HIGHWAYS AND ARTERIALS APPENDIX

REGIONAL TRANSPORTATION PLAN
2012–2035
SUSTAINABLE COMMUNITIES STRATEGY
Towards a Sustainable Future
RTP

Southern California Association of Governments

ADOPTED APRIL 2012

HIGHWAYS AND ARTERIALS

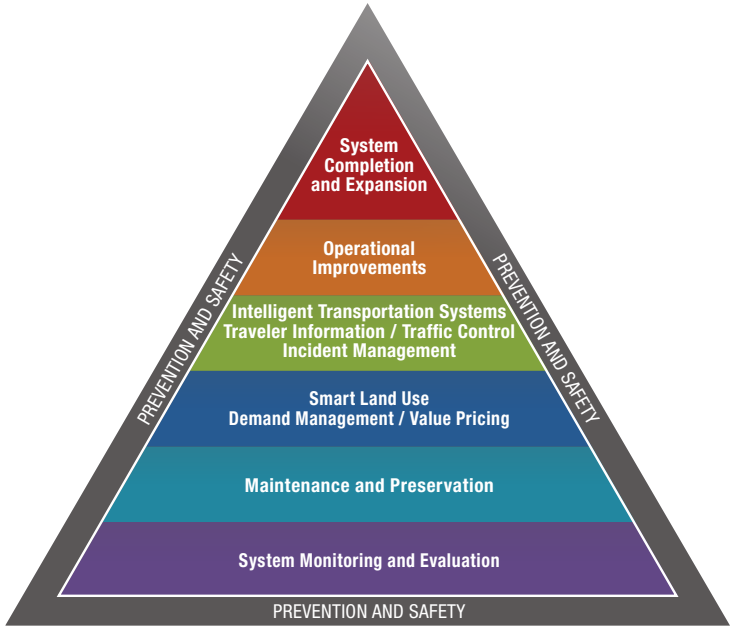
Southern California's highway and arterial system extends for 12,630 miles and serves 62 million trips each day. This roadway system is the backbone of the region's economic well-being, and facilitates the movement of people and goods via multiple modes of transportation, including public transit, and active transportation. According to the Southern California Association of Governments' (SCAG) Regional Travel Demand Model (RTDM), nine out of every ten trips relies either entirely or in part on the highway and arterial system.

Despite the importance of the system, improvements have not kept pace with the region's increasing population and transportation demand. As a result, the region's traffic congestion has increased dramatically, leading to a less productive transportation system with negative consequences such as wasted time and fuel and poor air quality.

The highway and arterial investments included in the 2012 Regional Transportation Plan (RTP) attempt to address these challenges by following the integrated approach depicted in **FIGURE 1**, which calls for the region to first take care of and optimize the existing system before investing in costlier capital expansion projects. The successful preservation and management of the highway and arterial system are crucial to maintaining the region's economic vitality and quality of life. At the same time, there are critical gaps in the network that hinder access to certain parts of the region. The Plan proposes the closure of these gaps to complete the system, allowing the region's residents to enjoy improved access to opportunities, such as jobs, education, healthcare, and recreation.

This technical appendix consolidates and summarizes highway and arterial related RTP investments, including project commitments identified by the local implementing agencies, as well as system preservation and operations investments. Additionally, this appendix consolidates and summarizes the highway and arterial related performance results from SCAG's regional travel demand model.

FIGURE 1 Mobility Pyramid



Programmed Commitments

As the short-range element of the Plan, SCAG's Federal Transportation Improvement Program (FTIP) contains a significant number of highway and arterial improvement projects that local transportation agencies will implement in the near- and mid-term. These projects close critical gaps in the system, relieve significant bottlenecks, and address inter-county travel needs, and include High-Occupancy Vehicle (HOV) lanes and connectors, mixed-flow (or general purpose) lanes, High-Occupancy Toll (HOT) lanes, and strategic arterial improvements.

A sample of major projects in the FTIP is shown in **TABLE 1**. A complete project list can be found in the RTP's Project List Appendix.

TABLE 1 Sample Major Highway Projects in the FTIP

County	Route	Description	Completion Year*	Cost (millions)
HOV Lanes				
LA	I-5	Add HOV lanes from the LA/OC County Line to I-605	2018	$1,242
LA	I-5	Add 1 HOV lane in each direction from SR-134 to SR-170	2014	$712
LA	I-10	Add 1 HOV lane in each direction from I-605 to Puente	2014	$200
LA	I-10	Add 1 HOV lane in each direction from Puente to Citrus	2018	$185
LA	I-10	Add HOV lanes in each direction from Citrus to 57/210	2018	$193
LA	I-405	Add northbound HOV lane from I-10 to US-101	2018	$1,034
LA	I-405	Add 1 HOV lane in each direction from SR-90 to I-10	2012	$190
LA	SR-71	Add 1 HOV lane in each direction from I-10 to SR-60	2023	$250
OR	I-5	Add 1 HOV lane in each direction from South of Avenida Pico to South of Avenida Vista	2020	$106
RV	SR-91	Add 1 HOV lane in each direction from Adams to 60/215	2018	$278
SB	I-10	Add 1 HOV lane in each direction from Haven to Ford	2020	$1,090
Toll Lanes				
LA	I-10/ I-110	HOT Lanes on I-10 and I-110	2013	$123
LA/SB	TBD	Construct new High Desert Corridor connecting Los Angeles and San Bernardino Counties	2020	$5,156
RV	SR-91	Convert HOV lanes to tolled express lanes and add direct connectors	2018	$1,104
Mixed-Flow Lanes				
IM	SR-78	Brawley Bypass Corridor	2012	$228
OR	SR-91	Add 1 eastbound mixed-flow lane from 91/55 connector to SR-241 and 1 westbound mixed-flow lane from SR-241 to Imperial Highway	2018	$86
OR	I-405	Add 1 mixed-flow lane in each direction from SR-73 to I-605	2023	$1,694
RV	SR-91	Add 1 mixed-flow lane in each direction at various locations from SR-241 to Pierce St	2018	$1,490
RV	I-215	Add 1 southbound mixed-flow lane from Murrieta Hot Springs Rd to I-215/I-15 junction	2018	$13
RV	I-215	Add 1 mixed-flow lane in each direction from Scott Rd to Nuevo Rd	2018	$191
SB	US-395	New alignment from High Desert Corridor to Farmington Rd	2018	$14
VE	US-101	Add 1 mixed-flow lane in each direction at various locations from LA/VE County Line to Moorpark Rd	2018	$60

*Represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

Additional County Commitments

Beyond the projects included in FTIP, the county transportation commissions (CTCs) have committed to pursue a number of additional projects through the year 2035 as identified in voter-approved sales tax measures and other countywide transportation plans. A sample of major projects is shown in **TABLE 2**. A complete project list can be found in the RTP's Project List Appendix.

TABLE 2 Sample Major Highway Projects Committed by the Counties

County	Route	Description	Completion Year*	Cost (millions)
HOV Lanes				
LA	SR-71	Convert expressway to freeway–add 1 HOV lane and 1 mixed-flow lane	2030	$330
LA	SR-14	Add 1 HOV lane in each direction from Ave P-8 to Ave L	2030	$120
OR	I-5	Add 1 HOV lane in each direction from Avenida Pico to San Juan Creek Rd and reconfigure Avenida Pico interchange	2018	$270
OR	SR-73	Add 1 HOV lane in each direction from MacArthur to I-405	2035	$249
OR	Various	Complete continuous access conversion of the Orange County HOV system where feasible	2014	$12
SB	I-15	Add 1 HOV lane in each direction from RV/SB County Line to I-215	2020	$480
SB	I-15	Add 1 HOV lane in each direction from US-395 to SR-18/Mojave River	2020	$398
SB	I-15	Add 1 HOV lane in each direction from I-215 to US-395	2020	$800
SB	I-215	Add 1 HOV lane in each direction from SR-210 to I-15	2030	$179
SB	I-210	Add 1 mixed-flow lane and 1 HOV lane in each direction from I-215 to I-10	2020	$138
Toll Lanes				
LA	SR-710	SR-710 North Extension (tunnel) (alignment TBD)	2030	$5,636
OR	SR-91/ SR-241	Construct HOV/HOT connector from SR-241 N/B to SR-91 E/B, and SR-91 W/B to SR-241 S/B	2018	$473

County	Route	Description	Completion Year*	Cost (millions)
Mixed-Flow Lanes				
IM	TBD	Widen and improve SR-98 or Jasper Rd to 4/6 lanes	2035	$1,170
IM	SR-111	Widen and improve to a 6-lane freeway with interchanges at Heber, McCabe, and Jasper, and overpass at Chick Rd	2030	$997
LA	SR-57/ SR-60	Improve the SR-57/SR-60 interchange	2030	$475
OR	SR-55	Add 1 mixed-flow lane in each direction and fix chokepoints from I-405 to SR-22 and add 1 auxiliary lane in each direction between select on/off ramps and operational improvements through project limits	2023	$343
OR	SR-91	Add 1 mixed-flow lane on SR-91 eastbound from SR-57 to SR-55 and improve interchange at SR-91/SR-55 and Lakeview Ave	2023	$356
OR	I-405	Add 1 mixed-flow lane in each direction from I-5 to SR-55 and improve merging	2023	$375
RV	I-10/ SR-60	Construct new interchange	2030	$184
RV	I-10	Add 1 mixed-flow lane in each direction from Monterey Ave to Dillon Rd	2030	$127
VE	SR-118	Add one lane in each direction from Route 23 (New LA Ave) to Tapo Cyn Rd	2018	$506

*Represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

In total, the RTP commits over $64 billion to highway investments (**TABLE 3**).

TABLE 3 Highway Investments

County	Investment ($, billions)*
Imperial	$1.4
Los Angeles	$11.7
Orange	$19.7
Riverside	$8.6
San Bernardino	$5.5
Ventura	$0.8
Various	$16.4
Regional Total	**$64.2**

*Also see Goods Movement Supplemental Report for additional related improvements.

Numbers may not sum to total due to rounding

EXHIBITS 1–4 depict major highway projects proposed by the CTCs in the RTP.

EXHIBIT 1 Major HOV Projects Proposed By Counties

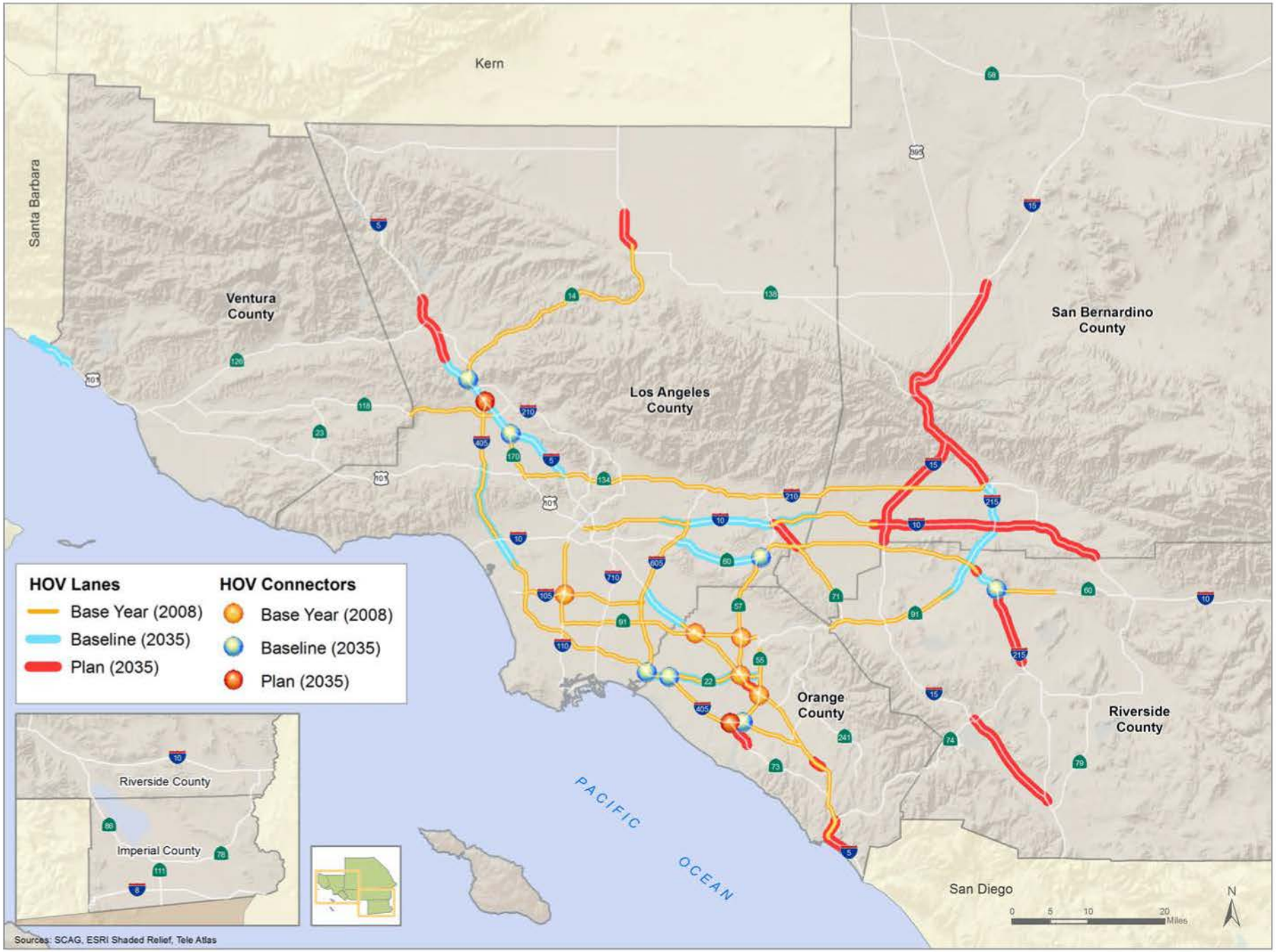


EXHIBIT 2 Major Toll Projects Proposed By Counties

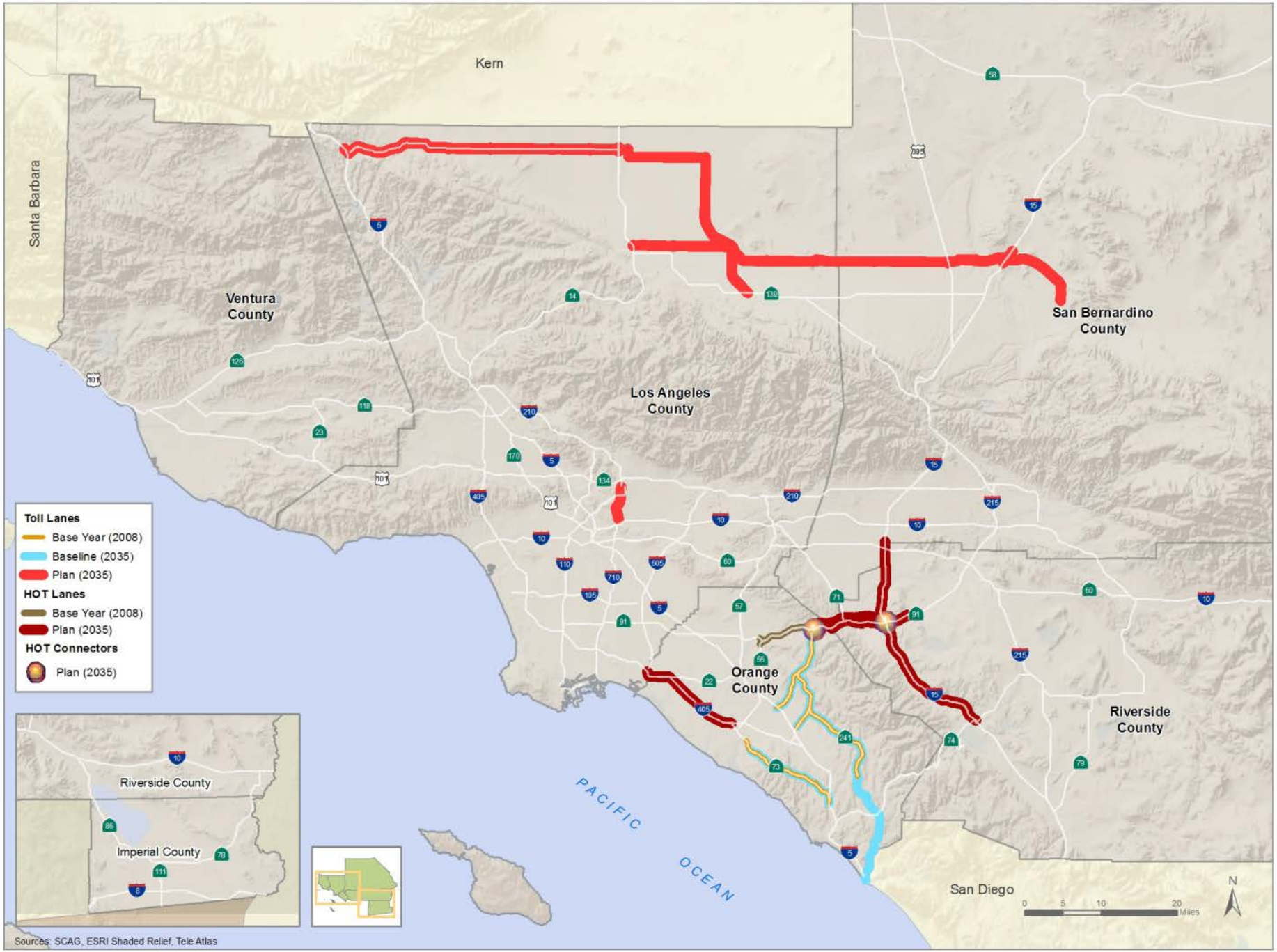


EXHIBIT 3 Major Mixed-Flow Projects Proposed By Counties

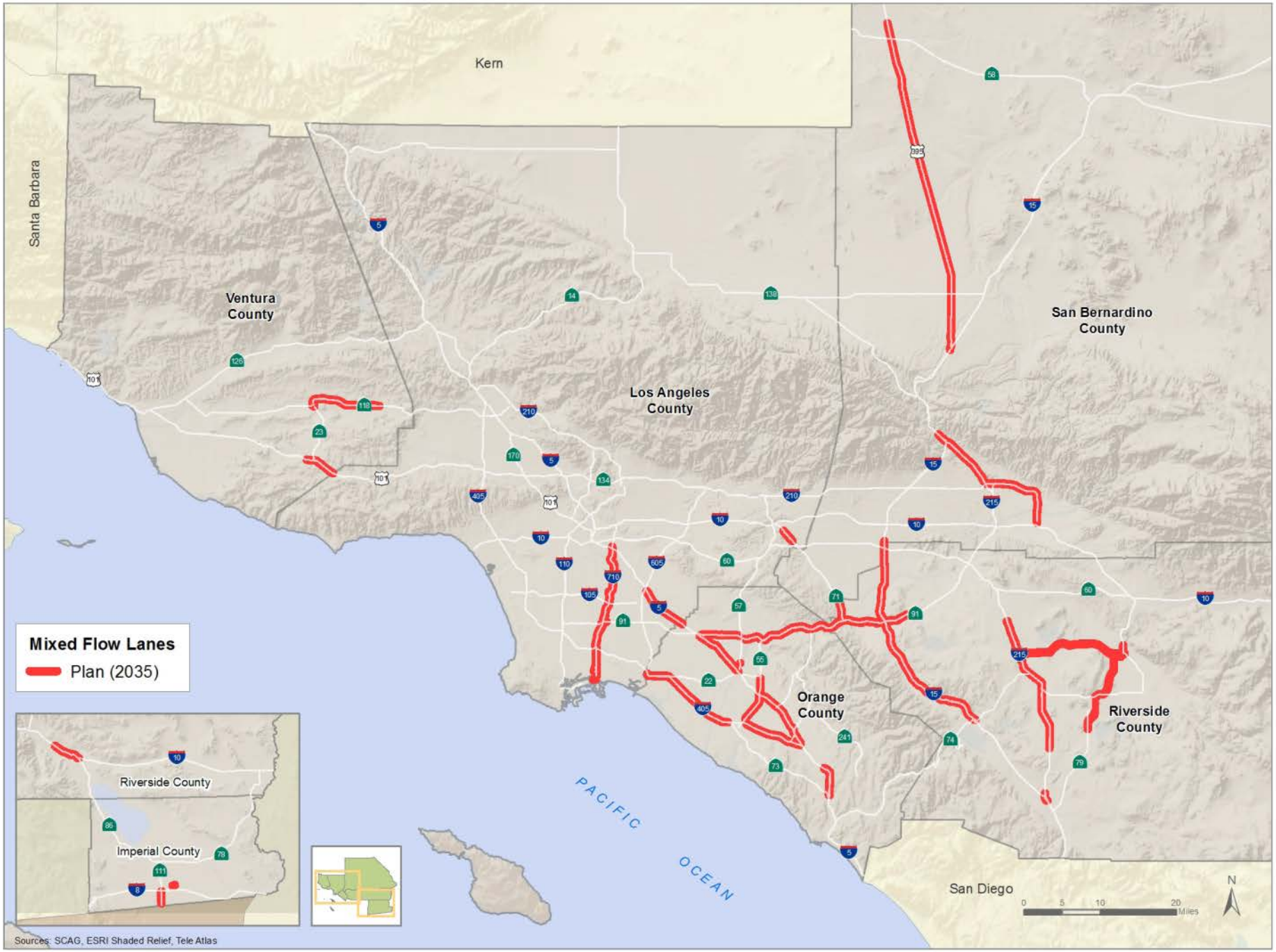


EXHIBIT 4 Major Highway Projects Proposed By Counties

System Preservation

Aging Infrastructure

Over the decades, the region has invested hundreds of billions of dollars in developing and expanding a multi-modal transportation system. As shown in **FIGURES 2, 3,** and **4**, a significant amount of roadways and bridges have fallen into an unacceptable state of disrepair.

FIGURE 2 Total Distressed Lane Miles (2007)

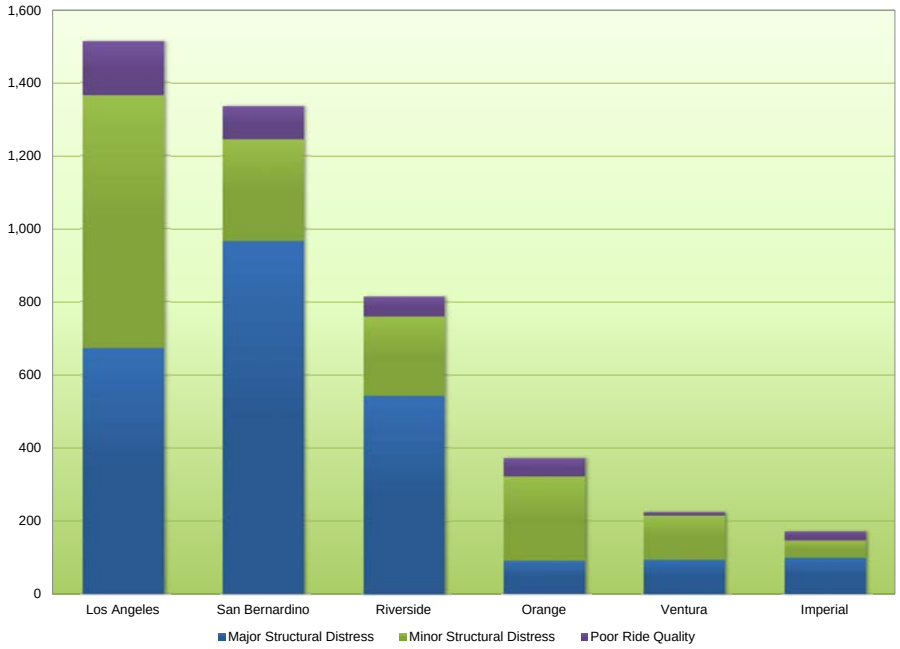
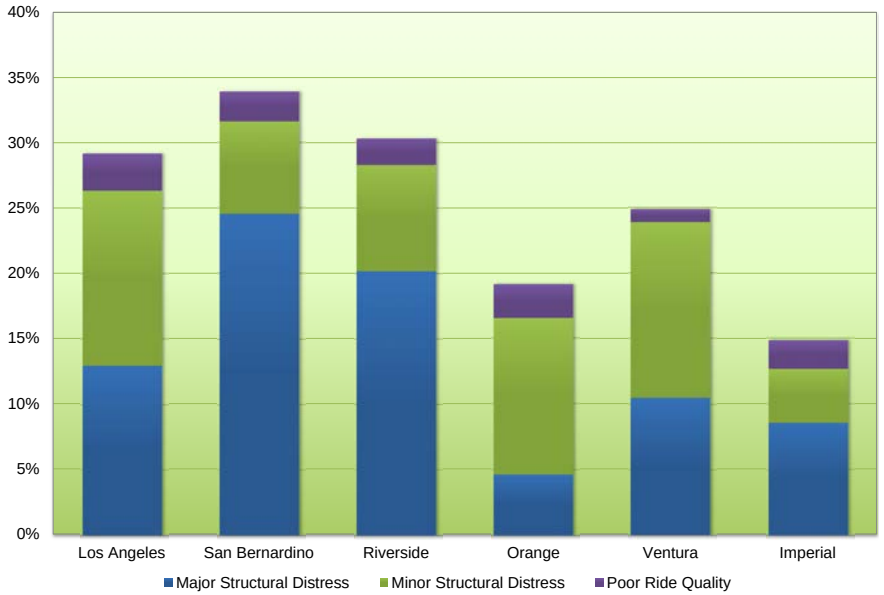
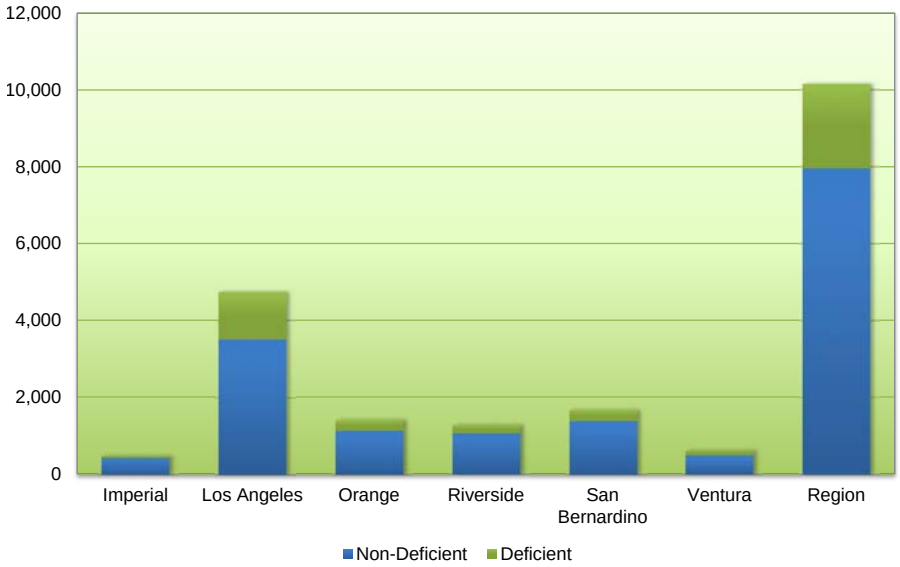


FIGURE 3 Percent Distressed Lane Miles (2007)



Source: 2007 Caltrans Pavement Survey

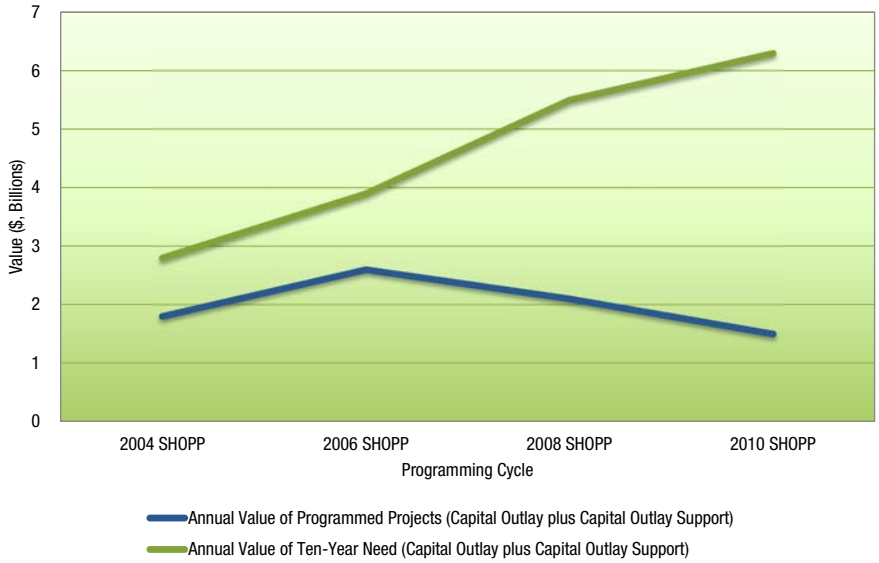
FIGURE 4 State Highway Bridge Conditions in the Region



Source: FHWA National Bridge Inventory (NIB), 4/06/2011 update

This is a result of years of underfunding statewide preservation needs. As seen in **FIGURE 5**, these preservation needs have continued to grow over much of the past decade while funding has declined.

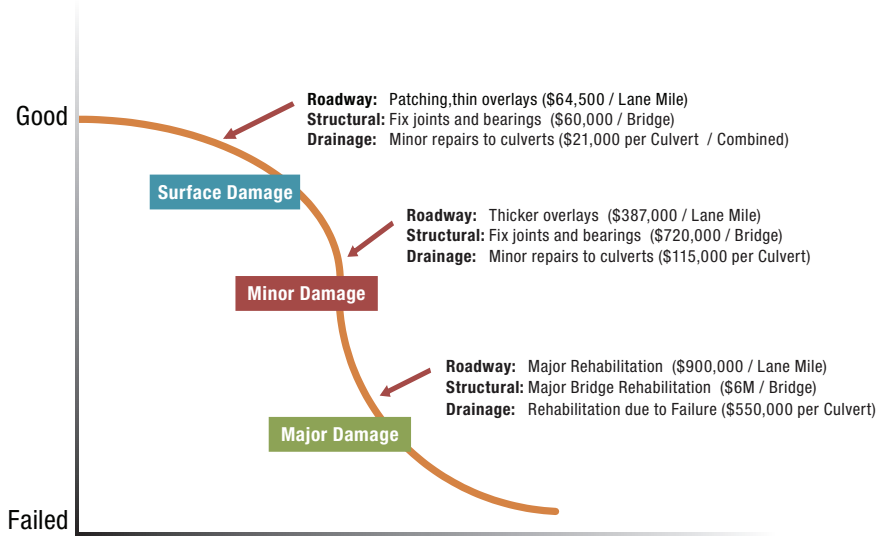
FIGURE 5 Programmed Project Expenditures versus Need



Source: California Transportation Commission 2009 SHOPP Plan

As shown in **FIGURE 6**, deferred maintenance leads to much costlier repairs in the future. While minor repairs to keep roadways in a state of good repair cost between $21,000 and $64,500 per lane mile, the major rehabilitation of a lane mile can cost anywhere from $550,000 to $6 million.

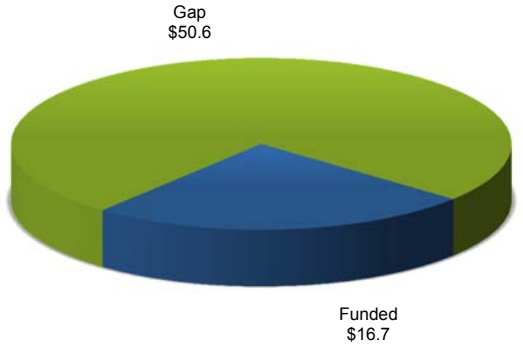
FIGURE 6 Cost Effectiveness of Pavement Treatment



Source: Caltrans 2007 State of the Pavement Report

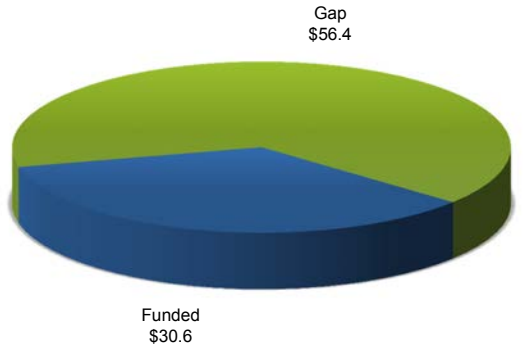
As shown in **FIGURES 7–9**, current commitments only address a quarter of total regional highway operation and protection needs, and no more than a third of total regional local streets and roads preservation needs.

FIGURE 7 Regional State Highway Operations and Protection
Total Needs: $67.3 Billion



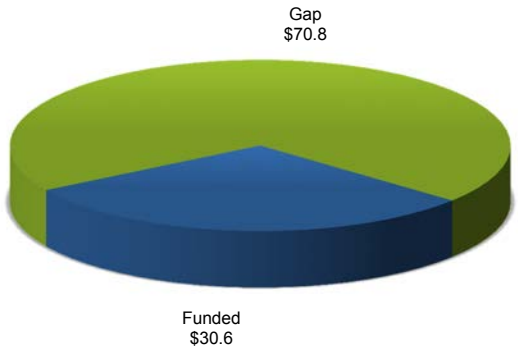
Estimated from the gap between goal-constrained and fiscally-constrained needs in the Caltrans 2011 Ten-Year SHOPP Plan

FIGURE 8 Regional Local Streets and Roads
Total Needs to Maintain Current Conditions: $87.0 Billion



Estimated from 10-year needs or cost-to-maintain estimate

FIGURE 9 Regional Local Streets and Roads
Total Needs to Bring the System to a State of Good Repair: $101.4 Billion



Estimated from 10-year needs or cost-to-maintain estimate

As deferring maintenance will only increase this shortfall over time, preserving the region's assets now is a critical priority of the 2012 RTP. The RTP commits $216.9 billion (including $70 billion of new, reasonably available revenue) to system preservation to help achieve a state of good repair. As more funding becomes available, additional commitments may be made. These additional investments will ensure that over the next 25 years, the region's transportation infrastructure will be in a better condition than it is today. This will also lower user costs in the future, such as vehicle maintenance costs.

SCAG will continue to work with its stakeholders, particularly the CTCs and Caltrans, to prioritize funding for preservation and maintenance.

Corridor System Management Plans

As discussed in the preceding section, the RTP identifies a comprehensive set of strategies that work in concert to optimize the performance of the transportation system. This set of strategies does not focus solely on expanding the system, but also considers how we operate the system; how we coordinate land use planning with transportation planning; how we deal with incidents such as accidents or special events; how we provide information to the traveling public so they can make informed decisions about how, where, and when to travel; and how we maintain the system. All of these strategies are based on a foundation of comprehensive system monitoring so that we can understand how the transportation system is performing and where we need improvement. This approach is based in part on work that Caltrans has done for many years to optimize the performance of the state highway system.

With the passage of Proposition 1B by California voters in November 2006, a program of funding called the Corridor Mobility Improvement Account (CMIA) was created to improve the state highway system. The California Transportation Commission adopted guidelines for the CMIA program that required the development of Corridor System Management Plans (CSMPs) for those projects receiving CMIA funding, to ensure that mobility improvements would be maintained over time. The CSMPs developed in the SCAG region are identified in **TABLE 4** and **EXHIBIT 5**. SCAG contributed funding towards the I-405 CSMP in Los Angeles County, as well as towards the I-210 CSMP undertaken as part of the Governor's Go California initiative.

The intention of the CSMP effort is to continually monitor system performance and identify system improvements that are lower-cost, relatively quick to implement, and less capital-intensive than major corridor widening and expansion projects. In this manner, the CSMPs provide a framework for long-term corridor management, with a focus on operational improvements.

TABLE 4 Corridor System Management Plans in the SCAG Region

County	Route	Corridor Limits
Los Angeles	I-5 North	I-10 to I-210
	I-5 South	I-710 to Orange County Line
	I-405	I-5 to I-110
	I-210	I-5 to SR-57
Orange	SR-22/I-405/I-605	SR-22: I-405 to SR-55 I-405: Los Angeles County Line to I-5 I-605: Los Angeles County Line to I-405
	SR-57	Los Angeles County line to SR-22
	SR-91	I-5 to Riverside County Line
Riverside & San Bernardino	I-10	I-15 to SR-60
	I-215	I-15 in San Bernardino County to I-15 in Riverside County
	SR-91	Orange County Line to I-215/SR-60
Ventura	US-101	Santa Barbara County to Rice Ave/Oxnard

Notes: The I-210 CSMP was developed as part of the Go California initiative, not as part of the CMIA requirements. The US-101 CSMP was a joint effort between Caltrans District 5 in Santa Barbara County and District 7 which includes Los Angeles and Ventura Counties.

The CSMP development efforts began with a comprehensive assessment of corridor performance and the identification of congestion points called bottlenecks. This information was shared and verified with the stakeholders along the corridors. To address the bottlenecks, operational and minor capacity improvement projects were developed with input from stakeholders. These proposed improvements were analyzed using microsimulation models that were created specifically for the corridors. The potential improvements include ramp metering, auxiliary lanes, ramp and interchange improvements, and incident management.

The results from these analyses, including recommended projects and assessment of project costs and benefits, are included in the corridor-level final reports provided at Caltrans' web page: www.dot.ca.gov/hq/tpp/corridor-mobility/ index.html. The CSMP recommendations for new investments (above and beyond any current commitments identified in the FTIP or countywide long range plans) total approximately $840 million and are proposed for inclusion in the 2012 RTP.

In addition to the improvements proposed in the CSMPs, the RTP includes $7.6 billion for Transportation System Management improvements, including extensive advanced ramp metering, enhanced incident management, bottleneck removal to improve flow (e.g. auxiliary lanes), the expansion of the integration of our traffic signal synchronization network, and data collection to monitor system performance. The efficiencies generated by these improvements are expected to increase available freeway capacity by 5 percent.

EXHIBIT 5 Corridor System Management Plans in the SCAG Region

Express/High-Occupancy Toll (HOT) Lane Network

Despite concerted effort to reduce traffic congestion through years of infrastructure investment, the region's system demands continue to exceed available capacity during peak periods. Consistent with the regional emphasis on the mobility pyramid (**FIGURE 1)**, recent planning efforts have focused on enhanced system management including integration of pricing to better utilize existing capacity and to offer users greater travel time reliability and more travel choices. Express Lanes that are appropriately priced to reflect demand can outperform non-priced lanes in terms of throughput, especially during congested periods. Moreover, revenue generated from priced lanes can be used to deliver Express Lanes sooner and to support complementary transit investments.

Based on recent analysis of critical corridors performed for the CSMPs, inter-county trips comprise more than 50 percent—suggesting the value of a regional network of Express Lanes that would seamlessly connect multiple counties. As such, the 2012 RTP includes a regional Express Lane network that would build upon the success of the 91 Express Lanes in Orange County and two demonstration projects in Los Angeles County planned for operation in late 2012.

Additional efforts underway include the extension of the 91 Express Lanes to I-15 in Riverside County along with planned Express Lanes on the I-15. Also, traffic and revenue studies are proceeding for I-10 and I-15 in San Bernardino County.

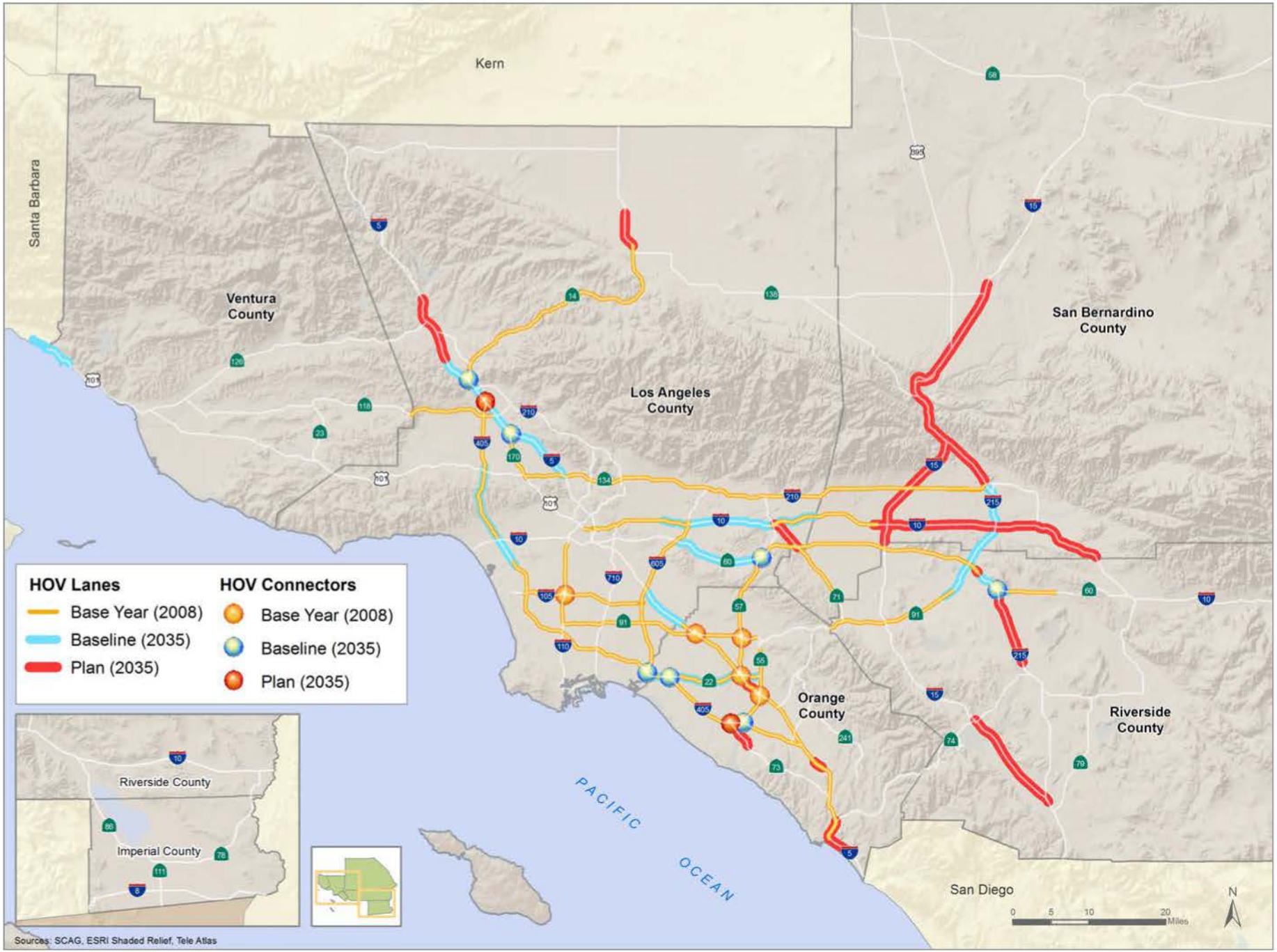
TABLE 5 and **EXHIBIT 6** display the segments in the proposed Express Lane network.

TABLE 5 Express/HOT Lane Network

County	Route	From	To
Los Angeles	I-405	I-5 (North SF Valley)	LA/OC County Line
Los Angeles	I-110	Adams Blvd (s/o I-10)	I-405
Los Angeles	I and SR-110/	Adams Blvd	US-101
Los Angeles	US-101	SR-110	I-10
Los Angeles	I-10	US-101	I-710
Los Angeles	I-10	I-710	I-605
LA, Orange	SR-91	I-110	SR-55
LA, SB	I-10	I-605	I-15
Orange	I-405	LA/OC Line	SR-55
Orange	I-5	SR-73	OC/SD County Line
Orange	SR-73	I-405	MacArthur
Riverside	SR-91	OC/RV County Line	I-15
Riverside	I-15	Riv/SB County Line	SR-74
Riverside	I-15	SR-74	Riv/SD County Line
San Bernardino	I-10	I-15	SR-210
San Bernardino	I-10	SR-210	Ford St
San Bernardino	I-15	SR-395	Sierra Ave
San Bernardino	I-15	Sierra Ave	6th St
San Bernardino	I-15	6th St	Riv/SB County Line

The Express/HOT Lane Network is assumed to be operational by 2035. Implementation plans, including corridor limits, will be refined through the Express Travel Choices Phase II Study.

EXHIBIT 6 Express/HOT Lane Network



Arterials

The region's local streets and roads (**EXHIBIT 7**) account for over 80 percent of the total road network and carry nearly half of all total traffic. They serve different purposes in different parts of the region, often in different parts of the same city. Many streets serve as major thoroughfares or as alternate parallel routes to congested freeways. At the same time, an urban street right-of-way can account for as much as 40 percent of the total land area; streets shape the neighborhoods they pass through and often support different modes of transportation besides the automobile, including bicycles, pedestrians, and transit. **TABLE 6** shows the amounts invested by this RTP in each county.

TABLE 6 Arterial Investments

County	Investment ($, billions)
Imperial	$1.6
Los Angeles	$6.7
Orange	$4.4
Riverside	$6.1
San Bernardino	$2.6
Ventura	$0.7
Regional Total	**$22.1**

Numbers may not sum to total due to rounding.

The RTP contains a host of arterial projects and improvements to achieve different purposes in different areas. In fast-growing suburban and exurban parts of the region, the RTP includes roadway capacity improvements to keep pace with new developments. In all parts of the region, the RTP includes operational and technological improvements to maximize system productivity in a more cost-effective way than simply adding capacity. Such strategic improvements include spot widening, signal prioritization, driveway consolidation and relocation, and grade separations at high-volume intersections. Finally, in a quickly growing number of areas, street improvement projects include new bicycle lanes and other design features such as lighting, landscaping, and modified roadway, parking, and sidewalk widths that work in concert to achieve both functional mobility for multiple modes of transportation, and a great sense of place.

EXHIBIT 7 Base Year 2008 Regionally Significant Arterial System

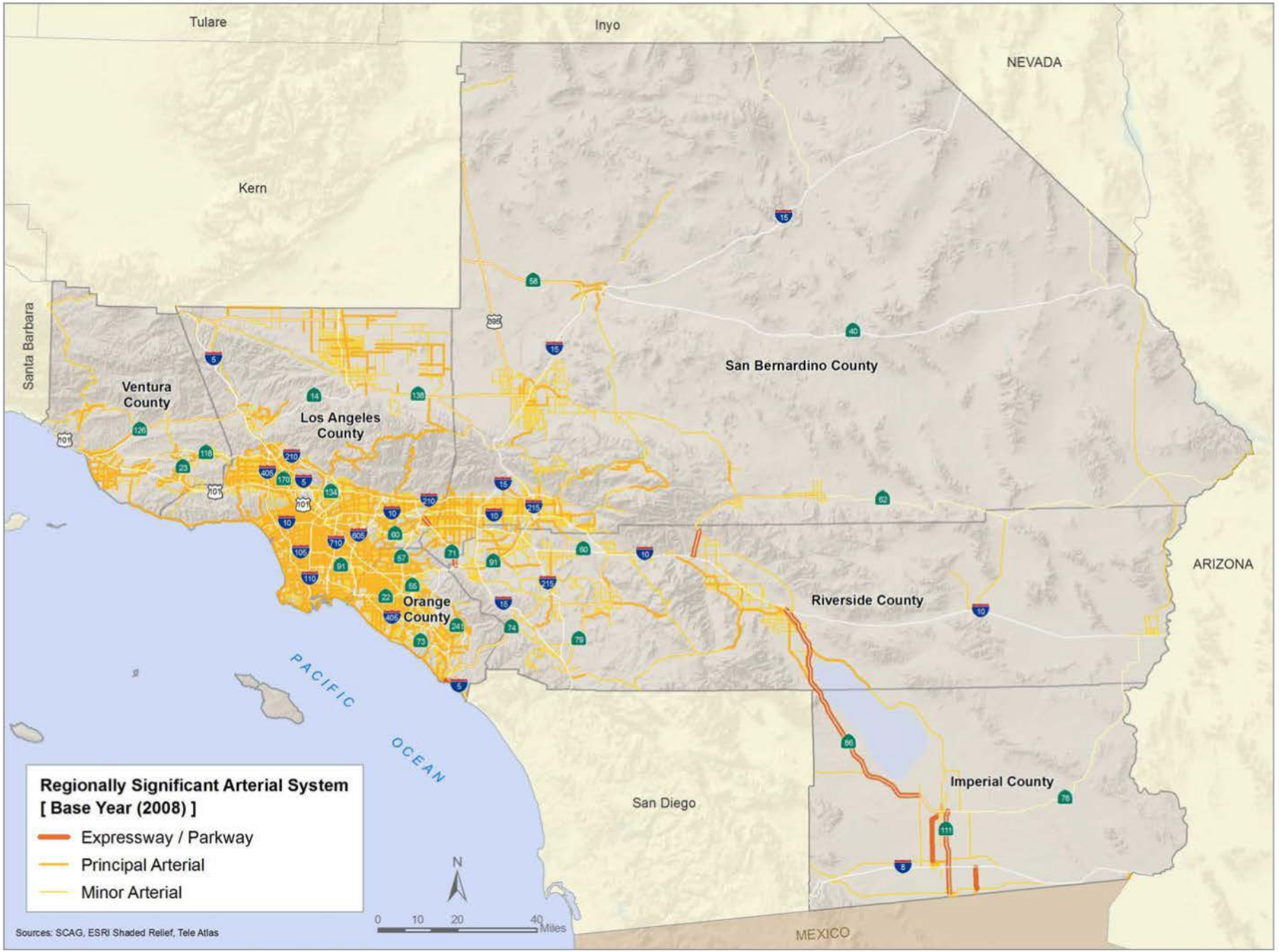


EXHIBIT 8 Baseline 2035 Regionally Significant Arterial System

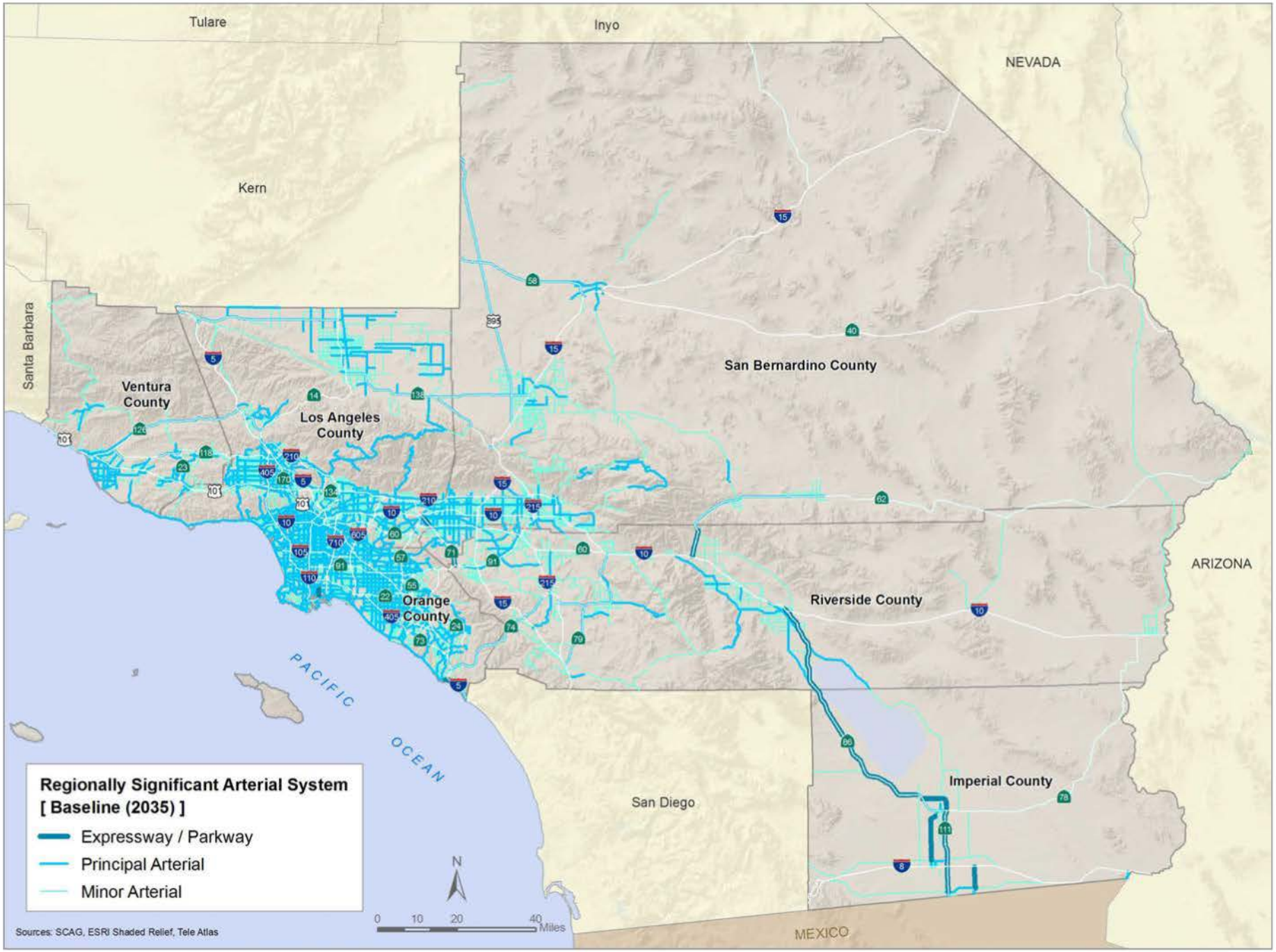
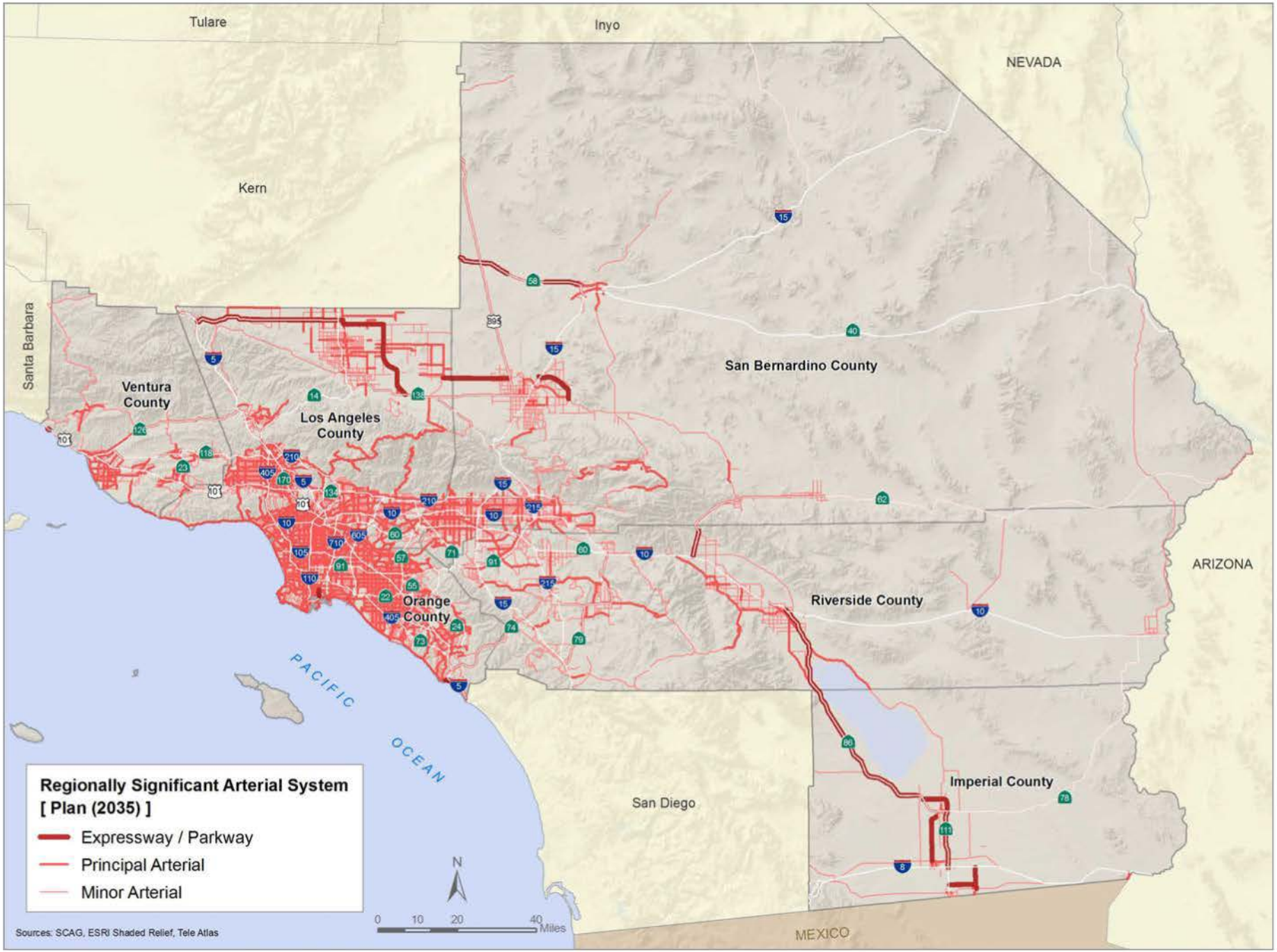


EXHIBIT 9 Plan 2035 Regionally Significant Arterial System



Performance Results

The RTP/SCS performance results for mobility are included in this report. A more complete discussion of all performance results for the RTP/SCS is contained in Chapter 5 of the main document and in the Performance Measures technical appendix.

The mobility performance measure relies on the commonly used measure of delay. Delay is the difference between the actual travel time and the travel time at some pre-defined reference or "optimal" speed for each mode alternative under analysis. It is measured in vehicle-hours of delay (VHD), which can then be used to derive person hours of delay.

The mobility measures used for this outcome are:

- Person Movement Delay by Facility Type (Mixed Flow, HOV, Arterials),
- Person Delay per Capita, and
- Truck delay by facility (Highway, Arterial).

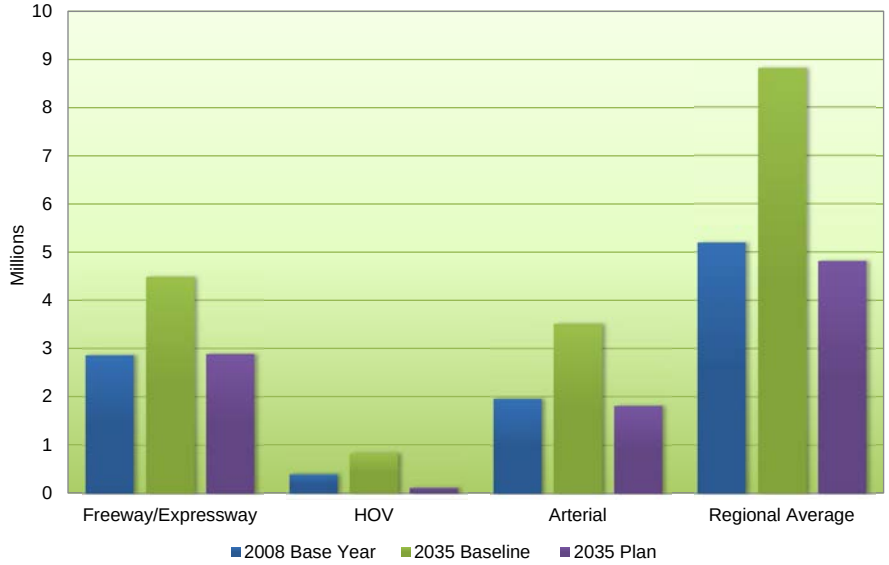
One additional measure for delay that is readily available for on-going monitoring, but that cannot be readily forecast, is non-recurrent delay. Recurrent congestion is the day-to-day congestion that occurs because too many vehicles are on the road at the same time. Non-recurrent congestion is the congestion that is caused by accidents, weather, special events, or other atypical incidents.

Non-recurrent congestion can be mitigated or reduced by improving incident management strategies. Other smart uses of technologies such as traffic signal coordination and the provision of real-time information about unexpected delays allows travelers to make better decisions about available transit or other alternatives.

Person Delay by Facility Type (Mixed Flow Freeways, HOV, Arterials)

For the 2012–2035 RTP/SCS, this measure has been expanded to differentiate between single-occupancy vehicle (SOV) and high occupancy vehicle (HOV) delay. As shown in **FIGURE 10**, person-hours of delay is expected to increase from Base Year to Baseline, but overall the Plan will improve on Baseline conditions by 45 percent, to conditions that are better than what is experienced today.

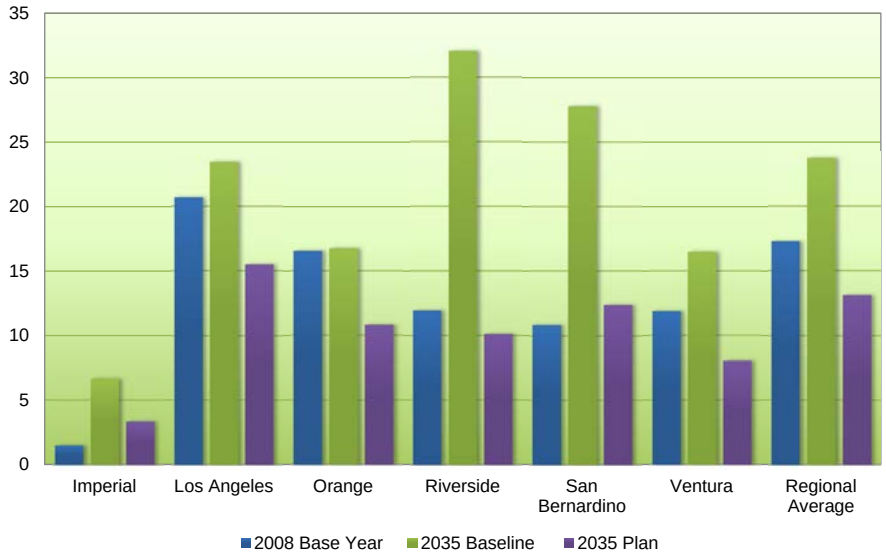
FIGURE 10 Daily Person-Hours of Delay by Facility Type



Person Delay per Capita

FIGURE 11 shows the person-hours of delay per capita for each of the six counties in the region and for the SCAG region as a whole. Normalizing delay by the number of people living in an area provides insight as to how well the region is mitigating traffic congestion in light of increasing population growth. Delay per capita is expected to grow considerably, particularly in the Inland Empire counties of Riverside and San Bernardino, under the Baseline conditions. However, implementation of the Plan is expected to reduce delay substantially, to below 2008 levels. The regional average delay per capita is expected to improve from over 20 minutes under the Baseline, to over 10 minutes under the Plan. Not only does this represent a 45 percent improvement over Baseline, but a 24 percent improvement over Base Year as well.

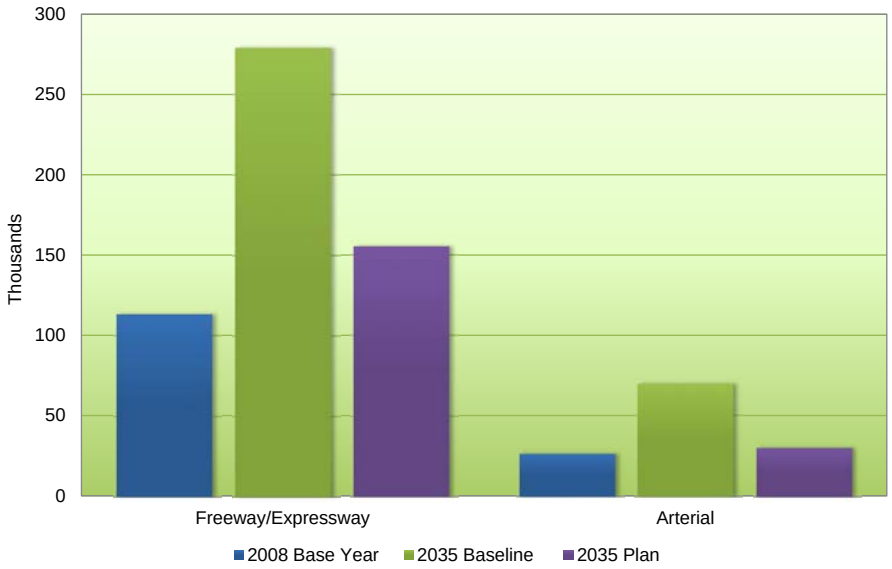
FIGURE 11 Daily Person Delay per Capita by County (Minutes)



Truck Delay by Facility Type (Highway, Arterials)

This measure estimates the average daily truck delay by facility type for freeways and arterials (**FIGURE 12**). The Plan is estimated to reduce truck delay by approximately 40 percent over Baseline on the freeway system, and by approximately 55 percent on the arterial system.

FIGURE 12 Daily Heavy-Duty Truck Hours of Delay



Non-Recurrent Delay

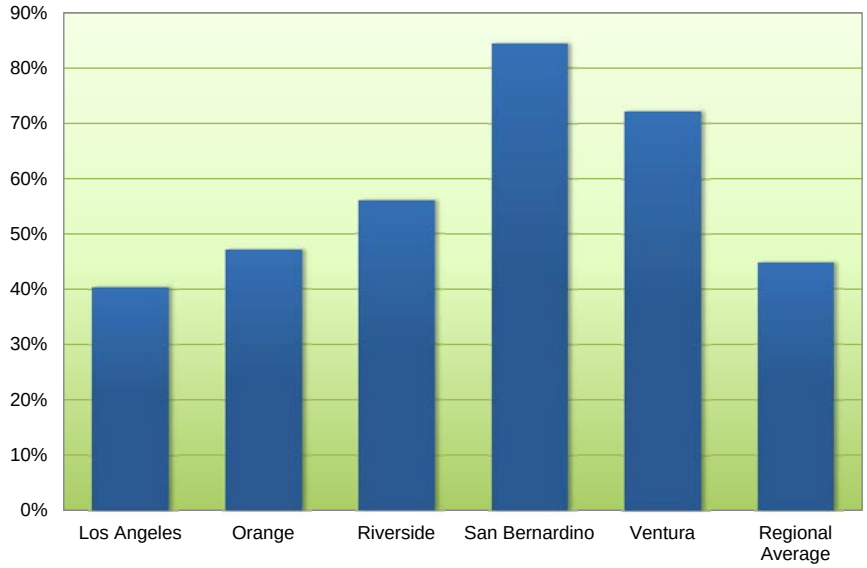
Data from the Caltrans Performance Measurement System (PeMS) was used to assess the level of non-recurrent delay on regional freeways using the "congestion pie" feature of PeMS. This module breaks down congestion into recurrent and non-recurrent congestion, with recurrent congestion being that day-to-day delay that occurs when there are simply too many vehicles on the road at the same time. Non-recurrent congestion is congestion due to other causes such as accidents, special events, or weather.

The PeMS congestion pie module reports two types of recurrent congestion—"Excess Demand" and "Potential Reduction". Excess demand is the congestion attributed to additional vehicles on the road. Potential reduction also accounts for the "too many vehicles" type of congestion, but this congestion can potentially be mitigated by applying optimal operational strategies such as ramp metering.

For the 2012–2035 RTP/SCS, the mobility performance measure is non-recurrent congestion. This type of congestion also has two major components—"Accidents" and "Miscellaneous". Accident-related congestion is estimated by using the Caltrans Traffic Accident Surveillance and Analysis System (TASAS) accident locations and comparing that to congestion levels reported by roadway sensors. If excess congestion beyond normal is reported at a location where TASAS reports that an accident occurred, then that extra congestion is put in the accident-related congestion bucket. If congestion being reported by a sensor is above normal and there was no accident report, then that congestion falls into the miscellaneous bucket.

The most recent PeMS congestion classification data is for the year 2009. **FIGURE 13** shows the percentage of freeway congestion during a typical day (5:00 AM through 8:00 PM) for the year 2009. The data is reported for each county and for the region as a whole. In 2009, the estimated average percentage of congestion that was due to accidents or other incidents was around 45 percent. In San Bernardino County—with less congestion overall and more susceptible to incident-causing congestion—the data suggested that a majority of congestion was non-recurrent. (The actual percentage is likely exaggerated due to the manner in which PeMS handles some data; more research is needed to verify this assessment.) In the more urbanized Los Angeles County, the data reported that 40 percent of countywide congestion was non-recurrent.

FIGURE 13 Percent Non-Recurrent Congestion by County (2009)



The following maps show the projected improvement in speed between the Baseline 2035 and Plan 2035 scenarios on our highway and arterial system in the PM peak. Additional speed maps can be found in the appendix of this document

EXHIBIT 10 Baseline 2035 to Plan 2035 Freeway Speed Changes | PM Peak

EXHIBIT 11 Baseline 2035 vs. Plan 2035 Arterial Speed – PM Peak

Appendix

EXHIBIT A1 Base Year 2008 Number of Freeway Lanes (mixed-flow and toll)

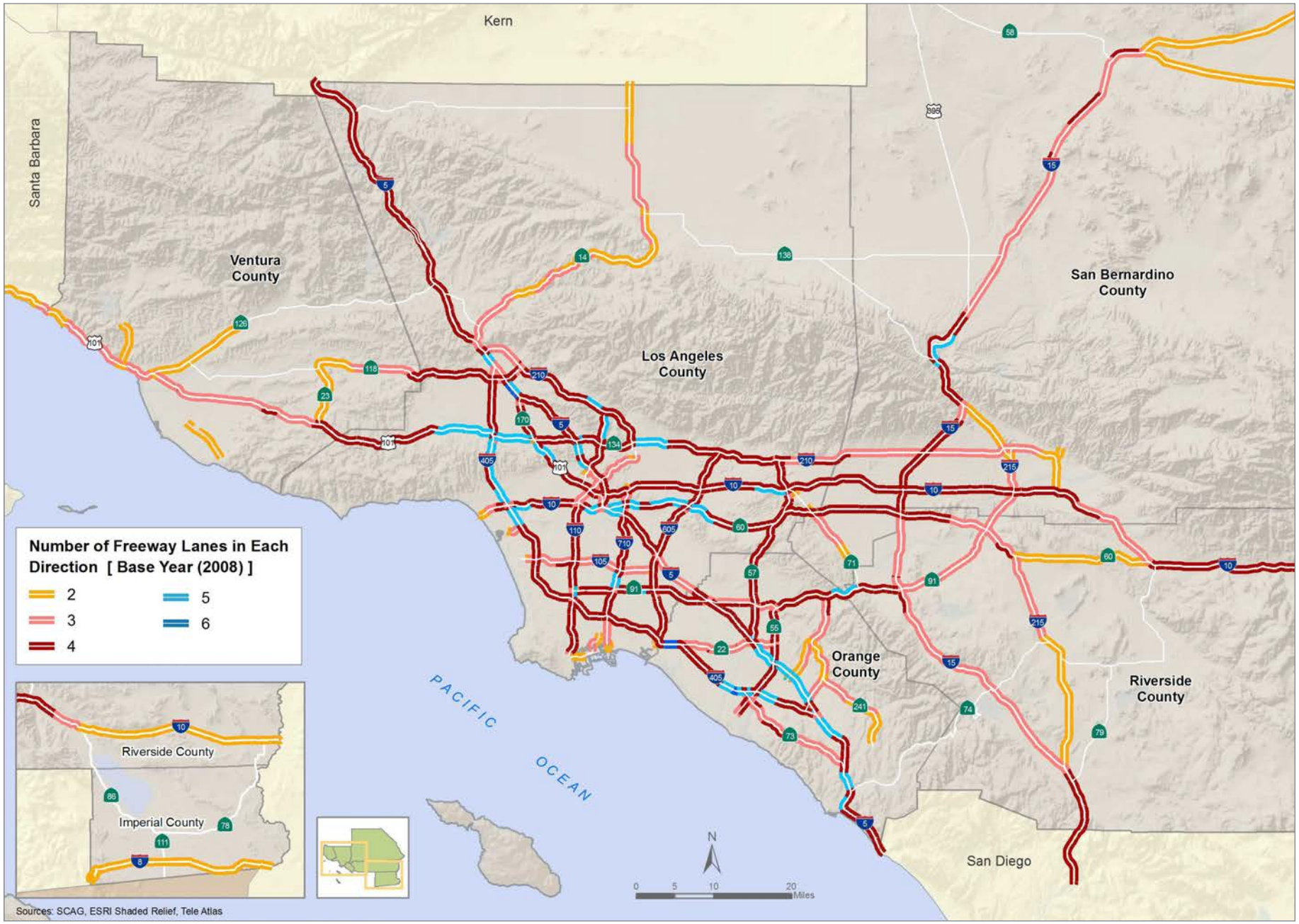


EXHIBIT A2 Baseline 2035 Number of Freeway Lanes (mixed-flow and toll)

EXHIBIT A3 Plan 2035 Number of Freeway Lanes (mixed-flow and toll)

EXHIBIT A4 Base Year 2008 Freeway Speed – AM Peak

EXHIBIT A5 Baseline 2035 Freeway Speed – AM Peak

EXHIBIT A6 Plan 2035 Freeway Speed – AM Peak

EXHIBIT A7 Base Year 2008 to Baseline 2035 Freeway Speed Changes – AM Peak

EXHIBIT A8 Baseline 2035 to Plan 2035 Freeway Speed Changes – AM Peak

EXHIBIT A9 Base Year 2008 Freeway Speed – PM Peak

EXHIBIT A10 Baseline 2035 Freeway Speed – PM Peak

EXHIBIT A11 Plan 2035 Freeway Speed – PM Peak

EXHIBIT A12 Base Year 2008 to Baseline 2035 Freeway Speed Changes – PM Peak

EXHIBIT A13 Baseline 2035 to Plan 2035 Freeway Speed Changes – PM Peak

EXHIBIT A14 Base Year 2008 Arterial Speed – AM Peak

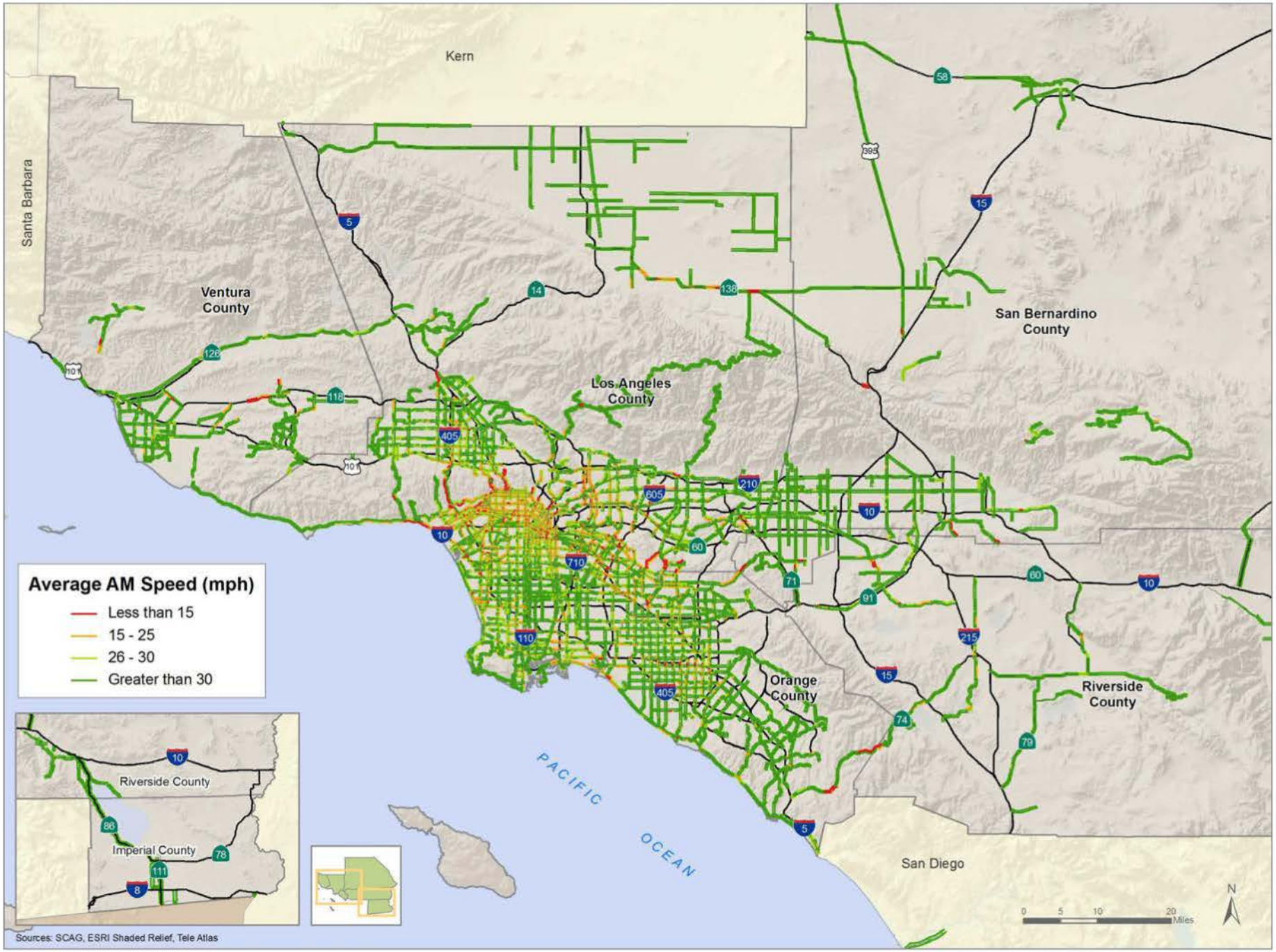


EXHIBIT A15 Baseline 2035 Arterial Speed – AM Peak

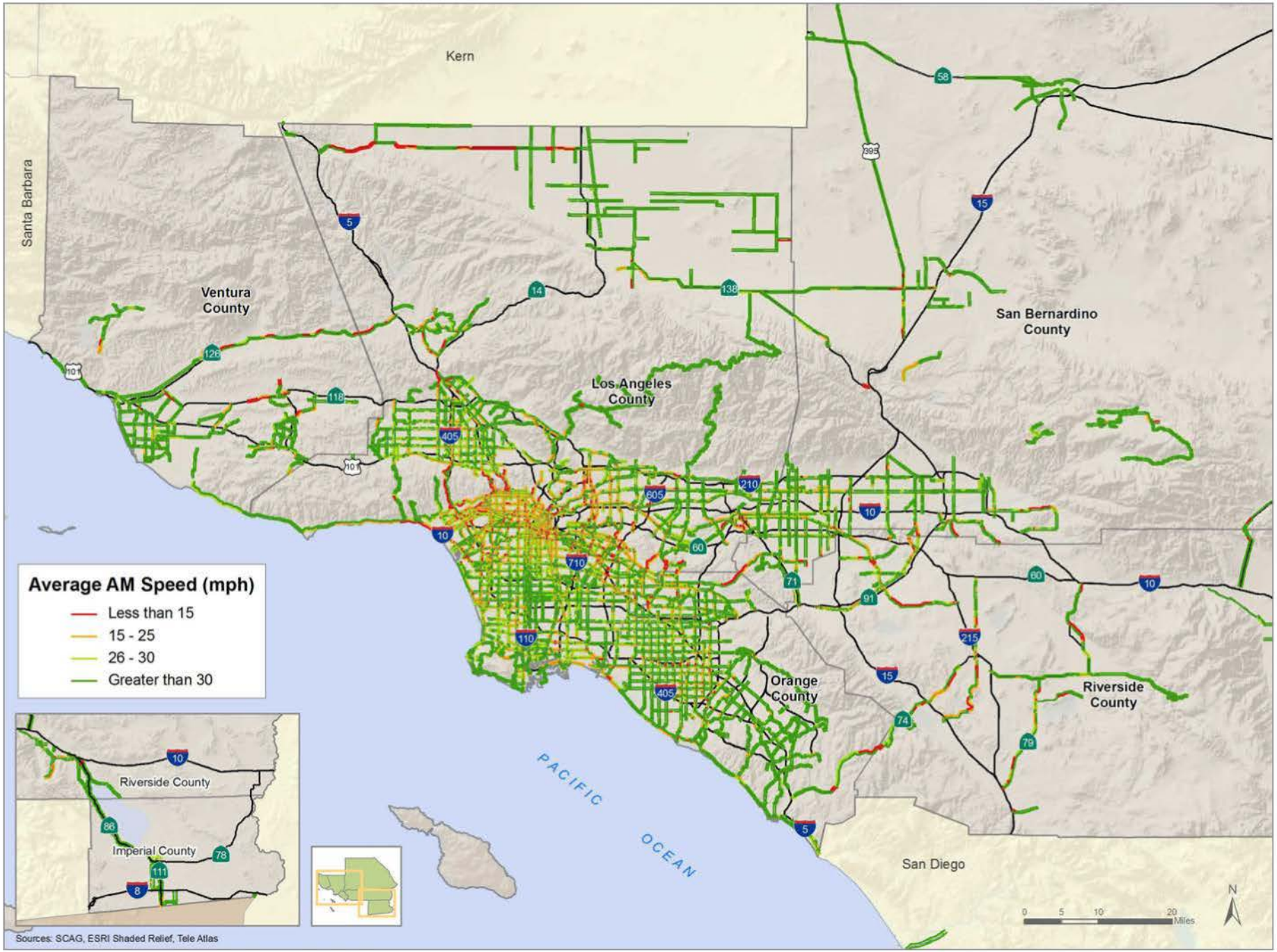


EXHIBIT A16 Plan 2035 Arterial Speed – AM Peak

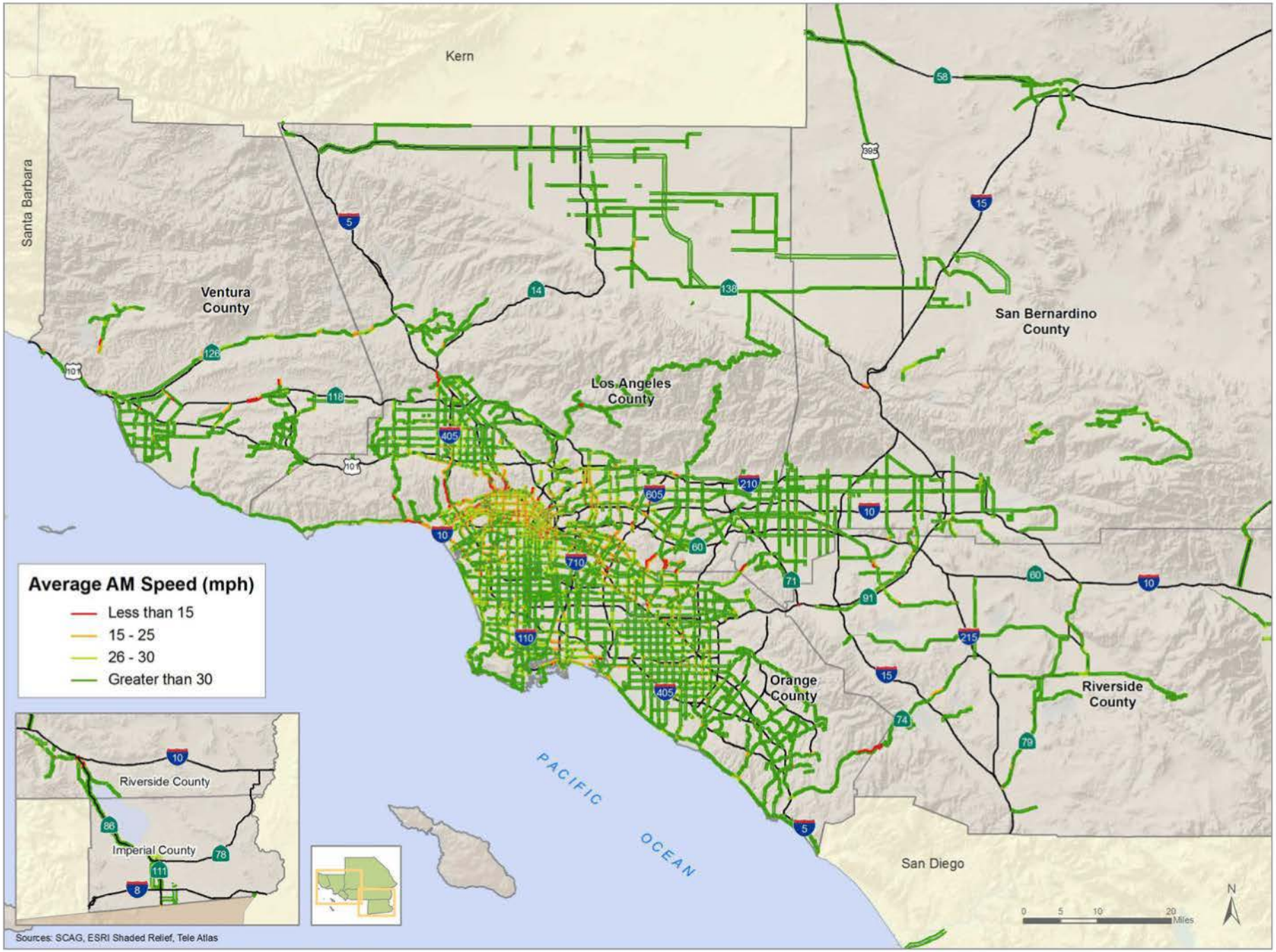


EXHIBIT A17 Base Year 2008 Arterial Speed – PM Peak

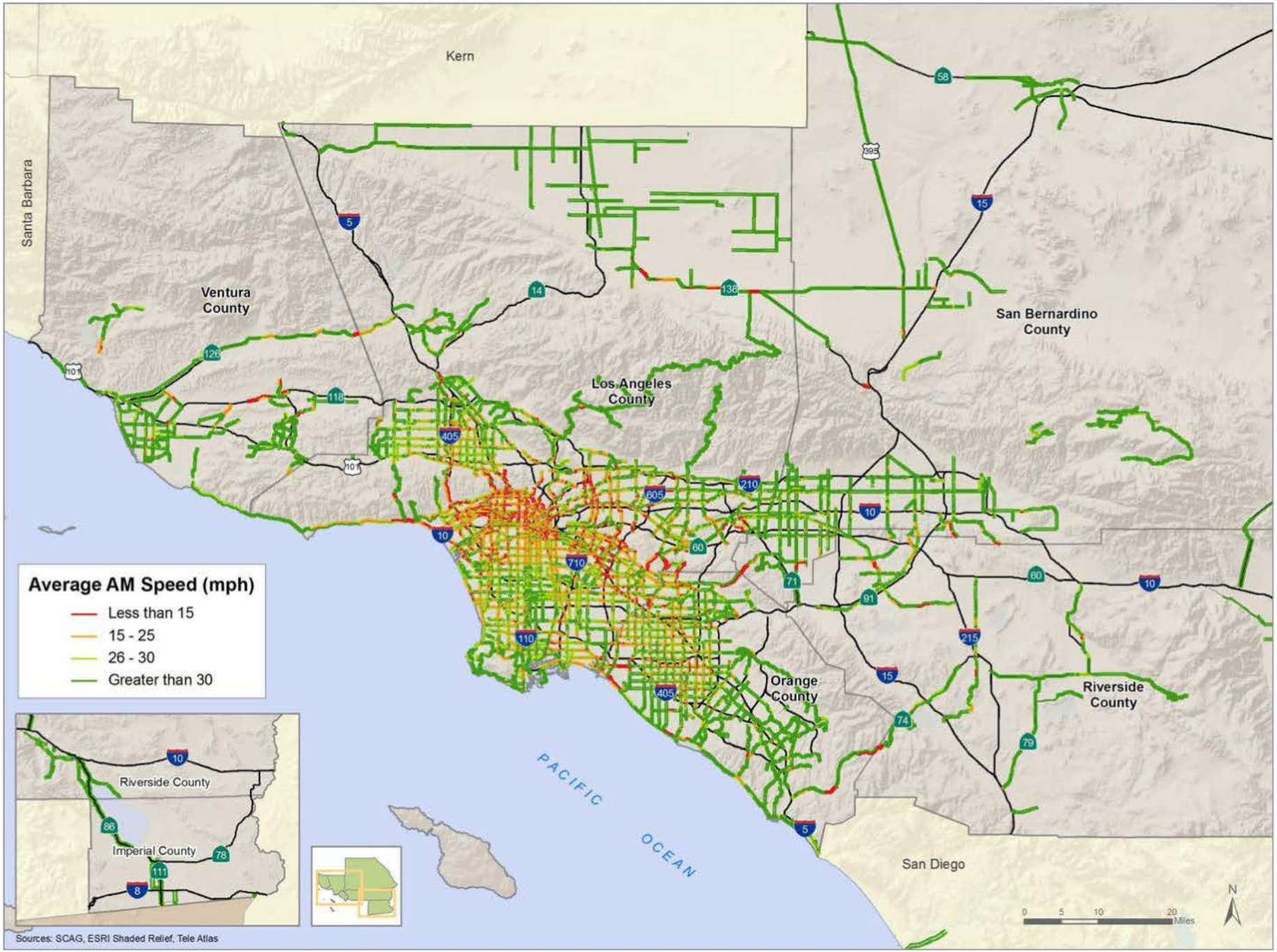


EXHIBIT A18 Baseline 2035 Arterial Speed – PM Peak

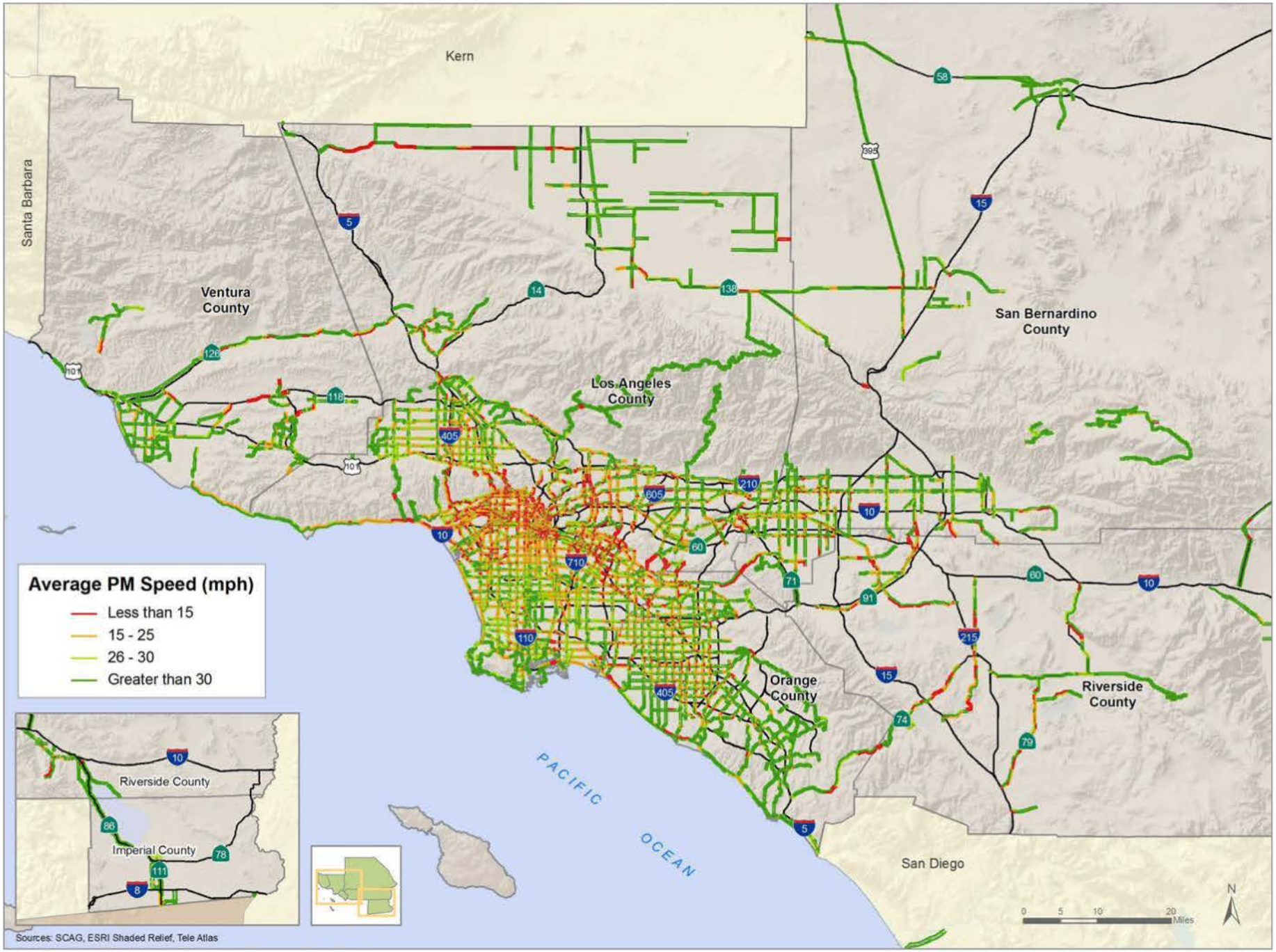


EXHIBIT A19 Plan 2035 Arterial Speed – PM Peak

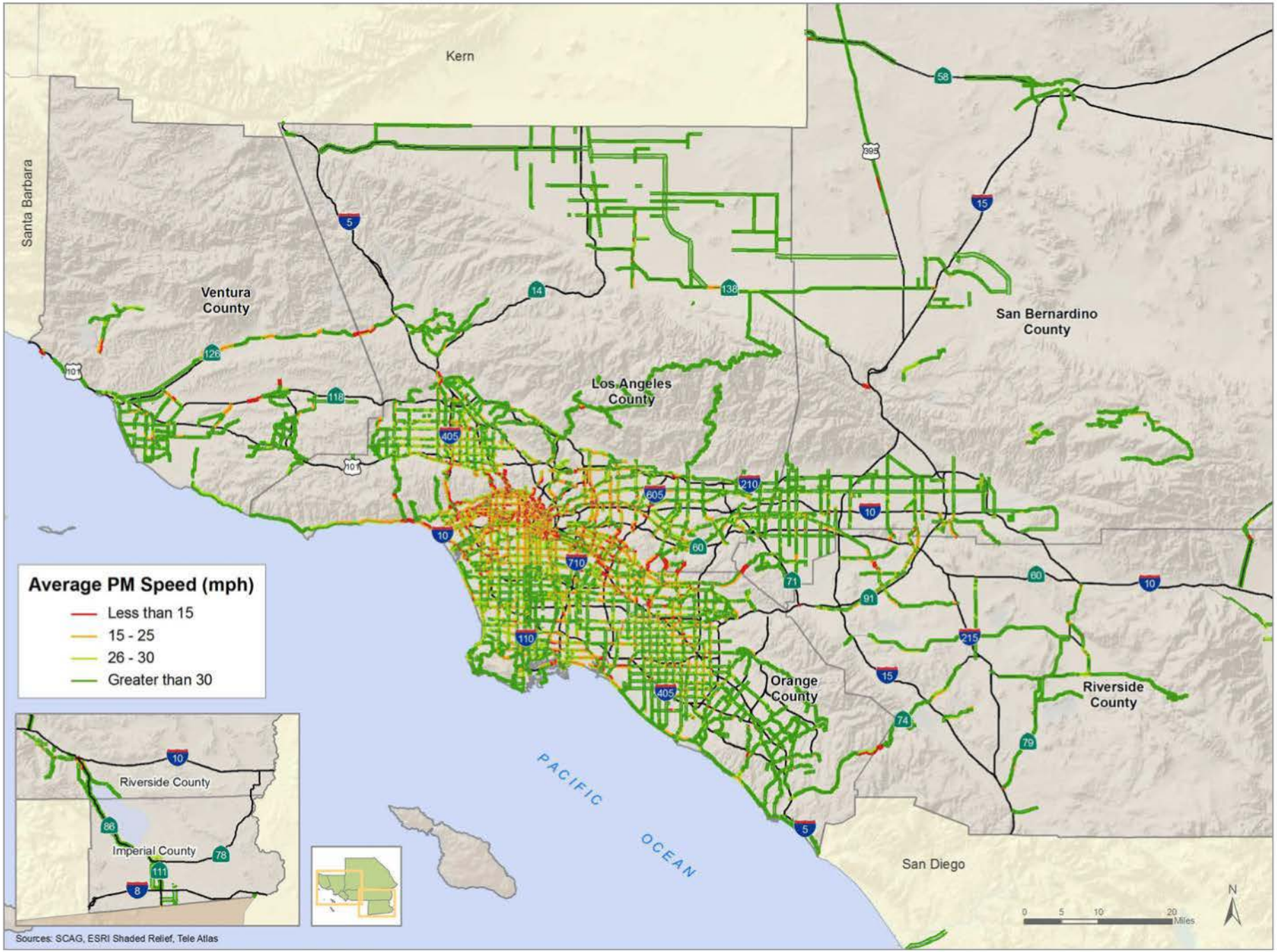


EXHIBIT A20 Baseline 2035 to Plan 2035 Arterial Speed Changes

Network Statistics

TABLE A1 Centerline Miles Summary

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	1,743	1,757	1,761
Los Angeles	7,821	7,889	8,024
Orange	2,123	2,163	2,217
Riverside	3,423	3,496	3,758
San Bernardino	5,550	5,585	5,934
Ventura	1,032	1,050	1,059
Region	**21,693**	**21,939**	**22,753**

Numbers may not sum to total due to rounding.

TABLE A2 Lane Miles Summary (PM Peak Network)

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	3,912	3,966	4,071
Los Angeles	26,716	27,026	27,953
Orange	8,777	9,162	10,126
Riverside	9,845	10,171	12,537
San Bernardino	14,696	14,992	17,768
Ventura	3,039	3,116	3,202
Region	**66,986**	**68,433**	**75,657**

Numbers may not sum to total due to rounding.

TABLE A3 Base Year 2008 Network Statistics

County	Centerline Miles	Lane Miles (PM)
Freeway (Mixed-Flow)		
Imperial	95	379
Los Angeles	637	4,582
Orange	167	1,290
Riverside	308	1,698
San Bernardino	471	2,470
Ventura	94	503
Subtotal	*1,772*	*10,922*
Toll		
Imperial	0	0
Los Angeles	0	0
Orange	61	322
Riverside	0	1
San Bernardino	0	0
Ventura	0	0
Subtotal	*61*	*322*
Major Arterial		
Imperial	111	400
Los Angeles	2,268	8,775
Orange	657	3,150
Riverside	354	1,167
San Bernardino	608	1,824
Ventura	264	886
Subtotal	*4,262*	*16,203*
Minor Arterial		
Imperial	333	669
Los Angeles	2,968	9,075
Orange	902	3,152
Riverside	1,120	3,094
San Bernardino	1,614	4,266
Ventura	360	966
Subtotal	*7,297*	*21,222*
Collector		
Imperial	1,205	2,464
Los Angeles	1,720	3,816
Orange	217	621
Riverside	1,604	3,809
San Bernardino	2,809	6,041
Ventura	314	684
Subtotal	*7,870*	*17,434*
Freeway (HOV)		
Imperial	0	0
Los Angeles	227	468
Orange	119	243
Riverside	37	77
San Bernardino	48	95
Ventura	0	0
Subtotal	*431*	*883*
Total All Facilities		
Imperial	1,743	3,912
Los Angeles	7,821	26,716
Orange	2,123	8,777
Riverside	3,423	9,845
San Bernardino	5,550	14,696
Ventura	1,032	3,039
Total	**21,693**	**66,986**

Numbers may not sum to total due to rounding.

TABLE A4 Baseline 2035 Network Statistics

County	Centerline Miles	Lane Miles (PM)
Freeway (Mixed-Flow)		
Imperial	95	380
Los Angeles	638	4,611
Orange	167	1,326
Riverside	310	1,726
San Bernardino	472	2,505
Ventura	94	528
Subtotal	*1,776*	*11,077*
Toll		
Imperial	0	0
Los Angeles	0	0
Orange	76	550
Riverside	0	1
San Bernardino	0	0
Ventura	0	0
Subtotal	*76*	*551*
Major Arterial		
Imperial	123	451
Los Angeles	2,271	8,870
Orange	672	3,224
Riverside	355	1,204
San Bernardino	611	1,893
Ventura	265	892
Subtotal	*4,296*	*16,534*
Minor Arterial		
Imperial	333	669
Los Angeles	2,969	9,118
Orange	905	3,174
Riverside	1,137	3,200
San Bernardino	1,620	4,372
Ventura	369	993
Subtotal	*7,332*	*21,526*
Collector		
Imperial	1,205	2,465
Los Angeles	1,724	3,840
Orange	222	633
Riverside	1,645	3,940
San Bernardino	2,825	6,106
Ventura	318	695
Subtotal	*7,939*	*17,679*
Freeway (HOV)		
Imperial	0	0
Los Angeles	288	588
Orange	121	255
Riverside	49	102
San Bernardino	57	115
Ventura	4	8
Subtotal	*520*	*1,067*
Total All Facilities		
Imperial	1,757	3,966
Los Angeles	7,889	27,026
Orange	2,163	9,162
Riverside	3,496	10,171
San Bernardino	5,585	14,992
Ventura	1,050	3,116
Total	**21,939**	**68,433**

Numbers may not sum to total due to rounding.

TABLE A5 Plan 2035 Network Statistics

County	Centerline Miles	Lane Miles (PM)
Freeway (Mixed-Flow)		
Imperial	102	418
Los Angeles	639	4,682
Orange	167	1,437
Riverside	314	1,964
San Bernardino	504	2,741
Ventura	95	554
Subtotal	*1,820*	*11,795*
Toll (incl. HOT & Truck)		
Imperial	0	0
Los Angeles	191	671
Orange	126	705
Riverside	72	236
San Bernardino	78	243
Ventura	0	0
Subtotal	*466*	*1,854*
Major Arterial		
Imperial	121	460
Los Angeles	2,327	9,250
Orange	682	3,549
Riverside	429	1,606
San Bernardino	625	2,445
Ventura	271	927
Subtotal	*4,455*	*18,236*
Minor Arterial		
Imperial	333	728
Los Angeles	2,969	9,158
Orange	925	3,544
Riverside	1,186	4,012
San Bernardino	1,690	5,247
Ventura	371	1,019
Subtotal	*7,473*	*23,708*
Collector		
Imperial	1,205	2,465
Los Angeles	1,694	3,778
Orange	229	701
Riverside	1,706	4,617
San Bernardino	2,954	6,926
Ventura	318	695
Subtotal	*8,106*	*19,182*
Freeway (HOV)		
Imperial	0	0
Los Angeles	204	413
Orange	89	191
Riverside	52	103
San Bernardino	83	166
Ventura	4	8
Subtotal	*432*	*881*
Total All Facilities		
Imperial	1,761	4,071
Los Angeles	8,024	27,953
Orange	2,217	10,126
Riverside	3,758	12,537
San Bernardino	5,934	17,768
Ventura	1,050	3,202
Total	**22,753**	**75,657**

Numbers may not sum to total due to rounding.

Trip Statistics

TABLE A6 Total Person Trips By County

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	466,000	888,000	860,000
Los Angeles	34,224,000	38,429,000	37,406,000
Orange	11,341,000	12,220,000	12,003,000
Riverside	6,707,000	11,166,000	10,527,000
San Bernardino	6,578,000	9,089,000	8,917,000
Ventura	2,844,000	3,294,000	3,192,000
Region	**62,159,000**	**75,086,000**	**72,906,000**

Numbers may not sum to total due to rounding.

TABLE A7 Average Vehicle Occupancy for Home Based Work Trips

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	1.09	1.09	1.10
Los Angeles	1.08	1.10	1.09
Orange	1.08	1.09	1.09
Riverside	1.09	1.10	1.10
San Bernardino	1.09	1.10	1.10
Ventura	1.07	1.08	1.08
Region	**1.08**	**1.10**	**1.09**

TABLE A8 Average Vehicle Occupancy for All Trips

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	1.40	1.38	1.40
Los Angeles	1.42	1.45	1.46
Orange	1.41	1.43	1.45
Riverside	1.47	1.44	1.47
San Bernardino	1.46	1.45	1.48
Ventura	1.41	1.42	1.43
Region	**1.43**	**1.44**	**1.46**

TABLE A9 Median Home Based Work Trip Length (miles)

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	4.60	3.56	3.95
Los Angeles	9.58	9.78	9.57
Orange	8.63	8.55	8.67
Riverside	11.50	10.20	10.02
San Bernardino	10.35	9.40	10.34
Ventura	9.51	9.31	8.85
Region	**9.51**	**9.43**	**9.42**

TABLE A10 Median Non-Work Trip Length (miles)

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	1.54	1.55	1.50
Los Angeles	3.11	3.02	2.97
Orange	3.31	3.23	3.31
Riverside	2.96	2.62	2.70
San Bernardino	3.04	2.85	3.14
Ventura	2.32	2.30	2.17
Region	**3.05**	**2.88**	**2.92**

Mobility Statistics

TABLE A11 Average Daily Delay Per Capita (minutes)

County	Base Year 2008	Baseline 2035	Plan 2035
Imperial	1.5	6.7	3.3
Los Angeles	20.7	23.5	15.5
Orange	16.6	16.8	10.8
Riverside	12.0	32.0	10.2
San Bernardino	10.9	27.8	12.4
Ventura	11.9	16.5	8.1
Region	**17.3**	**23.8**	**13.1**

TABLE A12 Base Year 2008 Daily VMT, VHT, Delay, and Speed by County and Time Period

	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (MPH)		Total (Auto + Truck)			
County	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Imperial	828	126	16	2	*	*	50.3	61.7	955	19	*	51.5
Los Angeles	45,064	1,862	1,629	59	577	23	27.7	31.5	46,926	1,688	599	27.8
Orange	15,674	518	498	15	150	5	31.5	34.7	16,192	513	155	31.6
Riverside	10,725	834	301	17	83	4	35.6	48.1	11,559	318	87	36.3
San Bernardino	11,183	1,101	299	24	73	6	37.4	46.5	12,284	323	79	38.1
Ventura	4,037	149	116	4	30	1	34.7	40.5	4,186	120	31	34.9
Region Total	**87,511**	**4,590**	**2,860**	**121**	**912**	**39**	**30.6**	**38.0**	**92,101**	**2,981**	**951**	**30.9**
PM Peak												
Imperial	1,295	143	26	2	1	*	49.7	61.8	1,437	28	1	50.7
Los Angeles	72,987	2,211	3,224	83	1,464	39	22.6	26.6	75,198	3,307	1,503	22.7
Orange	25,053	580	929	19	358	8	27.0	30.5	25,633	948	366	27.0
Riverside	16,939	953	513	21	163	6	33.0	45.7	17,892	534	169	33.5
San Bernardino	17,601	1,263	506	29	143	9	34.8	44.0	18,864	535	152	35.3
Ventura	6,455	170	215	5	75	2	30.0	35.0	6,625	220	77	30.1
Region Total	**140,330**	**5,320**	**5,413**	**159**	**2,203**	**63**	**25.9**	**33.5**	**145,650**	**5,572**	**2,267**	**26.1**
Daily												
Imperial	4,648	828	92	13	3	*	50.4	62.1	5,476	105	3	51.9
Los Angeles	213,447	12,189	7,310	315	2,294	85	29.2	38.8	225,636	7,624	2,379	29.6
Orange	73,925	3,400	2,222	81	568	18	33.3	42.0	77,325	2,303	586	33.6
Riverside	51,455	5,721	1,326	104	274	15	38.8	55.0	57,176	1,430	289	40.0
San Bernardino	53,488	7,108	1,319	130	231	19	40.6	54.6	60,596	1,449	250	41.8
Ventura	18,679	954	517	21	111	3	36.1	45.1	19,633	538	114	36.5
Region Total	**415,642**	**30,201**	**12,786**	**664**	**3,481**	**140**	**32.5**	**45.5**	**445,843**	**13,450**	**3,621**	**33.1**

* Value is less than 1,000.
Numbers may not sum to total due to rounding.

TABLE A13 Base Year 2008 Daily VMT, VHT, Delay, and Speed by Facility Type and Time Period

Facility Type	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (MPH)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Freeway (MF) & Toll	39,828	3,427	1,131	81	548	32	35.2	42.5	43,255	1,211	580	35.7
Freeway (HOV)	3,361	0	92	0	44	0	36.4	N/A	3,361	92	44	36.4
Arterial	44,323	1,163	1,637	40	320	7	27.1	28.9	45,486	1,677	327	27.1
Region Total	**87,511**	**4,590**	**2,860**	**121**	**912**	**39**	**30.6**	**38.0**	**92,101**	**2,981**	**951**	**30.9**
PM Peak												
Freeway (MF) & Toll	58,982	3,945	2,023	106	1,160	50	29.2	37.2	62,927	2,129	1,210	29.6
Freeway (HOV)	5,962	0	212	0	127	0	28.1	N/A	5,962	212	127	28.1
Arterial	75,386	1,375	3,178	53	916	14	23.7	25.9	76,761	3,231	930	23.8
Region Total	**140,330**	**5,320**	**5,413**	**159**	**2,203**	**63**	**25.9**	**33.5**	**145,650**	**5,572**	**2,267**	**26.1**
Daily												
Freeway (MF) & Toll	193,075	23,702	4,758	453	1,935	113	40.6	52.4	216,777	5,211	2,048	41.6
Freeway (HOV)	12,050	0	347	0	174	0	34.8	N/A	12,050	347	174	34.8
Arterial	210,518	6,499	7,681	212	1,373	26	27.4	30.7	217,016	7,893	1,399	27.5
Region Total	**415,642**	**30,201**	**12,786**	**664**	**3,481**	**140**	**32.5**	**45.5**	**445,843**	**13,450**	**3,621**	**33.1**

MF = mixed-flow or general purpose lanes, HOV = high-occupancy vehicle lanes
Numbers may not sum to total due to rounding.

TABLE A14 Baseline 2035 Daily VMT, VHT, Delay, and Speed by County and Time Period

County	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (MPH)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Imperial	1,385	350	31	6	4	*	44.5	61.3	1,735	37	4	47.1
Los Angeles	49,125	3,045	1,932	100	783	42	25.4	30.4	52,170	2,032	825	25.7
Orange	16,661	772	539	21	171	7	30.9	36.8	17,434	560	178	31.1
Riverside	16,400	1,625	709	48	360	22	23.1	33.7	18,025	757	383	23.8
San Bernardino	15,244	2,305	565	67	249	31	27.0	34.3	17,549	633	279	27.7
Ventura	4,647	228	151	6	51	2	30.8	37.7	4,875	157	53	31.1
Region Total	**103,461**	**8,326**	**3,928**	**248**	**1,617**	**104**	**26.3**	**33.5**	**111,787**	**4,176**	**1,721**	**26.8**
PM Peak												
Imperial	2,164	391	51	6	7	*	42.4	61.0	2,556	57	8	44.5
Los Angeles	78,971	3,399	3,682	132	1,776	67	21.4	25.7	82,371	3,814	1,843	21.6
Orange	26,617	860	988	26	385	10	26.9	33.5	27,478	1,014	396	27.1
Riverside	25,582	1,831	1,229	60	673	31	20.8	30.6	27,413	1,288	704	21.3
San Bernardino	24,035	2,633	972	84	461	43	24.7	31.2	26,668	1,056	504	25.3
Ventura	7,382	260	278	8	116	3	26.5	32.7	7,642	286	119	26.7
Region Total	**164,753**	**9,374**	**7,200**	**316**	**3,420**	**153**	**22.9**	**29.6**	**174,127**	**7,516**	**3,573**	**23.2**
Daily												
Imperial	7,638	2,210	172	36	21	1	44.5	62.2	9,848	207	23	47.5
Los Angeles	234,015	18,924	8,390	497	2,891	151	27.9	38.1	252,939	8,887	3,041	28.5
Orange	78,908	5,127	2,389	116	632	27	33.0	44.1	84,035	2,505	659	33.5
Riverside	78,459	10,946	2,827	244	1,156	73	27.8	44.9	89,405	3,071	1,228	29.1
San Bernardino	74,518	14,760	2,308	319	771	91	32.3	46.2	89,278	2,628	862	34.0
Ventura	21,419	1,450	647	33	178	6	33.1	43.9	22,869	680	184	33.6
Region Total	**494,958**	**53,416**	**16,733**	**1,245**	**5,649**	**349**	**29.6**	**42.9**	**548,374**	**17,978**	**5,997**	**30.5**

* Value is less than 1,000.
Numbers may not sum to total due to rounding.

TABLE A15 Baseline 2035 Daily VMT, VHT, Delay, and Speed by Facility Type and Time Period

Facility Type	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (MPH)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Freeway (MF) & Toll	43,445	6,340	1,507	174	874	84	28.8	36.4	49,786	1,681	958	29.6
Freeway (HOV)	5,209	0	186	0	111	0	28.0	N/A	5,209	186	111	28.0
Arterial	54,807	1,985	2,235	74	632	20	24.5	26.8	56,792	2,309	652	24.6
Region Total	**103,461**	**8,326**	**3,928**	**248**	**1,617**	**104**	**26.3**	**33.5**	**111,787**	**4,176**	**1,721**	**26.8**
PM Peak												
Freeway (MF) & Toll	64,707	7,069	2,627	220	1,684	119	24.6	32.1	71,776	2,847	1,804	25.2
Freeway (HOV)	8,302	0	363	0	243	0	22.9	N/A	8,302	363	243	22.9
Arterial	91,744	2,305	4,209	96	1,492	34	21.8	23.9	94,049	4,306	1,526	21.8
Region Total	**164,753**	**9,374**	**7,200**	**316**	**3,420**	**153**	**22.9**	**29.6**	**174,127**	**7,516**	**3,573**	**23.2**
Daily												
Freeway (MF) & Toll	216,129	42,904	6,026	889	2,880	279	35.9	48.3	259,033	6,915	3,159	37.5
Freeway (HOV)	19,084	0	638	0	364	0	29.9	N/A	19,084	638	364	29.9
Arterial	259,746	10,512	10,069	356	2,405	69	25.8	29.5	270,257	10,424	2,475	25.9
Region Total	**494,958**	**53,416**	**16,733**	**1,245**	**5,649**	**349**	**29.6**	**42.9**	**548,374**	**17,978**	**5,997**	**30.5**

MF = mixed-flow or general purpose lanes, HOV = high-occupancy vehicle lanes
Numbers may not sum to total due to rounding.

TABLE A16 Plan 2035 VMT, VHT, Delay, and Speed by County and Time Period

County	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (MPH)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Imperial	1,355	345	29	6	1	*	47.4	60.5	1,700	34	2	49.6
Los Angeles	45,727	2,960	1,568	80	519	25	29.2	36.8	48,686	1,648	544	29.5
Orange	15,858	764	463	19	118	6	34.2	39.2	16,622	483	124	34.4
Riverside	15,509	1,737	420	37	103	10	36.9	46.4	17,247	458	113	37.7
San Bernardino	14,830	2,197	419	47	119	13	35.4	46.4	17,028	466	133	36.5
Ventura	4,077	231	108	5	22	1	37.6	43.6	4,308	114	23	37.9
Region Total	**97,357**	**8,234**	**3,007**	**196**	**882**	**56**	**32.4**	**42.1**	**105,591**	**3,203**	**938**	**33.0**
PM Peak												
Imperial	2,126	387	46	6	3	*	46.3	60.5	2,513	52	3	48.0
Los Angeles	74,056	3,337	2,946	98	1,197	36	25.1	34.1	77,393	3,044	1,232	25.4
Orange	25,505	834	813	23	245	8	31.4	36.2	26,339	836	254	31.5
Riverside	25,018	1,962	729	44	208	13	34.3	44.6	26,980	773	221	34.9
San Bernardino	23,681	2,538	696	58	209	19	34.0	43.7	26,218	754	228	34.8
Ventura	6,539	292	197	7	55	2	33.2	39.4	6,832	204	57	33.5
Region Total	**156,925**	**9,350**	**5,427**	**237**	**1,916**	**78**	**28.9**	**39.5**	**166,275**	**5,664**	**1,995**	**29.4**
Daily												
Imperial	7,534	2,191	160	36	10	1	47.0	60.9	9,725	196	11	49.6
Los Angeles	216,289	18,560	6,962	425	1,948	91	31.1	43.7	234,849	7,387	2,039	31.8
Orange	74,856	4,990	2,058	107	410	21	36.4	46.6	79,846	2,165	431	36.9
Riverside	74,851	11,474	1,912	212	359	35	39.1	54.1	86,325	2,124	394	40.6
San Bernardino	72,778	14,415	1,833	264	360	45	39.7	54.6	87,193	2,097	405	41.6
Ventura	19,089	1,498	499	32	86	4	38.2	46.9	20,588	531	90	38.7
Region Total	**465,398**	**53,127**	**13,424**	**1,076**	**3,173**	**197**	**34.7**	**49.4**	**518,525**	**14,500**	**3,370**	**35.8**

* Value is less than 1,000.
Numbers may not sum to total due to rounding.

TABLE A17 Plan 2035 VMT, VHT, Delay, and Speed by Facility Type and Time Period

Facility Type	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (MPH)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Freeway (MF) & Toll	44,817	6,578	1,222	141	570	48	36.7	46.5	51,395	1,363	618	37.7
Freeway (HOV)	2,005	0	40	0	11	0	49.7	N/A	2,005	40	11	49.7
Arterial	50,535	1,656	1,745	54	300	9	29.0	30.4	52,191	1,799	309	29.0
Region Total	**97,357**	**8,234**	**3,007**	**196**	**882**	**56**	**32.4**	**42.1**	**105,591**	**3,203**	**938**	**33.0**
PM Peak												
Freeway (MF) & Toll	67,313	7,493	2,068	171	1,089	64	32.6	43.8	74,806	2,239	1,153	33.4
Freeway (HOV)	4,083	0	98	0	39	0	41.6	N/A	4,083	98	39	41.6
Arterial	85,529	1,857	3,261	66	788	15	26.2	28.2	87,386	3,327	803	26.3
Region Total	**156,925**	**9,350**	**5,427**	**237**	**1,916**	**78**	**28.9**	**39.5**	**166,275**	**5,664**	**1,995**	**29.4**
Daily												
Freeway (MF) & Toll	214,954	44,005	5,002	793	1,880	166	43.0	55.5	258,959	5,795	2,046	44.7
Freeway (HOV)	7,176	0	154	0	51	0	46.5	N/A	7,176	154	51	46.5
Arterial	243,268	9,122	8,268	283	1,242	31	29.4	32.3	252,390	8,551	1,273	29.5
Region Total	**465,398**	**53,127**	**13,424**	**1,076**	**3,173**	**197**	**34.7**	**49.4**	**518,525**	**14,500**	**3,370**	**35.8**

MF = mixed-flow or general purpose lanes, HOV = high-occupancy vehicle lanes
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REGIONAL TRANSPORTATION PLAN
2012–2035 RTP
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