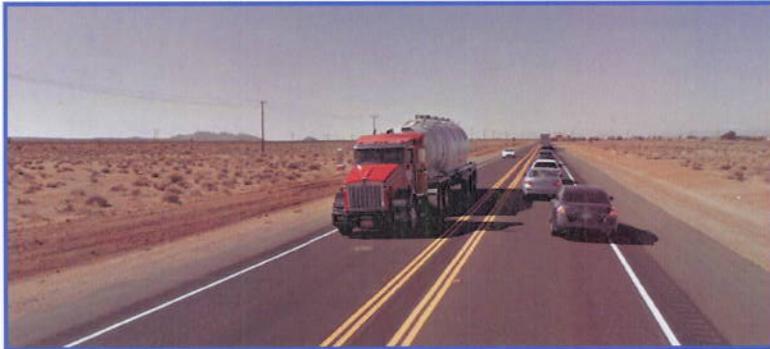




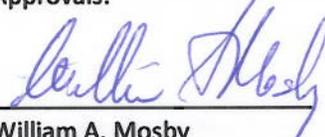
**TRANSPORTATION CONCEPT REPORT**  
**State Route 58**  
**District 8**  
**September 2012**



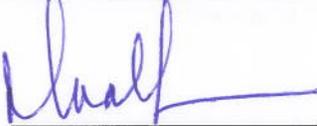
Disclaimer: The information and data contained in this document are for planning purposes only and should not be relied upon for final design of any project. Any information in this Transportation Concept Report (TCR) is subject to modification as conditions change and new information is obtained. Although planning information is dynamic and continually changing, the District 8 System Planning Division makes every effort to ensure the accuracy and timeliness of the information contained in the TCR. The information in the TCR does not constitute a standard, specification, or regulation, nor is it intended to address design policies and procedures.

**California Department of Transportation**  
**Caltrans Improves Mobility Across California**

**Approvals:**

  
William A. Mosby  
Deputy District Director  
Division of Planning

9/19/12  
Date

  
Basem E. Muallem, P.E.  
District Director

9/25/12  
Date

# Table of Contents

About the Transportation Concept Report .....	1
Executive Summary .....	2
Corridor Overview .....	4
Route Segmentation .....	4
Route Description.....	4
Route Designation and Characteristics .....	5
Community Characteristics and Land Use .....	6
System Characteristics .....	6
Bicycle Facility .....	7
Pedestrian Facility .....	7
Transit Facility .....	7
Freight .....	8
Corridor Performance .....	8
Key Corridor Issues.....	9
Corridor Concept.....	9
Concept Rationale.....	9
Planned and Programmed Projects and Strategies .....	9
Projects and Strategies to Achieve Concept .....	9
Appendices.....	10
A: Glossary of Terms and Acronyms .....	10
B: Resources .....	15

## ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by identifying deficiencies and proposing improvements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process primarily produces four products: the District System Management Plan (DSMP), the Transportation System Development Plan (TSDP), the Transportation Concept Report (TCR), and the Corridor System Management Plan (CSMP). The district-wide **DSMP** is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The **TSDP** is a list of planned and partially programmed transportation projects used to recommend projects for funding. The **TCR** evolves from the development of the DSMP and TSDP and is used to document the existing and future route conditions as well as future needs for each route on the SHS. Similar to the TCR, the **CSMP** is a more complex multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. These System Planning products are also intended as resources for stakeholders, the public, partners, and regional and local agencies.

### TCR Purpose

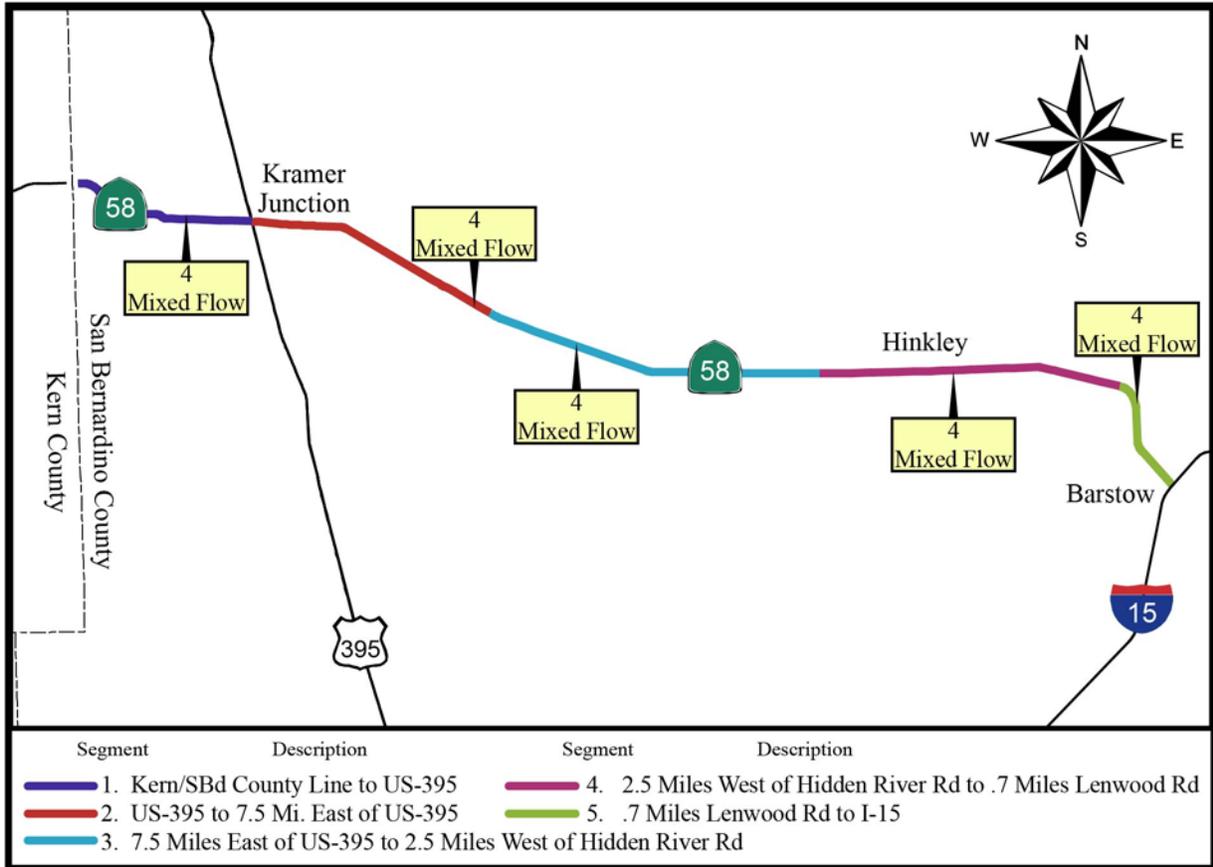
California's State Highway System needs long-range planning documents to guide the logical development of transportation systems as required by law and as necessitated by public, stakeholders, and system users. The purpose of the TCR is to evaluate current and projected conditions along the route and communicate the vision for the development of each route in each Caltrans District during a 20-25 year planning horizon. The TCR is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs along the corridor through integrated management of the transportation network, including the highway, transit, pedestrian, bicycle, freight, operational improvements and travel demand management components of the corridor.

## EXECUTIVE SUMMARY: STATE ROUTE 58

### Concept Summary Table

#### CONCEPT – 2035 Facility

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	No-Build		Planned SCAG RTP		LOS "D" Minimum Requirement	Concept
					V/C	LOS	V/C	LOS		
1	22,500	60%	2,270 (10.1%)	500 (22.3%)	2 MF		4 MF		4 MFE	4 MF
					V/C	LOS	V/C	LOS		
					0.82	E	0.41	B		
2	22,200	63%	2,700 (12.2%)	400 (15.3%)	2 MF		4 MF		4 MFE	4 MF
					V/C	LOS	V/C	LOS		
					0.98	F	0.50	C		
3	22,200	62%	2,840 (12.8%)	450 (15.9%)	4 MF		4 MF		4 MFE	4 MF
					V/C	LOS	V/C	LOS		
					0.49	C	0.49	C		
4	23,100	62%	2,930 (12.7%)	470 (16%)	2 MF		4 MF		4 MFE	4 MF
					V/C	LOS	V/C	LOS		
					1.06	F	0.50	C		
5	22,100	66%	2,590 (11.7%)	410 (16%)	4 MF		4 MF		4 MFE	4 MF
					V/C	LOS	V/C	LOS		
					0.44	B	0.44	B		



**Concept Rationale**

State Route 58 (SR-58) is a major east-west transportation corridor with a high percentage of truck traffic transporting goods in and out of the state. SR-58 stretches from coastal mountains in Central California to the high desert of Southern California and passes through the southern section of the central valley.

This facility is expected to operate at an unacceptable LOS by 2035 on the segments (Segments 1, 2, and 4) operating as a conventional highway. Operational and capacity improvements upgrading the highway segments to expressway/freeway standards with grade separations at Kramer Junction, Hinkley Road, and Lenwood Road are anticipated to improve LOS and overall highway operational efficiency to an acceptable level.

**Proposed Projects and Strategies**

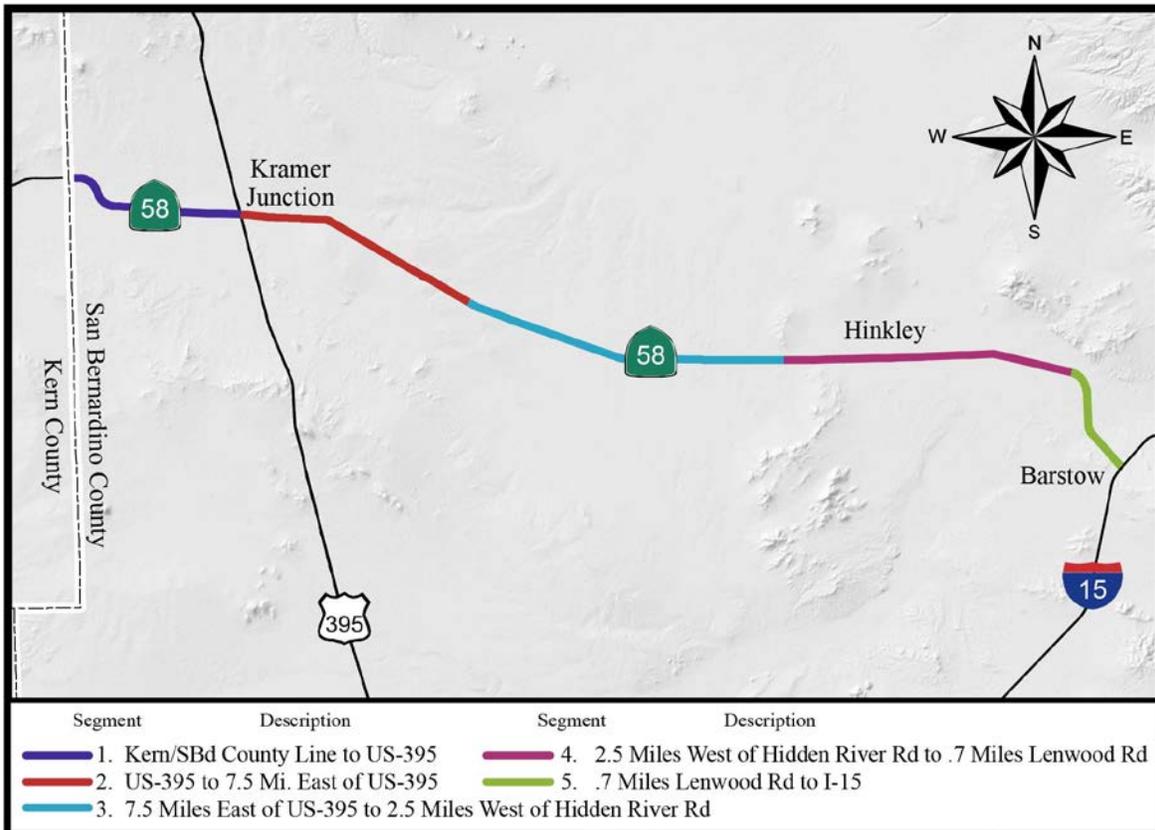
There are currently two financially constrained capacity increasing and mainline improvements planned in the 2012 RTP for Segments 1, 2 and 4 to upgrade SR-58 from a two-lane conventional highway to a four-lane expressway/freeway with grade separations at Kramer Junction, Hinkley Road, and Lenwood Road.

# CORRIDOR OVERVIEW

## ROUTE SEGMENTATION

State Route 58			
Segment	County	Post Miles	Description
1	SBd	R0.0-5.4	Kern/SBd County Line to US-395
2	SBd	5.4-R12.9	US-395 to 7.5 miles east of US-395
3	SBd	R12.9-R21.8	7.5 miles east of US-395 to 2.8 miles west of Hidden River Road
4	SBd	R21.8-R31.0	2.8 miles west of Hidden River Road to 0.7 miles east of Lenwood Road
5	SBd	R31.0-R34.8	0.7 miles east of Lenwood Road to I-15

**State Route 58 Segmentation Map**



## ROUTE DESCRIPTION

State Route 58 (SR-58) begins at its junction with United States Highway 101 (US-101) in the community of Santa Margarita, connecting with Interstate 5 (I-5) and United States Highway 99 (US-99) in the greater Bakersfield area and United States Highway 395 (US-395) at Kramer Junction in San Bernardino County, and ends at its junction with I-15 in the city of Barstow. The total length of SR-58 in District 8, from the Kern/San Bernardino County Line to its junction with I-15, is 35 miles.

With District 8, for purposes of this study, SR-58 is divided into five segments. With a high percentage of truck traffic transporting goods, the route is a major east-west transportation corridor connecting Northern and Central California with Southern California and states to the east. The western portion of the facility (Segments 1 and 2) is a two-lane conventional highway bisected by US-395. The next portion of the route (Segments 3 and 4) is a four-lane and two-lane conventional highway, respectively. Segment 5 is a four-lane freeway connecting traffic to I-15 and Interstate 40 (I-40).

**Route Designation and Characteristics**

Seg.	Freeway and Expressway System	National Highway System	Strategic Highway Network	Scenic Highway	Interregional Road System Route	High Emphasis Route	Focus Route	Federal Functional Classification	Goods Movement Route	Truck Designation	Rural/Urban/Urbanized	Metropolitan Planning Organization	Regional Transportation Planning Agency	Congestion Management Agency	Local Agencies	Tribes	Air District	Terrain
1	Yes	Yes	Yes	No	Yes	Yes	Yes	Other Principal Arterial	Yes	National Network	Rural	SCAG	SCAG	SANBAG	SBd Co., SANBAG	No	Mojave Desert AQMD	Level
2	Yes	Yes	Yes	No	Yes	Yes	Yes	Other Principal Arterial	Yes	National Network	Rural	SCAG	SCAG	SANBAG	SBd Co., SANBAG	No	Mojave Desert AQMD	Level
3	Yes	Yes	Yes	No	Yes	Yes	Yes	Other Principal Arterial	Yes	National Network	Rural	SCAG	SCAG	SANBAG	SBd Co., SANBAG	No	Mojave Desert AQMD	Level
4	Yes	Yes	Yes	No	Yes	Yes	Yes	Other Principal Arterial	Yes	National Network	Rural	SCAG	SCAG	SANBAG	SBd Co., SANBAG	No	Mojave Desert AQMD	Level
5	Yes	Yes	Yes	No	Yes	Yes	Yes	Other Principal Arterial	Yes	National Network	Rural	SCAG	SCAG	SANBAG	Barstow, SBd Co., SANBAG	No	Mojave Desert AQMD	Level

## **COMMUNITY CHARACTERISTICS AND LAND USE**

Segments 1 through 3 bisect rural undeveloped areas of San Bernardino County and cross US-395 at Kramer Junction. Kramer Junction (Four-Corners) provides a place to refuel and rest for travelers. Several gas stations and restaurants are located within the four-corners. Segment 1 is bordered on the south by Edwards Air Force Base.

Hinkley, bisected by Segment 4, is the only established quasi-community within this corridor and is not defined as a “census-designated place” by the U.S. Census. There are no commercial/retail services in this area. The population, according to the 2000 ZIP Code Tabulation Area (ZCTA), is 1,915 in ZCTA 92347, which includes Hinkley.

Land uses along this corridor are mostly resource conservation with rural living and agriculture located near the city of Barstow (Segment 5). Fort Irwin, an Army training base is located immediately north of Barstow and the U.S. Marine Corp Depot of Supplies Yermo Annex to the east.

## **SYSTEM CHARACTERISTICS**

<b>Existing Facility</b>					
<b>Segment</b>	<b>Facility Type</b>	<b>Mixed-Flow Lanes</b>	<b>Managed Lanes</b>	<b>Centerline Miles</b>	<b>Lane Miles</b>
1	Conventional Highway	2	0	5.4	10.8
2	Conventional Highway	2	0	7.5	15.0
3	Expressway	4	0	8.9	35.6
4	Conventional Highway	2	0	9.2	16.8
5	Freeway	4	0	3.8	15.2

<b>Concept Facility</b>					
<b>Segment</b>	<b>Facility Type</b>	<b>Mixed-Flow Lanes</b>	<b>Managed Lanes</b>	<b>Centerline Miles</b>	<b>Lane Miles</b>
1	Expressway	4	0	5.4	21.6
2	Expressway	4	0	7.5	30.0
3	Expressway	4	0	8.9	35.6
4	Expressway	4	0	9.2	33.6
5	Freeway	4	0	3.8	15.2

<b>TMS Elements</b>				
<b>Segment</b>	<b>Signalized Intersection 2008</b>	<b>Signalized Intersection 2035</b>	<b>Ramp Meters 2008</b>	<b>Ramp Meters 2035</b>
1	1	0	0	0
2	1	0	0	0
3	0	0	0	0
4	1	0	0	0
5	0	0	0	0

## **BICYCLE FACILITY**

The 2001 San Bernardino County Non-Motorized Transportation Plan proposed a Class 2 or 3 bikeway along SR-58, between Segments 1 and 4. Once the facility is upgraded to expressway/freeway, shoulders along the expressway between Segments 1 and 4 will most likely be open for bicycles since there are no parallel routes.

<b>Bicycle Facility Table</b>		
<b>Segment</b>	<b>Bicycle Access Prohibited</b>	<b>Facility Description</b>
1	No	Highway shoulders are open for bicycles on this segment. Topography is level.
2	No	Highway shoulders are open for bicycles on this segment. Topography is level.
3	No	Expressway shoulders are open for bicycles on this segment. Topography is level.
4	No	Highway shoulders are open for bicycles on this segment. Topography is level.
5	Yes	Bicycles are not permitted on this segment. Lenwood Road and Community Blvd. can be used as an alternate bicycle route.

## **PEDESTRIAN FACILITY**

Pedestrian are permitted along and across SR-58 throughout the route except for Segment 5. Once the facility is upgraded to expressway/freeway, shoulders along the expressway between Segments 1 and 4 will most likely be open for pedestrian since there are no parallel routes.

<b>Pedestrian Facility Table</b>		
<b>Segment</b>	<b>Pedestrian Access Prohibited</b>	<b>Facility Description</b>
1	No	Highway shoulders are open for pedestrian on this segment.
2	No	Highway shoulders are open for pedestrian on this segment.
3	No	Expressway shoulders are open for pedestrian on this segment.
4	No	Highway shoulders are open for pedestrian on this segment.
5	Yes	Pedestrians are not permitted on the freeway

## **TRANSIT FACILITY**

There are no transit facilities or routes planned through this corridor.

<b>Transit Facility Table</b>			
<b>Segment</b>	<b>Mode &amp; Collateral Facility</b>	<b>Name</b>	<b>Route End Points</b>
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	Interregional Bus	Barstow Greyhound Station	Barstow

## **FREIGHT**

There are no highway related freight facilities or generators within this corridor. Freight traffic along the SR-58 corridor is comprised primarily of trucks between Northern and Central California with Southern California and states to the east. Paralleling SR-58, Burlington North Santa Fe Railway (BNSF) owns and operates rail lines with its rail yard located in the northwestern part of the city of Barstow with access to SR-58 via Main Street (Segment 5).

<b>Freight Facility Table</b>			
<b>Facility Type/Freight Generator</b>	<b>Location</b>	<b>Mode</b>	<b>Name</b>
Rail Yard	Barstow	Rail	Burlington North Santa Fe
Class I Rail Lines	Parallels SR-58	Rail	Burlington North Santa Fe

## **CORRIDOR PERFORMANCE<sup>1</sup>**

<b>Basic System Operations</b>							
<b>Segment</b>	<b>AADT 2008</b>	<b>AADT 2035</b>	<b>LOS 2008</b>	<b>LOS 2035</b>	<b>LOS Concept</b>	<b>VMT 2008</b>	<b>VMT 2035</b>
1	13,300	22,500	E	B	D	71,820	121,500
2	10,700	22,200	E	C	D	80,250	166,500
3	11,000	22,200	A	C	D	97,900	197,553
4	11,200	23,100	D	C	D	104,160	214,830
5	11,800	22,100	A	B	D	43,660	81,737

<b>Truck Traffic</b>				
<b>Segment</b>	<b>Total Average Annual Daily Truck Traffic (AADT) 2008</b>	<b>Total Trucks (% of AADT) 2008</b>	<b>5+ Axle Average Annual Daily Truck Traffic (AADTT) 2008</b>	<b>5+ Axle Trucks (% of AADTT) 2008</b>
1	6,517	49%	3,293	51%
2	4,280	40%	3,293	77%
3	4,400	40%	3,293	75%
4	4,480	40%	3,293	74%
5	4,602	39%	3,755	82%

<b>Peak Period Traffic Data</b>				
<b>Segment</b>	<b>Peak Direction</b>	<b>Time of Day</b>	<b>VMT 2008</b>	<b>VMT 2035</b>
1	Westbound	6am-9am/3am-7pm	7,328	12,269
2	Westbound	6am-9am/3am-7pm	7,868	20,325
3	Westbound	6am-9am/3am-7pm	10,671	25,240
4	Westbound	6am-9am/3am-7pm	12,602	27,221
5	Westbound	6am-9am/3am-7pm	4,540	9,583

<sup>1</sup> Corridor Performance table is based on 2008 Caltrans traffic data and SCAG Model 2035.

## KEY CORRIDOR ISSUES

SR-58 is a major east-west transportation corridor with a high percentage of truck traffic transporting goods in and out of the state. SR-58 stretches from coastal mountains in Central California to the high desert of Southern California and passes through the southern section of the central valley. The facility within District 8 begins at the Kern/San Bernardino County line as a two-lane conventional highway with an at-grade rail crossing and crosses US-395 (another high percentage truck traffic facility). At Post Mile (PM) 12.9, it transitions to a four-lane expressway then back to a two-lane conventional highway before transitioning into a freeway at PM R31.0, ending at its junction with I-15.

Truck and general traffic volumes on SR-58 are expected to increase in the future affecting the level of services. Currently, the two-lane conventional highway segments are operating at an unacceptable LOS “E” and “F” with less than ample shoulders. Delays will also increase at US-395 (Kramer Junction) due to an at-grade crossing.

## CORRIDOR CONCEPT

### CONCEPT RATIONALE

Operating at an unacceptable LOS in 2035, Caltrans is currently implementing a 2008 RTIP operations and capacity improvements to upgrade the conventional highway Segments 1, 2, and 4 to expressway/freeway standards with grade separations at Kramer Junction, Hinkley Road, and Lenwood Road. The project is anticipated to improve LOS and overall highway operational efficiency.

### PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

Segment	County	Post Miles	Location	Lead Agency	Project
<b>2012 Regional Transportation Improvement Program (RTIP) Projects</b>					
1-2	SBd	R0.0/R12.9	Kramer Junction	Caltrans	Construct new expressway and Kramer Junction IC
4	SBd	R21.8/R31.0	Hinkley	Caltrans	Construct new expressway and Hinkley Rd. and Lenwood Rd. IC
<b>2012 Financially Constrained Regional Transportation Plan (RTP) Projects</b>					
No projects are planned					
<b>Strategic Plan Projects (Unconstrained)</b>					
No projects are planned					

### PROJECTS AND STRATEGIES TO ACHIEVE CONCEPT

Segment	Location	Description
1	N/A	N/A
2	N/A	N/A
3	N/A	N/A
4	N/A	N/A

## **Appendix A**

### **GLOSSARY OF TERMS AND ACRONYMS**

#### **Acronyms**

- AADT** – Annual Average Daily Traffic
- ADT** – Average Daily Traffic
- AQMD** – Air Quality Management District
- Caltrans** – California Department of Transportation
- CMA** – Congestion Management Plan
- CSS** – Context Sensitive Solutions
- FHWA** – Federal Highway Administration
- GHG** – Green House Gas
- HCP** – Habitat Conservation Plan
- HCS** – Highway Capacity Software
- HOV** – High Occupancy Vehicle Lane
- HOT** – High Occupancy Toll Lane
- IC** – Interchange
- ITS** – Intelligent Transportation System
- LOS** – Level of Service
- MF** – Mixed-Flow Lane
- MFE** – Mixed-Flow Lane Equivalent
- ML** – Managed Lane
- MPO** – Metropolitan Planning Organizations
- NOA** – Naturally Occurring Asbestos
- NCCP** – Natural Community Conservation Plan
- OC** – Overcrossing
- PID** – Project Initiation Document
- PM** – Post Mile
- PSR** – Project Study Report
- RCTC** – Riverside County Transportation Commission
- Riv** – Riverside County
- RTP** – Regional Transportation Plan
- RTIP** – Regional Transportation Improvement Program
- RTPA** – Regional Transportation Planning Agency
- SANBAG** – San Bernardino Associated Governments
- SBd** – San Bernardino County
- SCAG** – Southern California Association of Governments
- SCS** – Sustainable Community Strategies
- SHOPP** – State Highway Operation Protection Program
- STIP** – State Transportation Improvement Program
- T** – Truck Lane
- TDM** – Transportation Demand Management
- TMS** – Transportation Management System
- TSN** – Transportation System Network
- UC** – Undercrossing
- V/C** – Volume to Capacity Ratio
- VMT** – Vehicle Miles Travel

## **Definitions**

**Annual Average Daily Traffic (AADT)** – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30<sup>th</sup>. Traffic counting is generally performed by electronic counting instruments moved from location throughout the State in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways, and other purposes.

**Bikeway Class I (Bike Path)** – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

**Bikeway Class II (Bike Lane)** – Provides a striped lane for one-way bike travel on a street or highway.

**Bikeway Class III (Bike Route)** – Provides for shared use with pedestrian or motor vehicle traffic.

**Capacity** – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

**Capital Facility Concept** – The 20-25 year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, state highway, bicycle facility, pedestrian facility, transit facility (Intercity Passenger rail, Mass Transit Guideway etc.), grade separation, and new managed lanes.

**Concept LOS** – The minimum acceptable level of service over the next 20-25 years.

**Conceptual Project** – A conceptual improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a financially constrained plan and is not currently programmed. It could be included in a General Plan or in the unconstrained section of a long-term plan.

**Corridor** – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included for informational purposes and not analyzed in the TCR.

**Facility Concept** – Describes the facility and strategies that may be needed within 20-25 years. This can include capacity increasing, state highway, bicycle facility, pedestrian facility, transit facility, non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, transportation demand management, and incident management.

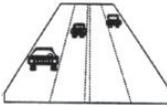
**Facility Type** – The facility type describes the state highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

**Freight Generator** – Any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

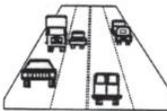
**Headway** – The time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

**Intelligent Transportation System (ITS)** – Improves transportation safety and mobility and enhances productivity through the integration of advanced communications technologies into the transportation infrastructure and in vehicles. Intelligent transportation systems encompass a broad range of wireless and wire line communications-based information and electronics technologies to collect information, process it, and take appropriate actions.

**Level of Service (LOS)** – It is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. LOS can generally be categorized as follows:



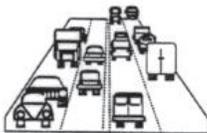
**LOS A** describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



**LOS B** is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.



**LOS C** represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.



**LOS D** demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.



**LOS E** reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.



**LOS F** is a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes operations with delay in excess of 60 seconds per vehicle. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

**Mainline** – Includes travelway for through traffic but not freeway to freeway interchanges, local road interchanges, ramps, or auxiliary lanes.

**Multimodal** – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

**Peak Hour** – The hour of the day in which the maximum volume occurs across a point on the highway.

**Peak Hour Volume** – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between six percent and 10 percent of the Annual Daily Traffic (ADT). The lower values are generally found on roadways with low volumes.

**Planned Project** – A planned improvement or action is a project in a financially constrained section of a long-term plan, such as an approved Regional or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan, or measure.

**Post-25 Year Concept** – This dataset may be defined and re-titled at the District's discretion. In general, the Post-25 Year concept could provide the maximum reasonable and foreseeable roadway needed beyond a 20-25 year horizon. The post-25 year concept can be used to identify potential widening, realignments, future facilities, and rights-of-way required to complete the development of each corridor.

**Post Mile (PM)** – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a county to the next county line. The milepost values start over again at each county line. Mile post values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The mile post at a given location will remain the same year after year. When a section of road is relocated, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "mile post equations" are introduced at the end of each relocated portion so that mile posts on the remainder of the route within the county will remain unchanged.

**Programmed Project** – A programmed improvement or action is a project in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program.

**Route Designation** – A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards

should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), and Scenic Highway System.

**Rural** – Fewer than 5,000 in population designates a rural area. Limits are based upon population density as determined by the U.S. Census Bureau.

**Segment** – A portion of a facility between two points.

**System Operations and Management Concept** – Describes the system operations and management elements that may be needed within 20-25 years. This can include Non-capacity increasing operational improvements (Auxiliary lanes, channelization's, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic (e.g. HOV lane to HOT lane), TMS Field Elements, Transportation Demand Management, and Incident Management.

**Transportation Demand Management (TDM)** – Programs designed to reduce or shift demand for transportation through various means, such as the use of public transportation, carpooling, telework, and alternative work hours. Transportation Demand Management strategies can be used to manage congestion during peak periods and mitigate environmental impacts.

**Transportation Management System (TMS)** – Is the business processes and associated tools, field elements, and communications systems that help maximize the productivity of the transportation system. TMS includes, but is not limited to, advanced operational hardware, software, communications systems, and infrastructure, for integrated Advanced Transportation Management Systems and Information Systems, and for Electronic Toll Collection System.

**Urban** – 5,000 to 49,999 in population designates an urban area. Limits are based upon population density as determined by the U.S. Census Bureau.

**Urbanized** – Over 50,000 in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

**Vehicle Miles Traveled (VMT)** – Is the total number of miles traveled by motor vehicles on a road or highway segments.

## **Appendix B**

### **RESOURCES**

California Department of Transportation: *District 8 District System Management Plan*, December 2011.

County of San Bernardino Land Use Services: *San Bernardino County Land Use Plan*, May 2007

San Bernardino Associated Governments: *San Bernardino County Non-Motorized Transportation Plan – 2001 Update*, June 2001