



STATE ROUTE-188 TRANSPORTATION CONCEPT SUMMARY

This Transportation Concept Summary (TCS) for State Route 188 in District 11 serves as an analysis tool and conceptual long-range guide for future investment decisions in the transportation corridor.

DISCLAIMER

The information and data contained in this document are for planning purposes only and should not be relied upon for final design of any project. Any information in this TCS is subject to modification as conditions change and new information is obtained. Although planning information is dynamic and ever-changing, the District 11 Planning Division makes every effort to ensure the accuracy and timeliness of the information contained in the TCS. The information in the TCS does not constitute a standard, specification, or regulation, nor is it intended to address design policies and procedures. If you encounter information that you deem to be inaccurate or unreliable, please contact Kim.Sturmer@dot.ca.gov or at 619-688-6967.

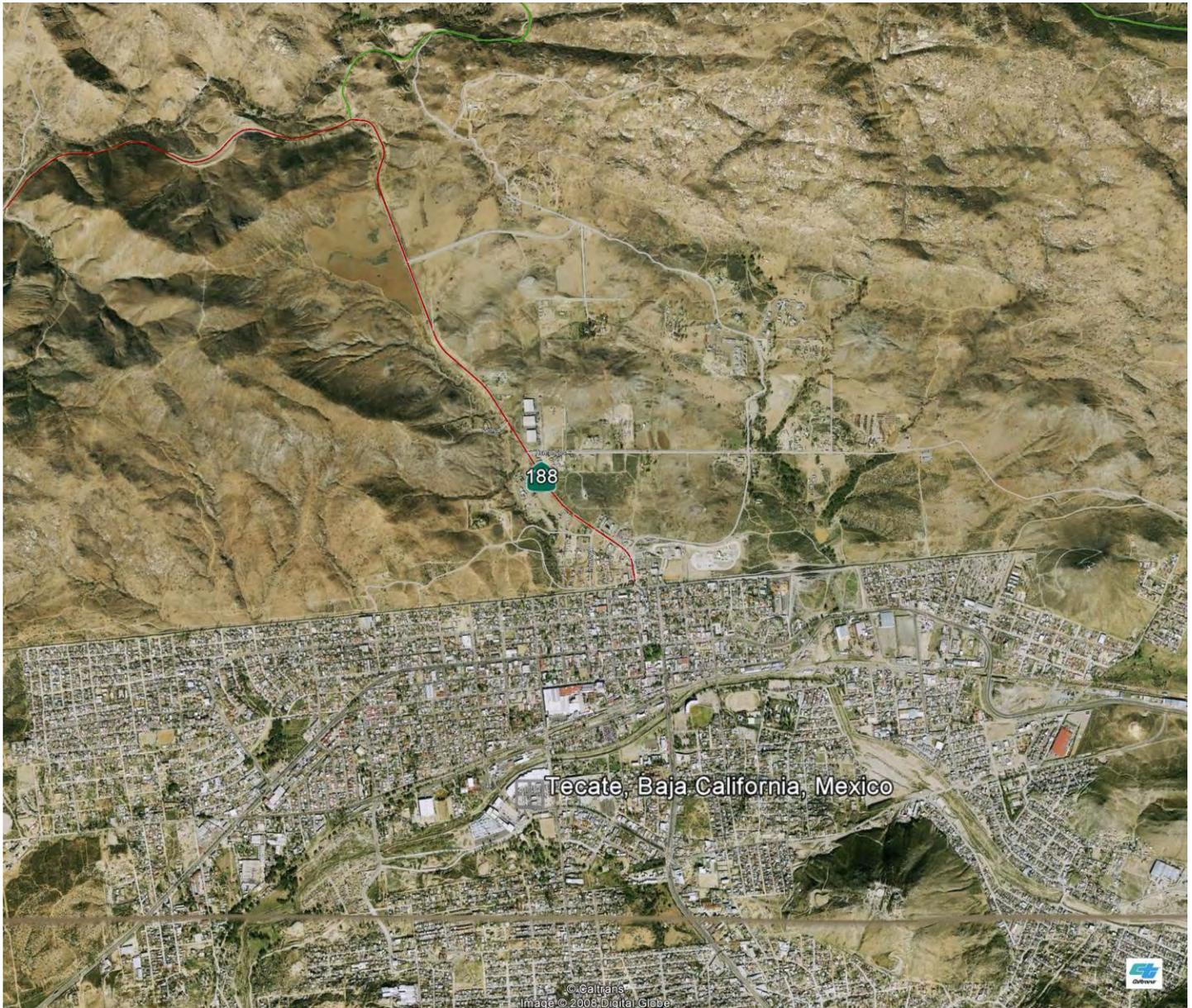


CALIFORNIA DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
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DISTRICT 11

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SR-188 Transportation Concept Summary December 2011



CORRIDOR PURPOSE

The primary purpose of SR-188 is to serve international and interregional (via SR-94) commuter, commercial, and recreational travel patterns. SR-188 is a two-lane north-south conventional highway beginning at the United States/Baja California, Mexico International Port of Entry (POE) at Tecate. SR-188 extends 1.9 miles north to its terminus at SR-94.

Current congestion at the California/Baja California POEs and the need to accommodate future growth in trade and travel make POE and related infrastructure improvements a critical issue for California. Trade is a key contributor to local, state and national economic growth and land POEs are critical in maintaining the State's economic vitality. In 1999, Mexico surpassed Japan to become California's top trade partner. Exports to Mexico have grown from \$6.5 billion to \$18.3 billion in 2007, an increase of 181% since 1993. The total trade value of goods and services coming through the Tecate POE was about \$543.3 million in 2009.

Existing POEs experience excessive cross-border delays due to operational and infrastructure issues. Border delays impact the competitiveness of the bi-national region. Long cross-border wait times impact goods movement as well as personal trips to and from Mexico. Because of delays experienced by trucks at the border, it is estimated that San Diego County and Imperial County lost \$248 million and \$40 million respectively in net revenue in 2008 after adjusting for revenue gains from local foregone trips to Mexico. When accounting for the indirect and induced effects of net revenue losses, the total impact amounts to a \$412 million loss in business output and 2,256 jobs lost in San Diego County, and a \$58 million loss in business output and 276 jobs lost in Imperial County. At the state level, given that a large portion of U.S. trucks originate in the rest of California (i.e., in California but outside Imperial County or San Diego County), the combined direct revenue loss reaches \$477 million. When adding the indirect and induced effects, the total revenue loss amounts to \$943 million and the total job loss amounts to 4,892. Detailed information on wait times and the impacts of border delays can be found in the consultant-prepared Draft Final Report entitled Economic Impacts of Wait Times At The San Diego-Baja California Border Update (December 2011).

California and Baja California are taking steps to fund capital improvement projects at federal POEs. Both states have invested resources to expand the number of SENTRI (Secure Electronic Network for Travelers Rapid Inspection) and the FAST (Free and Secured Trade) lanes for pre-cleared users at each of the California/Baja California POEs.

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SR-188 looking southbound with Tecate, Mexico in background



SR-188 looking northbound from the international border



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SR-188 looking southbound - end of route at International Border



SR-188 looking northbound - junction with SR-94



CORRIDOR NEEDS

Several general recommendations for California POE's have been developed. A critical recommendation is the pursuit of applicable federal and state legislation to allow for the creation of public and public/private partnerships to provide the necessary funds for operational and infrastructure improvements in the U.S.-Mexico border region. Because SR-188 provides the primary access to the Tecate POE, recommendations pertinent to SR-188 include providing better road access, directional signage, and traveler information to and from the POE. Tecate is a minor full-service POE serving rural San Diego County. The newly-built U.S. federal facility at the Tecate POE is not aligned with Mexico's proposed POE. The governments of Mexico and the U.S. are discussing alternatives that would allow commercial traffic to bypass residential areas.

CORRIDOR ANALYSIS

SR-188 provides a connection from SR-94 to the International Border at Tecate. Tecate, California is a lightly populated community characterized by rural residential, commercial and some industrial land uses. South of the International Border, Tecate, Mexico is a thriving and growing city with a 2010 population of 64,764. This population is projected to increase to 186,000 in 2030. Employment in Tecate, Mexico in 2005 was 35,434. This is expected to increase to 102,200 in 2030. Mexico continues to provide infrastructure to entice development to the Tecate area.

The following table shows northbound Privately Owned Vehicle (POV) crossing information for the period from August 2009 until August 2010:

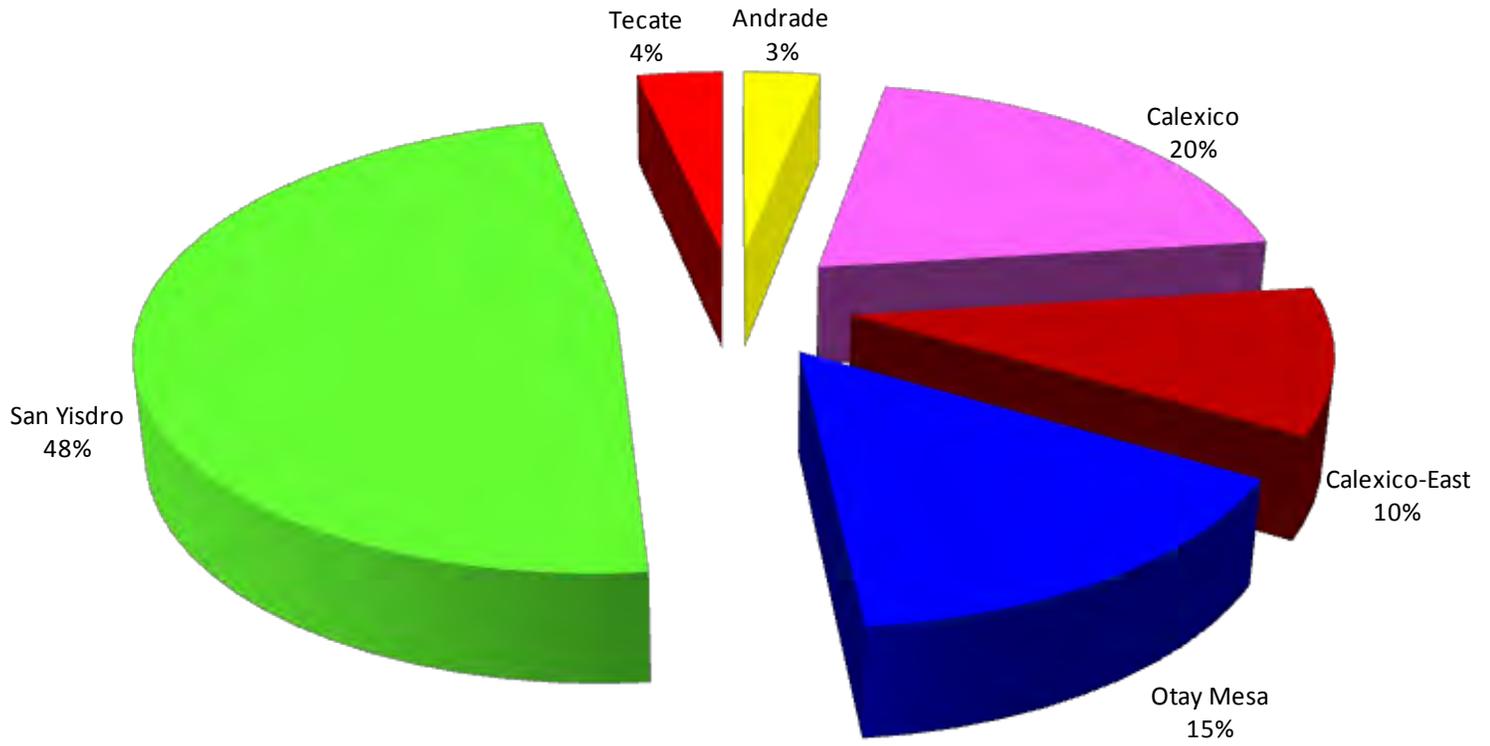
Mode	August 2009- August 2010
Privately Owned Vehicles	899,274
POV Passengers Arriving	1,674,206
Buses	243
Bus Passengers Arriving	4,479
Pedestrians Arriving	528,391

SOURCE: Federal Customs and Border Protection (CBP)

Both San Diego County and Imperial County have recorded less border crossings in recent years. The primary reasons for the decline include increased border security, the economic recession, increased shopping options in Mexico, and the lack of appropriate border infrastructure to handle traffic.

The following graphic shows the distribution of incoming passenger crossings by POE in 2008. As is evident, the Tecate POE only accounts for 4% of the total passenger crossings:

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SOURCE: Economic Impacts of Wait Times At The San Diego-Baja California Border Update (December 2011).

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Contrary to passenger crossings, commercial vehicle traffic has been on the increase at most POEs. From 1995 to 2008, truck crossings grew by 4.5 percent per year on average. The following graphic shows cargo crossing information at the Tecate POE for federal fiscal years 2010, 2011, and the 2012 year-to-date:

FY2010	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	FY Totals
Trains	0	1	0	0	0	0	0	0	0	0	0	0	1
Mdse Value (Millions)	\$47.6	\$43.5	\$37.9	\$39.1	\$43.5	\$46.0	\$44.3	\$45.0	\$48.9	\$47.5	\$46.3	\$38.7	\$528.3
Truck Containers Full	1,723	1,466	1,854	2,099	2,188	3,162	2,813	2,437	3,544	3,068	3,261	3,038	30,653
Truck Containers Empty	1,288	1,071	1,322	1,771	1,455	2,027	1,654	1,355	1,832	1,643	1,828	1,794	19,040
Total Truck Containers	3,011	2,537	3,176	3,870	3,643	5,189	4,467	3,792	5,376	4,711	5,089	4,832	49,693
Rail Containers Full	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Containers Empty	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Rail Containers	0	0	0	0	0	0	0	0	0	0	0	0	0

FY2011	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	FY Totals
Trains	0	0	0	0	0	0	0	0	0	0	0	0	0
Mdse Value (Millions)	\$44.9	\$46.4	\$34.8	\$37.7	\$37.7	\$48.9	\$42.4	\$44.6	\$42.0	\$35.9	\$42.0	\$35.2	\$492.5
Truck Containers Full	2,756	2,434	1,610	1,367	2,252	2,998	3,044	2,776	2,966	2,894	2,814	2,685	30,596
Truck Containers Empty	1,610	1,409	932	860	1,200	1,582	1,654	1,390	1,568	1,541	1,430	1,333	16,509
Total Truck Containers	4,366	3,843	2,542	2,227	3,452	4,580	4,698	4,166	4,534	4,435	4,244	4,018	47,105
Rail Containers Full	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Containers Empty	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Rail Containers	0	0	0	0	0	0	0	0	0	0	0	0	0

FY2012 YTD	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	FY Totals
Trains	0	0											0
Mdse Value (Millions)	\$37.1	\$36.2											\$73.3
Truck Containers Full	3,034	2,601											5,635
Truck Containers Empty	1,508	1,473											2,981
Total Truck Containers	4,542	4,074											8,616
Rail Containers Full	0	0											0
Rail Containers Empty	0	0											0
Total Rail Containers	0	0											0

SOURCE: Federal Customs and Border Protection (CBP)

CORRIDOR TRAFFIC

SR-188 will be experiencing an increase in traffic in the future. Based on traffic analyses, the existing two lane conventional highway appears to be adequate for transporting expected future traffic. The following table shows existing and future traffic conditions for SR-188.

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Existing and Future Average Weekday Traffic

LOCATION	EXISTING # OF LANES/ FACILITY TYPE	2010 AADT ¹	2010 LOS ²	FUTURE# OF LANES/ FACILITY TYPE	2030 AADT ¹	2030 LOS ²
International Border to SR-94	2C	6,100	B	2C	16,000	C

¹ 2010 Average Annual Daily Traffic (AADT) derived from Caltrans District 11 Traffic Census Branch information. 2030 AADT from the San Diego Association of Governments Regional Growth Forecast.

²2010 LOS and 2030 LOS are based on sketch-level planning analysis and are not to be used for design purposes.

PROJECT INITIATION DOCUMENT INFORMATION - CORRIDOR AND SYSTEM COORDINATION

SR-188 was adopted into the State Highway System in 1972.

The Federal functional classification for SR-188 is "Rural-Other Principal Arterial". SR-188 is included in the National Highway System (NHS). SR-188 is also included in the Interregional Road System (IRRS), but is not designated as part of the national network for Surface Transportation Assistance Act (STAA) for trucks or the Subsystem of Highways for the Movement of Extra Legal Permit Loads (SHELL). In accordance with the Truck Kingpin-to-Rear Axle Length State Highway System Evaluation Report dated December 1989, the portion of SR-188 from Humphries Road to SR-94 (PM SD 0.6 - 1.9) has been identified as geometrically inadequate for use by truck tractor-semitrailer combinations having a 40 foot kingpin-to-rear axle length. SR-188 is not included in the State Scenic Highway System. However, The San Diego County General Plan Conservation and Open Space Element (August 2011) designates SR-188 as a "scenic highway corridor".

The Otay Mesa and San Diego Border Crossings are located approximately 20 miles west of the Tecate Border Crossing, and the Calexico Border Crossing is located approximately 70 miles east of the Tecate Border Crossing. The Algodones Border Crossing lies further east of Calexico near the Arizona State line.

RECOMMENDED CORRIDOR IMPROVEMENTS

There are no major transportation projects proposed for SR-188. However, the County of San Diego General Plan Mobility Element Network (August 2011) lists improving SR-188 from two lanes to a four lane "Major Collector" with a raised median.

There is a proposed Transportation Enhancement Activity (TEA) project that will provide sidewalks on the U.S. side of the Tecate POE as well as provide a transit stop. This project is currently in the Project Authorization/Environmental Document (PA&ED) phase.

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The Tecate-Tecate POE was initially opened in 1932. The facility in the United States was renovated and expanded in 2004 and 2005. It provides service for pedestrians, passenger vehicles, commercial vehicles, and rail (the rail line crosses at Campo, located east of the POE). The passenger-vehicle facility is open to northbound traffic from 6 a.m. to 12 a.m., while the POE is open to southbound traffic from 5 a.m. to 11 p.m. Cargo facilities operate reduced hours.

The Tecate Commercial Vehicle Enforcement Facility (CVEF) was completed in 2008. The Tecate CVEF provides safety inspections and regulatory compliance for all commercial vehicles crossing through the International Border at Tecate from Mexico into the United States. This facilitates California with the ability to enforce Federal mandates, which require uniform enforcement of truck weight and size limits in all States. The CVEF increases the State's ability to inspect for safety violations and licensing requirements as part of the full implementation of the North American Free Trade Agreement (NAFTA). The CVEF includes office space for CHP staff, a truck scale, inspection bays, a truck circulation route, and parking for staff and trucks. According to the California-Baja California Border Master Plan (BMP) Final Report (September 2008), the number of northbound passenger vehicle and Bus lanes will increase from two in 2005 to five in 2030. Pedestrian lanes will remain at two, and truck lanes will be increased from one to two in 2030. The BMP Final Report also includes additional information about transportation improvements in the border region of Baja California.

With the passage of NAFTA, commercial vehicle traffic has increased at this POE by 77%. This increase in truck traffic is mainly due to growth in the maquiladora industry and manufacturing/assembly plant operations along the California and Baja California border.

As mentioned earlier in this document, the U.S. federal facility at the Tecate POE is not aligned with Mexico's proposed POE. Mexico and the U.S. have agreed that the Mexican and U.S. POE facilities should be connected with a secure truck bypass roadway. This proposed Tecate POE Truck Roadway would have secure gates and new fencing and would be an improvement over the current security infrastructure. No preferred alternative has been selected and further study is necessary, but construction completion is estimate to occur by 2015.

At the Tecate POE (U.S.), construction of rail inspection facilities is planned. These facilities would be able to serve the increase in rail crossings projected by 2030. While in 2005 there were 73 rail crossings, nearly 600 crossings are anticipated in 2030. In California, two projects to modernize and double-track the Desert Line are proposed. Improvements are necessary in order to increase the market potential of this route for international and interstate movement of goods.

Besides routine pavement rehabilitation projects, there is a project included in the District 11 2007 10-Year State Highway Operations and Protection (SHOPP) to upgrade 21 signs and materials on SR-188. This is scheduled for fiscal year 2016/2017.

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Although not on SR-188, there are additional operational improvements proposed for the portion of SR-94 between Melody Road and SR-188. These improvements are discussed in detail in the Rural SR-94 Transportation Concept Summary.

Transit Improvements

Current transit service around the SR-188 corridor consists of Metropolitan Transit System (MTS) bus service Route 894, which operates three round-trips Monday through Friday between El Cajon and Campo via SR-94 and SR-188.

The San Diego Association of Governments (SANDAG) adopted the new 2050 Regional Transportation Plan (RTP) in October 2011. The RTP includes an “Urban Area Transit Strategy” which serves as the basis of the regional transit network in the metropolitan San Diego region.

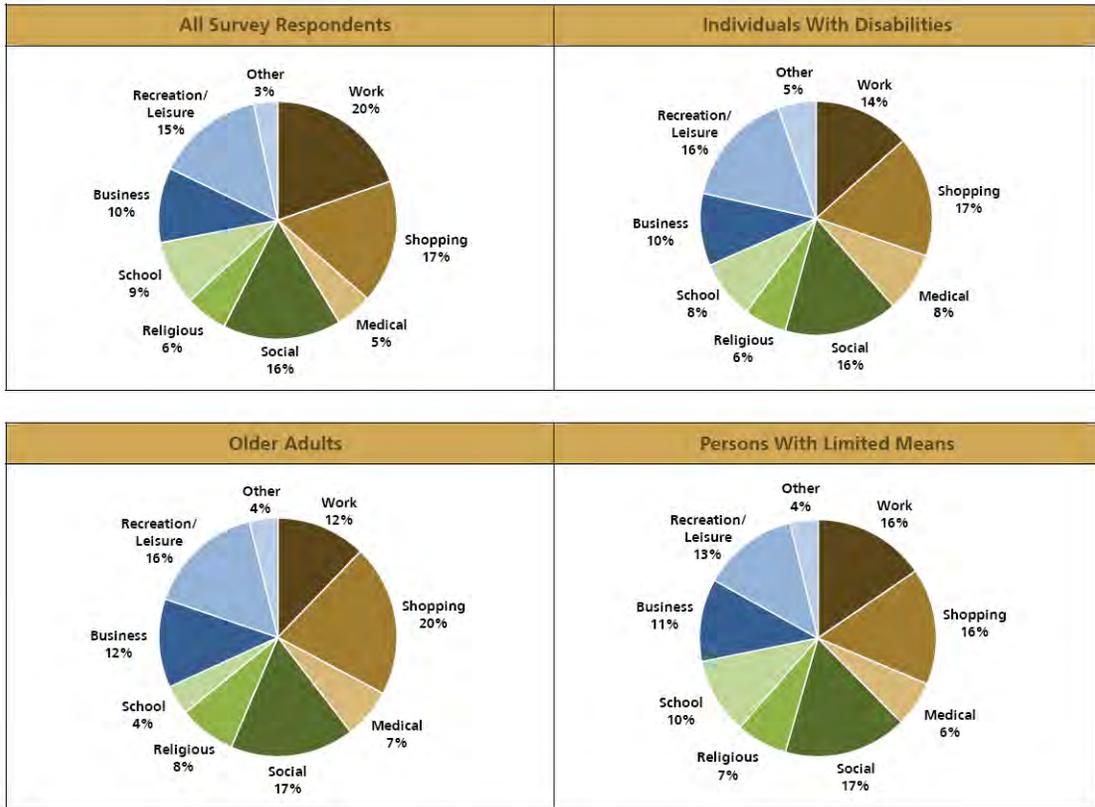
Since SR-188 is located in the rural area of San Diego County, a more appropriate document that discusses rural transportation is the Coordinated Public Transit and Human Services Transportation Plan (Coordinated Plan).

The federal government, through the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) now requires each region to prepare this Coordinated Plan. The intent of the plan is to improve coordination in transportation planning and operations between public transit and human service transportation.

A key highlight of this Coordinated Plan update is the addition of information on rural transportation services and needs, based on surveys and outreach efforts specifically in rural areas. Therefore, rural area transportation information and needs are woven throughout the document.

The rural demand analysis was based on the evaluation of a survey developed and deployed by SANDAG (referred to as the “rural transportation survey”). Survey data was required since Census 2000 data is based on population and not geography. As such, it is easy to identify the needs of smaller urban areas (such as block groups in urban areas). By contrast, block groups are spatially much larger in the rural areas and preclude the level detailed of evaluation needed for transportation analysis. The demand analysis data derived from the rural transportation survey included travel demand by demographic category (trips by low-income, disabled, and senior individuals), as well as by trip purpose (nine separate categories). With trip purpose, the data was much more specific than what can be captured by the Census. The rural demographic analysis was only a sample that did not catch all of the sensitive population groups by geographical area. At the same time, it is valuable to provide a snapshot of demand in these areas typically difficult to serve by any transportation service (public, private, or nonprofit).

The results of the rural demand analysis are included in the following charts:



The analysis revealed the following highlights:

All Rural Areas	Persons With Limited Means	Individuals With Disabilities	Older Adults
<ul style="list-style-type: none"> Work trips represented the largest category of all trips (20%); Medical trips represented the smallest category of trips compared to the specific population group analysis (5%). 	<ul style="list-style-type: none"> Work trips represented a significant percent of trips; Medical trips represented the smallest category of trips compared to individuals with disabilities and older adults. 	<ul style="list-style-type: none"> Work trips represented a much smaller percentage than the rural area average for this population (13%); Medical trips represented the largest share (8%) of any of the groups (including the rural area average). 	<ul style="list-style-type: none"> Work trips represented the smallest percentage (12%) among all of the groups (including the rural area average); Shopping trips and medical trips generally accounted for a larger percentage of trips from older adults than the other population examined (including the rural area average).

Based on the details gathered in the survey, it was clear that there were only minor differences between the transportation demands of the three specific population groups versus the general population.

An additional element of Coordinated Plan focuses on developing an understanding of the unmet transportation needs in rural communities. This was done through a four-step rural transportation study, including phone interviews with community leaders, a public survey, outreach meetings, and input from the Social Service Transportation Advisory Council (SSTAC). In particular, the survey enabled SANDAG to isolate trips that were not made because the respondent was unable to arrange transportation (referenced as

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“unserved” trips). Additionally, since specific personal demographic information was asked on the survey (age, income, disability, etc.), SANDAG was able to calculate the percentage of unserved trips by each transportation disadvantaged population group evaluated in this plan.

The significant difference between transportation disadvantaged groups and non-disadvantaged groups’ missed trips suggests that rural communities have a large need for increased and improved transportation and mobility solutions for their most sensitive populations. In particular, the survey identified that low-income individuals and persons with disabilities had the most unserved trips.

The analysis of unserved trips by seniors (persons over 65), revealed that religious and school trips represented the largest category of unserved trips for this population by percent. Most of the other categories were at or near the 10-percent unserved trip level, similar to the overall senior average. This data showed that virtually every category included unmet senior transportation needs.

Complete Streets

Under the guidance of Deputy Directive 64-R1, Caltrans develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery, maintenance, and operations. Transit options and safe pedestrian crossings are some examples of efforts to meet these goals.

Bicycle riders and pedestrians have a legal right to access most public roads in California as specified in California Vehicle Code (CVC) (Sections 21200-21212), and Streets and Highways Code (Sections 890 – 894.2). Bicyclists, pedestrians, and non-motorized traffic are permitted on all State facilities, unless prohibited (CVC, section 21960).

Bicyclists are permitted to ride on SR-188.

The safety and mobility needs of all who have legal access to the transportation system must be addressed including requirements under the Americans With Disabilities Act of 1990 (ADA).

Other Transportation Improvements

There are no park and ride lots on SR-188. The nearest park and ride facility is a small, private lot at the Portrero Post office on SR-94 east of the SR-94/SR-188 junction. This lot has a capacity of 10 parking spaces.

DEVELOPMENT REVIEW

Based on the Caltrans Traffic Impact Study (TIS) guidelines, a 1,000 Average Daily Traffic (ADT) threshold size triggers the need for developers to prepare a traffic study for their project. There may be an additional number of smaller development projects that

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may have additional cumulative impacts on traffic in the corridor. Because of uncertainties associated with future demographic, socioeconomic, and political climates, the scale of development may be subject to change. The development application and approval process is also subject to change. Changes in land use prompting rapid housing and commercial development growth will need to be monitored closely by all impacted jurisdictions and agencies. Appropriate traffic studies for any proposed developments will need to be conducted and reviewed carefully by Caltrans staff. Land development and local capital improvement projects should also be coordinated with Caltrans projects. Further information regarding specific development projects in the SR-188 corridor can be obtained from the Caltrans District 11 Development Review Branch.

County of San Diego General Plan Information

The County of San Diego updated their General Plan in August 2011. The Tecate Subregional Group Area is a part of the Mountain Empire Subregion. Because of the uniqueness of the Tecate area, the County has created the Tecate California Special Study Area (SSA). Tecate, California's proximity to Tecate, Mexico, has given rise to land uses that are generally nonresidential and need greater planning, which can be achieved through the implementation of the SSA.

Tecate, USA and Tecate, Mexico lie within the Tecate Valley and share many resources, including air quality, water, and weather. The Tecates are connected to SR-94 and the international border by SR-188. The Tecate Valley has retained much of its national beauty, which has been recognized by the County designation of SR-188 as a scenic corridor. The Tecates are physically separated by the International Border and the border fence. The uses of land on each side of the border currently are significantly different. Tecate, USA is dominated by trucking, storage and other border-related uses, with a very small residential component. Tecate, Mexico has a much larger population. Many residents of Tecate, Mexico and the surrounding area drive through Tecate, USA and westerly along SR-94 to the urban areas of San Diego County (such as Rancho San Diego and the eastern portions of Chula Vista) to purchase goods and services not readily available in stores where they live. As a result, SR-94 is heavily traveled between those urban areas and Tecate, causing traffic congestion and safety concerns, along with a number of environmental impacts.

The Tecate SSA is intended to create a cross-border community and to promote development of Tecate, USA as an International Trade Community with commercial and industrial uses intended to provide goods and services that compliment the needs of the residents of Tecate, Mexico. Establishing Tecate, USA as an International Trade Community provides an opportunity to redevelop the existing portions of Tecate in proximity to the International Border as well as to develop the large, generally flat area northerly along SR-188 in a coordinated manner, while also reducing vehicle traffic on the heavily traveled SR-94. The reduction in traffic would also have the beneficial effects of reducing energy consumption, air pollution, and reduce the generation of greenhouse gases. The vision for the Tecate, USA community is based upon developing commercial and industrial uses that reduce vehicle traffic reaching SR-94 rather than developing residential dwelling units, which are readily available in Tecate, Mexico.

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The goals and policies for the Tecate SSA are designed to allow the development of commercial uses largely not available to residents of Tecate, Mexico. In this regard, the SSA includes a vehicle trip limit of approximately 65,000 Average Daily Trips (ADT) ends. Sufficient roadway capacity will need to be provided within Tecate, USA to ensure adequate property access. Planning and development shall be coordinated with the federal government to ensure that sufficient border crossing capacity is maintained.

The Tecate Valley has retained much of its natural beauty, which should be considered during the implementation of the Tecate SSA. The SSA should include design criteria that respect the SR-188 scenic corridor. Additionally, the SSA should identify the infrastructure needed to support the land use designations and logical phasing. Currently, Tecate, USA does not have adequate infrastructure to serve the proposed SSA. Therefore, the SSA implementation will consider which facilities will be needed to serve the community and how those facilities will be provided. All property development will comply with County requirements and standards related to water and wastewater facilities.

A mix of commercial uses needs to be developed to reduce trips into the urban areas of San Diego County. While the topography near the Tecate POE limits development of large flat building pads, it does provide an opportunity for development of uses that compliment the POE. North of this border area along SR-188, is a large generally flat area, which represents an excellent opportunity for larger commercial development. A companion component for the development of Tecate, USA will be fostering industrial land uses that emphasize International Trade. In addition, land uses should be developed that generate increased sales and property tax revenues, while lessening the need for typical public services such as schools, parks, and other population-based services.