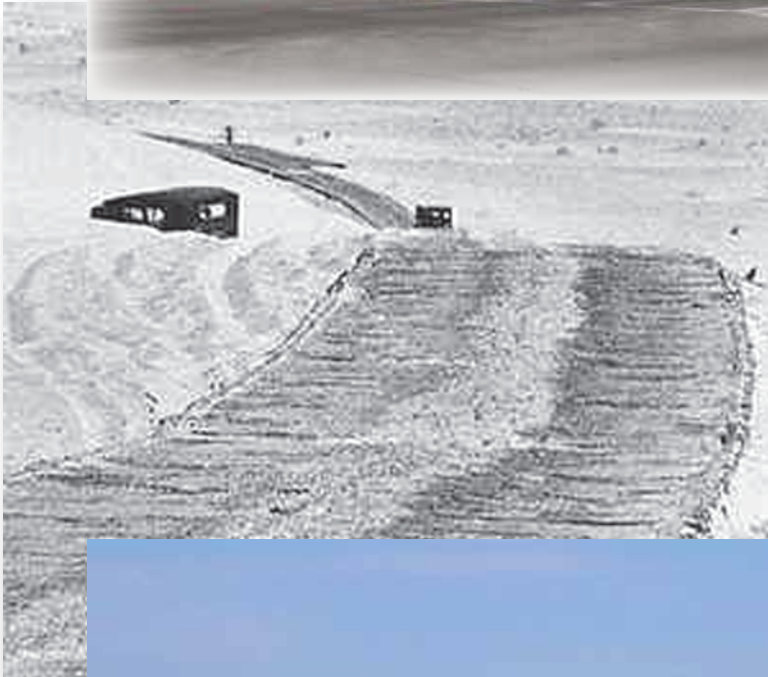


# Imperial County Long Range Transportation Plan 2013 Update



**IMPERIAL COUNTY**  
**2013 TRANSPORTATION PLAN**  
**NOVEMBER 2013**

Updated by:

**Imperial County Transportation Commission**

1405 N. Imperial Ave., Suite 1

El Centro, CA 92243

Phone: (760) 592-4494

Fax: (760) 592-4497

[www.imperialctc.org](http://www.imperialctc.org)

In coordination with:

**Southern California Association of Governments**

**California Department of Transportation, District 11**

This page intentionally blank

## Table of Contents

<b>Chapter</b>	<b>Page #</b>
<b>Executive Summary</b>	<b>I</b>
<b>Chapter 1 – Introduction</b>	<b>1</b>
<b>Background</b>	<b>1</b>
<b>Regional Setting</b>	<b>1</b>
<b>Population</b>	<b>2</b>
<b>Chapter 2 – Methodology</b>	<b>5</b>
<b>Chapter 3 – Existing Conditions</b>	<b>6</b>
<b>Roadway Network</b>	<b>6</b>
<b>State Facilities</b>	<b>7</b>
<b>Regional Arterials</b>	<b>9</b>
<b>Ports of Entry</b>	<b>13</b>
<b>Regional Goods Movement</b>	<b>15</b>
<b>Public Transit Program</b>	<b>17</b>
<b>Land Use</b>	<b>24</b>
<b>Chapter 4 – Future Conditions</b>	<b>27</b>
<b>Chapter 5 – Congestion Management Element</b>	<b>30</b>
<b>Chapter 6 – Project Listings</b>	<b>33</b>
<b>Chapter 7 – Financial Component</b>	<b>40</b>
<b>Local Funding Sources</b>	<b>40</b>
<b>State Funding Sources</b>	<b>41</b>
<b>Federal Funding Sources</b>	<b>43</b>
<b>Cost Estimates</b>	<b>44</b>
<b>Appendix A – Bibliography</b>	<b>45</b>
<b>Appendix B – Acronym List</b>	<b>47</b>

This page intentionally blank

## **EXECUTIVE SUMMARY**

### **Introduction**

This report updates the Imperial County 2007 Transportation Plan that was prepared by KOA Corporation. This report consists of a description of the regional setting, existing conditions of the transportation infrastructure, and includes goods movement, transit program, land use, as well as Transportation Demand Management (TDM) and Transportation System Management (TSM) strategies. In addition, a discussion of future conditions, a prioritized list of improvement projects and available funding are also provided.

### **Summary**

The Imperial County Long Range Transportation Plan Update is being prepared by the Southern California Association of Governments (SCAG), Imperial County Transportation Commission (ICTC), and Caltrans District 11. This report reviews the transportation infrastructure within Imperial County and develops a prioritized list of highway facility and roadway improvement projects.

The plan is an update to the 2007 Imperial County Highway Element Report, necessary due to changes to the United States Code of Federal Regulations (23CFR450.320) and was prepared by assembling the most current information regarding existing conditions and reviewing the most recent results of traffic modeling to predict future conditions.

No significant changes to the priorities are warranted since the last update. However, federal regulations require the consideration of Transportation Demand Management/Transportation System Demand (TDM/TSM) strategies in the development of all regionally significant Single Occupancy Vehicle (SOV) capacity enhancing projects. SCAG has established a cost threshold of \$50 million as regionally significant, with regards to SOV capacity enhancing projects. This will influence the studies required in the development of each regionally significant capacity-enhancing project proposed in this plan, where TDM/TSM must be considered not only as an alternative, but also as a complementary strategy where capacity enhancements are still warranted.

The Imperial County region is characterized by sustained agricultural production with a gross value ranging from \$1.02 billion in 1990, to \$1.96 billion in 2011 (source: Imperial County Agricultural Commissioner).

According to year 2010 U.S. and Mexico census data, the population of the Imperial County urban core combined with Mexicali is just over 1.1 million people. The seven incorporated cities in Imperial County make up 78% of the total County 2011 population of approximately 177,000.

**Table 1: Imperial County Population (2000 and 2011)**

<b>Area</b>	<b>2000</b>	<b>2011</b>	<b>% Change</b>
Brawley	22,096	25,335	14%
Calexico	27,042	39164	44%
Calipatria	7,289	7759	7%
El Centro	37,801	43242	14%
Holtville	5,612	6032	7%
Imperial	7,418	14987	102%
Westmorland	2,131	2,225	4%
Sub-total Incorporated Cities	<b>109,389</b>	<b>138744</b>	27%
Unincorporated Area	32,972	38313	16%
Sub-Total Imperial County	<b>142,361</b>	<b>177057</b>	24%
Percent in Incorporated Cities	77%	78%	-
City of Mexicali	549,873	689,775	25%
Mexicali Metro Area (excludes City)	230,127	247,051	7%
Total Imperial County & Mexicali	<b>922,361</b>	<b>1,113,883</b>	20%

US Census 2011 Data (exception of Westmorland, 2011 numbers unavailable)

Instituto Nacional de Estadística Geografía e Informática, Mexico

---

## **Regional Setting**

The regional roadway network consists of one interstate route (I-8), seven state routes, and several important regional and city arterials. Additionally, there are three international Ports of Entry (POEs) between the United States and Mexico within the Imperial County limits. Figure 1 shows the regional setting.

## **Existing Conditions**

Existing conditions were ascertained through a comprehensive review of existing data (see Appendix A for a bibliography of information sources). The primary sources of data for existing conditions include annual traffic counts on State highways by Caltrans, the Imperial County Circulation Element, the Imperial County Circulation and Scenic Highway Element, the potential for an ICTC Regional Transportation Impact Fee, the Imperial County Air Pollution Control District's Operational Development Schedule Fee (Rule 310), and the City of Calexico's C.M. Ranch Traffic Impact Study. Existing conditions are graphically depicted in Figure 2, which shows Average Daily Traffic (ADT) on area roadway segments, and Figure 3, which shows segments that operate at or below a Level of Service (LOS) of D.

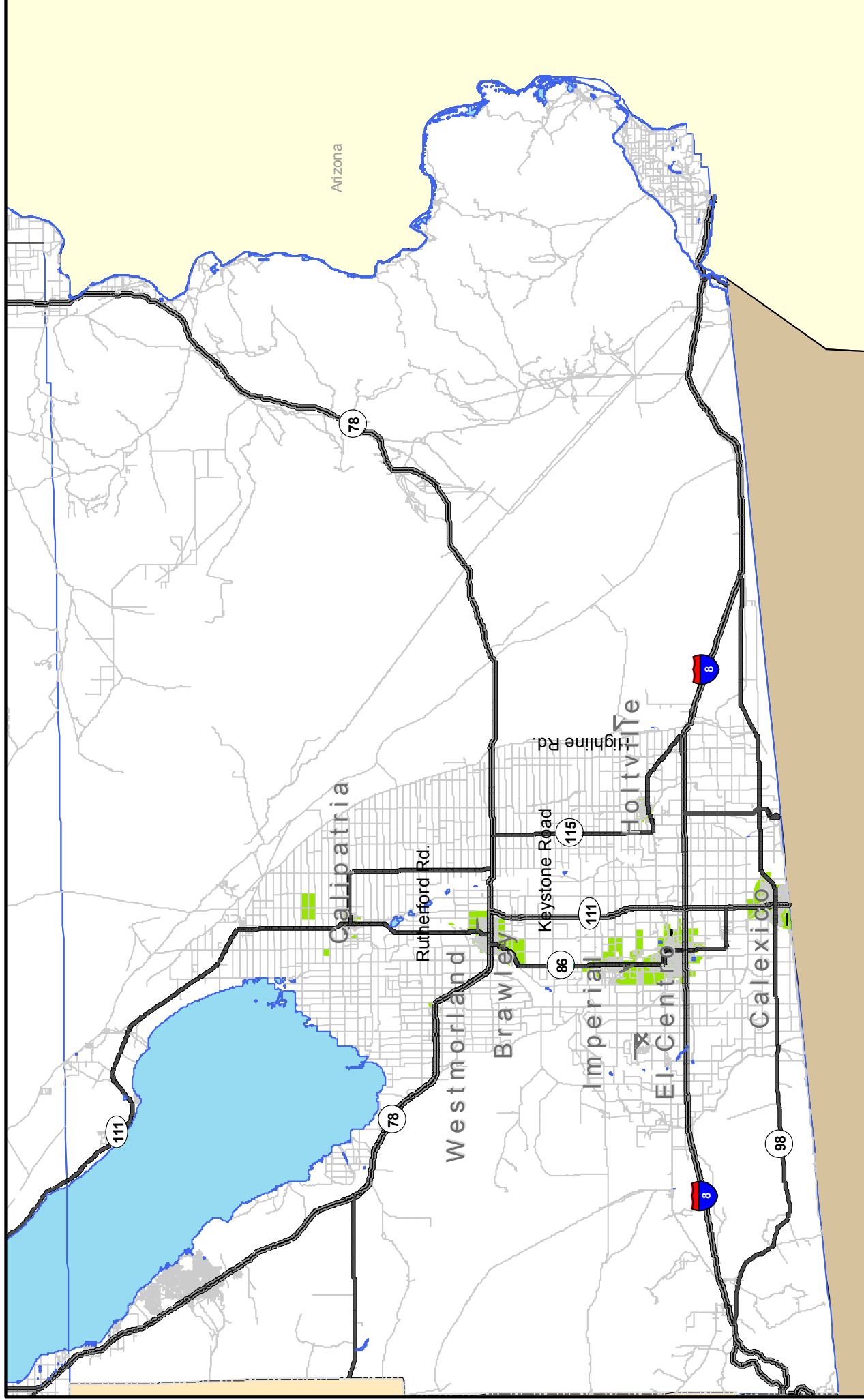
## **Future Conditions**

Substantial growth in population is anticipated for the County. Development activity for residential and industrial uses has been fairly active, and appears to be driven by land availability. While the rate of growth has slowed because of the economic downturn, the population is still expected to grow significantly in the next 25 years. Future conditions could also include potential developments such as the expansion of the downtown Calexico POE, capacity improvements at the Calexico East POE, Mexico's proposed Silicon Border Development, a cargo airport, and a proposed casino north of Calexico.

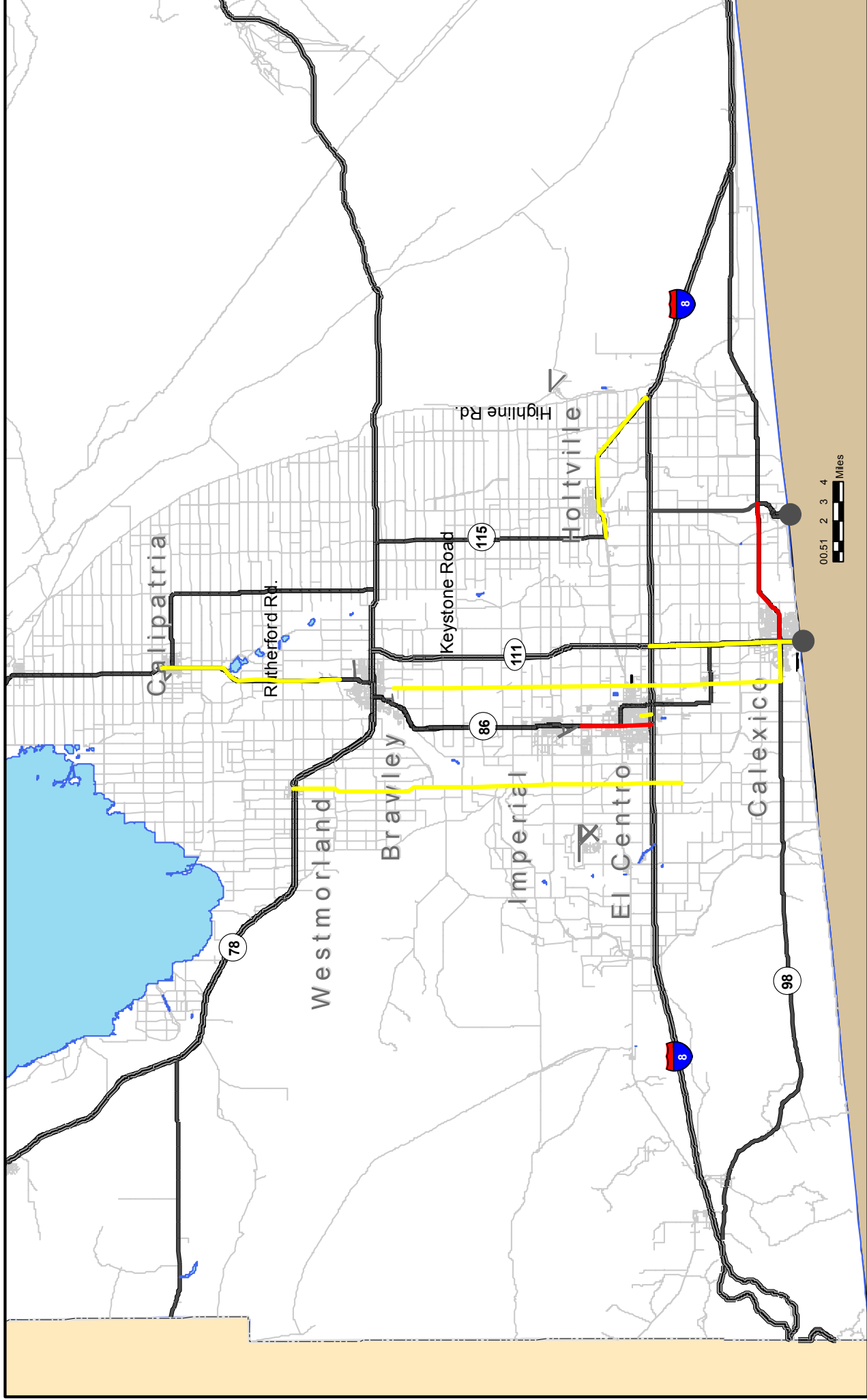
## **Funding**

Funding for transportation projects and improvements may be obtained from a variety of sources, including federal, state and local sources, as well as traffic impact fee programs. Imperial County developer fee programs would include, if adopted the draft Central Imperial County Traffic Impact Fee Program (TIF), the County Wide Developer Fee Program (DIF), and the El Centro Traffic Impact Fee Program. These Developer Impact Fee programs are being implemented to obtain fees that are more consistent with the need for new facilities than the earlier, traditional method of exacting fees from developers in connection with the issuance of building permits. The programs provide for a comprehensive and uniform approach to generate funding for the improvements that are needed to maintain adequate levels of service on regional roadways due to new development. To prepare for future growth and improved economy in the County further study and analysis is needed to determine the feasibility of a regional development impact fee program. The ICTC in partnership with SCAG and Caltrans D-11 will pursue available resources to carry out the proposed study.





# Imperial County Regional Setting



- LOS D or E
- LOS F
- Port of Entry

# Imperial County Existing Conditions

A list of improvement projects was developed in part for the 2012 SCAG Regional Transportation Plan/Sustainable Communities Strategy. The following is a list of the projects with brief project descriptions.

## **PROJECTS FROM THE SCAG 2012 Draft RTP/SCS**

### **FINANCIALLY CONSTRAINED PROJECTS**

#### **NEAR-TERM (2012-2015)**

I-8/Imperial Ave. - Reconstruct interchange at Imperial Avenue.  
Year: 2014 Cost (in thousands): \$58,472

Cesar Chavez Boulevard/Calexico – Widen and improve Cesar Chavez Boulevard to five lanes from 2nd Street to SR-98. Other improvements include: surface rehabilitation, turn lanes, traffic signal, lighting, and sidewalks  
Year: 2015 Cost (in thousands): \$8,930

#### **MID-TERM (2015-2025)**

SR-98: From VV Williams Avenue to Ollie Avenue, widen and intersection improvements of SR-98 and Cesar Chavez from two to four lanes (Phase 1B).  
Year: 2016 Cost (in thousands): \$9,357

SR-98: From Ollie Avenue to Rockwood–(PM 32.4 to PM 32.6) Widen from four to six lanes (Phase 1A)  
Year: 2018 Cost (in thousands): \$9,781

Calexico Intermodal Transportation Center - Construct Calexico Intermodal Transportation Center  
Year: 2018 Cost (in thousands): \$9,315

Forrester Road: From I-8 to SR-78 - Widen and improve to four-lane arterial  
Year: 2018 Cost (in thousands): \$250,578

SR-98: From All American Canal to VV Williams PM 30.9 to PM 32.2) Widen from two to four lanes (Phase 1C)  
Year: 2020 Cost (in thousands): \$58,850

I-8/Imperial Avenue: Reconstruction I-8 interchange at Imperial Ave. from a two to four lane diamond type overcrossing, realign and reconstruction of on and off-ramps and provide access to Imperial Avenue south of I-8  
Year: 2020 Cost (in thousands): \$39,635

SR-98: From Dogwood to the All American Canal—(PM 30.0 to PM 30.9) Widen from two to four lanes (Phase 2)

Year: 2023 Cost (in thousands): \$34,656

SR-115: From I-8/SR-7 interchange to Evan Hewes Highway- Construct four lane limited access expressway (2.6 miles)

Year: 2030 Cost (in thousands): \$231,816

I-8 /SR-186 Improve interchange – Widen and improve ramps

Year: 2035 Cost (in thousands): \$91,038

SR-111: From SR-98 to I-8 - Widen and improve to six lane freeway with interchanges at Heber, McCabe, and Jasper and an overpass at Chick Road

Year: 2030 Cost (in thousands): \$997,259

SR- 98 or Jasper Road: From SR-111 to SR-7- Widen and improve to four/six lanes on either Jasper Road or SR-98

Year: 2035 Cost (in thousands): \$1,170,483

## **STRATEGIC PROJECTS (UNCONSTRAINED)**

### **MID-TERM (2015-2025)**

I-8 at Austin Road - Construct Full Interchange

I-8 at Bowker Road - Improve Interchange

SR-111: From Shank Road to SR-115 - Widen and improve to four-lane conventional highway

SR-115/Evan Hewes Highway to SR-78 - Widen and improve to four-lane expressway

SR78/86 ((dual signed) From Brawley Bypass to SR-78 - Construct new four-lane expressway bypass route around the City of Westmorland

SR-98: From Dogwood Road to SR-111 - Construct grade separated railroad crossings, new roadway segments, signalization, channelization, and roadway geometric improvements

On Keystone Road: From Forrester Road to SR-115 - Construct new six-lane prime arterial on Keystone Road existing alignment

On McCabe Road: From Austin Road to SR-111 - Widen and improve to six lane prime arterial

On Imperial Avenue: From McCabe Road to I-8 - Construct six lane prime arterial

On Dogwood Road: From SR-98 to Mead Road - Widen and improve to four lane prime arterial

Construct 1.5 mile multimodal lane for Neighborhood Electric Vehicle (NEV), pedestrian, and bicycles; and acquisition of Union Pacific Railroad within the City of Holtville

Develop 4.47 miles of Class I & II of bicycle lanes within the City of Holtville

Construct two NEV charging stations and designated NEV parking spaces within the City of Holtville

## LONG-TERM (2025-2035)

SR111: From I-8 to SR-78 - Widen and improve to six-lane freeway; add interchanges at Aten Road, Worthington Road, Keystone Road, and SR-78

SR-111: From Young Road to Riverside County Line - Widen and improve to four-lane conventional highway

I-8: From Forrester Road to SR-111 - Widen and improve to six-lane freeway

SR-115: From SR-111 to SR-78 - Widen and improve to four-lane expressway

SR-7 at McCabe Road - Construct new interchange to accommodate future airport access

SR-78/SR-115 (junction): From Brawley Bypass to SR-115 - Widen and improve to four-lane conventional highway

SR-78: From SR-115 to Riverside County Line - Provide operational and safety improvements; intersection improvements and roadway geometric improvements

From Austin Road/McCabe Road to SR-86 - Widen and improve to six-lane prime arterial

Eighth Street at I-8 - Widen and improve overcrossing

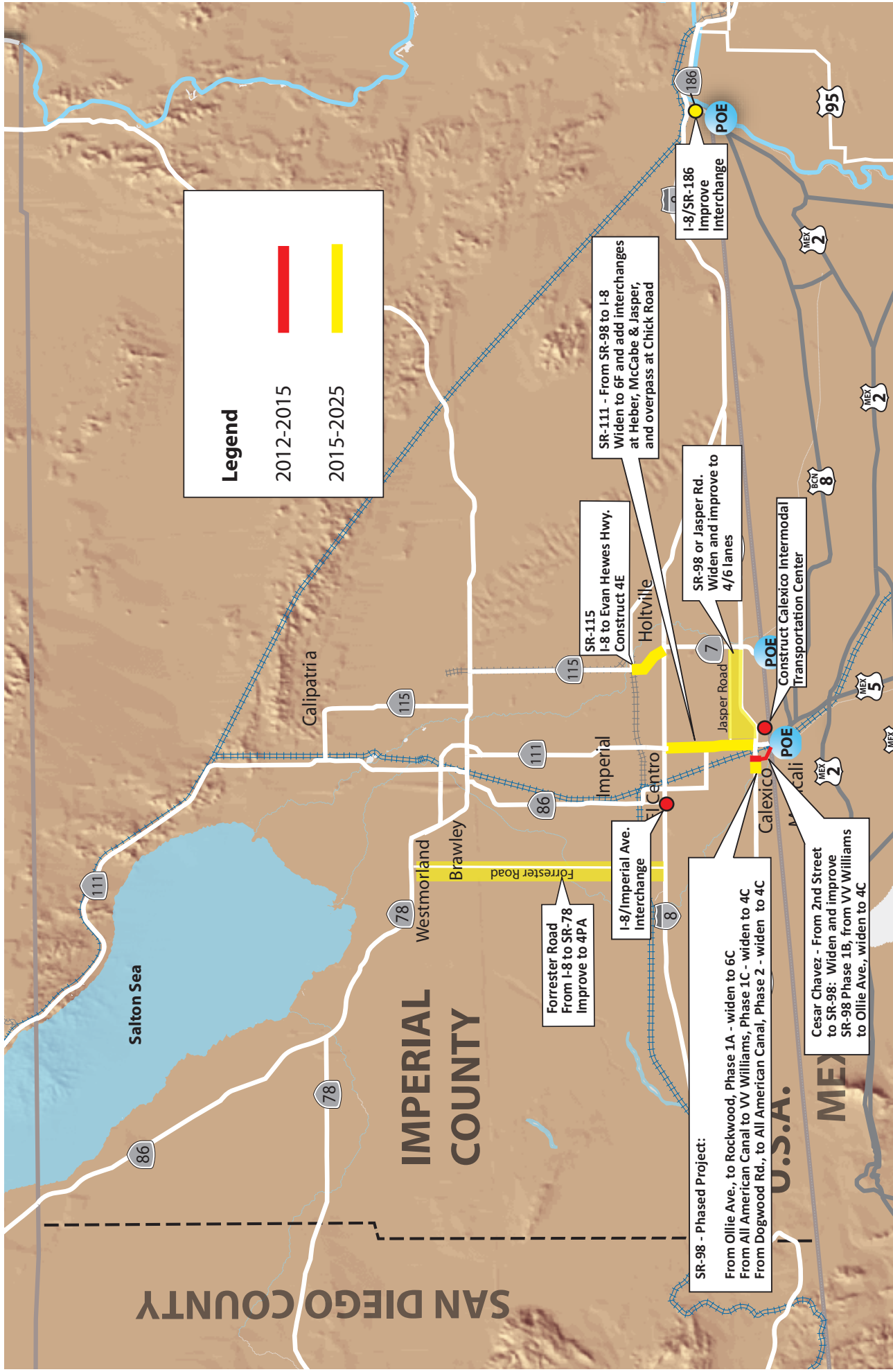
Eighth Street: From Wake Avenue to Centinela - Widen and improve to four-lane prime arterial

Imperial Avenue: From I-8 to Aten Road - Widen and improve to six-lane prime arterial

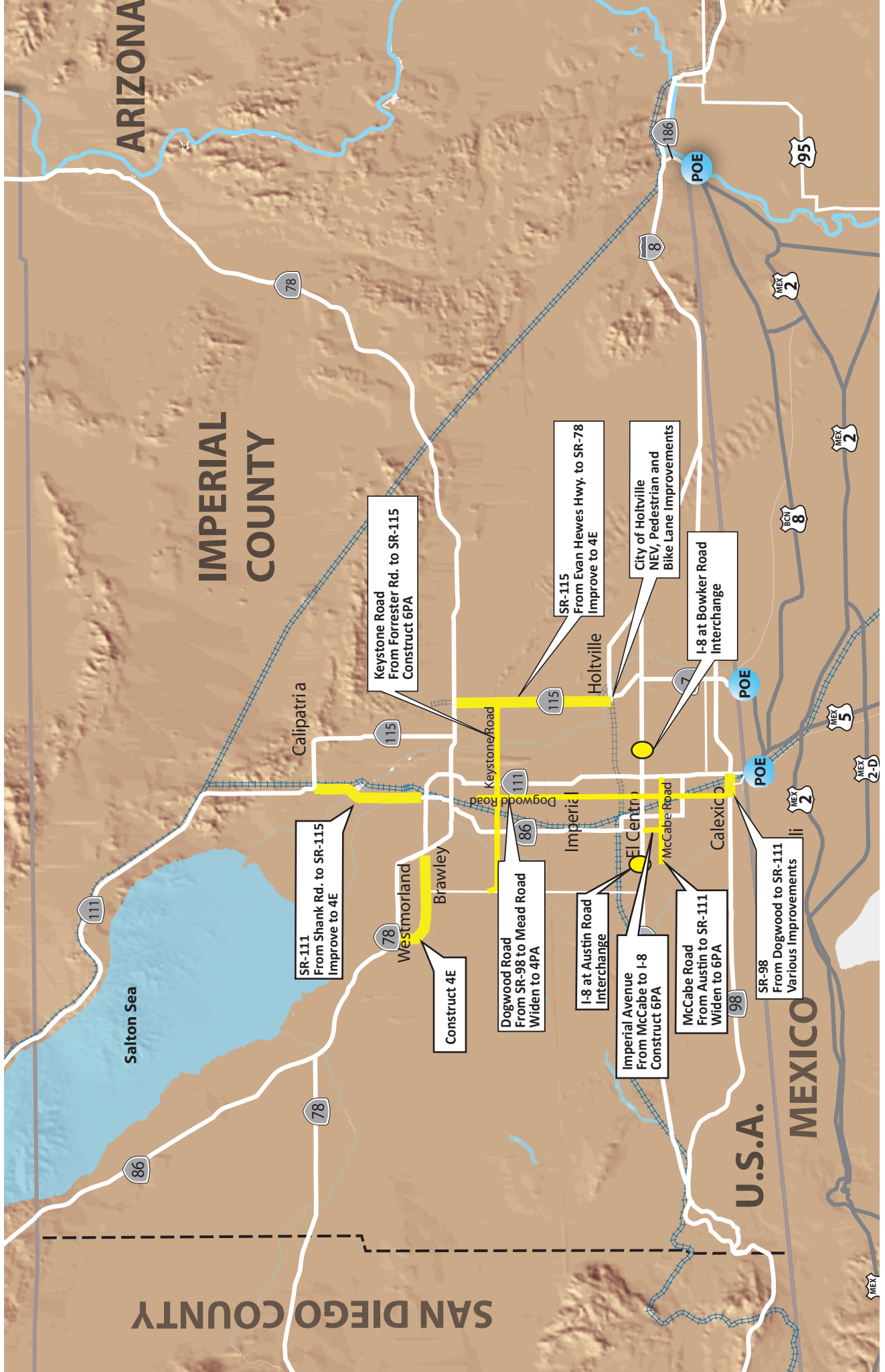
Construct Roadway/Rail Grade Separations (10 Locations)

# Imperial County Long Range Transportation Plan 2013

## Financially Constrained Projects

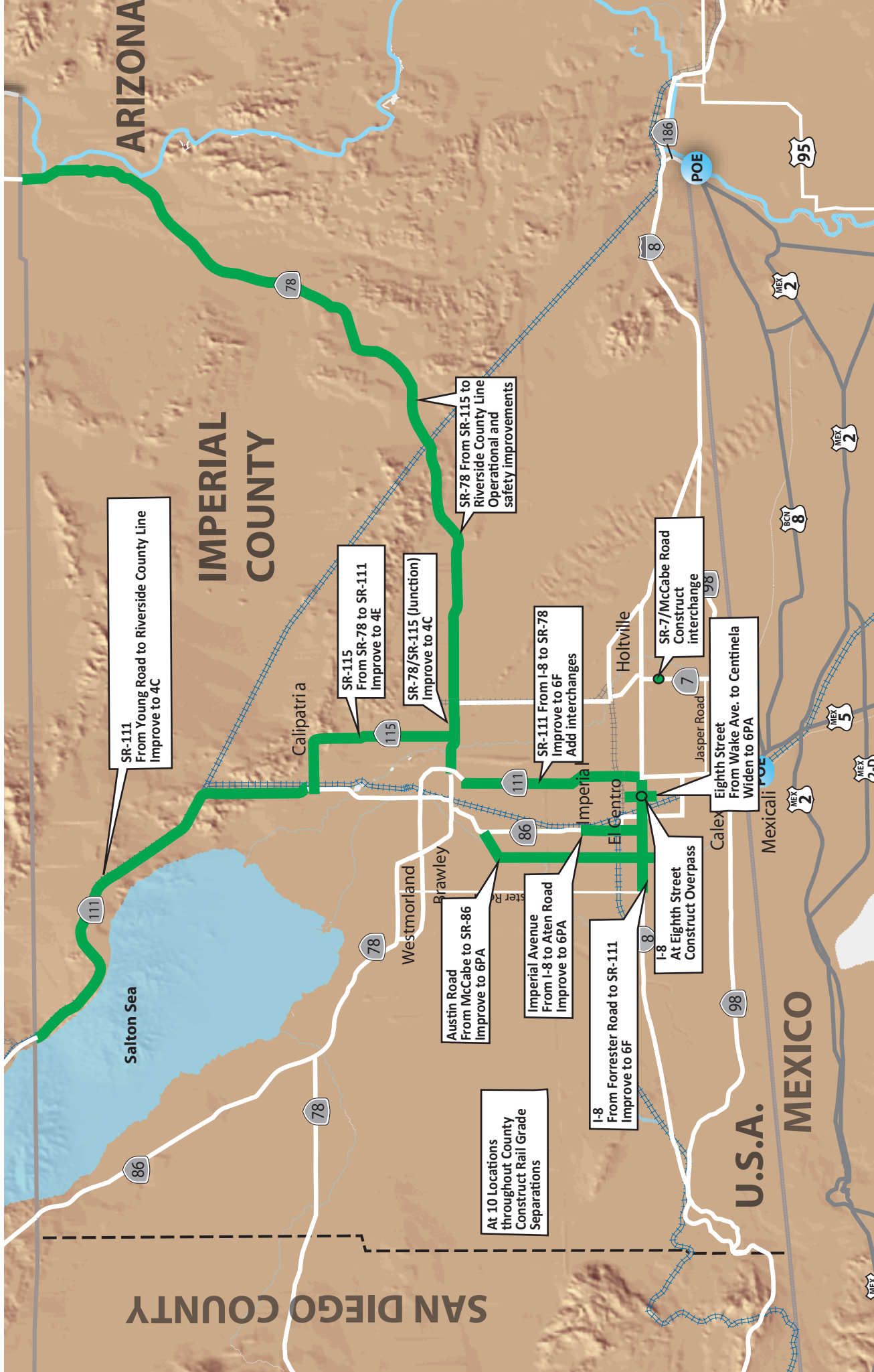


# Imperial County Long Range Transportation Plan 2013 Strategic Projects (Unconstrained) Mid-Term Projects 2015-2025





# Imperial County Long Range Transportation Plan 2013 Strategic Projects (Unconstrained) Long-Term Projects 2025-2035



## **CHAPTER 1 INTRODUCTION**

### **Background**

The 2012 Imperial County Transportation Plan updates the 2007 Imperial County Transportation Plan Highway Element (2007 Highway Element Report), and becomes the latest report in a succession of highway element reports that have been prepared in the past, including reports in 1997 and 1990.

This 2012 Transportation Plan has been prepared through a process that developed regional consensus among the Southern California Association of Governments (SCAG), Imperial County Transportation Commission (ICTC), the California Department of Transportation (Caltrans) District 11, the Technical Review Committee (TRC), local agencies, elected officials, and members of the public.

This document represents the efforts of the ICTC, members of the public and local agencies at the time of writing. This document is a dynamic transportation plan that will continue to be updated on a three to five year basis to meet changes in regional priority, funding situations, connectivity with local jurisdictional mobility and circulation elements. This document addresses State Highways and local arterials deemed to be of regional significance, but it recognizes that many other transportation-enhancing projects exist within the Imperial County Region.

### **Regional Setting**

Imperial County is located in the southeastern corner of California. It is bounded by Riverside County to the north, Arizona to the east, Mexico to the south and San Diego County to the west. There are seven incorporated cities in Imperial County: Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial and Westmorland. The County is part of a low desert that extends northerly from the Gulf of Mexico.

The availability of water from the Colorado River and the extended growing season has supported an active agriculture industry. Imperial County has sustained agricultural production ranging in value from \$1.02 billion in 1990, to \$1.96 billion in 2011 (source: Imperial County Agricultural Commissioner).

The regional roadway network consists of one interstate route (I-8), seven state routes (SR-7, SR-78, SR-86, SR-98, SR-111, SR-115 and SR-186). There are also several regionally significant arterials, including Evan Hewes Highway, Forrester Road, Keystone Road and many other important city arterials. Additionally, there are three international POEs between the United States and Mexico within the Imperial County limits; Calexico, Calexico East and Andrade.

Figure 1-1 shows the regional setting, and indicates the approximate location of the following important potential projects: Mexico's proposed Silicon Border Development Project (a proposed high technology manufacturing park), the Calexico Casino, the Proposed Regional Airport, GSA's planned POE expansion and re-use of the vacated commercial portion of the downtown Calexico POE facility, and capacity improvements at the Calexico East POE for cars, pedestrians, and trucks. Beth's Comment: Project locations need to be shown on the Regional Map.

## **Population**

Population growth in Imperial County has been increasing due to the availability of affordable housing. The mean single-family detached home price in Imperial County was \$200,000 in 2009, compared with \$304,000 in Riverside County to the north, and \$561,000 in San Diego County to the west.<sup>1</sup> Population growth in Imperial County has increased from approximately 32,000 new residents per year during the period from 2000 to 2010. This represents an increase of 23% in the rate of population growth. The population of Imperial County has grown from approximately 142,000 in 2000 to approximately 175,000 in 2010.

Imperial County is affected by its close proximity to Mexico. The city of Mexicali is located just south of the U.S. – Mexico border. Mexicali is the capital of the State of Baja California Norte, as well as the seat of the municipality of Mexicali. The City of Mexicali had a 2010 census population of 689,775, whereas the municipality's population was 936,826. The population is constantly growing due to continuing successful agricultural activity and the presence of many assembly plants and food processing plants. Mexicali has a critical impact on the retail economy in Imperial County, as Mexican consumers travel across the border into Imperial County contributing millions of dollars of revenue to local Imperial County retailers each month.

The City of El Centro is the county seat of Imperial County and is the largest city in the Imperial Valley. It is the core urban area and principal city of the "El Centro Metropolitan Statistical Area" which encompasses all of Imperial County. It is home to agriculture, transportation, shipping facilities, retail and wholesale industry.

Population data from the 2000 Census and 2011 are presented for cities in Imperial County. See table 1-1 on following page.

---

<sup>1</sup> city-data.com (2009)

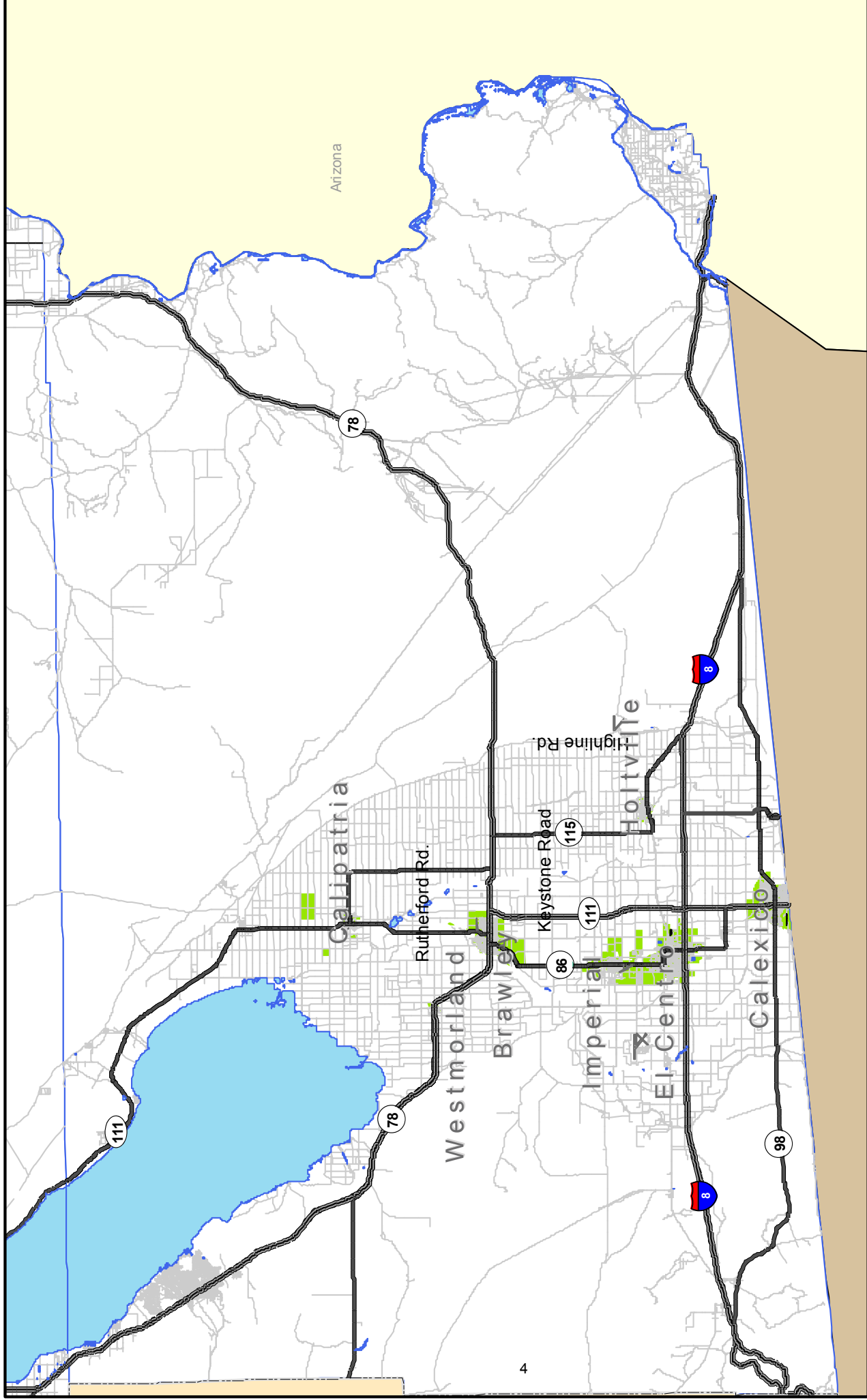
**Table 1-1: Imperial County Population (2000 and 2011)**

<b>Area</b>	<b>2000</b>	<b>2011</b>	<b>% Change</b>
Brawley	22,096	25,335	14%
Calexico	27,042	39164	44%
Calipatria	7,289	7759	7%
El Centro	37,801	43242	14%
Holtville	5,612	6032	7%
Imperial	7,418	14987	102%
Westmorland	2,131	2,225	4%
<b>Sub-total Incorporated Cities</b>	<b>109,389</b>	<b>138744</b>	<b>27%</b>
Unincorporated Area	32,972	38313	16%
<b>Sub-Total Imperial County</b>	<b>142,361</b>	<b>177057</b>	<b>24%</b>
Percent in Incorporated Cities	77%	78%	-
City of Mexicali	549,873	689,775	25%
Mexicali Metro Area (excludes City)	230,127	247,051	7%
<b>Total Imperial County &amp; Mexicali</b>	<b>922,361</b>	<b>1,113,883</b>	<b>20%</b>

US Census 2011 Data (exception of Westmorland, 2011 numbers unavailable)

Instituto Nacional de Estadística Geografía e Informática, Mexico

---



# Imperial County Regional Setting

## **CHAPTER 2 METHODOLOGY**

This 2012 Transportation Plan was prepared by assembling the most current information regarding existing conditions, reviewing recent results of traffic monitoring and modeling to predict future conditions and incorporating changes in project priorities due to growth, developments and other projects within the region.

Current information regarding existing conditions, projections for future conditions, and studies regarding potential improvement projects was obtained from Federal, State, County and Local agencies. Documents that were reviewed included community plans, circulation elements, capital improvement plans, corridor studies, transit studies and other transportation and traffic studies. The 2012 Transportation Plan summarizes the data from these plans and reports into one document.

This update represents a minor revision to the 2007 Transportation Plan. As such, public outreach efforts will be limited to presentations at the Imperial County Transportation Commission public meetings, with a standard review period of 30 days for the citizens of the County to provide input, ask questions and comment. Following the 30 day review period, any necessary changes will be made and the Final LRTP will be presented to the ICTC Board for their adoption. The LRTP will then be submitted to SCAG.

A bibliography of the prior studies and other documents that were compiled is presented in Appendix A. Much of the data was collected to characterize the region's existing and future conditions, to identify transportation related issues within the region, and to define the regional transportation system in the 2007 Highway Element Report. This report represents an update of that report to reflect congestion management planning requirements under United States Code of Federal Regulations (23CFR450.320).

## CHAPTER 3 EXISTING CONDITIONS

### Roadway Network

The regional roadway network consists of one interstate route, seven state routes, and several important regional and city arterials. Additionally, there are three international ports of entry (POEs) between the United States and Mexico within the Imperial County limits.<sup>2</sup>

Roadway operating conditions are typically described in terms of “level of service.” Level of Service (LOS) is a report-card scale ranging from LOS A (free flow, little or no congestion) to LOS F (forced flow, extreme congestion). LOS C represents acceptable conditions with stable flow, moderate volumes, and only minimal delays

Table 3-1 Imperial County Standard Street Classification Average Daily Vehicle Trips						
Road		Level of Service (LOS)				
Class	X-Section	A	B	C	D	E
<b>Expressway</b>	154/210	30,000	42,000	60,000	70,000	80,000
<b>Prime Arterial</b>	106/136	22,200	37,000	44,600	50,000	57,000
<b>Minor Arterial</b>	82/102	14,800	24,700	29,600	33,400	37,000
<b>Collector</b>	64/84	13,700	22,800	27,400	30,800	34,200
<b>Local Collector</b>	40/70	1,900	4,100	7,100	10,900	16,200
<b>Residential Street</b>	40/60	*	*	<1,500	*	*
<b>Residential cul-de-sac or loop</b>	46/60	*	*	<200	*	*
<b>Industrial Collector</b>	76/96	5,000	10,000	14,000	17,000	20,000
<b>Industrial Local Street</b>	44/64	2,500	5,000	7,000	8,500	10,000
*Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors						
Source: County of Imperial Circulation and Scenic Highway Element of the General Plan. Developed originally for the County of San Diego. Proposed functional Classifications and rights of way widths were inserted/adjusted to match County of Imperial Standards						

<sup>2</sup> Existing conditions were ascertained through a comprehensive review of existing data. The primary sources of data for existing conditions include the Imperial County Circulation Element, the Imperial County Circulation and Scenic Highway Element, and the Greater Calexico Area Arterial Needs and Circulation Analysis

## **State Facilities:**

**Interstate-8** is an east-west interstate highway facility serving Imperial County. I-8 begins in San Diego and the portion of this route that is within Caltrans District 11 extends 172 miles eastward to the California-Arizona State Line near Yuma, Arizona. I-8 continues into Arizona until it intersects with I-10 near Casa Grande, Arizona. Within Imperial County I-8 spans a distance of approximately 79 miles. After it crosses into Imperial County from the west, it connects with the western terminus of SR-98, a parallel facility. In Imperial County, I-8 intersects with SR-86, SR-111 (access to the international POE at Calexico), SR-7 and SR-115. I-8 then reconnects with SR-98 at SR-98's eastern terminus. Finally, it accesses the SR-186 connection to the Andrade POE. There are two travel lanes in each direction throughout the Imperial County region. I-8 serves regional, cross border, and interstate traffic, and provides access to desert recreational areas. The Average Daily Traffic (ADT) volumes on I-8 are approximately 19,600 ADT west of Imperial Avenue and 16,600 ADT east of SR-111. In the area of El Centro between Imperial Avenue and SR-111, the volumes reach a maximum of approximately 37,500 ADT.

**SR-98** is mostly two-lane conventional highway, traversing the southern portion of Imperial Valley. The 56.9 mile route follows an east-west alignment through Imperial County parallel to I-8 and the U.S / Mexico International Border. SR-98 begins at I-8 near Ocotillo, intersects SR-111 and SR-7 and terminates at I-8 near Midway Well. SR-98 has four-lanes serving portions through the City of Calexico. SR-98 serves as an alternate route to I-8, and provides access to many agricultural areas in the eastern part of the region. It is also an important component for cross border traffic. Although SR-98 is primarily a two-lane facility, for approximately 2.2 miles east of the railway through the City of Calexico, it is a four-lane facility.

**SR-78** begins in San Diego County at the junction with I-5. Within Imperial County SR-78 is 81.8 miles in length and extends from the San Diego County line to the north junction of SR-86. At this point, there is a 24 mile route break of SR-78 between the north junction of SR-86 and the south junction of SR-86. Between the north and south junctions, SR-78 and SR-86 share the same roadbed; however, this section is statutorily designated solely as SR-86. After the south junction, SR-78 again utilizes an independent alignment to the Riverside County line. SR-78 then continues an additional 16.2 miles in Riverside County and terminates at I-10 in Blythe, California. SR-78 is typically a two-lane conventional highway, with some portions (in the segment that is co-designated SR-86) upgraded to a four-lane expressway or four-lane conventional highway.

**SR-86** is a north-south State highway facility serving Imperial and Riverside Counties. SR-86 begins at SR-111 near the U.S./Mexico International Border, and extends 90.8 miles northward (roughly parallel to SR-111) along the western shore of the Salton Sea, terminating at Avenue 46 in the City of Indio. SR-86 intersects several State routes along its alignment, including I-8, and SR-78 (east junction SR-78). SR-86 continues north and northwest sharing the SR-78 roadbed for 23 miles before reaching the west



junction of SR-78. SR-86 then continues north, crossing the Imperial County/Riverside County line, intersecting SR-195 and SR-111. SR-86 is a two-lane facility throughout the study area.

**SR-111** begins at the U.S. / Mexico POE in the City of Calexico and continues north 103.8 miles to the City of Indio in Riverside County. SR-111 then turns westerly and extends another 41 miles to its terminus at I-10 north of Palm Springs. There is a 1.2 mile route break near Brawley. Beginning at the Downtown Calexico POE, the route runs for 65.4 miles within Imperial County.

From the Calexico POE to SR-98, SR-111 functions primarily as a city street and provides access to many local businesses. The existing congestion of this four-lane segment is projected to increase as the number of border crossings grows.

North of SR-98, SR-111 is constructed as a four-lane expressway to the I-8 interchange. North of the I-8 interchange, SR-111 is constructed as a four-lane conventional highway. SR-111 includes a segment of approximately one mile within the city of Brawley that shares alignment with SR-78. SR-111 ultimately connects with I-10 in Riverside County, which provides access to Los Angeles to the west, and Arizona to the east.

**SR-7** runs in a north-south orientation from the Calexico East POE to I-8, covering a distance of approximately 6.7 miles. SR-7 is constructed as a four-lane highway with access control at the Calexico East POE, SR-98 and direct access to I-8.

**SR-115** is primarily a north-south route covering a distance of 33.6 miles. SR-115 begins at the junction with I-8 east of Holtville, and ends at the junction with SR-111 in Calipatria. SR-115 includes a segment that shares alignment with SR-78. It is typically constructed as a two-lane conventional highway.

**SR-186** is a 2.1 mile north-south route from the Andrade POE in the easternmost portion of Imperial County connecting to the interchange with I-8. SR-186 is constructed as a two-lane conventional highway.

**Regional Arterials:** The regional roadway system also features several important arterials that generally run in either an east-west or north-south orientation. The important north-south arterials (listed from west to east) include: Forrester Road, Austin Road, Imperial Avenue and Dogwood Road. The important east-west arterials (listed from south to north) include: Jasper Road, Heber Road, McCabe Road, Ross Road, Evan Hewes Highway, Aten Road, Worthington Road and Keystone Road.

**Forrester Road** is a key north-south arterial that runs parallel to SR-111 approximately 7 miles west of SR-111. It covers approximately 30 miles from SR-78 to SR-98. It is presently constructed as a two-lane facility, and is classified as a six-lane expressway in the Imperial County Circulation Element. ADT on Forrester Road is 8,800 vehicles per day, with a significant portion of this traffic being trucks carrying agricultural products between Interstate 8 and SR-86.

**Austin Road** runs approximately 20 miles from SR-78/86 to SR-98. It is presently constructed as a two-lane facility, and is classified as a six-lane expressway in the Imperial County Circulation Element. ADT on Austin Road is 3,300 vehicles per day.

**Imperial Avenue** runs north from I-8 in the City of El Centro for approximately five miles to the City of Imperial. It is presently constructed as a four-lane facility, and is classified as a four-lane expressway in the Imperial County Circulation Element. ADT on Imperial Avenue can range from 27,800 to 38,400 vehicles per day.

**Dogwood road** runs approximately 22 miles from SR-78, through the City of Brawley, to SR-98. It is presently constructed as a two-lane facility, and is classified as a six-lane prime arterial in the Imperial County Circulation Element. ADT on Dogwood Road is 15,000 vehicles per day. The segment of Dogwood Road between McCabe Road and I-8, adjacent to the new Imperial Valley Mall, is currently constructed as a four-lane facility.

**Jasper Road** runs east west approximately 11 miles from Austin Road to Claverie Road. It is presently constructed as a two-lane facility, and is classified as a six-lane expressway in the Imperial County Circulation Element. ADT on Jasper Road is 500 vehicles per day. Caltrans is considering realigning part of SR-98 onto Jasper Road from Birch Street through central Calexico.

**Heber Road** runs approximately 12 miles from South La Brucherie Road to Keffey Road. It is presently constructed as a two-lane facility, and is classified as a four-lane minor arterial in the Imperial County Circulation Element.

**McCabe Road** runs approximately 15 miles from Brockman Road to east of SR-7 at Towland Road. It is presently constructed as a two-lane facility, and is classified as a six-lane expressway in the Imperial County Circulation Element. ADT on McCabe Road is 1,500 vehicles per day.

**Ross Road** runs approximately 16 miles from Brockman Road, through the City of El Centro, to Mets Road, which is west of SR-7. It is presently constructed as a two-lane facility, and is classified as a four-lane minor arterial in the Imperial County Circulation Element.

**Evan Hewes Highway** runs approximately 56 miles through Imperial County from the intersection of I-8 at Ocotillo Wells to the intersection of I-8 east of Holtville. It is presently constructed as a four-lane facility, and is classified as a four-lane major arterial in the Imperial County Circulation Element.

**Aten Road** runs approximately nine miles from east of Forrester Road to SR-111. It is presently constructed as a four-lane facility, and is generally classified as a four-lane major arterial in the Imperial County Circulation Element.

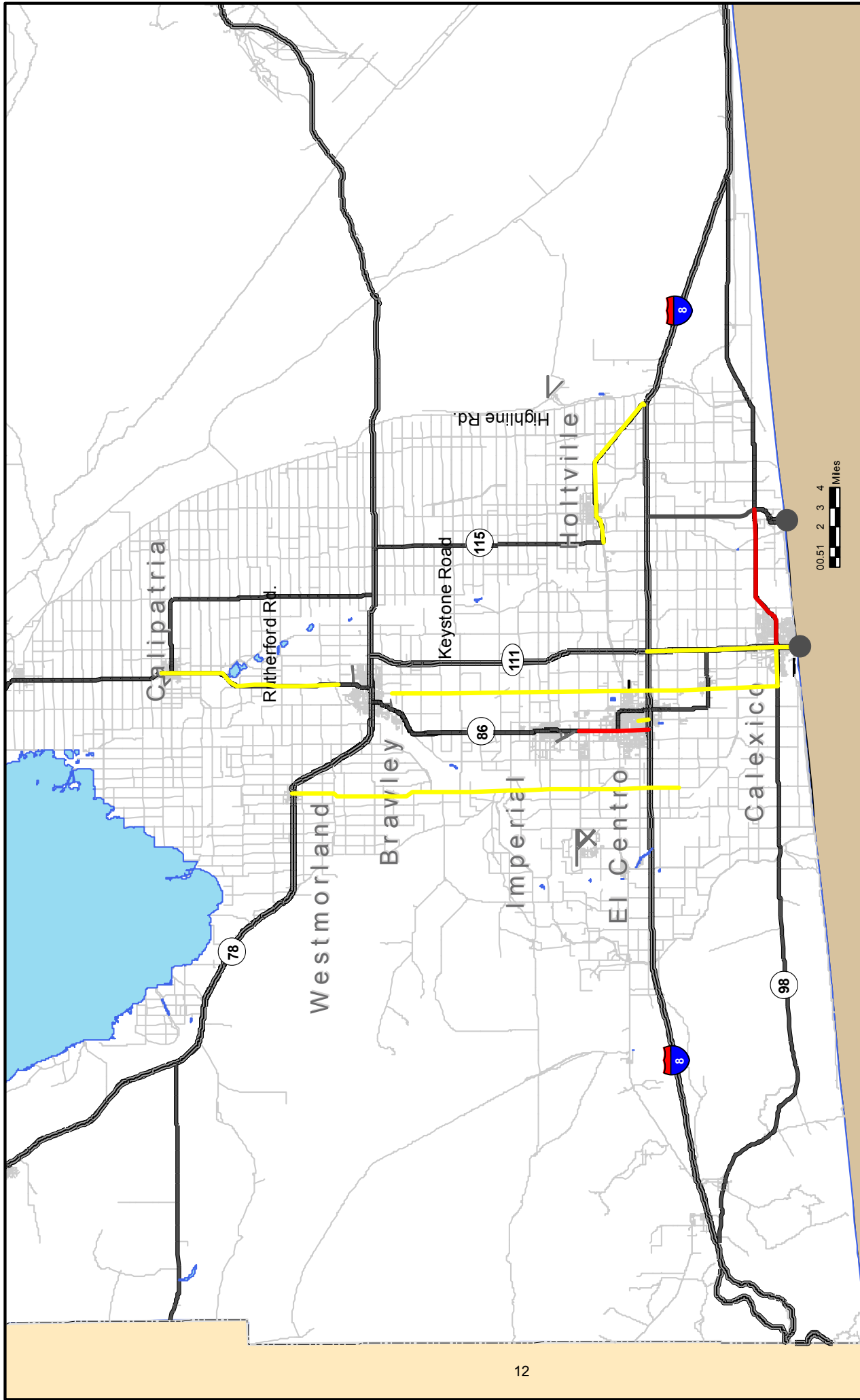
**Worthington Road** runs approximately 20 miles from east of Forrester Road to west of SR-115 at Greaser Road. It is presently constructed as a two-lane facility, and is classified as a four-lane minor arterial in the Imperial County Circulation Element.

**Keystone Road** runs approximately 20 miles from east of Forrester road to west of SR-115 at Greaser Road. It is presently constructed as a two-lane facility, and is generally classified as a six-lane expressway in the Imperial County Circulation Element. ADT on Keystone Road is 3,000 vehicles per day.

**Table 3-2 Existing Conditions – Local Roads (2007)**

Segment	Direction	Limits	Capacity at LOS C	Existing	
				ADT	LOS
Forrester Rd.	N-S	From SR-78/86 to McCabe Rd	7,100	8,800	D
Austin Road	N-S	From SR-86 to McCabe Rd	7,100	3,300	B
Imperial Ave.	N-S	From Adams Ave. to I-8	29,600	27,800	C
Imperial Ave	N-S	From Aten Road to I-8	29,600	38,400	F
8 <sup>th</sup> Street	N-S	From Ross Ave. to Wake Ave.	7,100	9,500	D
Dogwood Road	N-S	From Southern El Centro City Limits to McCabe Rd.	7,100	15,000	E
Dogwood Road	N-S	From Mead Road to SR-98	7,100	15,000	E
Bowker Road	N-S	From Evan Hewes Hwy to Cole Rd.	7,100	1,400	A
Keystone Road	E-W	From SR-115 to Forrester Road	7,100	3,000	B
McCabe Road	E-W	From SR-111 to Austin Road	7,100	1,500	A
Jasper Rd	E-W	From SR-7 to SR-111	7,100	100	A
<b>Existing Conditions – State Highways (2009)</b>					
SR-111	N-S	From Northern Calexico City Limits to International Border	29,600	28,500	B
SR-111	N-S	From I-8 to SR-98	40,000	33,500	B
SR-111	N-S	From SR-78 to I-8	40,000	17,300	A
SR-111	N-S	North of Brawley City Limits	7,100	8,800	D
SR-111	N-S	From Riverside County Line to Wilkinson Road	7,100	1,600	A
SR-115	N-S	From Evan Hewes Hwy to I-8	7,100	6,100	C
SR-115	N-S	From SR-78 to Evan Hewes Highway	7,100	5,100	C
SR-115	N-S	From SR-111 to SR-78	7,100	4,600	C
SR-7	N-S	From I-8 to King Road	40,000	4,900	A
SR-186	N-S	From I-8 to the International Border	7,100	8,500	D
SR-78	E-W	From the Riverside County Line to SR-115	7,100	3,500	B
SR-78/115	E-W	From SR-78 East to SR-111	7,100	4,600	C
SR-78/86	E-W	From western Brawley City Limits to Lack Road	29,600	17,500	B
I-8	E-W	From SR-111 to Forrester Road	60,000	34,500	B
SR-98*	E-W	From SR-7 to SR-111	7,100	23,000	F+
SR-98	E-W	From SR-111 to Dogwood Road	7,100	8,200	D

\*LOS "F+" is attained when the ADT exceeds the LOS F capacity by 25% or more.



- LOS D or E
- LOS F
- Port of Entry

# Imperial County Existing Conditions

## **Ports of Entry:**

There are three international Ports of Entry (POEs) between Baja California and California within the Imperial County limits. The largest POE, in terms of daily volume of traffic, is the downtown Calexico POE which provides access to the Municipality of Mexicali, the capital of Baja California Norte. The Calexico POE is the second busiest border crossing across the California border.

The Calexico POE is currently dedicated to passenger vehicles, rail, and pedestrian inspections. In 1996, all commercial vehicles were diverted to the Calexico East Border Station located seven miles east of central Calexico. According to U.S. General Services Administration (GSA), today there are nearly 21,000 passenger vehicles and 20,000 pedestrians entering the U.S. through the Calexico POE. This traffic is comprised mostly of day-trippers including workers, students, and shoppers. The peak period for vehicles entering the U.S. is between 8 AM and 11 AM and the peak for vehicles entering Mexico is between 4 PM and 7 PM. Depending on agricultural harvesting needs and schedules, the northbound AM peak can begin as early as 4:00 AM, with southbound peaks being similarly earlier than typical commute peaks. The backup on the U.S. side of the border is primarily along SR-111 (Imperial Avenue) and although the average delay is approximately 10 minutes there are times when the delay can reach 90 minutes, with a queue of outbound vehicles stretching well north of Cole Road.

There are only four east-west streets within Calexico that cross SR- 111: Second Street, Grant Street/8th Street, Birch Street/SR-98, and Cole Road. The traffic congestion created by these movements is a significant issue to the cities on both sides of the border. In downtown Calexico, the congestion has a significant effect on local residents, businesses, and the ability to provide necessary services. This congestion contributes substantially to air and noise pollution, which together affect the property values and ambience of the central business district.<sup>3</sup>

The Calexico East POE is located roughly 7 miles to the east of the downtown Calexico POE. This border crossing serves automobile, pedestrian, and bus traffic as well as the being the second busiest crossing for commercial vehicles along the California/Mexico Border.

The Andrade POE is further east, near the Arizona state border and provides a smaller entry to Mexico. This border crossing is largely dedicated to serving a visiting US population who enter Mexico as pedestrians to visit the numerous medical related facilities in the adjacent community of Algodones. The Table below summarizes annual northbound crossings at the Calexico, Calexico East and Andrade international POEs.

---

<sup>3</sup> Greater Calexico Arterial Needs and Circulation Analysis (2005)

<b>Port of Entry</b>	<b>Truck Crossings</b>	<b>Passenger Vehicles</b>	<b>Buses</b>	<b>Pedestrians</b>
Calexico	NA	7,474,182	NA	4,586,846
Calexico East	303,552	5,152,282	1,897	58,771
Andrade	342	793,770	NA	895,746
Total	303,894	13,420,234	1,897	5,541,363
*Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data,				

Portions of the transportation network in the greater Calexico area and specifically near the Calexico POE are currently operating at a poor level of service which creates significant impacts on the livability and economy of the local community. The community is negatively impacted by traffic congestion and delay, primarily along Imperial Avenue (SR-111) and SR-98.

Projected growth in the El Centro-Calexico urban area and a significant increase in border crossings will further exacerbate this situation and requires a comprehensive, long-term strategy to identify appropriate transportation solutions and funding program to accommodate future local, regional, and cross border travel demand. In particular, the re-configuration of the downtown Calexico POE will alter traffic patterns and increase volumes in the area between the border and Interstate 8.<sup>4</sup> The reconfiguration of the POE will serve to reduce northbound wait times, improve traffic circulation, reduce auto/pedestrian conflicts, improve security and align circulation with Mexico's POE. Unfortunately, due to Federal funding challenges, all phases of this project are currently delayed. Mexico's POE project continues to move forward, and there is concern that this will result in a situation similar to that of the San Ysidro POE in San Diego in which the roadway connections serving the POE are inadequate to serve the volume of traffic.

---

<sup>4</sup> *ibid*

## **Regional Goods Movement**

Imperial County plays an important role in the greater regional goods movement system. The greater regional goods movement system includes six land POEs between California and Mexico; four seaports; and various rail facilities.

Additionally, there is a growing array of trucking and distribution centers, warehouses, manufacturing and retailing venues within the overall greater regional goods movement.

The Imperial County Airport is a “FAA Part 139” Commercial Airport as well as the largest general aviation airport in the county. It is centrally located within the jurisdictional boundaries of the City of Imperial, along SR-86, owned and operated by the County of Imperial. The Imperial County Airport provides air service for private and commercial passenger and freight transportation. Currently freight is transported through the courier services of Federal Express (FedEx) and United Parcel Service (UPS).

The Imperial County regional transportation network is a critical element of the land-based component of the international goods movement system. Implementation of the transportation projects identified in this report will ensure that the Imperial County regional transportation network will accommodate the increase in demand that is expected in connection with the growth forecasted for the international movement of goods.

Since the inception of North America Free Trade Agreement (NAFTA), trade between the U.S. and Mexico has expanded drastically. In 1999, Mexico surpassed Japan to become California’s top export trade market. Imperial County processes an estimated 30% of this trade through its land POE at Calexico East.

Update this section with date from the Freight Data Summary – 2011 statistics are available. In 2011, the Calexico East POE accommodated over 312,000 incoming trucks, and goods valued at \$12 billion.<sup>5</sup> By 2050, Imperial County’s border crossings will accommodate over 1,380,000 incoming trucks and 16.95 million tons of goods, valued at \$142.8 billion with an average annual growth of 5.4% in value, between 2007 and 2050 (source: San Diego Association of Governments). Previous origin and destination surveys by Caltrans estimates that 79% of these cross-border goods have origins and destinations throughout California and 21% to and from other U.S. states, Asia, Canada, Europe, and South America.

With the projected increase in truck crossings, the value of transported goods and the impact on the regional economy is expected to increase. It is clear that substantial investment will be needed to provide and maintain the infrastructure to carry goods to Southern California, other areas in California, various states and international

---

<sup>5</sup> Imperial County Comprehensive Economic Development Strategy 2012-2017 (2012)



destinations safely, quickly, with minimal local cost and with maximum local economic benefit.

Table 3-4 shows the breakdown of economic impacts for freight movements by impact category, selected industry and geographic area. Because of delays experienced by trucks at the border, Imperial County loses \$76 million in business output and 345 jobs. At the state level, given that 25 percent of Mexican trucks have a final destination in California but outside Imperial County, the total revenue loss amounts to \$223 million and the total job loss amounts to 1,138. The economic impacts of truck border delays are higher on the Mexican side of the border at both the regional and national levels. For Baja California, the total annual output loss amounts to \$297 million and 1,561 jobs are lost. At the national level for Mexico, the total annual output loss is \$467 million and 2,459 jobs are lost.

Impact Category	From Direct Output losses in...	Imperial County	California	United States	Baja, California	Mexico
Output (millions of U.S. \$)	Agricultural & Food Products	-\$17	-\$42	-\$77	-\$67	-\$105
	Mining & Mineral Products	-\$19	-\$67	-\$106	-\$25	-\$40
	Machinery & Equipment	-\$31	-\$90	-\$146	-\$148	-\$233
	Manufactured Goods	-\$8	-\$24	-\$42	-\$57	-\$89
	<b>Total</b>	<b>-\$76</b>	<b>-\$223</b>	<b>-\$371</b>	<b>-\$297</b>	<b>-\$467</b>
Labor Income (millions of U.S. \$)	Agricultural & Food Products	-\$5	-\$11	-\$19	-\$6	-\$10
	Mining & Mineral Products	-\$4	-\$16	-\$29	-\$4	-\$6
	Machinery & Equipment	-\$8	-\$29	-\$43	-\$16	-\$25
	Manufactured Goods	-\$2	-\$7	-\$13	-\$8	-\$12
	<b>Total</b>	<b>-\$19</b>	<b>-\$64</b>	<b>-\$104</b>	<b>-\$34</b>	<b>-\$53</b>
Employment (number of Jobs)	Agricultural & Food Products	-119	-276	-553	-549	-866
	Mining & Mineral Products	-62	-284	-577	-128	-201
	Machinery & Equipment	-120	-423	-824	-276	-436
	Manufactured Goods	-44	-155	-305	-607	-957
	<b>Total</b>	<b>-345</b>	<b>-1,138</b>	<b>-2,259</b>	<b>-1,561</b>	<b>-2,459</b>

*Source: California-Baja, California Border Master Plan (2008)*

## **Public Transit Program**

### Mission Statement (SRTP Jan 2012)

The mission of the ICTC public transit system is to improve the quality of life for the residents of the Imperial Valley through a coordinated, accessible, affordable, and efficient countywide transit system.

### Vision Statement (SRTP Jan 2012)

The transit network provides a safe, affordable, and reliable transit system that meets the needs of the transit dependent in communities within the Imperial Valley, by providing access to health care, education, public services, employment, commercial, and recreational activities.

Bus service in Imperial County began in 1989, with Imperial County Transit operating three vehicles on five weekday-only routes within the Imperial Valley. Since that time, the service has grown to 19 vehicles (14 operating on fixed routes) and ridership has grown from an average of 3,000 to 52,000 passengers per month.

Both fixed route and demand response services are offered throughout much of the county, providing transportation for the general public, as well as seniors and persons with disabilities. Local, circulator, express, direct and deviated fixed route service is operated between points throughout the Imperial Valley subsidized by ICTC and under contract with First Transit, Inc., branded as Imperial Valley Transit. Demand responsive service (Dial-a-Ride) is subsidized by ICTC and operated by private services in Brawley, Calexico, El Centro, Imperial and the West Shores area. Both the Brawley and West Shores Dial-a-Ride services are available to the general public, while the others are limited to senior/disabled passengers. ADA complementary paratransit service, branded IVT Access, is provided throughout the fixed route service area. IVT Access is also available to the general public for an added fee when space allows. Additionally, transit dependent and disabled passengers are eligible for Med-Express, which operates four days per week between pickup points in Imperial County and medical facilities in San Diego County.

In eastern Imperial County, Quechan Indian Tribe in partnership with the Yuma County Intergovernmental Public Transportation Authority (YCIPTA) provides local fixed route bus service in Winterhaven and Fort Yuma Indian Reservation lands. Starting in January 2013, a new three day a week route began operating to connect eastern Imperial County with Downtown El Centro. Services are provided under contract to First Transit, Inc.

**Transit Administration, Operations, Plans and Programs:** ICTC is responsible for planning and coordinating all public mass transit services within the jurisdiction of the Commission and between the jurisdiction of other county commissions or transit operators. Public Utilities Code Section 99244 requires the Commission to annually identify, analyze and recommend potential productivity improvements for transit operators through the Unmet Transit Needs Public Hearing or other process. This process requires the transit operators to address recommendations made through the triennial performance audit.

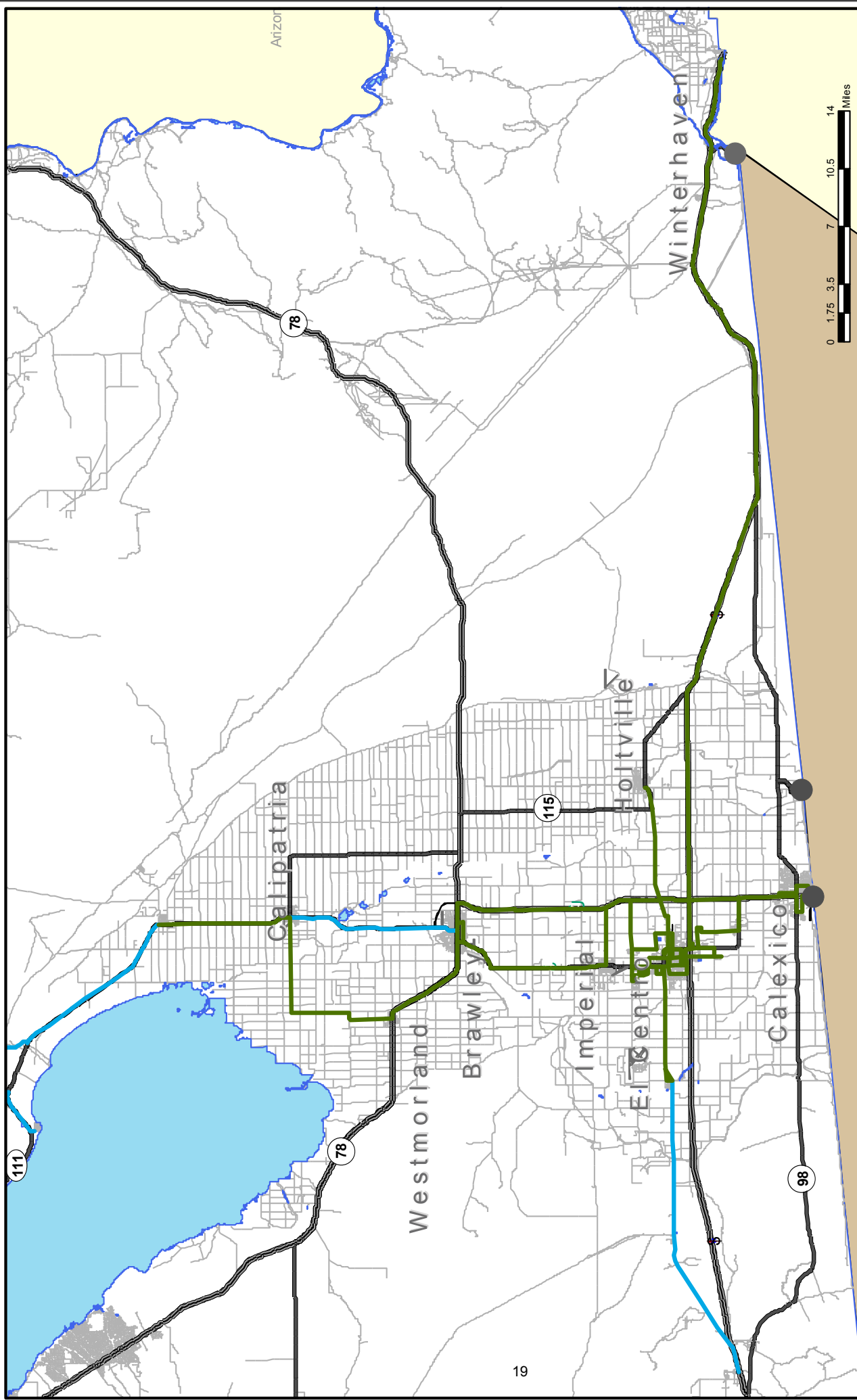
Section 65089. (b)(2) of the California Government Code specifically requires development of standards established for the frequency and routing of public transit, and for the coordination of transit service provided by separate operators.

Public transit service in Imperial County includes the following:

- Fixed route service, including intercity routes connecting most Imperial Valley communities, is operated as Imperial Valley Transit, by First Transit, Inc.
- Urban circulator services, currently comprising the IVT Blue and Green Lines in El Centro, which have timed connections with the intercity IVT routes. These routes are also operated by First Transit, Inc. as a part of Imperial Valley Transit, but are specially branded.
- Fixed route and ADA paratransit service in eastern Imperial County provided by YCIPTA in partnership with Quechan Indian Tribe and is operated by First Transit, Inc and is branded Yuma County Area Transit (YCAT). ICTC provides incremental funding for the route connecting Yuma, Winterhaven and El Centro.
- ADA complementary paratransit service, branded IVT Access, is operated throughout the IVT service area covering most of the Imperial Valley, and is also operated by First Transit, Inc.
- Limited paratransit service, branded Med-Express, is operated between designated locations in Brawley, El Centro and Calexico and medical facilities in San Diego County. This service is operated by ARC – Imperial Valley.
- Dial-a-Ride service provides curb to curb transit service in five defined areas, including El Centro, Calexico, Brawley, Imperial and the West Shores area (west side of the Salton Sea). Service in Calexico is operated by First Transit, Inc., service in El Centro, Imperial, and the West Shores is operated by ARC – Imperial Valley, and service in Brawley is operated by Sunrise Driving Services. Service in Brawley and the West Shores area is available to the general public; in El Centro, Calexico and Imperial it is limited to seniors and persons with disabilities.

### **Imperial Valley Transit (IVT)**

Imperial Valley Transit operates 11 fixed routes. These routes roughly form a north-south axis along SR-86 and SR-111 corridors from Niland to Calexico, continuing along the SR-111 corridor to Niland (Bombay Beach on Thursdays), and an east-west axis along I-8 and Imperial County S80/Evan Hewes Highway corridors from Seeley to El Centro and Holtville, extending to Ocotillo on Tuesdays.



# Imperial County Fixed Transit Routes

- Daily Fixed Transit Routes
- Weekly Fixed Transit Routes
- Port of Entry

**IVT Access** is the countywide intercity curbside service for persons with disabilities. It serves as the Americans with Disabilities Act (ADA) complementary paratransit service to IVT. The coverage area is within ¼-mile corridor of the fixed routes. The service operates from 6:00 a.m. to 10:30 p.m. on weekdays and from 6:00 a.m. to 6:00 p.m. on Saturday. There is no service available on Sundays. IVT Access is operated under contract to First Transit, Inc.

**Brawley Dial-A-Ride** is a general public demand response transit service operating within the City of Brawley. It operates six days a week from 8:00 a.m. to 5:00 p.m. The service is operated by a locally owned private for-profit transportation carrier.

**Calexico Dial-A-Ride** is a citywide dial-a-ride for persons with disabilities and senior citizens. It operates within the City of Calexico city limits. Service is available seven days a week from 8:00 a.m. to 5:00 p.m.

**El Centro Dial-A-Ride** is a curbside service operating Monday through Saturday from 7:00 a.m. to 6:00 p.m. Service does not operate on Sunday. El Centro Dial-A-Ride operates within the City limits. It is available to seniors and persons with disabilities. The service is operated under contract to ARC.

**Imperial Dial-A-Ride** provides curbside service for seniors and persons with disabilities. Its service area covers the city limits and extends to 4th Street and Clark in Imperial. Service hours are Monday through Friday from 7:00 a.m. to 6:00 p.m. with service starting at 8:00 a.m. on Saturdays and ending at 4:00 p.m. Inter-city service to El Centro is on a set schedule with one hour headways. The service is operated by ARC.

**The West Shores Dial-A-Ride** provides curbside service for the public, seniors and persons with disabilities. Its service area covers the west side communities of the Salton Sea Service. Hours are Tuesday and Thursday from 7:00 a.m. to 6:00 p.m. The service is operated by ARC.

**Yuma County Area Transit** provides fixed route bus service and ADA paratransit service within eastern Imperial County serving Winterhaven and Fort Yuma Indian Reservation, Monday through Friday from 7:15 am to 7:10 pm and on Saturday from 9:15 am to 6:15 pm every 60 minutes, with no Sunday service. Service is available connecting eastern Imperial County and El Centro on Mondays, Wednesdays and Saturdays, with two round trips on those days. YCAT is operated by First Transit, Inc. The intercity service is partially subsidized by ICTC.

Table 3-5: IVT Costs and Performance Measures

	FY02/03	FY03/04	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10
Total Operating Costs	\$1,289,157	\$1,327,041	\$1,588,651	\$1,992,612	\$2,382,612	\$2,516,713	\$2,668,834	\$2,826,722
Fare Revenue	\$214,833	\$225,842	\$210,028	\$255,708	\$327,621	\$388,073	\$463,470	\$533,654
Revenue Hours	15,808	16,407	17,396	18,728	25,151	25,615	25,869	26,695
Revenue Miles	364,682	390,298	414,863	469,784	591,639	583,749	571,772	588,027
Total Passengers	264,814	260,903	258,642	240,091	319,427	462,784	536,703	570,231
Passengers/ Revenue Mile	0.73	0.67	0.62	0.51	0.54	0.79	0.94	0.97
Passengers/ Revenue Hour	16.75	15.90	14.87	12.82	12.70	18.07	20.75	21.36
Cost/Passenger	\$4.87	\$5.09	\$6.14	\$8.30	7.46	\$5.44	\$4.97	\$4.96
Cost/Hour	\$81.55	\$80.88	\$91.32	\$106.40	\$94.73	\$98.25	\$103.17	\$105.89
Average Fare/Passenger	\$0.81	\$0.87	\$0.81	\$1.07	\$1.03	\$0.84	\$0.86	\$0.94
Subsidy/Passenger	\$4.06	\$4.22	\$5.33	\$7.23	\$6.43	\$4.60	\$4.11	\$4.02
Fare box Recovery Ratio	16.70%	17.00%	13.20%	12.80%	13.80%	15.40%	17.40%	18.90%

Imperial Valley Transit has a state mandated fare box recovery ratio goal of 14.5% and has established a local goal of a 17%. In FYs 2002/03, 2003/04, 2004-05 IVT met these targets. In the following two years IVT failed to meet them, however in FY 2006/07 the fare box recovery ratio met the state goal but not the local goal. In FY 2009-10, FY2011-12 the IVT service has exceeded the State mandated fare box and the local goal. The general trend suggests that it will be able to meet both the state and local targets in the future.

### *Circulator Services*

As per the Imperial County Transit Vision, a 20-year long range transit plan completed in 2000, several community circulator routes were proposed for Imperial County's larger urban centers, including El Centro, Calexico, Brawley and the City of Imperial. The proposed community routes would allow a reduction in local circulation on the intercity routes, reducing travel times and potentially allowing for shorter headways (utilizing the same number of vehicles). Both the IVT Blue Line and Green Line circulators in El Centro were implemented in response to this plan. Other proposals include:

- Proposed Gold Line (Brawley)
- Proposed Orange Line (Calexico)
- Proposed Red Line (Imperial)

### *Imperial Valley Transit Express Routes*

There are two routes providing service to Imperial Valley College, The first travels from Niland, 44 miles to the north of the college and links Niland, Calipatria, Westmorland and Brawley to the college. Two trips are provided to the school during the morning and two return trips are provided during the afternoon.

The second, from Calexico, travels just over 15 miles to the south of the college. Four trips are provided to the Imperial Valley College in the morning and three return trips are provided to Calexico in the afternoon.

The IVC Express operates on schooldays only, with a reduced fare of \$1.00 for students and \$1.50 for nonstudents.

Table 3-6: Summary of Short-Term Transit Improvements within Imperial County

Calexico Intermodal Transportation Center - Construct Calexico Intermodal Transportation Center	2018	\$9,315,000
Replacement Larger Buses in 10/11	2012	\$315,000
ADA Para-Transit For County Of Imperial – 2 New Large Type iii Buses	2010	\$130,000
ADA Paratransit Service Operating Assistance	2012	\$5,700,000
Brawley Dial-A-Ride – Operating Assistance	2012	\$1,571,000
Calexico Dial-A-Ride Operating Assistance	2012	\$2,890,000
City of El Centro Dial-A-Ride (Arc-Imperial Valley) – Replace Paratransit Buses with 2 Large Type iii Buses	2010	\$130,000
City of Imperial Dial-A-Ride – Operating Assistance	2012	\$845,000
County Wide Transit System – Operating and Capital Assistance	2012	\$50,901,000
El Centro Dial-A-Ride Operating Assistance	2012	\$1,546,000
In El Centro; Regional Public Bus Transfer Terminal and Passenger Waiting Area Including Clock Tower and Beautification at 7th And State Streets, with other Bus Stop Improvements on Fixed Route System	2011	\$4,906,000
Med-Express Shuttle Operational Assistance	2012	\$1,432,000
Operating Assistance for New Non-Emergency Medical Transport Service	2012	\$500,000
Replace Two Large Bus Type iii for Arc Paratransit Services	2011	\$143,000
Transit Transfer Terminal in the City of Brawley	2013	\$1,432,000
Transfer Terminal in the City of Imperial	2013	\$1,217,000
Two New Large Bus Type iii for new Nonemergency Medical Transportation Service	2011	\$143,000
Upgrades and Improvements to Existing Bus Transfer Terminal At Imperial Valley College	2010	\$2,086,000
West Shores Dial-A-Ride (Arc-Imperial Valley) – Replacement of Gasoline Van with 1 Medium Type ii Bus	2010	\$60,000
West Shores Dial-A-Ride Operational Assistance	2012	\$1,125,000
Winterhaven to El Centro Regional Connector – YCAT	2013	\$10,500
Quechan Indian Tribe Fixed Route Service – YCAT	2013	\$145,000
Two Winterhaven Bus Shelters	2013	\$8,000



## **Land Use**

The purpose of the Land Use Impacts analysis program is to identify future congestion problems throughout Imperial County based on expected changes in land use. This allows developers, local agencies and ICTC to develop strategies, programs and projects that relieve congestion. Some of the common strategies and projects used to ease traffic include operational and capacity improvements to local roads and highways, and improvements to public transit, bicycle and pedestrian paths.

Substantial growth in population is anticipated for the County. Development activity for residential and industrial uses has been fairly active, and appears to be driven by land availability. In contrast to the coastal communities where new subdivision land is effectively unavailable due to policy constraints and community opposition, there is relatively more available development opportunity in Imperial County.

Additionally, growth in local employment opportunities is also expected to add to population growth in Imperial County. There are presently over 100,000 new residential units planned for Imperial County, as indicated by permit applications and forecasts based on socioeconomic data.

The authority to make land use decisions rests solely with local jurisdictions. The Land Use/Transportation Analysis Program can influence land use decisions by requiring full evaluation and disclosure of impacts to the County transportation system, regardless of jurisdictional boundaries.

Housing prices in urban southern California increased in the mid part of the decade such that housing is unaffordable for a significant portion of the ever-growing population. As a result, Imperial County was projected to see unprecedented growth, specifically in the north-south corridor between Brawley and Calexico. While this has slowed considerably with the current economic downturn, as the economy improves, population growth in the county will again increase at a faster rate.

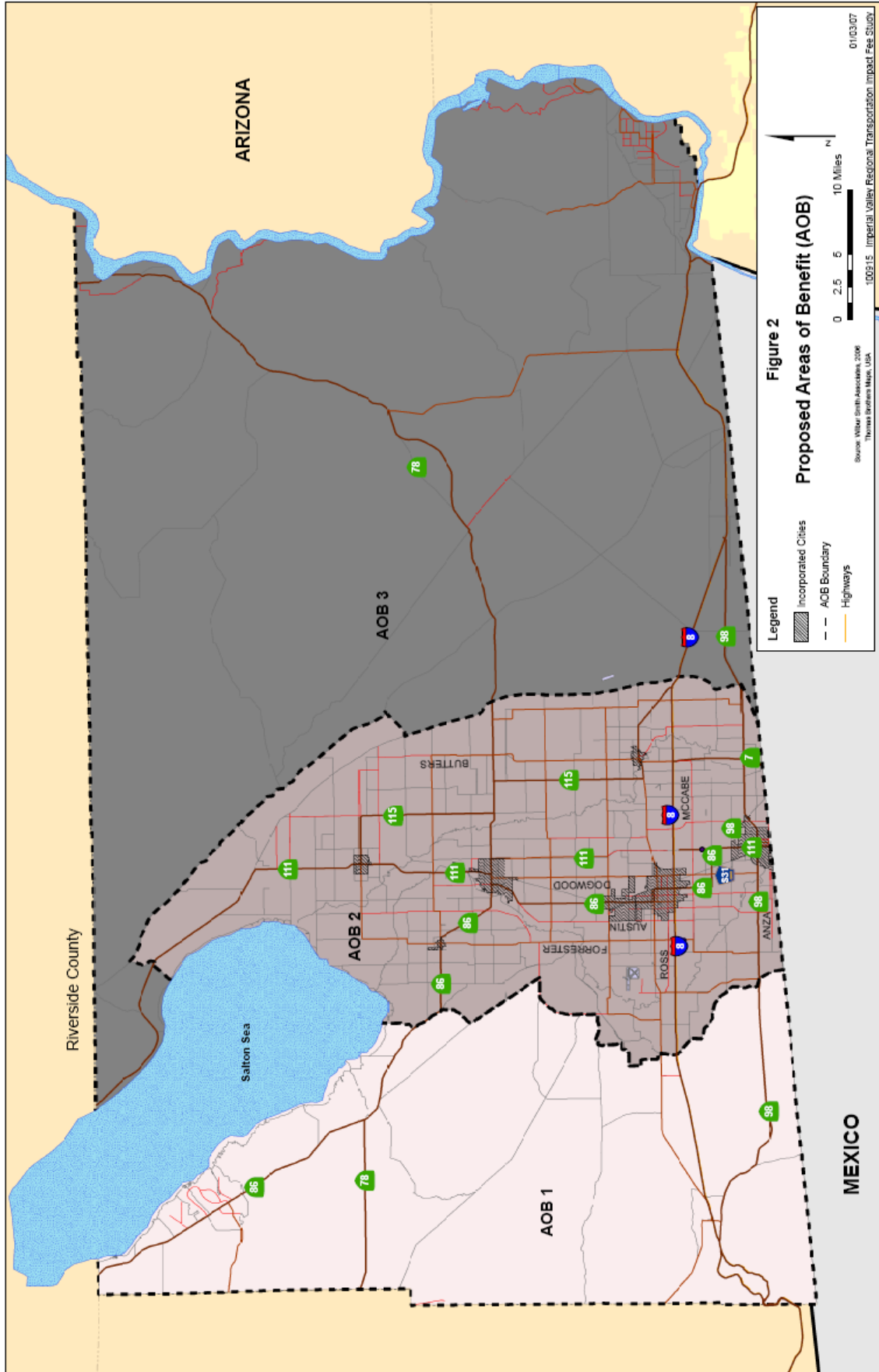
In addition, the increase in maquiladora employment in the Mexicali area is spurring the opportunity for off-shoot employment in Imperial County, generally in the industrial sector.

### **Local Agency Funds, Developer Impact Fees (DIF) and Traffic Impact Fees (TIF)**

Funds are derived from the Imperial County developer fee programs. These programs include the soon to be adopted Central Imperial County Traffic Impact Fee Program, the County Wide Developer Fee Program, the Imperial County Air Pollution Control District Operational Development Schedule Fee (Rule 310), and the El Centro Traffic Impact Fee Program. These impact fee programs provide for a comprehensive and uniform approach to generate funding for the improvements that are needed to maintain adequate levels of service on regional roadways due to new development. The impact

fees charged to developers are directly related to the cost of new transportation facilities that will be needed to serve the increased demand from new development.

Although Development Impact Fee and Traffic Impact Fee programs are being implemented, the traditional method of exacting fees from developers in connection with the issuance of building permits has been used to generate funding for transportation projects and improvements. This is typically accomplished by conditioning a building permit on the direct mitigation of impacts resulting from the development project. ICTC is considering a second phase of the 2008 Study, conducted by WSA, to examine the feasibility of implementation of a region-wide transportation impact fee.



## **CHAPTER 4 FUTURE CONDITIONS**

Two criteria will dominate future conditions; the growth in population and traffic related to border crossings.

The distance to commute to larger employment centers from housing in Imperial County will be a challenge, but home buyers in Imperial County are nevertheless commuting to work in San Diego.

The California Department of Finance estimated the rate of growth in Imperial County to be 0.5% in 2012. While that growth rate has been curtailed due to the recent economic slump, the population will still likely increase significantly in the next 25 years. SCAG in their 2012 Regional Transportation Plan indicated that much of the population growth in the region is greatly influenced by net migration and the major economic recession of 2007-2009.

The growth will likely mean added congestion management compliance requirements under California Government Code 65088 and 65089, which complements, but does not replace federal congestion planning requirements under 23CFR540.320.

In addition, the existing border crossings create bottlenecks on both sides of the border. Much of the congestion in Imperial County can be attributed to border traffic.

Future conditions could include potential developments such as the Silicon Border Development, a cargo airport, and a Calexico casino. Added to this development pressure is the GSAs plan for improvements to the Calexico POE and associated changes to traffic circulation. Both northbound and southbound traffic will be relocated to the west of the existing facility to a location previously used as the commercial gate (adjacent to the New River). Improvements are also expected for pedestrian and bus traffic operations.

To address this potential growth local agencies have been updating their circulation plans to deal with the future demand. The County of Imperial, the City of Calexico and the City of El Centro have all developed new circulation plans. In addition, the County and the Cities of El Centro and Brawley are also working on development impact fee programs to pay for the new facilities that will be required to service the new demand. The California Complete Streets Act (AB1358) requires all jurisdictions substantially revising their general plans after January 2011 must consider the needs of all roadway users, including bicyclists, pedestrians and the handicapped.

Future LOS, ADT, and LOS C capacity are provided in Table 4-1 for north-south facilities and Table 4-2 for east-west facilities.

**Table 4-1  
Future Conditions for North-South Facilities**

(ADT is based on Build-Out of Imperial County General Plan. LOS is determined for conditions without roadway improvements.)

Segment	Limits	Capacity at LOS C	Future	
			ADT	LOS*
SR-186	From I-8 to the International Border	7,100	14,000	E
SR-7	From I-8 to King Road	40,000	57,500	F
SR-115	From SR-111 to SR-78	7,100	22,500	F+
SR-115	From SR-78 to Evan Hewes Highway	7,100	32,000	F+
SR-115	From Evan Hewes Highway to I-8	7,100	15,000	E
Bowker Road	From Evan Hewes Highway to Cole Road	7,100	41,500	F+
SR-111	From the Riverside County Line to Wilkinson Road	7,100	26,000	F+
SR-111	North of Brawley City Limits	7,100	30,500	F+
SR-111	From SR-78 to I-8	40,000	68,500	F+
SR-111	From I-8 to SR-98	40,000	112,000	F+
SR-111	From northern Calexico City Limits to the International Border	29,600	93,800	F+
Dogwood Road	From Mead Road to SR-98	7,100	43,500	F+
Dogwood Road	From southern El Centro City Limits to McCabe Road	7,100	34,500	F+
8th Street	From Ross Avenue to Wake Avenue	7,100	31,800	F+
Imperial Avenue	From Aten Road to I-8	29,600	64,400	F+
Imperial Avenue	From Adams Avenue to I-8	29,600	45,200	F
Austin Road	From SR-86 to McCabe Road	7,100	26,000	F+
Forrester Road	From SR-78/86 to SR-98	7,100	30,000	F+

\* LOS "F+" is attained when the ADT exceeds the LOS F capacity by 25% or more.

**Table 4-2  
Future Conditions for East-West Facilities**

(ADT is based on Build-Out of Imperial County General Plan. LOS is determined for conditions without roadway improvements.)

Segment	Limits	Capacity at LOS C	Future	
			ADT	LOS*
SR-78	From the Riverside County Line to SR-115	7,100	12,500	E
SR-78/115	From SR-78 East to SR-111	7,100	22,500	F+
SR-78/86	From western Brawley City Limits to Lack Road	29,600	32,500	D
Keystone Road	From SR-115 to Forrester Road	7,100	20,000	F
I-8	From SR-111 to Forrester Road	60,600	71,000	D
McCabe Road	From SR-111 to Austin Road	7,100	28,500	F+
Jasper Road	From SR-7 to SR-111	7,100	41,000	F+
SR-98	From SR-7 to SR-111	7,100	33,500	F+
SR-98	From SR-111 to Dogwood Road	7,100	31,500	F+

\* LOS "F+" is attained when the ADT exceeds the LOS F capacity by 25% or more.

## CHAPTER 5 CONGESTION MANAGEMENT ELEMENT

Imperial County is in a non-attainment status for Ozone. Imperial County remains designated as a “moderate” non-attainment area of the 1997 8-hour ozone National Ambient Air Quality Standards (NAAQS).

Total “on-road” sources of emissions in Imperial County represent 53.99% of all ROG and NOx emissions in the County.<sup>6</sup> Because of this designation, the County comes under the rules of Section 450.320 of the United States Code of Federal Regulations, which says, in part:

*In TMAs designated as nonattainment for ozone or carbon monoxide, the congestion management process shall provide an appropriate analysis of reasonable (including multimodal) travel demand reduction and operational management strategies for the corridor in which a project that will result in a significant increase in capacity for SOVs (as described in paragraph (d) of this section) is proposed to be advanced with Federal funds. If the analysis demonstrates that travel demand reduction and operational management strategies cannot fully satisfy the need for additional capacity in the corridor and additional SOV capacity is warranted, then the congestion management process shall identify all reasonable strategies to manage the SOV facility safely and effectively (or to facilitate its management in the future). Other travel demand reduction and operational management strategies appropriate for the corridor, but not appropriate for incorporation into the SOV facility itself, shall also be identified through the congestion management process. All identified reasonable travel demand reduction and operational management strategies shall be incorporated into the SOV project or committed to by the State and MPO for implementation.*

SCAG defines a SOV capacity increasing project to be regionally significant when the cost exceeds \$50 million (to exclude bridge widening and interchange improvements unless they are part of a larger SOV capacity increasing project). When regarding the evaluation of significant projects, the City/County Public Works Staff and/or the Planning staff can require additional study and analysis if, in their opinion, potential impacts or proposed mitigation measures are not adequately addressed. Relevant examples of required analysis for impacts or mitigation measures include:

- a. ... The adequate identification of mitigation measures is required for measures that entail acquisition of additional right of way, relocation of existing structures, or are contingent upon actions to be taken by another entity other than the project applicant (e.g. the County, another project, Caltrans, etc.)
- b. On a project with a high employment base, a Transportation Management Plan is required to comply with current Air Quality Management regulations.
- c. Traffic reports requiring an EIR/EIS are required to 1) recommend feasible monitoring mechanisms and frequencies for the mitigation measures once the construction and operating phases of the project are started and 2) identify the means of financing the monitoring mechanisms.
- d. On larger significant development projects, additional analysis for pedestrian and bicycle circulation and for transit services will be required. In the instance of a high employment base, an overall Transportation system management plan may be required if mitigation measures do not achieve level of traffic service “C”...

---

<sup>6</sup> Imperial County FINAL 2009 1997 8-HOUR OZONE MODIFIED AQMP (2010)

- f. ...The study area for the project will be expected to encompass an adequate surrounding area to ensure that all impacts are identified to a sufficient extent that any mitigation measures, regardless of importance are shown.<sup>7</sup>

The transportation system envisioned for the County is a balanced system, incorporating the needs of all groups, as well as making provisions for many different modes of transportation. To accomplish this, it is necessary to implement policies encouraging a range of transportation opportunities while reducing dependency upon automobiles.

As stated earlier, there are two issues driving the increasing pressure on the transportation network: (1) growth in border crossings and (2) border wait times.

Peak-hour border crossing times often exceed 90 minutes along both sides of the border near downtown Calexico. Commercial trucks are now processed at the Calexico East POE which has helped reduce congestion in the Central Business District of Calexico. Expansion plans for the downtown Calexico POE are completed with Phase 1 schedule to begin in mid-2013. Other improvements include a proposed intermodal transit facility as well as bicycle and pedestrian improvements.

In its circulation plan, the County encourages the reduction of vehicle miles, reduction of the total number of daily peak-hour vehicle trips, and better utilization of the circulation system through the development of Transportation Demand Management and Transportation Systems Management programs.

The two main forms of non-recurring congestion in Imperial County are freeway accidents and seasonal moving of farm machinery on local roads. The State of California provides funding to each county for freeway service patrols to respond quickly to stalled cars and traffic incidents. Imperial County and SCAG will be exploring the implementation of Intelligent Transportation Systems (ITS) strategies in coordination with Caltrans in the form of a future Traffic Management Center and cross border and traffic management applications, such as Changeable Message Signs, traffic signal synchronizations and closed circuit television for traffic monitoring.

The Intelligent Transportation Systems County Architecture was developed in 2005. All cities are required to be consistent with the county architecture when developing or modernizing any ITS component technology. As cities within the county become more urbanized, the ITS Architecture will help cities proactively develop ITS in the county. ITS is expected to play an increasing role with regard to congestion around border crossings.

In 1999, the County first adopted a comprehensive bicycle master plan as a guideline in planning, developing, designing and constructing bicycle facilities in both the county and

---

<sup>7</sup> *Traffic Study and Report Policy* County of Imperial, Department of Public Works, revised June 29, 2007.



in participating cities. The plan was most recently updated in 2011 to maintain county and city eligibility for California Bicycle Transportation Account funding. Once fully implemented, all cities in Imperial County will be connected by designated bicycle facilities.

The circulation plan has a policy in place for transit: As part of any road-based infrastructure proposals consideration should be given to features which enhance bus operations such as queue jumps, priority lanes, and on-line stop facilities with acceleration/deceleration lanes (source: Greater Calexico Area Arterial Needs and Circulation Study).

As an alternative to increasing single-occupant vehicle capacity, transit services are being considered, along with operational and management strategies, during the assessment of congestion relief projects, an example being the transit circulator service.

As per the Imperial County Transit Vision, a 20-year long range transit plan completed in 2000, several community circulator routes have been proposed for Imperial County's larger urban centers, including El Centro, Calexico, Brawley and the City of Imperial. The proposed community routes would allow a reduction in local circulation on the intercity routes, reducing travel times and potentially allowing for shorter headways (utilizing the same number of vehicles). Both the Blue Line and Green Line circulators in El Centro were implemented in response to this plan. Other proposals include:

- Proposed Gold Line (Brawley)
- Proposed Orange Line (Calexico)
- Proposed Red Line (Imperial)

If feasible, future transit systems should be described as potential services that could reduce vehicle trips and relieve congestion at or above the minimum LOS standard.

The following table details recommended performance targets that transit operators should strive to meet in developing its Short Range Transit Plan (SRTTP) service and financial plan:

Performance Measure	Method for establishing Performance Targets
1) Operating Cost per Revenue Hour	Increases no more than CPI
2) Fare Box Recovery Ratio	Per PUC requirements and ICTC policy
3) Subsidy per Passenger	+/- 15% variance
4) Subsidy per Passenger Mile	+/- 15% variance
5) Subsidy per Revenue Hour	+/- 15% variance
6) Subsidy per Revenue Hour	+/- 15% variance
7) Passengers per Revenue Hour	+/- 15% variance
8) Passengers per Revenue Mile	+/- 15% variance
9) Ridership Growth	X% minimum average annual growth

## **CHAPTER 6 PROJECT LISTINGS**

As part of the planning process, a prioritized list of transportation projects was developed. The list includes three time horizons for project implementation: Near Term, Mid Term, and Long Term. Near Term projects would be implemented from 2012 to 2015, Mid Term Projects would be implemented from 2015 to 2025, and Long Term Projects would be implemented beyond 2025.

Tables 6-1 through 6-3 provide information about projects within each time period. The projects are then graphically depicted according to time frame in Figures 6-1 through 6-3. All projects are then shown in one graphic in Figure 6-4.

Appendix C provides information regarding each individual project, including a graphical depiction of the project location, and detailed information regarding the results of the TRC review of each project using the project evaluation criteria.

Below is the fiscally constrained project list based on the individual project lists developed originally for the 2007 Transportation Plan.

### **PROJECTS FROM THE SCAG 2012 Draft RTP/SCS**

#### **FINANCIALLY CONSTRAINED PROJECTS**

##### **NEAR-TERM (2012-2015)**

I-8/Imperial Ave. - Reconstruct interchange at Imperial Avenue.  
Year: 2014 Cost (in thousands): \$58,472

Cesar Chavez Boulevard/Calexico – Widen and improve Cesar Chavez Boulevard to five lanes from 2nd Street to SR-98. Other improvements include: surface rehabilitation, turn lanes, traffic signal, lighting, and sidewalks  
Year: 2015 Cost (in thousands): \$8,930

##### **MID-TERM (2015-2025)**

SR-98: From VV Williams Avenue to Ollie Avenue, widen and intersection improvements of SR-98 and Cesar Chavez from two to four lanes (Phase 1B).  
Year: 2016 Cost (in thousands): \$9,357

SR-98: From Ollie Avenue to Rockwood—(PM 32.4 to PM 32.6) Widen from four to six lanes (Phase 1A)  
Year: 2018 Cost (in thousands): \$9,781

Calexico Intermodal Transportation Center - Construct Calexico Intermodal Transportation Center

Year: 2018 Cost (in thousands): \$9,315

Forrester Road: From I-8 to SR-78 - Widen and improve to four-lane arterial

Year: 2018 Cost (in thousands): \$250,578

SR-98: From All American Canal to VV Williams PM 30.9 to PM 32.2) Widen from two to four lanes (Phase 1C)

Year: 2020 Cost (in thousands): \$58,850

I-8/Imperial Avenue: Reconstruction I-8 interchange at Imperial Ave. from a two to four lane diamond type overcrossing, realign and reconstruction of on and off-ramps and provide access to Imperial Avenue south of I-8

Year: 2020 Cost (in thousands): \$39,635

SR-98: From Dogwood to the All American Canal—(PM 30.0 to PM 30.9) Widen from two to four lanes (Phase 2)

Year: 2023 Cost (in thousands): \$34,656

SR-115: From I-8/SR-7 interchange to Evan Hewes Highway- Construct four lane limited access expressway (2.6 miles)

Year: 2030 Cost (in thousands): \$231,816

I-8 /SR-186 Improve interchange – Widen and improve ramps

Year: 2035 Cost (in thousands): \$91,038

SR-111: From SR-98 to I-8 - Widen and improve to six lane freeway with interchanges at Heber, McCabe, and Jasper and an overpass at Chick Road

Year: 2030 Cost (in thousands): \$997,259

SR- 98 or Jasper Road: From SR-111 to SR-7- Widen and improve to four/six lanes on either Jasper Road or SR-98

Year: 2035 Cost (in thousands): \$1,170,483

## **STRATEGIC PROJECTS (UNCONSTRAINED)**

### **MID-TERM (2015-2025)**

I-8 at Austin Road - Construct Full Interchange

I-8 at Bowker Road - Improve Interchange

SR-111: From Shank Road to SR-115 - Widen and improve to four-lane conventional highway

SR-115/Evan Hewes Highway to SR-78 - Widen and improve to four-lane expressway

SR78/86 ((dual signed) From Brawley Bypass to SR-78 - Construct new four-lane expressway bypass route around the City of Westmorland

SR-98: From Dogwood Road to SR-111 - Construct grade separated railroad crossings, new roadway segments, signalization, channelization, and roadway geometric improvements

On Keystone Road: From Forrester Road to SR-115 - Construct new six-lane prime arterial on Keystone Road existing alignment

On McCabe Road: From Austin Road to SR-111 - Widen and improve to six lane prime arterial

On Imperial Avenue: From McCabe Road to I-8 - Construct six lane prime arterial

On Dogwood Road: From SR-98 to Mead Road - Widen and improve to four lane prime arterial

Construct 1.5 mile multimodal lane for Neighborhood Electric Vehicle (NEV), pedestrian, and bicycles; and acquisition of Union Pacific Railroad within the City of Holtville

Develop 4.47 miles of Class I & II of bicycle lanes within the City of Holtville

Construct two NEV charging stations and designated NEV parking spaces within the City of Holtville

## LONG-TERM (2025-2035)

SR111: From I-8 to SR-78 - Widen and improve to six-lane freeway; add interchanges at Aten Road, Worthington Road, Keystone Road, and SR-78

SR-111: From Young Road to Riverside County Line - Widen and improve to four-lane conventional highway

I-8: From Forrester Road to SR-111 - Widen and improve to six-lane freeway

SR-115: From SR-111 to SR-78 - Widen and improve to four-lane expressway

SR-7 at McCabe Road - Construct new interchange to accommodate future airport access

SR-78/SR-115 (junction): From Brawley Bypass to SR-115 - Widen and improve to four-lane conventional highway

SR-78: From SR-115 to Riverside County Line - Provide operational and safety improvements; intersection improvements and roadway geometric improvements

From Austin Road/McCabe Road to SR-86 - Widen and improve to six-lane prime arterial

Eighth Street at I-8 - Widen and improve overcrossing

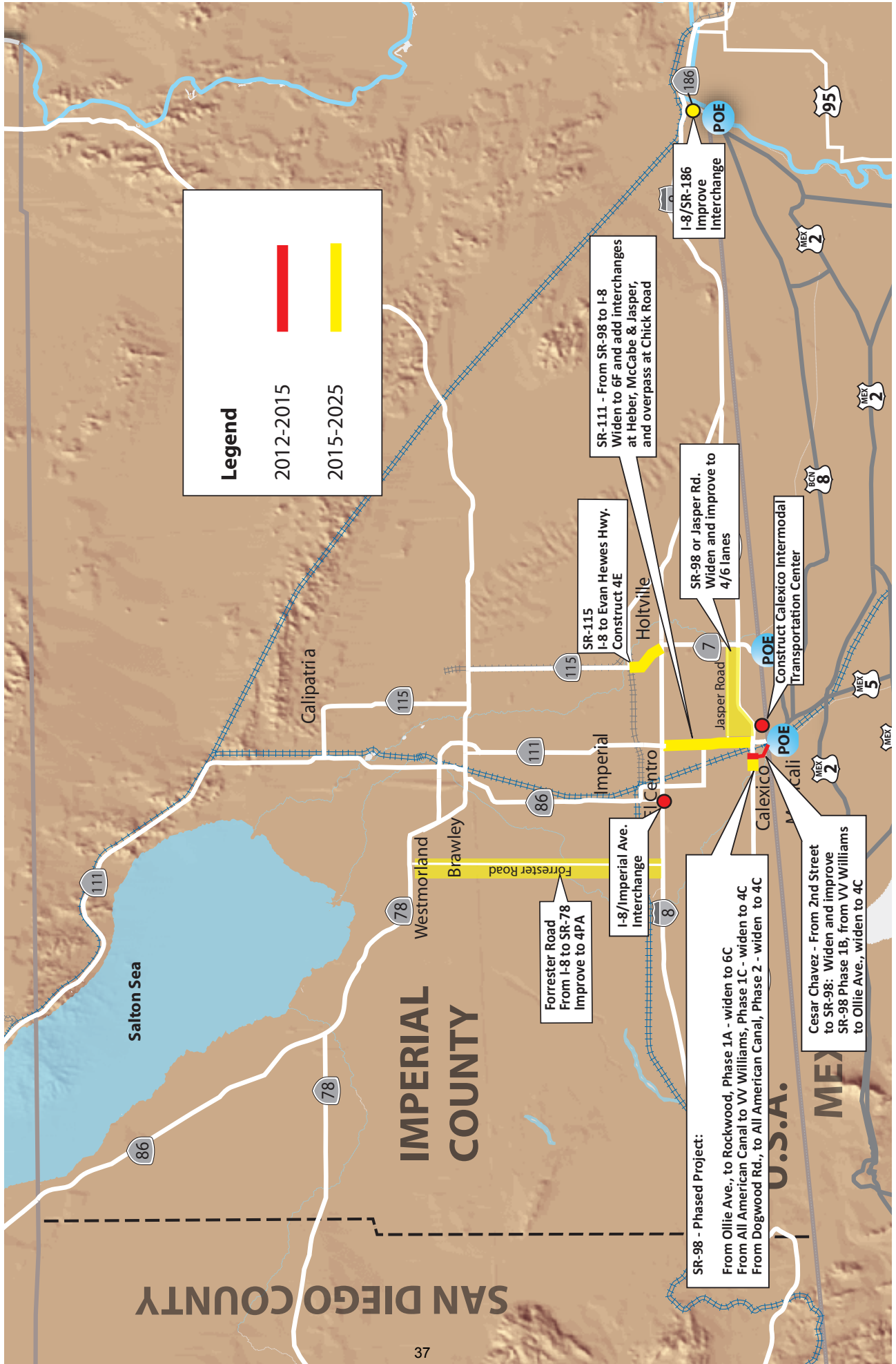
Eighth Street: From Wake Avenue to Centinela - Widen and improve to four-lane prime arterial

Imperial Avenue: From I-8 to Aten Road - Widen and improve to six-lane prime arterial

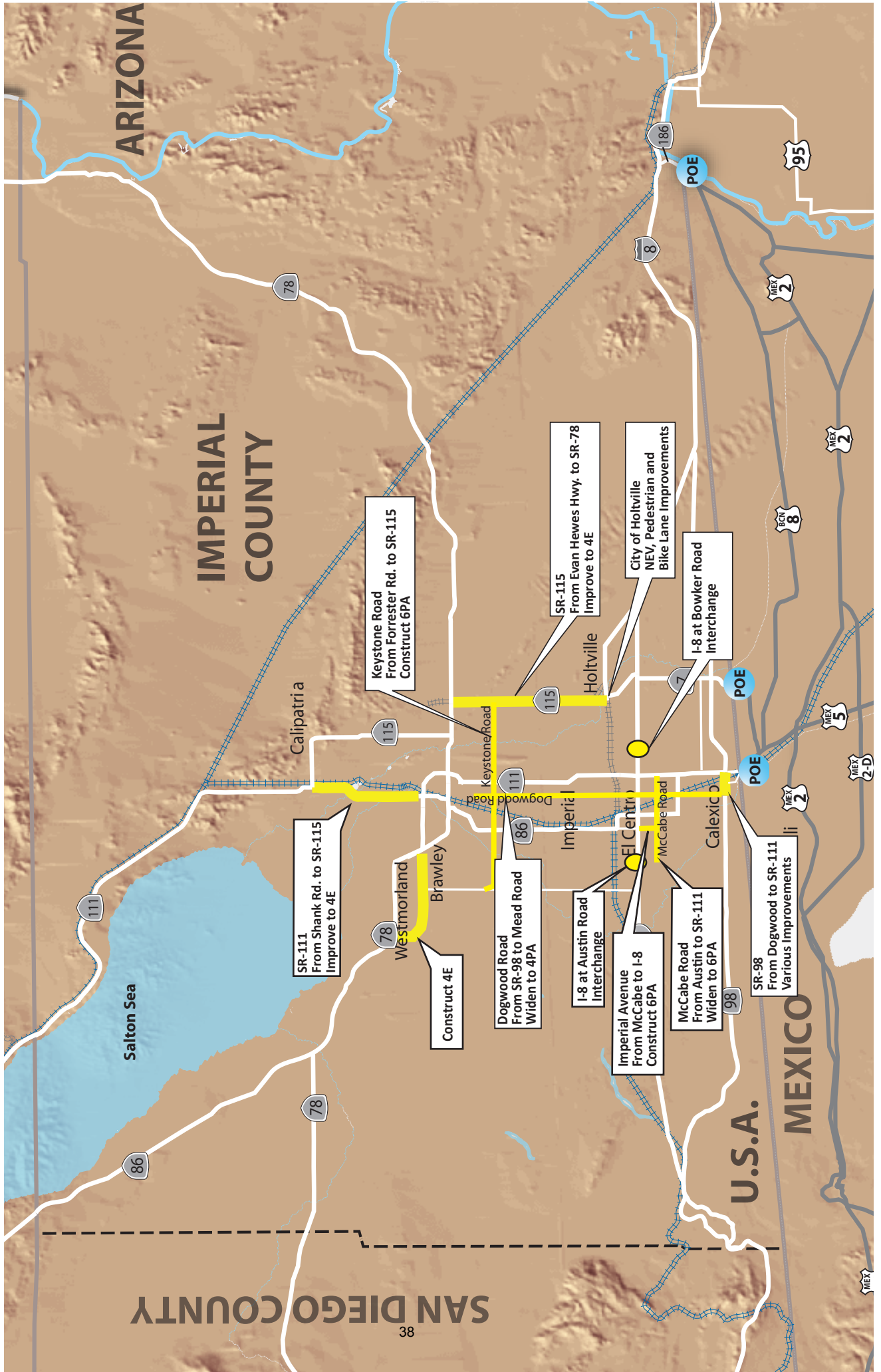
Construct Roadway/Rail Grade Separations (10 Locations)

# Imperial County Long Range Transportation Plan 2013

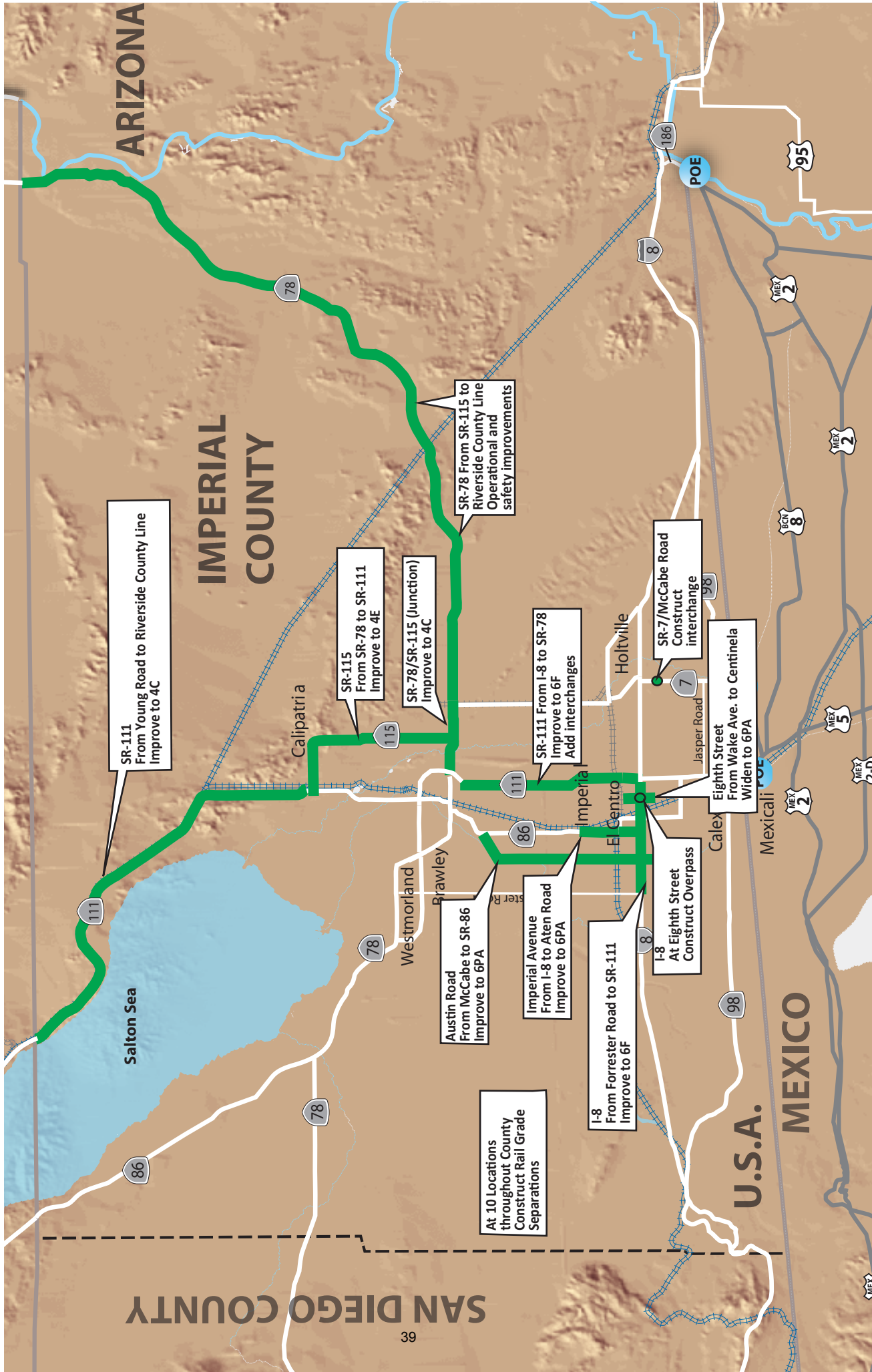
## Financially Constrained Projects



# Imperial County Long Range Transportation Plan 2013 Strategic Projects (Unconstrained) Mid-Term Projects 2015-2025



# Imperial County Long Range Transportation Plan 2013 Strategic Projects (Unconstrained) Long-Term Projects 2025-2035





## **CHAPTER 7 FINANCIAL COMPONENT**

This chapter presents a description of the available funding sources for transportation projects and improvements. This chapter was developed using information provided by SCAG, Caltrans (Program/Project Management) and ICTC. The forecast developed by SCAG for the update to 2012 RTP for funding from the major sources available to Imperial County is summarized in Table 5-1. This Chapter concludes with a description of the methodology used to develop cost estimates for the transportation projects proposed in this report for Imperial County.

The forecast for total funding available to Imperial County for the Near Term (2012 – 2015) from all major sources is \$940.6 million. The corresponding estimate for the total cost of all projects is \$3.56 billion, resulting in a shortfall of **\$2.6 billion**. Furthermore, it should be noted that funding available from local sources is not available for the regionally significant projects that are proposed in this report.

### **FUNDING PROGRAMS**

The following is a description of the traditional local, state and federal funding sources for transportation projects and improvements.

#### **Local Funding Sources**

##### Local Transportation Sales Taxes

Funds are derived from a ½ percent sales tax on retail sales in the county.

##### Transportation Development Act (TDA)

Funds are derived from a ¼ percent sales tax on retail sales in the state. Funds are returned to the county of tax generation.

##### Gas Tax Subventions

Revenues are generated from a tax on gasoline sales throughout the state, and are distributed according to a formula based on each county's number of registered vehicles.

### Transit Fares

Funds are derived from fares collected by transit services in the county.

### Local Agency Funds, Developer Impact Fees (DIF) and Traffic Impact Fees (TIF)

Funds are derived from the Imperial County developer fee programs. These programs include the soon to be adopted Central Imperial County Traffic Impact Fee Program, the County Wide Developer Fee Program, the Imperial County Air Pollution Control District Operational Development Schedule Fee (Rule 310), and the El Centro Traffic Impact Fee Program. These impact fee programs provide for a comprehensive and uniform approach to generate funding for the improvements that are needed to maintain adequate levels of service on regional roadways due to new development. The impact fees charged to developers are directly related to the cost of new transportation facilities that will be needed to serve the increased demand from new development.

## **Other Potential Sources of Local Funds**

### General Funds

In addition to the sources identified above, county and local jurisdiction general funds could be expended to finance transportation projects and improvements. These funds are raised through property taxes and other tax measures.

### Development Permit Fees

Although Development Impact Fee (DIF) and Traffic Impact Fee (TIF) programs are being implemented, the traditional method of exacting fees from developers in connection with the issuance of building permits has been used to generate funding for transportation projects and improvements. This is typically accomplished by conditioning a building permit on the direct mitigation of impacts resulting from the development project.

## **State Funding Sources**

### State Transportation Improvement Program (STIP), Regional Share (RTIP) and Inter-regional Share (ITIP)

This program is a four year multi-modal program funded through the State Highway Account and the Passenger Rail Bond Fund. This program combines seven previous funding categories (Flexible Congestion Relief, Transit Capital Improvement Program, Commuter and Urban Rail Transit Program, Mass Transit Guideway Program, Traffic Systems Management Program, Intercity Rail Corridors Program, and the State-Local Transportation Program). The STIP is divided into two basic accounts: 75% of the program funds are allocated to the Regional Transportation Improvement Program (RTIP); and 25% of the program funds are allocated to the Inter-regional Transportation Improvement Program (ITIP). Local transportation agencies implement the RTIP, while Caltrans implements the ITIP.

### State Highway Operations and Protection Plan (SHOPP) / Operations and Maintenance (O&M)

This program is a four year program that includes state highway rehabilitation, traffic safety, seismic safety, and traffic operational improvements. This source of funding is typically used for operations and maintenance projects, and may have limited application to new transportation facilities and improvement projects.

### State Transit Assistance (STA)

Revenues are derived from sales taxes on fuel sales. Levels of STA funding can be uncertain due to sensitivity to annual legislative budgetary activities.

### Traffic Congestion Relief Plan (TCRP)

Approximately \$5 billion was originally designated by the state legislature to fund the Governor's Traffic Congestion Relief Plan (TCRP) between 2001 and 2006. Changes in the State Budget delayed funding until fiscal year 2008. Revenues that had been transferred to the TCRP were loaned back to the State's General Fund.

### Proposition 42

Proposition 42 was passed by the general state electorate in March 2002 and indefinitely extends the core elements of the Traffic Congestion Relief Plan (TCRP) program. Revenues are derived from state sales tax on gasoline. Proposition 42 is expected to commence in fiscal year 2009, but may experience the same funding problems as the TCRP due to changes to the State Budget.

### Proposition 1B

Proposition 1B, also known as the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, was approved by the voters November 7, 2006. The following description of Proposition 1B describes statewide funding amounts. The current forecast for Proposition 1B funding is \$19.925 billion.

Proposition 1B bond proceeds of \$4.5 billion were deposited into the Corridor Mobility Improvement Account (CMIA). The CMIA allocated funds to performance improvements on the state highway system or major access routes to the state highway system. Proposition 1B proceeds of \$2 billion will be used for infrastructure improvements along federally designated "Trade Corridors of National Significance" in California or along other corridors in California with a high volume of freight movement. Another \$2 billion of bond proceeds was deposited in the newly created Transportation Facilities Account (TFA) and was allocated to the State Transportation Improvement Program (STIP) to augment funds from other sources. \$1 billion was deposited into the newly created State-Local Partnership Program Account. These funds will be available for allocation over a five-year period to eligible transportation projects nominated by an applicant transportation agency. A dollar for dollar match of local funds is required for an applicant transportation agency to receive state funds under this program. Finally, bond proceeds of \$750 million were deposited in the newly created Highway Safety, Rehabilitation, and Preservation Account for highway safety, rehabilitation, and pavement preservation

projects, while another \$250 million will be available for traffic light synchronization projects or other technology based improvements to improve safety operations and the capacity of local streets and roads.

The revenue projections presented in this report (see Table 5-1) are presented in 2007 cost dollars, and assume that Imperial County receives its fair share of funding from Proposition 1B funding categories with established funding formulas.

## **Federal Funding Sources**

### Congestion Mitigation and Air Quality (CMAQ)

This program provides funding for transportation projects in non-attainment or air quality maintenance zones to assist in meeting the requirements of the National Ambient Air Quality Standards (NAAQS) established under the Federal Clean Air Act.

### Regional Surface Transportation Program (RSTP)

This program is a flexible source of funds that can be used for a wide range of projects. Funding is available for roadways (the range includes national highways, city arterials and rural collectors), bridges on public roads, and transit capital projects. TEA-21 expanded the RSTP eligible projects to include environmental provisions, sidewalk modifications to comply with the Americans with Disabilities Act (ADA) requirements, and infrastructure based intelligent transportation system capital improvements.

### Section 5307 (transit) / Section 5309 (transit)

The Federal Transit Administration has many programs under the Urban Mass Transportation Act to assist transit operations. Although this study does not address transit services or potential improvements to transit, the following Federal Transit Administration programs are briefly described here for completeness.

Section 5307 is a block grants program that provides funds to urbanized area transit operators.

Section 5309 is a funding program for new rail services, upgrading rail services and bus services.

### Other / Demonstration Programs

This category of funding includes federal programs such as the Highway Bridge Replacement and Rehabilitation Program (HBRR), the Hazard Elimination Safety Program (HES) and the Safe Routes to School Program (SR2S).

The Highway Bridge Replacement and Rehabilitation program provides funds to replace or rehabilitate bridges when Caltrans and Federal Highway Administration (FHWA) determine that a bridge is significantly important and is unsafe. The Hazard Elimination and Safety Program provides funds to eliminate or reduce traffic accidents at locations selected for improvement. A portion of the HES funds received by California is targeted

for bicycle, pedestrian and traffic calming projects through the Safe Routes to School Program (SR2S).

## **COST ESTIMATES**

Two basic methods were used to determine the cost estimates for proposed projects. All costs presented in this study reflect year 2010 cost dollars. The first cost estimation method involved collecting cost estimates from previous studies obtained from State, County and Local agencies, and adapting the information about projects in those studies to the present project descriptions. Project costs were obtained from various prior studies, including, but not limited to the following:

- 2007 Imperial County Transportation Plan
- Caltrans Project Study Reports
- City of El Centro Traffic Impact Fee Study (2006)
- Calexico West Border Station Expansion (2003)
- Greater Calexico Area Arterial Needs and Circulation Analysis (2005)
- Northeast Corridor Feasibility Study – SR-78 (2005)
- City of El Centro Service Area Plan (2005)

Costs were adjusted as necessary to reflect 2010 cost dollars using Caltrans construction cost index data. This data was used to determine the appropriate multiplier to inflate prior year dollars to 2010 dollars. Cost estimates that were obtained from prior studies that reported future year dollars were discounted to 2010 dollars. A discount rate of 5.9% was used, which represents the average annual rate (of increase) from 1972 through 2006, which represents a reasonable average before the current economic downturn reduced construction costs temporarily. For several projects, Caltrans staff provided a cost estimate based on their experience building similar facilities. For certain projects, Caltrans provided the actual cost estimates that were previously determined for those projects.

The second cost method involved determining unit costs for roadway improvements and lump sum costs for certain types of improvements, such as interchanges and grade separated railroad crossings. A cost per linear foot was determined for each of several categories of roadway improvements, such as expansion from residential street to collector, and build outs to minor arterials (four and six-lanes), prime arterials (six and eight lanes), expressways (six and eight lanes), and freeways (eight lanes). In addition to the linear roadway improvement costs, lump sum costs were developed for certain types of project components, such as grade separations, interchanges and intersection signalization.

The project evaluation summary table presented in Appendix E shows the results of the cost estimation process. Project costs can also be found in the project listing tables presented in the following chapter for each of the relevant time periods.

**APPENDIX A**  
**IMPERIAL COUNTY 2012 TRANSPORTATION PLAN**  
**BIBLIOGRAPHY**

1. Brawley General Plan, January 1995, *Housing Element, May 2001*.
2. Calexico - Cole Road Industrial Park Preliminary Infrastructure Study, *Development Design & Engineering, April 2000*.
3. Calexico/Mexicali Border Transportation Study, *KOA, June 2000*.
4. Calexico Project Report: Eady Avenue and Ollie Avenue Construct Traffic Signals, *Caltrans, November 1999*.
5. Imperial County Comprehensive Economic Development Strategy 2012-2017
6. Calexico - Service Area Plan: Sphere of Influence, *CEG, Inc., March 1999*.
7. Calexico West Border Station Expansion: Circulation Analysis, *KOA, May 2003*.
8. City of Brawley Development Impact Fee Justification Study, *David Taussig & Associates, Inc., April 2005*.
9. City of Calexico General Plan: Circulation Element, *Calexico, 2004*
10. El Centro Capital Improvement Project Report, *City of El Centro, May 2004*.
11. El Centro Cost Recovery Study Findings, *Maximus, May 2003*.
12. El Centro Final Development Impact Fee Report, *Recht, Hausrath & Associates, November 1989*.
13. El Centro General Plan: Circulation Element, *City of El Centro, February 2004*.
14. El Centro General Plan: Circulation Element Implementation Program, *City of El Centro, February 2004*.
15. El Centro Public Works /Eng Dept. Support Services, *City of El Centro, May 2004*.
16. El Centro Traffic Circulation Element: Traffic Impact Analysis Final Draft Report, *For Willdan, Higgins Associates, December 2006*.
17. El Centro Traffic Impact Fee Study, *Muni Financial, September 2006*.
18. Final Project Study Report: La Brucherie Road Widening Improvements for the City of Imperial, *Nolte Associates, May 2004*.
19. Greater Calexico Area Arterial Needs and Circulation Analysis, *Darnell & Associates, Inc., June 2005*.
20. Gross Values by Commodity Groups: USDA NASS California County Agricultural Commissioners' Report, December 2010
21. Imperial County Alternative Fuels Impact Analysis Final Report, *Transit Resource Center, May 2003*.
22. Imperial County I-8 /Imperial Ave. Interchange Reconstruction: Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration, *Caltrans, December 2003*.
23. Imperial County Circulation and Scenic Highways Element, *Imperial County Planning & Development Services Department, October 2006*.
24. Imperial County-Overall Economic Development Plan, *Valley of Imperial Development Alliance, June 1998*.
25. Imperial County Transit Vision Final Report, *Meyer, Mohaddes Associates, Inc., November 2000*.
26. Imperial County Transportation Plan Highway Element, *Caltrans, November 2002*.
27. Imperial County Transportation Plan Highway Element, *Prepared by IVAG, Caltrans, and SCAG, February 1997*.
28. IVAG Transit Finance Plan FY 2005-2006, *IVAG, June 2005*.
29. Northeast Corridor Feasibility Study-State Route 78 Final Report for IVAG & SCAG, *David Evans & Associates, April 2005*.

30. Proposal for the New Ports of Entry at Los Algodones, B.C. and Andrade, CA., *Municipal Government of Mexicali, September 1998.*
31. Southern California Regional ITS Architecture-Version 4.0, *URS Corporation, March 2005.*
32. Survey of Border Crossers: Imperial /Mexicali Valleys, San Diego Dialogue and Centro de Estudios Económicos del Sector Empresarial de Mexicali, *A.C., March 1998.*
33. Transportation Concept Report for I-8, State Routes- 7, 78, 86, 98, 111, 115, 186, *Caltrans, Various Dates.*
34. Westmorland Service Area Plan, *Hofman Planning Associates, March 2005.*
35. Westmorland Circulation Element (Draft), *The Holt Group, October 1999.*

## **APPENDIX B TRANSPORTATION ACRONYMS**

ADT	Average Daily Traffic
AADT	Average Annual Daily Traffic
APCDE	Air Pollution Control District
ATSD	Advanced Transportation System Development
ASA	Aeropuertas y Servicios (Federal Agency responsible for the operations and maintenance of Mexican public airports)
AVI	Automatic Vehicle Identification
BMP	Bicycle Master Plan
CALTRANS	California Department of Transportation
CABIN	Comision de Avualuos de Bienes Nacionales (Mexican Counterpart of GSA)
CBI	Coordinated Border Infrastructure
CMAQ	Congestion Mitigation and Air Quality
CVT	California Transportation Ventures (Private company responsible for the construction of the SR 125)
CVEF	Commercial Vehicle Enforcement Facility
DOR	Division of Rail
DOT	Department of transportation
DSMP	District Systems Management Plan
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FAA Part 139	Federal Aviation Regulation Part 139 - Designation authorizing an airport to conduct scheduled passenger service
FHWA	Federal Highway Administration



FNM	Ferrocarriles Nacionales de Mexico (Federal Agency responsible for all railroad facilities and services in Mexico)
FTA	Federal Transit Administration
FTZ	Foreign Trade Zone
FY	Fiscal Year
GATT	General Agreement of Tariffs and Trade
GSA	General Services Administration
HOV	High Occupancy Vehicle
HR	House Report (Congressional Record)
IBTC	International Border Trade Corridor
ICES	Intermodal Corridor of Economic Significance
ICT	Imperial County Transit
ICTC	Imperial County Transportation Authority
ICTP	Imperial County Transportation Plan
IDD	Imperial Irrigation District
INEGI	Instituto Nacionales De Estadistica Geografia (Mexican Agency responsible for integrating Mexico's system of statistical and geographical information)
INS	Immigration and Naturalization Service
IRRS	Interregional Road System
ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation System
IVAG	Imperial County Association of Governments (now called ICTC)
JWG	Joint Working Committee
LTF	Local Transportation Fund
LOS	Level of Service
LROP	Long Range Operation Plan
LRT	Light Rail Transit
MPO	Metropolitan Planning Agency
MSL	Maintenance Service Level

MTDB	Metropolitan Transit Development Board
NAFTA	North American Free Trade Agreement
NAS	Naval Air Station
NHS	National Highway System
PA	Principal Arterial
PHV	Peak Hour Volume
P.M.	Post Mile
POE	Point of Entry
PS&E	Plans Specifications and Estimates
RCR	Route Concept Report
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
R/W	Right of Way
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAHOPE	Secretaria de Asentamientos Humanos y Obras Publicas del Estado de Baja California (Agency responsible for regional land use and transportation planning in the state of Baja California, Mexico)
SANDAG	San Diego Association of Governments
SAT	Servicio de Administracion Tributaria (Mexican Agency equivalent to Customs Inspection Agency)
SBSCIP	Southwest Border Station Capital Improvement Program
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCT	Secretaria de Comunicaciones y Transportes (Mexican Counterpart of FHWA)
SD&AE	San Diego and Arizona Eastern Railway
SD&IV	San Diego and Imperial Valley Railway
SDUPD	San Diego Unified Port District
SEDAB	Southeast Desert Air Basin
SENTRI	Secure Electronic Network for Travelers Rapid Network

SHELL	Subsystem of Highways for the Movement of Extralegal Loads
SHOPP	State Highway Operations Pavement Program
SP	Southern Pacific Railroad (merged with Union Pacific)
SPA	Specific Plan Area
SR	State Route
STA	State Transit Assistance
STAA	Surface Transportation Assistance Act
STP	Surface Transportation Program
STIP	State Transportation Improvement Program
TASAS	Traffic Accident Surveillance and Analysis System
TCM	Transportation Control Measure
TCR	Transportation Concept Report
TCRP	Transportation Congestion Relieve Program
TDM	Transportation Demand Management
TMA	Transportation Management Association
TEA	Transportation Enhancement Activities
TEA 21	Transportation Equality Act for the 21st Century
TOC	Transportation Operations Enter
TR&D	Transportation Planning and Development
TPPS	Transportation Project Prioritization Study (CVAG)
TSM	Transportation System Management
USGAO	United States General Accounting Office
V/C	Volume to Capacity
VMT	Vehicle kilometer (miles) of Travel