



Transportation Concept Report

SR-138

District 7

June 2014



Approvals:


District Director
Date: 6-30-14

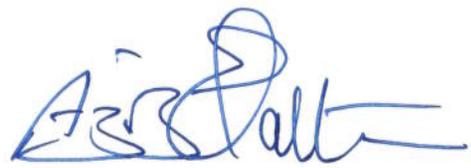

Deputy District Director
Planning, Public Transportation & Local Assistance
Date: 6-27-2014

TABLE OF CONTENTS

About the Transportation Concept Report	1
Stakeholder Participation	2
Executive Summary	3 - 5
Corridor Overview/ Route Segmentation	6 - 7
Route Description	8 - 9
Community Characteristics and Land Use	10 - 11
System Characteristics	12
Ramp Meters Listing	12
Active Transportation, Transit Facility and Freight	13 - 16
Environmental Considerations	16
Corridor Performance	17
Corridor Concept/Concept Rationale	18
Planned and Programmed Projects and Strategies	19 - 20
Conclusion	21 - 22
Appendix A: Glossary of Terms and Acronyms, Definitions and Resources	23 - 26

DISCLAIMER

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 7 Division of Planning and Local Assistance 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.

Mission – Provide a safe, sustainable, integrated and efficient transportation system to enhance California’s economy and livability

California Department of Transportation

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) 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 is primarily composed of four parts: the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP) and the Transportation System Development Plan (TSDP).

The District wide DSMP is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The TCR is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. The CSMP is a complex, multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The TSDP is a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for public/stakeholders, the 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 the 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.

STAKEHOLDER PARTICIPATION

Stakeholder participation was sought throughout the development of the SR-138 TCR. Outreach involved internal and external stakeholders.

Both internal and external stakeholders were asked to review the document for comments, edits, and consistency with existing plans, policies, and procedures. The process of including and working closely with stakeholders adds value to the TCR, allows for outside input and ideas to be reflected in the document, increases credibility and helps strengthen public supports and trust.

EXECUTIVE SUMMARY

The main purpose of this TCR is to evaluate current and projected conditions along the route and suggest a configuration for SR-138 that will meet projected demand. Historically the freeway system in Southern California is highly congested and this trend will continue into the future. Due to financial, environmental, right of way and political constraints, it is very difficult for Caltrans to continue to add more lanes to the system. Recognizing these constraints, the planned/programmed projects and strategies in the TCR are within a framework of programming and implementation constraints and regional policy.

In addition to these planned/programmed projects and strategies, the TCR also suggests a configuration for SR-138 that will meet future demand on this route. The suggested configuration is meant only to show the severity of future conditions and what it would take to attain that LOS. It is Caltrans' goal to provide improved mobility whenever possible.

The SR-138 Transportation Concept Report (TCR) is divided into several major sections; three of the sections – the Corridor Performance, System Characteristics and Corridor Concept – are the core of the document. All of the remaining sections provide a context for analyzing the Route 138 corridor and document the data resources.

Concept Summary Table

CONCEPT – 2035 FACILITY

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	2035 Baseline RTP		Concept LOS "D" Attainment	Concept LOS "F0" Attainment
1 (Jct. of Rte 5 to End of Fwy)	27,500	49.0%	1,850 (6.76%)	280 (6.85%)	4 MF		--	--
					V/C	LOS		
					0.72	D		
2 (End of Fwy to Jct. Rte 14 North)	33,600	47.0%	1,950 (5.81%)	230 (5.10%)	2 CONV		3	--
					V/C	LOS		
					0.92	E		
3 (Jct. Rte 14 South to Ave T)	27,400	48.0%	2,250 (8.21%)	35 (6.26%)	4 CONV		--	--
					V/C	LOS		
					0.69	C		
4 (Ave T to Rte 18)	30,700	49.0%	2,350 (7.67%)	325 (6.69%)	4 CONV		--	--
					V/C	LOS		
					0.82	D		
5 (Rte 18 to San Bernardino County Line)	19,000	48.0%	1,550 (8.1%)	215 (6.79%)	2 CONV		--	--
					V/C	LOS		
					0.64	C		

Source: 2012-2035 RTP/SCS

* The number of lanes in the LOS D Attainment column is for both directions. LOS D Attainment indicate how many lanes it would require to achieve LOS D. It is meant to show the severity of future conditions and what it would take to achieve LOS D. Caltrans is not suggesting that it is our plan to build the facility to achieve the LOS D.

* The number of lanes in the LOS F0 attainment column is for both directions. The data in the LOS FO attainment column is only meant to show the severity of congestion on our system and what it would require to achieve that level of service. We recognize the difficulty in achieving the desired LOS given the financial, environmental, right of way and political constraints. However, it is Caltrans' goal to provide improved mobility when feasible.

* Sometimes the model output implies that there would be aux. lanes (each direction) and aux. lanes are given only half capacity. That is why there are instances where we have odd number of lanes for both direction.

* The 2035 Baseline includes all planned and programmed projects in the 2012-2035 RTP/SCS

* For consistency with 2012-2035 RTP/SCS, year 2008 and 2035 were used.

* 2008 & 2035 data are derived from the 2012-2035 RTP/SCS model. Data in this report is meant to be used for comparison purposes only and are not to be use for specific projects without further analysis.

Concept Rationale

SR-138 is an east-west state route that traverses through Northern Los Angeles County and is used for interstate, interregional and intraregional travel and shipping through a rural corridor, serving the Northern Los Angeles County area and it also serves as an interregional connector between the San Joaquin Valley and the San Bernardino/Riverside area. In addition, it is used as a commuter route.

The route is part of the California Freeway and Expressway System.

Traffic volume is forecasted to increase on SR-138 in 2035 and will require additional lanes to achieve an acceptable concept level of service. Several capacity improvements are planned, programmed, and recommended for this corridor.

Proposed Projects and Strategies

There are several capacity increasing and mainline improvements planned or programmed for SR-138 throughout the corridor in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (see page 19). There is a proposed project that is not on SR-138 but could have a significant impact on the route and the region. The proposed project is the High Desert Corridor (HDC). The HDC will run roughly from Rte 14 and Rancho Vista Blvd. in Palmdale to join Rte 18 east of I-15 in Victorville. Also, a high speed rail line is proposed on the High Desert Corridor. The proposed HDC will help to improve mobility in the High Desert area and the region as a whole because another important east-west link would be added to the system. Additional information regarding the HDC is available at the following links.

(<http://www.dot.ca.gov/dist07/travel/projects/details.php?id=11> and <http://www.metro.net/projects/high-desert-corridor/>)

CORRIDOR OVERVIEW

ROUTE SEGMENTATION

SEGMENTS	DESCRIPTION	BEGIN PM	END PM
1	Jct. Rte 5 to End Fwy (Gorman Post Road)	0.00	1.71
2	End of Fwy (Gorman Post Rd) to Jct. Rte 14 (North)	1.71	36.78
	Break in Route		
3	Jct. Rte 14 (South) to Ave T	43.41	51.41
4	Ave T to Jct. Rte 18	51.41	69.30
5	Jct. Rte 18 to Los Angeles/San Bernardino CL	69.30	74.97

ROUTE DESCRIPTION

Route 138 connects Interstate 5 near Gorman with Interstate 15 near the Cajon Pass in San Bernardino County. In District 7, Route 138 is approximately 68.42 miles long. It is a major east-west route through the Antelope Valley and is the main artery in the City of Palmdale. The route is essentially flat with some rolling terrain in some segments.

SR-138 is used for interregional travel carrying people and goods throughout the Antelope Valley area to Los Angeles and San Bernardino County. Another purpose of SR-138 is for intra-regional travel and commute travel.

This TCR analyzes SR-138 conditions using the 'segment' as the study unit. The Segments are generally defined as 'freeway interchange to freeway interchange' 'county line to freeway interchange', or 'freeway interchange to end of freeway'

Route Designation and Characteristics

SR-138 is part of the State Freeway and Expressway System and the National Highway System. Its Federal functional classification is Other Principal Arterial (segment 1- 4) and Minor Arterial (segment 5). This route is a part of the Terminal Access (STAA) truck route network. For the purpose of this analysis, the route has been divided into 5 segments based on traffic volume, connections to local streets or State Highways, freeway interchanges, and the county boundary.

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	Major Goods Movement Route	Truck Designation
1	Yes	Yes	No	No	Yes	Yes	No	Other Principal Arterial	No	Terminal Access Route STAA
2	Yes	Yes	No	No	Yes	Yes	No	Other Principal Arterial	No	Terminal Access Route STAA
3	Yes	Yes	No	No	Yes	Yes	No	Other Principal Arterial	No	Terminal Access Route STAA
4	Yes	Yes	No	No	Yes	Yes	No	Other Principal Arterial	No	Terminal Access Route STAA
5	Yes	No	No	No	Yes	Yes	No	Minor Arterial	No	Terminal Access Route STAA

Seg	Rural/Urban/Urbanized	Primary/Secondary System	Metropolitan Planning Organization	Regional Transportation Planning Agency	Congestion Management Agency	Local Agencies	Tribes	Air District	Terrain
1	Rural	Primary	SCAG	METRO	METRO	METRO	N/A	Antelope Valley AQMD	Flat/Rolling
2	Urban	Primary	SCAG	METRO	METRO	METRO	N/A	Antelope Valley AQMD	Flat/Rolling
3	Urban	Primary	SCAG	METRO	METRO	METRO	N/A	Antelope Valley AQMD	Flat
4	Urban/Rural	Primary	SCAG	METRO	METRO	METRO	N/A	Antelope Valley AQMD	Flat
5	Rural	Primary	SCAG	METRO	METRO	METRO	N/A	Antelope Valley AQMD	Flat

COMMUNITY CHARACTERISTICS

SR-138 is a Principal Arterial in an urbanized and rural corridor providing access to the cities of Palmdale, Lancaster and unincorporated areas in the Antelope Valley.

LAND USE

The SR-138 corridor is congested in certain areas, highly developed and the land use varies from residential, to commercial, to industrial. The many significant trip generators along this corridor include:

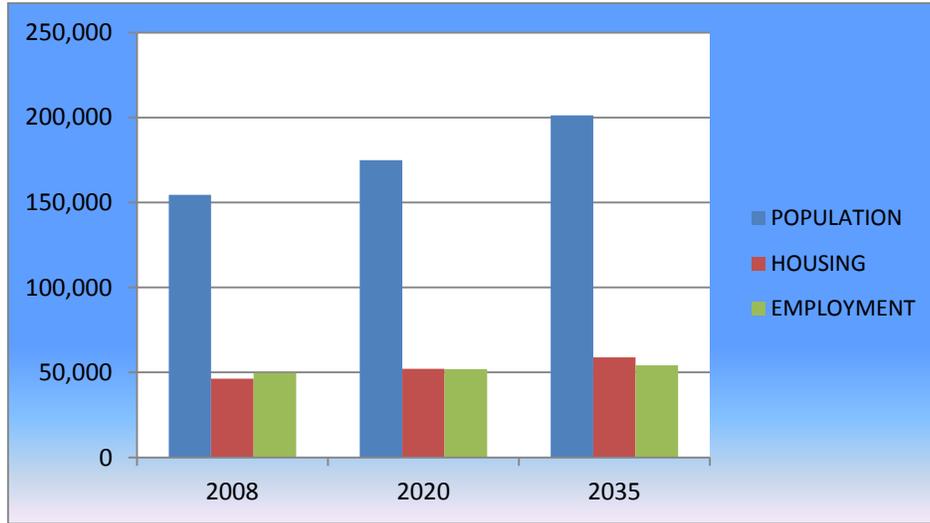
- California State University, Bakersfield (Lancaster campus)
- University of Antelope Valley
- Los Angeles/Palmdale Regional Airport
- Antelope Valley Mall
- Antelope Valley Hospital
- “The Blvd”
- Antelope Valley Fairgrounds
- Market Place Shopping Center
- Amargosa Commons Shopping Center
- Palmdale Promenade
- Palmdale Regional Medical Center
- US Air Force Plant 42 Palmdale Airport
- Boeing North American Aircraft Assembly Facility
- Lockheed Martin Advance Development Company
- Rock Quarries

Significant growth in housing, population, and employment are generally projected throughout the SR-138 corridor area.

The following tables and graphs show projected socioeconomic growths in the cities along the SR-138 Corridor per the SCAG 2012 -2035 RTP/SCS GROWTH FORECAST.

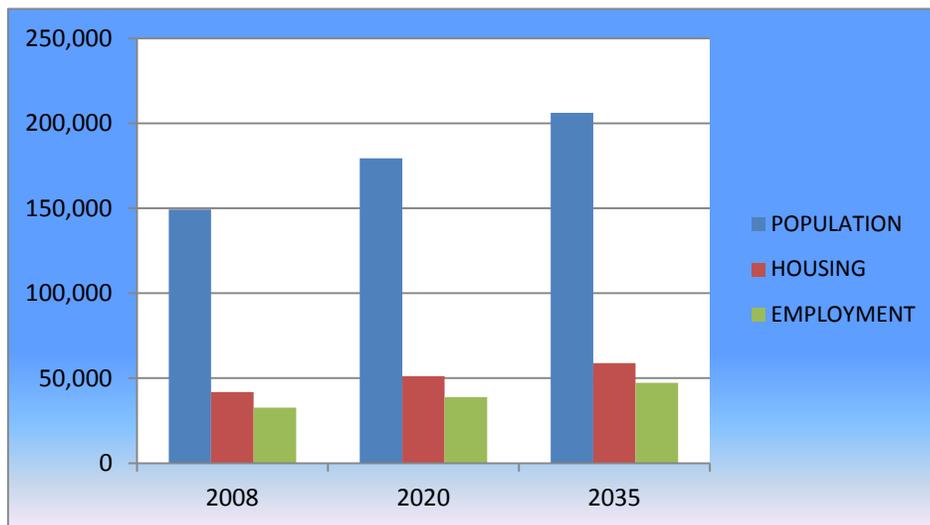
LANCASTER

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	154,500	174,800	201,300	13.14%	30.29%
HOUSING	46,300	52,200	58,800	12.74%	27.00%
EMPLOYMENT	49,700	51,900	54,200	4.43%	9.05%



PALMDALE

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	149,200	179,300	206,100	20.17%	38.14%
HOUSING	41,900	51,300	58,800	22.43%	40.33%
EMPLOYMENT	32,700	38,900	47,200	18.96%	44.34%



SYSTEM CHARACTERISTICS

For the purpose of analysis, the SR-138 is divided into 5 segments based on logical termini including intersections, jurisdiction and changes in land use.

Existing Facility			
Segment/PM	Facility Type	Mixed-Flow Lanes (each direction)	Centerline Miles
1 (0.00 - 1.71)	Freeway	2	1.71
2 (1.71 - 36.78)	Conventional Highway	1	35.07
BREAK IN ROUTE			
3 (43.41 - 51.41)	Conventional Highway	2	8
4 (51.41 - 69.30)	Conventional Highway	2/1	17.89
5 (69.30 - 74.97)	Conventional Highway	1	5.67

RAMP METERS ON SR-138			
POSTMILE	DIRECTION	LOCATION	COMMENTS
SEGMENT 1 (PM R 0.00 - 1.71)			
NONE			
SEGMENT 2 (PM 1.71 - 36.78)			
NONE			
(BREAK IN ROUTE)			
SEGMENT 3 (PM 43.41 - 51.41)			
NONE			
SEGMENT 4 (PM 51.41 - 69.30)			
NONE			
SEGMENT 5 (PM 69.30 - 74.97)			
NONE			

Source: 2013 RMPD

Also, the Complete Streets Act of 2008 (AB. No. 1358 of September 30, 2008) requires cities and counties to incorporate the concept of Complete Streets into their General Plan Updates to ensure that transportation plans meet the needs of all users of our roadway system. Also, California Vehicle Code and Streets and Highway Code Section 888 states that the department shall not construct a state highway as a freeway that will result in the severance or destruction of an existing major route for non-motorized transportation traffic and light motorcycles, unless it provides a reasonable, safe, and convenient alternate route or such a route exists. (Revised 10/4/2013. Page 7 of 11)

SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) invests \$6.7 billion towards increasing bikeways, bringing sidewalks into compliance with Americans with Disabilities Act, safety improvements and other Active Transportation Strategies.

The United States Department of Transportation (US DOT) Policy Statement on bicycle and pedestrian accommodation (March 11, 2010) also states that US DOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate.

Based on Caltrans' context sensitive, smart mobility and complete streets policies and the Governor's Office's Climate Action and Sustainability Plan; "where the existing freeway or highway corridor has severed routes and has decreased connectivity between communities, employment hubs, schools, wild life corridors, every effort will be made to re-establish those lost connections on any project along the corridor."

SB-99, the listed Caltrans Deputy Directive, California Vehicle and Highway Code, SCAG's 2012 RTP/SCS and U.S. DOT policy statements all support Complete Street including bicycle and pedestrian facilities for SR-138.

TRANSIT FACILITY

The transit component for State Route 138 embodies a multi-modal system including carpooling, Express Transit Service, Municipal Transit, Commuter Rail (Metrolink), and Intercity Rail (Amtrak). These provide limited community-based service. These agencies operate along this route, providing inter-city and commuter services (see below).

SR 138 - TCR TRANSIT INFORMATION - DISTRICT 7

Source: Office of Mass Transportation and Transit Operators

EXISTING SERVICE ON SR 138

Route	From/To	Operator	Rt #	Name/Description	Service Type	Service Span	Notes
138	Lancaster-Palmdale	Metrolink	Antelope Valley Line	Lancaster-Los Angeles	Commuter Rail	7 Days	6-9 Trains
138	Ave D-Ave I	Eastern Sierra Transit	Mammoth Lakes-Lancaster	Mammoth Lakes-Lancaster	Rural	M-W-F	1 trip
138	Ave D-Ave I	Kern Regional Transit	Bakersfield-Lancaster	Bakersfield-Lancaster	Rural	7 Days	2-7 trips
138	Ave D-San Bernardino Co.	Amtrak Thruway	San Joaquin	Bakersfield-Victorville	Intercity	7 Days	2 trips
138	SR 14-40th St	AVTA	2	Palmdale Blvd	Local	7 Days	30-60 min Frequency
138	SR 14-Ave S	AVTA	10	Lancaster/Palmdale Express	Local	Weekdays	60-180 min Frequency
138	Ave R-Longview Rd	AVTA	15	Pearblossom	Local	Weekdays Peak	70 min Frequency
138	Ave S-82nd St	AVTA	6	Littlerock	Local	7 Days	1-3 hr Frequency

NOTES

Metrolink Antelope Valley Line trains operate from Lancaster to Los Angeles

FUTURE SERVICE

The proposed California High Speed Rail system would operate in the SR138 Corridor Blvd from Ave D to Palmdale Blvd

The proposed High Desert Corridor includes a potential high speed rail component

Future CHSRA station could be located near SR 138 in Palmdale

INTERMODAL TRANSIT CENTERS AND STATIONS LOCATED ON OR NEAR SR 138 CORRIDOR

Route	Location	City	Operator	Transit Service	Service Type	Service Span	Notes
138	Lancaster Metrolink Station	Lancaster	City of Lancaster	Metrolink Antelope Valley Line	Commuter Rail	7 Days	Free Parking
				Amtrak Thruway Bus	Intercity	7 Days	
				AVTA 1,4,7,11	Local	7 Days	
				EST Mammoth Lakes-Lancaster	Local/Intercity	M-W-F	
				KRT Bakersfield-Lancaster	Local	7 Days	
138	Lancaster City Park	Lancaster	City of Lancaster	AVTA 1,4,5,10,11,12	Local	7 Days	Free Parking
				AVTA Lake L.A., 785,786,787	Express	Weekdays Peak	
138	Palmdale Transportation Center	Palmdale	City of Palmdale	Metrolink Antelope Valley Line	Commuter Rail	7 Days	Free Parking
				Amtrak Thruway Bus	Intercity	7 Days	
				AVTA 1,3,7,10	Local	7 Days	
				AVTA Lake L.A., 785,786,787	Express	Weekdays Peak	
				Greyhound	Intercity	7 Days	
				North County TRANSPORTER	Express	Weekdays	

NOTES

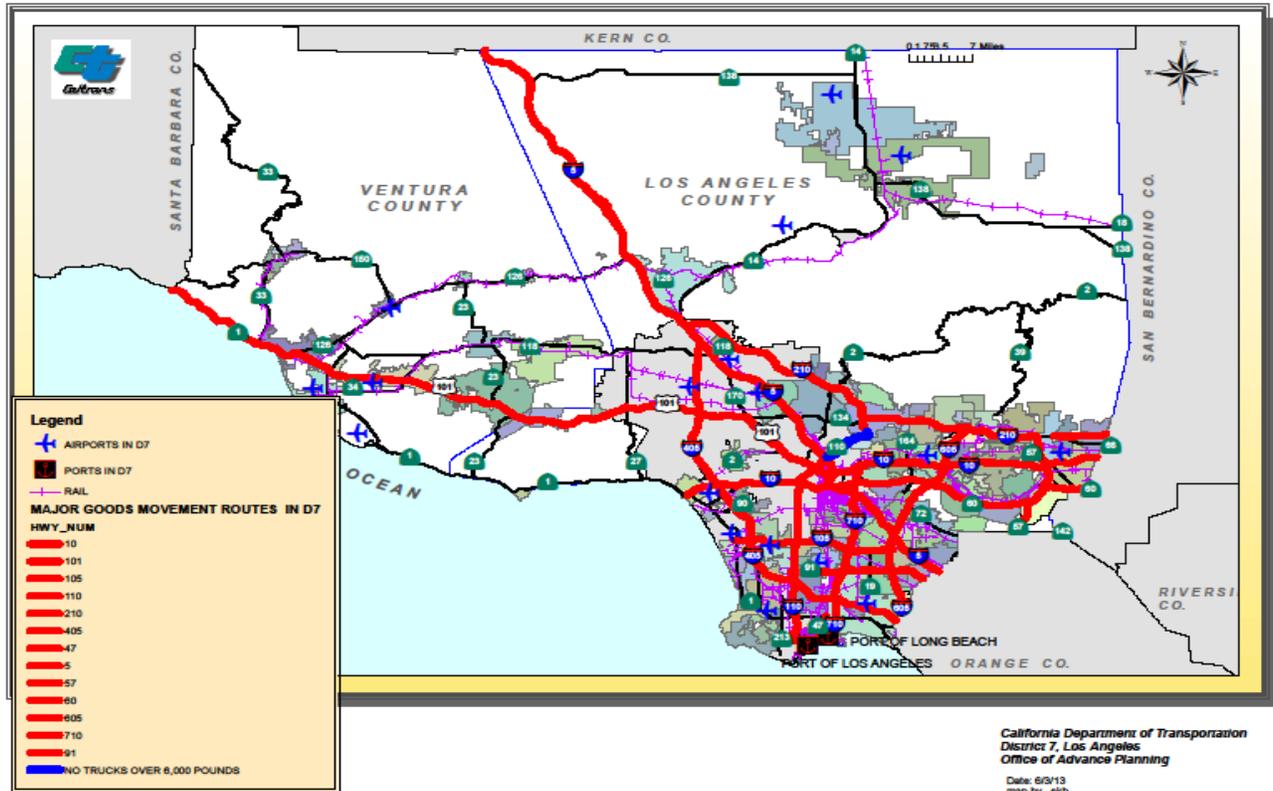
North County TRANSPORTER provides express bus service from Palmdale Transportation Center to four weekdays trains terminating at Newhall Metrolink Station

FREIGHT

SR-138 is a part of the Terminal Access Route STAA truck network and its truck volumes in 2008 range from 2.7 % to 12.5 % of AADT. Regionally, truck traffic is expected to increase by over 50% by 2025, with virtually no capacity available to handle this added volume. Route 138 also serves as an alternate interregional route for trucks connecting from I-5 to I-15.

Seaports: None

D7 GOODS MOVEMENT CORRIDOR MAP



ENVIRONMENTAL CONSIDERATION - California is known for traffic congestion and its impacts. Pollution of various types is typical in this region. Air quality, noise and water pollution are common. Below is the latest attainment/nonattainment status of SR-138 Corridor which falls in the Antelope Valley Air Quality Management District.

POLLUTANTS	STATE DESIGNATION
Ozone	Nonattainment
Carbon Monoxide	Attainment
PM2.5	Unclassified
PM10	Nonattainment
Nitrogen Dioxide	Attainment
Sulfur Dioxide	Attainment
Sulfates	Attainment
Lead	Attainment
Hydrogen Sulfide	Unclassified
Visibility Reducing Particles	Unclassified

* Source: Air Resource Board 2012 State Designation Map

CORRIDOR PERFORMANCE:

Segment 1 has 3,200 AADT, 11.3 % of which is associated with truck travel. The segment currently operates at LOS A.

Segment 2 has 4,200 AADT, 10.0 % of which is associated with truck travel. The segment currently operates at LOS B.

Segment 3 has 16,900 AADT, 2.7 % of which is associated with truck travel. The segment currently operates at LOS B.

Segment 4 has 19,300 AADT, 12.2 % of which is associated with truck travel. The segment currently operates at LOS D.

Segment 5 has 12,500 AADT, 12.5% of which is associated with truck travel. The segment currently operates at LOS B.

Basic System Operations						
Segment	AADT 2008	AADT 2035	LOS 2008	LOS 2035	VMT 2008	VMT 2035
1	3,200	27,500	A	D	6,500	56,200
2	4,200	33,600	B	E	147,300	1,176,500
3	16,900	27,400	B	C	136,100	220,100
4	19,300	30,700	D	D	343,900	547,100
5	12,500	19,000	B	C	70,000	106,900

Truck Traffic				
Segment	Total Average Annual Daily Truck Traffic (AADT) 2008	Total Trucks (% of AADT) 2008	5 + Axle Average Annual Daily Truck Traffic (AADT) 2008	5 + Axle Trucks (% of AADT) 2008
1	360	11.3%	265	73.2%
2	420	10.0%	320	75.2%
3	450	2.7%	300	67.2%
4	2,360	12.2%	1,750	74.4%
5	1,550	12.5%	1,200	79.9%

CORRIDOR CONCEPT

CONCEPT RATIONALE

The transportation concept describes the operating conditions and physical facilities required to provide those conditions that could exist on SR-138 after considering the conclusions, priorities and strategies discussed in the District System Management Plan (DSMP), the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and other planning documents. The route concept represents what could reasonably be accomplished to facilitate the mobility of traffic desiring to use the route. It assumes that management improvement strategies and system operation improvements to maximize the efficiency on SR-138 will be implemented.

The transportation concept is composed of a Level of Service (LOS) and facility component. The concept facility is the facility that could be developed to maintain or attain the concept LOS.

PLANNED/PROGRAMMED PROJECTS AND STRATEGIES

Segment	County	Post Miles	Project Description	Source	RTP ID
1, 2	LA	0.00 - 43.42	Add 2 mixed-flow lanes	2012-2035 RTP/SCS/Metro 2009 LRTP	S1120072
3-5	LA	36.8-74.97	Add 1 expressway lane from SR-14 to San Bernardino Co Line (both direction)	Metro 09 LRTP	
3	LA	43.42/R59.05	Palmdale Blvd ramps and mainline improvements- Project 8, Route138/SR-14 southbound off ramp at Palmdale Blvd and interchange improvement	PDS	
4	LA	59.78	Widen, modify ramps and mainline improvements- Project 10, SR138/14 widening between Rancho Vista/Avenue P to Palmdale Blvd	PDS	
4	LA	61.77	Widen, modify Ramp/Bridge-Project 9, SR138/14, 10 Street West between Rancho Vista Blvd/Avenue P and Destination 0-8. Modify three traffic signals	PDS	
4	LA		Route 138: Route 138 From Ave. T to Route 18- Widen 2 to 4 Thru lanes with median turn lane.	2012-2035 RTP/SCS	LA0D451
	LA		Route 138: IN PALMDALE @ Avenue P-8 from Route 14 to 100th Street - Acquisition of ROW for future Rte 138 (TIER 2 ENV) (CFP 2212 \$3540 2001 CFP 8021)(EA# 116720,PPNO 0393F)	2012-2035 RTP/SCS	LA962212
	LA		High Desert Corridor	2012-2035 RTP/SCS/Metro 2009 LRTP	1C0404

Demonstration Projects from Compass Blueprint (Compass Blueprint is a new way to look at how Southern California grows. It is driven by Mobility, Livability, Prosperity and Sustainability)

The Southeast Transit Village Planning Area Visioning project compliments efforts to revitalize Lancaster’s downtown district, by creating a new location for transit-oriented mixed-use development, and other facilities to further revitalize the community.

Goals

- Design Charrette resulting in a vision plan
- Long Term Vision for transit-oriented development
- Concept Plan for a Multi-modal Metrolink transfer facility

Since 2001, the City of Lancaster has undertaken planning efforts and capital improvement projects to revitalize its downtown district. This project complements the North Downtown Transit Village vision plan, and the Downtown Lancaster Specific Plan, which have resulted in the revitalization of Lancaster's Boulevard commercial district. The Southeast Transit Village Planning Area Visioning project provides a vision for transforming 98 acres into transit-oriented development, with a healthy mix of housing, commercial space, and employment opportunities.

Results

- 98 acre study site
- Developed Guiding Principles:
 - Support existing businesses and landowners
 - Support citywide economic and community development goals
 - Leverage value of Metrolink station
 - Improve connections to adjoining areas
 - Improve streetscape and street character
 - Anticipate the High-Speed Train, but don't wait for it
 - Refine existing planning and zoning. Pursue sustainability and health as a competitive advantage
- Vision Plan Created with 11 key components including:
 - Extending The Boulevard Environment of Downtown to Yucca Avenue
 - Transform vacant/underutilized parcels into mixed-use developments
 - Transform Sierra Hwy North and South of The BLVD into a walkable Avenue
 - Introduce pedestrian and/or additional vehicular crossings of railroad tracks
 - Repair internal street network by adding tree lined sidewalks where missing
 - Amend storm water plan to allow development on current storm water basin
 - Create a new zone that encourages mixed-use transit-oriented development
 - Amend zoning standards allowing light industry and auto repair in Plan Area
 - Create zone for light industrial use on vacant parcels south of Avenue J
 - Rebuild Metrolink Station as an urban, pedestrian-oriented, multi-modal facility
 - Introduce varied park space within the Plan Area

CONCLUSION

Traffic volume is forecasted to increase on SR-138 due to the growth in population, housing and employment along this route and throughout the region. Growth in the region will continue to create mobility challenges and put additional stresses on our transportation system. Southern California is not only an important component of California's economy but it is also vital to the United States and world's economies as a whole. It is critical that mobility be maintained and improved in order to sustain the economic growth that is expected. In addition to sustaining the economic vitality of the region, mobility is also an important component in enhancing the quality of life for the residents in this region. SR-138 is only one component of the transportation infrastructure but it plays a critical role in providing mobility for the region. In order to improve mobility, additional capacity will be required beyond those planned and programmed in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to maintain an acceptable level of service through 2035.

District 7 Office employs a variety of strategies to address current congestion challenges including:

- High Occupancy Vehicle Lane (HOV)
- Ramp Metering
- Congestion Pricing (Toll Lanes)
- Changeable Message Signs (CMS)

Several regional freeway capacity expansion projects are in the planning process, under development or under construction which will assist in decreasing congestion.

Constructing an HOV or Managed Lane system continues to be a priority.

The highway system is only one component of the transportation infrastructure; but it plays a very important role in providing mobility for the region. To achieve the desired minimum acceptable level of service, additional lanes will be needed beyond those planned and programmed in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

In addition to the projects on our system, Caltrans supports programs such as Transit Oriented Development (TOD). TOD is a moderate to higher density development, located within easy walk of a major transit stop. Generally with a mix of residential, employment and shopping opportunities designed for pedestrians. Research has shown that these types of development increase the number of trips made by transit, walking and cycling thus reducing the number of car trips and reducing tailpipe emissions.

SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) identifies High Quality Transit Areas (HQTAs) meeting definitions established in SB 375. These areas are intended to direct and prioritize future growth, and further, establish eligibility for certain types of projects to access CEQA streamlining. Note, however, that residential and other types of development along freeways can be associated with increased health risk due to emissions exposure. Future projects

should refer to available information resources, including but not limited to SCAG's 2012-2035 RTP/SCS Environmental Justice Appendix and Program Environmental Impact Report.

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
CMP	Congestion Management Plan
FHWA	Federal Highway Administration
HOV	High Occupancy Vehicle Lane
HOT	High Occupancy Toll Lane
IC	Interchange
ITS	Intelligent Transportation System
LACBD	Los Angeles Central Business District
LOS	Level of Service
MF	Mixed Flow Lane
MFE	Mixed Flow Equivalent
ML	Managed Lane
MPO	Metropolitan Planning Organizations
RTP	Regional Transportation Plan
RTIP	Regional Transportation Improvement Program
RTPA	Regional Transportation Planning Agency
SCAG	Southern California Association of Governments
SHOPP	State Highway Operation Protection Program
STIP	State Transportation Improvement Program

T	Truck Lane
TDM	Transportation Demand Management
V/C	Volume to Capacity Ratio
VMT	Vehicle Miles Traveled

DEFINITIONS

Annual Average Daily Traffic (AADT) - AADT is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th.

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

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.

Focus Route – Focus Routes are a subset of the 34 High Emphasis Routes. The routes represent 10 IRRS corridors that should be of the highest priority for completion to minimum facility standards in the 20-year period. Completion of the Focus Routes to minimum facility standards (for most routes freeway or expressway) will assure a statewide trunk system is in place and complete for higher volume interregional trip movements. Focus Routes will serve as a system of high volume primary arteries to which lower volume and facility standard state highway routes can connect for purposes of longer interregional trips and access into statewide Gateways. The routes, taken as a whole, constitute a “backbone” for additional capacity and complete facilities for the state. They balance north-south and east-west access and connectivity statewide. The Focus Routes assure rural connectivity for the north state and otherwise connect the fastest growing urbanized areas and urban centers to a trunk system. All Focus Routes are on the National Highway System (an exception is the S.R. 49 portion of the S.R. 20 corridor), Freeway and Expressway System, and are STAA Truck or Truck Terminal Routes.

High Emphasis Route – The High Emphasis category represents routes that have high interregional importance from a statewide perspective. This makes them a priority to be programmed and constructed to at least the minimum facility concept standard (for most routes, this is freeway or expressway). The interstates are included in the High Emphasis category to highlight their critical importance to interregional travel and the State as a whole.

Interregional Road System -- IRRS was first identified by statute in 1989 as part of the Blueprint Legislation (a 10-year transportation funding package including AB 471, SB 300, and AB 973). It is a subset of the entire 265 SHS routes that provides connectivity among all of California’s regions. There are currently 93 statutory IRRS routes (page 3 and Appendix E, page 101 Interregional Transportation Strategic Plan – October 2013). The IRRS was conceived as part of the larger effort to address the critical transportation system funding and development needs of the State. The implementation of IRRS improvements is dependent on prioritization of State transportation revenues. Most interstates are included in the IRRS. SB 45 requires that the ITIP include a specific allocation of funds to be programmed on IRRS routes in non-urbanized areas.

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 density, speed, travel time, freedom to maneuver, traffic interruption, comfort and convenience. LOS can be categorized as follows:

LOS A describes free flowing conditions.

LOS B 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 present 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.

Mainline – includes travel way for through traffic but not freeway to freeway interchanges, local road interchanges, ramps, or auxiliary lanes.

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.

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 milepost 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.

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