State of the Commute 2012
The annual SANDAG State of the Commute report presents a range of data that assesses travel characteristics in the San Diego region, giving readers a sense for the overall condition of the transportation system. The State of the Commute provides comprehensive review of changes in transportation performance and trends in congestion, as well as reporting data and statistics under the ongoing SANDAG performance monitoring program. The report supports the agency’s efforts to understand just how well the region’s transportation system is performing. It also helps identify opportunities to maximize system efficiency, sustain regional mobility, and track the benefits of transportation improvements.

The 2012 report provides an update of transportation performance data through December 2012. It focuses on regional travel trends, key system performance indicators, and corridor-level performance indicators. The information reveals trends and changes in highway and transit travel, commuting highway travel times, and highway system delays. These statistics are evaluated to document where – and how much – change has occurred from regional, system, and corridor perspectives.

Accordingly, the State of the Commute is organized into three distinct sections:

- **Getting Around the Region** – This section provides an overview of regional travel trends. It quantifies traffic flows on our freeways, as well as transit ridership levels. It also lays the groundwork for future reporting on walking, biking, and other commute modes.

- **How is the System Working?** – This section provides performance statistics, including regional and corridor travel delay data and information on the most heavily used transit routes.

- **My Corridor Commute** – This section analyzes the performance of a number of specific travel corridors in the region. It measures progress relative to benchmarks set for usage, travel times, and other key statistics, highlighting completed or planned projects designed to reduce congestion and minimize delay.

In general, data in the 2012 State of the Commute report indicates that use of the transportation system has increased, with various factors influencing how commuters get to work. Weekday travel on the region’s highways, quantified by vehicle miles traveled (VMT), has seen an increase of approximately 2 percent in the past year. Overall travel by public transit in the region has decreased slightly, by 5 percent (quantified by passenger miles traveled), in comparison to 2011.
Key roadway infrastructure and transit improvements continue to reduce travel times and commute delays. For example, in early 2012 the final segment of the I-15 Express Lanes opened to traffic, resulting in a complete 20-mile, state-of-the-art Express Lanes facility extending from SR 163 in San Diego to SR 78 in Escondido. Data from the corridor shows that there has been an approximate 80 percent reduction in vehicle hours of delay compared to a decade ago. The project is the primary reason why overall travel time and corridor reliability have improved during the afternoon commute.

Future State of the Commute reports will provide detailed and complete data analysis documenting performance trends linked to key roadway improvements that were under construction in 2013, including the auxiliary lane and interchange improvements on SR 78 in San Marcos and the high occupancy vehicle (HOV) lane improvements on I-805 in the Sorrento Valley area.

Basics for Reading the State of the Commute

The 2012 State of the Commute report focuses on calendar year data reported through December 2012. The emphasis is on reporting trends and changes in highway and transit travel, commuting highway travel times, and highway system delay during peak periods of travel – Monday through Friday, from 6 to 10 a.m. and from 3 to 7 p.m. Analysis has been conducted on where and how much change has occurred from regional, system, and corridor perspectives.

Highway travel is quantified by vehicle miles traveled (VMT), which is defined as a specific vehicle count/use of roadway multiplied by the length of the roadway segment during an average weekday. Transit travel is quantified by passenger miles traveled (PMT), which is often used as a corollary to vehicle miles traveled to illustrate the cumulative number of miles traveled by all transit passengers during a typical weekday on the region’s buses, shuttles, trolleys, and commuter trains. Transit use is quantified by passenger boardings (ridership).

Travel time is a key metric for assessing changes in trip quality. The time it takes us to travel along key regional corridors during morning and afternoon commute periods provides an indication of delay and other constraints on mobility. The reliability of travel times also is measured by the additional time (or budget time) a traveler needs to build into a trip to ensure on-time arrival 95 percent of the time. Delay also is a key metric for assessing changes in congestion and can be quantified as the total time that we lose due to traveling under congested conditions (how much time is lost when we travel on the freeway at speeds less than 35 miles per hour).

The My Corridor Commute section provides data to show how specific commute routes have changed over time, including average weekday corridor VMT, travel times, budgeted travel times, and transit ridership levels. The My Corridor Commute section in the 2012 report presents data for the I-5 North, I-15/SR 163, I-805, SR 52, and SR 78 commute corridors.
The State of the Transportation Data

One of the goals of the State of the Commute is to report travel (in terms of VMT) for all transportation modes. Determining VMT requires robust and reliable sources of travel data, such as roadway vehicle detection stations and transit passenger counters. Currently, only freeway travel has enough data sources available for consistent, complete reporting. SANDAG and its local and regional partners continue to look for additional sources of consistent and reliable transportation data, especially for bicycling, walking, public transit, and other alternative modes. In 2012, the County of San Diego Health and Human Services Agency, in partnership with SANDAG and San Diego State University, began the installation of permanent bicycle/pedestrian counting stations along major corridors. Meanwhile, SANDAG and regional transit operators have started work to improve data analytics related to Compass Card usage. SANDAG also is working to expand roadway vehicle detection to major regional arterials. In 2014, SANDAG will begin implementing the Regional Arterial Detection Deployment Project. This project will provide arterial data that will benefit traffic monitoring, operations, and traveler information. SANDAG also continues to work with Caltrans to fill critical vehicle detection gaps in the regional freeway system. As these programs mature, SANDAG will include more robust data from each in future State of the Commute reports.

GETTING AROUND the REGION

Understanding how travelers use the transportation system is key to developing strategies for near-term and long-term improvements, as well as identifying approaches to meeting our transportation goals. In addition, important factors in measuring the sustainability of transportation systems and environmental impacts include miles traveled on the network, peak period trips, and transit usage.

How much are we using the transportation system?

The number of miles traveled on the region’s surface transportation system is a measure of how connected our communities are in terms of employment and housing. This number is strongly influenced by population, employment levels, and the economy. San Diego County’s location on the international border, as well as its role as an employment center for residents of Mexico, Imperial County, and Southwest Riverside County, are contributing factors to the amount of travel that occurs on the region’s roadways. The measure of
Vehicle miles traveled (VMT) also is used as an indication of the environmental impact created by passenger vehicles and commercial trucks.

Freeway travel is measured and reported by Caltrans’ Performance Measurement System (PeMS). PeMS takes data from freeway detectors, estimates travel speeds for a given travel corridor, and calculates travel time from one freeway on-ramp to the ultimate off-ramp. Availability of the data is subject to the operating conditions, or “health,” of the freeway detectors, which can be affected by weather, scheduled highway maintenance, or major construction activities.

Total weekday travel on the region’s freeway system increased slightly from 8.64 billion vehicle miles in 2011 to 8.81 billion vehicle miles in 2012. Overall, per capita freeway travel has grown slightly to approximately 11.2 vehicle miles traveled per person, as illustrated in Figure 1.1.

What roadways do we use?

Our surface transportation system is composed of a network of local streets, connecting arterial roadways and freeways. All trips use one or more components of the roadway system. Measurements of this usage can aid land use planning and development of operational strategies, as well as guide transportation investments. Freeways remain the primary network for travel to and from work, for shopping, and for entertainment. Since the last State of the Commute report, new segments along SR 905 have been added to the freeway system, along with some smaller additions throughout the region (This report only considers projects completed through December 2012).

While the freeway system makes up about 20 percent of the total roadway mileage (in terms of lane-miles) in the region, it continues to accommodate the majority of the vehicle miles traveled—approximately 55 percent. Local streets and arterials represent about 80 percent of the roadway network, but just 45 percent of the travel. (See Figure 1.2)
Regional travel by transit

Increased transit usage decreases traffic congestion and increases the sustainability of our transportation system. Transit helps to reduce vehicle miles traveled and their associated environmental impacts. Passenger miles traveled (PMT) is often used as a transit counterpart to vehicle miles traveled to illustrate the cumulative number of miles traveled by all transit passengers during a typical weekday on the region’s buses, shuttles, trolleys, and commuter trains. As seen in Figure 1.3, transit passenger miles traveled in 2012 decreased compared to the previous year by approximately 5 percent.

In 2012, there were approximately 340,000 weekday passenger boardings, a 2 percent decline in ridership for the five-year period from 2008 to 2012. (See Figure 1.4) Transit ridership continues to be influenced by the availability of transit services, the price of gasoline, and the state of the regional economy.

The availability of transit services is indicated by transit revenue miles. Between 2008 and 2012, transit revenue miles have seen a 5 percent decline. A couple of key factors account for the decline: service cuts due primarily to state and federal funding reductions; the economic recession and the resulting loss in employment across the San Diego region through 2010; and a steep drop in gasoline prices over that same period.

Although ridership has gone down, transit operators have become more efficient as shown by nearly a 4 percent increase in weekday passengers per revenue mile over the five-year period. (See Figure 1.5) Both major transit operators in the region have been proactive in achieving productivity gains. Metropolitan Transit System’s (MTS) Comprehensive Operations Analysis (implemented in 2007) and North County Transit District’s (NCTD) Mobility Plan (to be fully implemented by 2013) led to a number of changes in route structure and service frequencies.
Overall, rail and bus ridership trends are consistent over the past five years. Bus ridership continues to be the workhorse of the transit system, carrying more than two-thirds of total riders. (See Figure 1.6) Bus ridership in the San Diego region is composed of the MTS and NCTD service areas, including MTS local bus, MTS express bus, and MTS Premium Express, as well as NCTD BREEZE local bus. Over the past five years, weekday bus ridership has increased by nearly 7 percent (a 3 percent increase over 2011). Bus ridership also has seen a recent uptick due to an increase in frequency and extended weekday hours for local bus services. In 2012, both NCTD and MTS worked to both restructure and restore bus service and frequencies on a number of routes that were previously cut as a result of the recession. While NCTD focused on restructuring routes, such as Route 318 and Route 304/404, to extend coverage and provide continuous service, MTS worked to restore and add service throughout its service area. For example, MTS restored service to Route 204 and expanded SuperLoop service to communities east of Genesee Avenue.

Weekday rail ridership – which includes patrons on the Trolley, COASTER, and SPRINTER services – fell in 2012, partly due to the Trolley Renewal Project. This major rehabilitation of the Trolley system has caused temporary service lapses and station closures. As construction of each Trolley line is completed over the next two years, Trolley operations and passenger experience will be greatly enhanced with new low-floor rail vehicles, new station platforms, and improved passenger information displays. Meanwhile, Trolley fare revenues have increased. The diverging trends for Trolley ridership and revenues could be the result of the margin of error from ridership estimates; there is a possibility that the ridership decline may be smaller than reported. SANDAG and MTS are working collaboratively on a new ridership estimation program to improve accuracy.
In addition to transit, alternative travel modes – such as carpooling, vanpooling, biking, walking, and teleworking – reduce the number of vehicles using the transportation system. The resulting decrease in traffic reduces peak period congestion and associated environmental impacts on the region’s roadways.

How residents in the region commute has stayed fairly consistent over the past five years, according to commute mode-share data obtained from the American Community Survey (ACS) conducted by the U.S. Census Bureau using a limited number of survey responses (1 out of 40 households). San Diego County survey data indicates that, while the majority of commuters continue to drive alone to work, alternative modes of transportation continue to play a role in the regional commute. (See Figure 1.7) Walking to work and working from home have become attractive choices for some commuters. Carpooling and vanpooling continue to provide the primary alternatives to solo commuting.

Findings from the 2011 ACS provide one source of information on how commuters use alternative forms of transportation in the San Diego region during peak periods of the day. iCommute, the SANDAG Transportation Demand Management (TDM) Program, is currently developing a regional commuter survey that is intended to supplement the ACS and provide another source of data on commuting in the region. iCommute provides free ride-matching services, a vanpool program, transit solutions, bicycle encouragement programs, the Guaranteed Ride Home program, SchoolPool, and support for teleworking.
iCommute has recently undertaken other TDM initiatives aimed at increasing the use of more sustainable travel modes, including:

» A regional telework demonstration project that would assist interested employers in initiating and expanding their use of telework

» A vanpool/carpool program analysis and expansion plan

» Guaranteed Ride Home analysis and expansion plan

» Improved multimodal trip planning tools and resources

» Corridor specific TDM plans and campaigns

While transit use represents a 3 to 4 percent mode share regionwide for the work commute, it should be noted that the transit system is focused primarily on the urbanized areas where trolley and bus systems can cost-effectively serve the maximum number of riders. Comparison of travel on primary routes between major destinations within corridors where significant investments have been made in transit infrastructure (such as the Trolley from San Ysidro to Old Town and from Gillespie Field to the Convention Center) shows a much higher share of transit travel (transit mode share) during the morning peak period:

» 31 Percent Transit Mode Share: Northbound I-5 in South Bay toward Downtown San Diego

» 19 Percent Transit Mode Share: SR 94 West toward Downtown San Diego

During 2012, participation in the regional vanpool program decreased by approximately 6 percent from the previous year, with 708 vanpools carrying 5,520 daily passengers.

In 2010, the SANDAG Board of Directors approved Riding to 2050: The San Diego Regional Bicycle Plan. It is the first bicycle plan for the region as a whole. It outlines a regional bicycle network, as well as supporting programs. One such program includes development of data collection, reporting, and modeling for active transportation projects. The County of San Diego, in partnership with SANDAG and San Diego State University, has recently deployed a number of automated pedestrian and bicycle counting stations throughout the region. This project will provide usage data on many of the region’s major bicycle/pedestrian facilities. As information becomes available, future State of the Commute reports will quantify the importance of bicycling and walking as regional commute modes. This new information on pedestrian activity and infrastructure will be included in future reports, given that many transit commute trips begin with a walk to a transit stop.

(Fig. 1.8) TOP 5 VANPOOLS

<table>
<thead>
<tr>
<th>Top 5 Origins</th>
<th>Top 5 Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Temecula</td>
<td>Naval Air Station North Island</td>
</tr>
<tr>
<td>2 Murrieta</td>
<td>Camp Pendleton</td>
</tr>
<tr>
<td>3 Chula Vista</td>
<td>UC San Diego</td>
</tr>
<tr>
<td>4 Winchester</td>
<td>Downtown San Diego</td>
</tr>
<tr>
<td>5 Menifee</td>
<td>MCAS Miramar/San Onofre (tie)</td>
</tr>
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</table>
HOW is the SYSTEM WORKING?

The performance of the surface transportation system is best evaluated by measures such as delay, congested segments, and travel time. Transit is best measured through ridership levels. These indicators can be used to assess improvements, identify bottlenecks, and develop strategies and investment plans.

Total freeway delay during peak-hour commute

As the economy has slowly pulled out of the recession, and employment numbers have begun to recover, peak-hour demand has increased on the region’s roadways.

Overall delay during peak commute periods provides a snapshot of how the transportation system is working. “Severe” congestion is measured in terms of the number of vehicle-hours the freeway operates below 35 miles per hour.

After enjoying significant declines in rush hour delay between 2007 and 2009, San Diego commuters have since experienced yearly increases in peak period freeway delay. In 2012, nearly 4.4 million vehicle hours of delay were observed on the region’s highways during peak commute periods, nearly an 11 percent increase compared to 2011. (See Figure 2.1)
Regional bottlenecks

In recent years, infrastructure improvements have played a key role in decreasing delays at specific freeway bottlenecks. As illustrated in Figure 2.2, identifying the causes of delay and measuring the outcomes of system improvements can be accomplished by examining specific segments/locations along individual freeways.

Our efforts to address major bottlenecks along key freeway corridors have resulted in the completion of several projects that have reduced severe congestion levels and delay. For example, previously reported segment bottlenecks along the I-5 and I-15 corridors were reduced below 2006 conditions due to the I-5 HOV Lane Extension and I-15 Express Lanes projects.

The 2012 report analysis indicates that while certain segments of SR 78 or SR 163 ranked among the top bottlenecks, delays on them are relatively moderate when compared to delays experienced on the I-5 and I-15 segments in previous years. (See Figure 2.2)

The SR 163 southbound segment is included in this year’s report due to expansion of the freeway detection system within the corridor since 2010. Freeway delay prior to 2010 is estimated and not observed. Detection improvements enhance our ability to track freeway delays and better estimate travel times along the corridor over time.

The identification of top regional bottlenecks, and their impacts on travel times and delays, will be an on-going performance reporting effort in future State of the Commute reports.

(Fig. 2.2) REGIONAL BOTTLENECKS

- Eastbound SR 78 from Mar Vista Rd. to I-15
- Northbound I-5 from I-805 to Manchester Ave.
- Southbound SR 163 from I-15 to I-5
- Southbound I-805 from I-5 to I-8
- Northbound I-805 from I-8 to I-5
- Southbound I-15 from SR 78 to Centre City Pkwy
Annual freeway delay by freeway during commute periods

Based on regional travel data for the urban freeway system, it is estimated that approximately 50 percent of daily travel is made during the morning and afternoon commute periods (weekdays from 6 to 10 a.m. and 3 to 7 p.m.). Assessing how much travel is made on the region’s key freeway corridors during these high-demand periods provides an understanding of the total time lost due to traveling under congested conditions (when speeds drop to less than 35 miles per hour). In 2012, the hours of delay totalled to just over 1.3 million during the morning commute period and over 3.1 million during the afternoon commute period.

Figure 2.3 shows that the majority of freeway delay in the San Diego region occurred along the major freeway corridors (I-5, I-15, I-805, SR 78, and SR 163) in 2012. These five freeways account for more than 80 percent of the freeway delay observed during the morning and evening commute periods. Both directions of the I-5 corridor account for the highest observed delay, 22 percent and 34 percent during the morning and afternoon commutes, respectively.

NOTE: Delay is based on observed data in the freeway general purpose lanes and available freeway detection. Totals may not add up to 100 percent due to rounding.
As shown in Figure 2.4, the Blue Line Trolley, from San Ysidro to Old Town, continues to be the busiest transit route in the region, with more than 50,000 daily trips. Figure 2.4 shows the ridership prior to and after the September 2012 Trolley realignment. With the realignment, Green Line ridership increased due in part to the streamlining of the Green Line from Santee to Downtown San Diego without transfer, while Orange Line ridership dropped slightly. Peak period ridership on the Blue Line Trolley is influenced by crossborder pedestrian traffic at the San Ysidro Port of Entry, which decreased by 4 percent from 2011 to 2012. The Green and Orange Lines combined to serve more than 43,000 daily trips. The Route 7 bus service from La Mesa to Downtown San Diego serves approximately 12,000 daily trips, and is the most patronized local bus route in the region. The SPRINTER light rail service from Escondido to Oceanside also provides nearly 9,000 daily trips along the SR 78 corridor.

<table>
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<tr>
<th>2012 Rank</th>
<th>2011 Rank</th>
<th>Route</th>
<th>Route Description</th>
<th>Transit Mode</th>
<th>Avg. Daily Passengers</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Blue Line Trolley</td>
<td>San Ysidro to America Plaza via Chula Vista / National City*</td>
<td>Light Rail</td>
<td>53,952 / 50,234</td>
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<td>2</td>
<td>3</td>
<td>Green Line Trolley</td>
<td>Santee to Downtown SD / 12th &amp; Imperial via La Mesa / Mission Valley**</td>
<td>Light Rail</td>
<td>19,763 / 23,458</td>
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<tr>
<td>3</td>
<td>2</td>
<td>Orange Line Trolley</td>
<td>El Cajon to Downtown SD / America Plaza via Southeastern Communities***</td>
<td>Light Rail</td>
<td>20,703 / 19,695</td>
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<td>4</td>
<td>4</td>
<td>7</td>
<td>Downtown SD to La Mesa via North Park / City Heights</td>
<td>Local Bus</td>
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<td>5</td>
<td>7</td>
<td>SPRINTER</td>
<td>Oceanside to Escondido via Vista / San Marcos</td>
<td>Light Rail</td>
<td>8,947</td>
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<td>5</td>
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<td>6</td>
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<td>30</td>
<td>Downtown SD to UTC / VA Medical Center via Pacific Beach</td>
<td>Local Bus</td>
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<td>10</td>
<td>10</td>
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<td>Euclid Trolley to UCSD Medical Center / Hillcrest via Downtown SD</td>
<td>Local Bus</td>
<td>7,280</td>
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</table>

Numbers in bold indicate the “Average Daily Passengers” prior to the September 2012 Trolley realignment. The post-realignment average is used to determine the Transit Route ranking.

*Prior to the realignment taking place on September 2, 2012, the Blue Line ran from San Ysidro to Old Town.
**Prior to the realignment taking place on September 2, 2012, the Green Line ran from Santee to Old Town.
***Prior to the realignment taking place on September 2, 2012, the Orange Line ran from Gillespie to Convention Center / Downtown SD.
Transit ridership of TransNet-supported services

Continued investments in new transit services, as well as rehabilitation of existing networks, are key to increasing ridership. The TransNet program has played an important role in developing major transit services in the region. TransNet is the regional half-cent sales tax for transportation approved by San Diego County voters. Administered by SANDAG, the TransNet program has provided funding to key regional Trolley enhancements, including the Old Town Trolley Station and the Mission Valley East/West Extension. Most recently, the Blue and Orange Lines have benefited from new low-floor trolleys, track, and station platforms as part of the Trolley Renewal Project. However, partly due to delays associated with construction activities, Trolley ridership declined by 24 percent between 2011 and 2012. Since September 2012, the Orange and Blue Lines have seen a 12 percent and 31 percent reduction in ridership, respectively. With construction anticipated to be completed by 2015, the revamped Trolley system is expected to run more efficiently in future years.

In 2012, TransNet-supported routes – the SuperLoop, SPRINTER, COASTER, and Orange/Blue Lines – combined to carry nearly 90,000 weekday trips, almost one-quarter of all weekday transit trips in the region. (See Figure 2.5)
Consistent with previous State of the Commute reports, SANDAG continues its efforts to understand just how well our transportation system is performing from the traveler’s perspective. The My Corridor Commute section provides just that – a snapshot of annual data focusing on major commute routes. It also presents historical corridor-level data in an effort to capture and identify changes and trends in our commutes over time. This section illustrates how peak travel has changed for the I-5 North, I-15/SR 163, I-805, SR 52, and SR 78 commute corridors. It includes freeway performance data for these featured corridors, such as overall corridor travel, travel time, and corridor delay. The data comes from the Performance Measurement System (PeMS), which relies on freeway detectors and is subject to the availability and “health” of those detectors. Figure 3.1 shows the existing PeMS detection coverage, including detection that was added during 2012.

Each featured corridor section reports travel times during the morning and afternoon commutes. Travel times represent trip times only while on the freeway, rather than door-to-door commute times. PeMS takes data from freeway detectors, estimates travel speeds for a given segment of freeway, and calculates travel time from one freeway on-ramp to the ultimate off-ramp. Corridor trip times are calculated for travel on the general-purpose, or mixed-flow, lanes of the freeway, and do not reflect the use of any available HOV or Express Lanes during the trip. Morning and evening travel times in this section assume that one enters the freeway at 8 a.m. and 5 p.m., respectively.

The reported travel times in this section may differ from travel times reported in other documents, such as the Regional Transportation Plan (RTP). While travel times in My Corridor Commute are based on actual collected roadway data, door-to-door travel times in the RTP are based on the San Diego Regional Transportation Model. Travel time estimates from the Regional Transportation Model are based on roadway configurations, traffic volumes, and intersection controls for all streets, arterials, and freeways along the trip route. Modeled travel times are not observed data, rather they are predicted travel times based on current and future road networks, economic conditions, housing and employment patterns, population growth, etc.

Commute travel times are reported in three different ways: average, median, and budget. The average travel time is simply that: the average of all midweek travel times (Tuesdays, Wednesdays, and Thursdays) for a time period.
The median (or 50th percentile) travel time is the typical travel time that occurs during the middle of the work week for the same time period. The budget time reported in this section is a measure of the freeway corridor’s reliability. The budget time is the time one would need to add to one’s typical commute to ensure an on-time arrival under worst-case conditions, or 95 percent of the time. Higher budget times are related to less reliable travel caused by freeway bottlenecks, higher freeway incident rates, prevalence of special events, etc.

Efforts to improve PeMS and roadway performance monitoring are on-going. Specific enhancements currently under development will allow PeMS to incorporate real-time transit and arterial data. With the completion of the monitoring network on the region’s arterials and remaining freeway segments, PeMS will have the ability to report door-to-door travel times in selected corridors for both automobiles and transit vehicles.

Transit performance data comes from the Metropolitan Transit System (MTS), North County Transit District (NCTD), and SANDAG.

This section also provides information about plans for improving mobility along the region’s transportation corridors, as well as a brief assessment of the travel benefits resulting from the completion of freeway improvement projects in some of the featured corridors.
I-5 North Commute Corridor

The I-5 North commute corridor serves as a critical north-south travel link connecting San Diego to Los Angeles County, Orange County, and Baja California, Mexico. The corridor provides a number of commuting options for local, regional, and interregional trips, including the existing eight-to ten-lane freeway network, COASTER commuter rail service, and the local street network. The corridor serves as a gateway for San Diego’s commuters, recreational users, goods movement, business centers, and local residents. It is estimated to provide access to approximately 22 percent of the region’s total jobs. Door-to-door travel times along this corridor for solo drivers are forecast to increase from 57 minutes (in 2008) to approximately 65 minutes, if improvements are not made by 2050, according to the 2050 Regional Transportation Plan (RTP).

Freeway congestion is prevalent in the corridor and is expected to worsen during peak commute periods as population grows over time. The average daily traffic volume along I-5 North ranges from 135,000 to 250,000 vehicles. Commute times between SR 76 in Oceanside and Front Street in Downtown San Diego are estimated at 41 minutes during the southbound morning commute, a decrease of 5 percent since last year. The northbound evening peak period commute experienced no change in trip times, averaging 44 minutes in 2012. (See Figure 3.3.) Congestion also affects the reliability of travel times in this corridor; commuters needed to plan an extra eight minutes to complete their morning commute reliably. (See Figure 3.4)

Figure 3.5 shows that the average weekday transit ridership in the corridor increased by 3.5 percent, with more than 5,500 daily trips in 2012.

Proposed 2050 RTP improvements include the implementation of the North Coast Corridor (NCC) Program, which is composed of three primary focus areas: four new Express Lanes (I-5 North Coast Express Lanes Project, which will extend from La Jolla Village Drive to Vandegrift Boulevard); coastal rail and transit improvements; and environmental protection and coastal access improvements. The NCC Program represents a $6.5 billion investment over the next few decades.

The I-5 North Coast Express Lanes Project would maintain or improve traffic conditions through 2050, as well as enable free flow travel during peak commute hours. Figure 3.6 demonstrates that the majority of all freeway delay observed on I-5 occurs in the North Coast segment – between I-805 and SR 76. The proposed improvements will create a flexible freeway network that will provide additional travel choices, including facilities for carpooling, vanpooling, and premium bus services.

This project has been identified as a high priority in the region and is currently part of the TransNet Early Action Program (with the focus on the completion of the environmental document). The supplemental draft environmental document was released in August 2012, and the final environmental document is expected in summer 2013.

Current corridor improvements under development include the I-5 interchange project at Genesee Avenue, which will include improvements to local streets and the addition of auxiliary lanes. Construction is scheduled to begin in late 2013.

In March 2011, construction began on I-805 to add HOV lanes from I-5 to Mira Mesa Boulevard, as well as a partial Direct Access Ramp (DAR) to Carroll Canyon Road in Sorrento Valley. This project will result in a continuous 10-mile HOV lane facility from Solana Beach to Sorrento Valley, with direct access to major employment centers for carpoolers and vanpoolers. This project is scheduled for completion in late 2013.

Several improvements along the LOSSAN (Los Angeles-San Diego-San Luis Obispo) rail corridor were completed in February 2012, including double tracking between Carlsbad Village Drive and Palomar Airport Road, as well as the stabilization of 1.6 miles of coastal bluffs in Del Mar. More rail improvements are planned in the corridor, including the San Dieguito, Sorrento to Miramar, and Sorrento Valley double track projects. Detailed project information is available at KeepSanDiegoMoving.com.

In conjunction with Caltrans and other corridor stakeholders, SANDAG is developing a Transportation Demand Management (TDM) Plan for the North Coast Corridor. The plan will detail options to manage congestion during future construction projects and build a foundation for continued travel behavior change once construction is complete. This effort is scheduled for completion in December 2013.
OCEANSIDE TO DOWNTOWN SAN DIEGO

Year 2012 A.M. Travel Time Southbound Starting at 8 a.m. 41 minutes

Year 2012 P.M. Travel Time Northbound Starting at 5 p.m. 44 minutes

COASTER Commuter Rail
Year 2012 Average Weekday Ridership: 4,664

Average Daily Traffic
I-5 at Del Mar Heights Road
Year 2011: 244,000

I-5 IMPROVEMENTS: BEFORE AND AFTER

(Fig. 3.2) Average Weekday Travel I-5 from SR 76 to Front/First Streets

(Fig. 3.3) Average Freeway Travel Time

(Fig. 3.4) AM Travel Time Reliability to Downtown San Diego

(Fig. 3.5) Average Weekday Transit Ridership

Note: Ridership at Solana Beach screenline for COASTER and Route 101 bus.

(Fig. 3.6) Annual Weekday Delay by Freeway Segment

(Fig. 3.7) Corridor Delay and Travel Southbound I-5 from Palomar Airport Road to Manchester Ave

Delay (thousand vehicle hours)
The I-15/SR 163 commute corridor consists of a 35-mile, eight-to ten-lane stretch of freeway between SR 78 and Downtown San Diego, a transit network that includes Express Premium Bus service into downtown from northern inland communities, and approximately 25 miles of parallel arterial network. The corridor is the primary inland north-south trunk line that serves travelers coming from Southwest Riverside County to downtown and other regional destinations. The corridor also serves as one element of a major interregional goods movement pathway, connecting Mexico with Riverside and San Bernardino counties, as well as Nevada. The corridor is the primary north-south link that connects northern inland communities with the urban core. Door-to-door travel times along this corridor for single-occupant vehicles are forecast to increase from 47 minutes (in 2008) to approximately 51 minutes in 2050 without improvements to the corridor, according to the 2050 RTP.

Average daily traffic in the corridor ranges from 100,000 vehicles on SR 163 near Balboa Park to 300,000 at the I-15/SR 163 junction. Travel times in the general purpose lanes between SR 78 and Balboa Park (Robinson Avenue/Washington Street) via SR 163 are estimated at 31 minutes during the morning southbound commute and 28 minutes during the afternoon northbound commute periods. (See Figure 3.9) These freeway travel times represent a decrease of 14 percent and 20 percent, respectively, compared to last year. Travel reliability also improved in the corridor, with morning budget travel times reduced by 5 minutes in the general purpose lanes. (See Figure 3.10)

Caltrans and SANDAG completed construction of the last segment of the I-15 Express Lanes in January 2012, opening the entire 20-mile Express Lanes facility to traffic from SR 163 to SR 78. The I-15 Express Lanes were designed to meet the diverse needs of corridor travelers for local, regional, and interregional trips. With the completion of the final Express Lanes segment, delay in the general purpose lanes of I-15 from SR 163 to SR 78 decreased by approximately 50 percent from 2011. Compared to pre-construction travel conditions in 2003, corridor improvements over the past 10 years have cut delay by 80 percent in the general purpose lanes. (See Figure 3.13)

The I-15 Express Lanes facility is the region’s first adaptable, high-tech transportation system. It is available for free to transit, carpools, vanpools, and motorcycles. For a fee, single-occupant vehicles also are able to travel on the Express Lanes. The toll rate on the Express Lanes is adjusted in real time in order to maintain free flow in the lanes for carpoolers and transit. The facility features a movable barrier, which allows Caltrans to make up to three lanes available to drivers during rush hour in the peak direction. Starting in 2014, a Bus Rapid Transit (BRT) system will begin operating in the I-15 corridor, taking advantage of the Express Lanes and the Direct Access Ramps (DARs). The DARs route users directly onto the Express Lanes, avoiding surface streets and general purpose ramps and lanes. Current corridor improvements under development include the Direct Access Ramp at Hillery Drive, which will provide I-15 Express Lanes access to Miramar College and the community of Mira Mesa. At the Sabre Springs Transit Station, a 537-space parking structure is being constructed, along with enhanced bus staging areas, new shelters, next bus arrival signs, electric vehicle charging stations, fuel-efficient and smart vehicle spaces, security cameras, and a modular bicycle parking facility. Construction is scheduled to be complete in 2014 for the launch of new BRT service.

Construction wrapped up in March 2013 at the Del Lago and Rancho Bernardo transit stations to prepare them for the new Rapid bus service. The newly reopened stations feature larger bus staging areas, new shelters, real time next bus arrival signs, and improved bicycle parking facilities. Detailed project information is available at KeepSanDiegoMoving.com.

In support of these major corridor improvements, iCommute also has begun to provide more focused outreach to employers in the I-15 corridor to promote alternative commutes. iCommute will offer interested employers assistance and tools for developing commuter programs to encourage their employees to carpool, vanpool, take transit, and participate in flextime or telework.
MY CORRIDOR COMMUTE

2012 State of the Commute

Oceanside
Carlsbad
Encinitas
Del Mar
Solana Beach
Poway
San Diego
Coronado
Imperial Beach
Lemon Grove
La Mesa
Santee
El Cajon
Escondido
Vista
San Marcos
Chula Vista
Tijuana, B.C.
UNITED STATES
National City
Camp Pendleton
County of San Diego
MCAS Miramar

76
11
5
125
805
78
78
76
67
8
8
125
94
54
5
15
5
10
20
30
40
50
60

2008 2009 2010 2011 2012

Travel (million vehicle miles)

Average Day Travel I-15 from SR 78 to Robinson Ave. via SR 163

Year 2012 A.M. Travel Time Southbound Starting at 8 a.m.
31 minutes

Average Daily Traffic I-15 at Poway Road
Year 2011: 235,000

Year 2012 Average Weekday Ridership: 3,114

Year 2012 P.M. Travel Time Northbound Starting at 5 p.m.
28 minutes

I-15 IMPROVEMENTS: BEFORE AND AFTER

(Fig. 3.8) Average Weekday Travel I-15 from SR 78 to Robinson Ave. via SR 163

Average Freeway Travel Times

AM Southbound
PM Northbound

Travel Time (minutes)

(Fig. 3.9) Average Freeway Travel Times

Budget Time
Median Travel Time

Travel Time (minutes)

(Fig. 3.10) AM Travel Time Reliability from SR 78 to Robinson Avenue

Transit Ridership

(Fig. 3.11) Average Weekday Transit Ridership

Note: Ridership at Miramar Way screene line for Route 20 and Series 800 Express buses.

Weekday Traffic (thousand vehicles)

(Fig. 3.12) Average Weekday Express Lanes Traffic

Delay (thousands of vehicle hours)

Travel (million vehicle miles)

(Fig. 3.13) Corridor Travel and Delay I-15 from SR 163 to SR 78

Road
Way
Pkwy
Poway
Miramar
I-805 Commute Corridor

The I-805 commute corridor consists of approximately 29 miles of eight-to ten-lane freeway stretching from near I-5 at the San Ysidro Port of Entry with Mexico to the I-5 interchange in Sorrento Valley. The corridor includes a transit network that is limited to local route services, and a local roadway network that supports regional east-west travel to and from the communities adjacent to the freeway. The I-805 corridor serves local, regional, and interregional travel. It is a heavily used regional commuter route that provides a north-south path from South County communities to employment centers in Downtown San Diego and Sorrento Valley. It also serves as part of a larger interregional goods movement corridor, connecting international trips from Mexico to other freeway facilities and to destinations in Riverside and San Bernardino counties, as well as Nevada. Door-to-door travel times for solo drivers from San Ysidro to Downtown San Diego along this corridor are forecast to increase from 28 minutes (in 2008) to approximately 32 minutes in 2050 without improvements to the freeway, according to the 2050 RTP.

The average daily traffic volume along this corridor ranges from 160,000 to 261,000 vehicles. Commuters generally experience delays in the morning when traveling northbound to Downtown San Diego and Sorrento Valley. In the afternoon, travelers experience delay when traveling to South County locations. Northbound morning commute travel times between SR 905 and Downtown San Diego on I-805 via SR 94 are estimated at 17 minutes for the 13-mile commute. Freeway travel time on I-805 from SR 905 to Sorrento Valley is estimated at 33 minutes for the 25-mile commute in the morning. Southbound afternoon commute travel times to I-805 at SR 905 are estimated at 13 minutes from Downtown San Diego and 34 minutes from Sorrento Valley. Congestion during the southbound evening commute affects the reliability of travel; commuters needed to plan on an extra 15 minutes to complete their evening commute reliably. (See Figures 3.15 and 3.16)

To address current and anticipated demand, proposed improvements along this corridor include the construction of HOV/Express Lanes facilities from Palomar Street to the I-805/I-15 interchange and from SR 52 to Mira Mesa Boulevard.

Construction on the I-805 South Project from Palomar Street to the SR 94 began in summer 2012 and is scheduled to be completed in fall 2013.

Construction on the Palomar Street Direct Access Ramp (DAR) and associated transit center and Park & Ride began in April 2013 and is scheduled to be finished in winter 2014. Construction on the first phase of the I-805 North Project from SR 52 to Mira Mesa Boulevard began in winter 2012 with completion expected in winter 2015. This project will add HOV lanes and complete the DAR at Carroll Canyon Road, providing direct HOV and transit access on I-805 to major employment centers in Sorrento Valley.

The South Bay Bus Rapid Transit system will operate in the HOV/Express Lanes, connecting South County to major regional employment centers in Downtown San Diego (and ultimately to Sorrento Valley). The bus line is scheduled to begin service in mid-2015 and will fill a significant service gap in the regional transit system.

The I-805 North and South Projects have been identified as high priorities in the region and are part of the TransNet Early Action Program. Detailed information is available at KeepSanDiegoMoving.com.
SR 52 Commute Corridor

The SR 52 commute corridor consists of approximately 12 miles of four-to six-lane freeway running from SR 125 in Santee to the I-805 interchange in Kearny Mesa. The corridor also includes a roadway network that serves as an alternate route to I-8 for local east-west travel. The corridor serves as a critical east-west travel corridor linking east San Diego County communities to employment centers located in Kearny Mesa. In addition, the corridor serves as an important trunk route, connecting with other key freeway corridors, including I-5, I-15, I-805, and SR 163.

Peak period travel delays along the corridor are similar to morning and afternoon commute patterns in other east-west corridors in the region. Commuters encounter delays when traveling west in the morning and east in the afternoon. The average daily traffic volume along this corridor ranges from 63,000 to 100,000 vehicles.

Commuters typically experience longer travel times during the evening commute than during the morning commute. Travel times in the general purpose lanes between Genesee Avenue in San Diego to Mast Boulevard in Santee are estimated at 14 and 19 minutes during the morning westbound and afternoon eastbound commute periods, respectively. The average commute in 2012 increased by 1 to 2 minutes since the previous year, due to delays caused by bottlenecks near I-15, Mission Trails Summit, and the San Diego River Bridge in Santee. (See Figure 3.20)

More improvements are planned on SR 52, including the construction of one additional general purpose lane in each direction and two reversible Express Lanes from I-15 to SR 125. The 2050 RTP has identified planned Express Lanes improvements on SR 52 for completion by the year 2040. More information is available at KeepSanDiegoMoving.com.
SR 78 serves as a principal commute corridor in North County. The six-lane freeway from Oceanside to Escondido is approximately 17 miles. It provides one of the region’s east-west roadways connecting the I-5 and I-15 corridors. Portions of SR 78 west of I-15 are currently experiencing congestion and delay during peak periods. Door-to-door travel times for solo drivers from Oceanside to Escondido along this corridor are forecast to increase from 32 minutes (in 2008) to approximately 39 minutes in 2050 without improvements to the freeway, according to the 2050 RTP.

Average daily traffic in this corridor ranges from 124,000 at the western end near I-5 to 162,000 at the eastern approach to I-15. Travel times in the general purpose lanes between I-5 and I-15 are estimated at 16 and 27 minutes during the morning westbound and afternoon eastbound commute periods, respectively. The eastbound evening commute on SR 78 has become less reliable, with commuters needing to budget 12 extra minutes to ensure an on-time arrival, compared to nine extra minutes in 2011. (See Figures 3.24 and 3.25)

Because the SPRINTER runs parallel to SR 78, connecting Oceanside, Vista, San Marcos, and Escondido, it is an important transit alternative to driving in the corridor. The SPRINTER rail service now supports nearly 9,000 daily passengers each weekday.

SANDAG, in partnership with Caltrans, San Marcos, and Escondido, has completed roadway improvements to SR 78 at I-15. The improvements will help ease severe traffic congestion during the morning and afternoon commute hours. Improvements to the westbound SR 78 connector and westbound auxiliary lane from I-15 to Nordahl Road were completed in January 2012. Work began in February 2012 to replace the Nordahl Road Bridge over SR 78 with a wider and longer bridge to provide more capacity at the interchange as well as on SR 78. This bridge replacement and associated ramp widening were completed in November 2012. Work to add eastbound auxiliary lanes between Barham Drive, Woodland Parkway, and Nordahl Road began in January 2012 and was finished in May 2013.

In addition to these short-term improvements, on-going planning efforts continue to evaluate potential long-range improvements for the SR 78 corridor. SANDAG worked with regional and corridor stakeholders on the SR 78 Corridor Study to examine the feasibility of making additional improvements in the corridor. Completed in May 2012, the Corridor Study provided a planning-level analysis of two freeway facility alternatives, including Express Lane and toll lane improvements. Both alternatives included freeway operational improvements and transit service. The study assessed the travel demand for both alternatives, the financial feasibility of tolling the new lanes or building Express Lanes similar to those in the I-15 corridor, and implementation strategies such as phasing the improvements. In addition, the study analyzed potential impacts to sensitive environments and right-of-way within the corridor. Based on performance, financial feasibility, and public input, the recommendation was to further study Express Lanes for future implementation on SR 78. Caltrans has begun to develop Project Study Reports for Express Lanes on SR 78, as well as improvements to the I-15/SR 78 interchange. Environmental studies are underway on improvements to the I-5/SR 78 Interchange.
**MY CORRIDOR COMMUTE**

2012

State of the Commute

**OCEANSIDE TO ESCONDIDO**

**Fig. 3.24** Average Freeway Travel Time from I-5 to I-15

<table>
<thead>
<tr>
<th>Year</th>
<th>AM Westbound</th>
<th>AM Eastbound</th>
<th>PM Westbound</th>
<th>PM Eastbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>22</td>
<td>22</td>
<td>25</td>
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<td>2009</td>
<td>22</td>
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<td>25</td>
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<tr>
<td>2010</td>
<td>22</td>
<td>22</td>
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<td>25</td>
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<tr>
<td>2011</td>
<td>22</td>
<td>22</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>2012</td>
<td>22</td>
<td>22</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

**Fig. 3.25** PM Travel Time Reliability from I-5 to I-15

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget Time</th>
<th>Median Travel Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>24</td>
<td>9</td>
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<tr>
<td>2009</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>2010</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>2011</td>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td>2012</td>
<td>26</td>
<td>12</td>
</tr>
</tbody>
</table>

**Fig. 3.26** Average Weekday Transit Ridership

<table>
<thead>
<tr>
<th>Year</th>
<th>Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>5,000</td>
</tr>
<tr>
<td>2009</td>
<td>5,500</td>
</tr>
<tr>
<td>2010</td>
<td>6,000</td>
</tr>
<tr>
<td>2011</td>
<td>6,500</td>
</tr>
<tr>
<td>2012</td>
<td>7,000</td>
</tr>
</tbody>
</table>

Note: Ridership at Vista Transit Center screenline for SPRINTER and Route 302, 318, and 320 buses.

**Year 2012 P.M. Travel Time**

Eastbound
Starting at 5 p.m.
27 minutes

**Year 2012 A.M. Travel Time**

Westbound
Starting at 8 a.m.
16 minutes

Average Daily Traffic
SR 78 at Barham Road
Year 2011: 160,000

**SPRINTER Rail**

Year 2012 Average Weekday Ridership: 3,631

**Average Daily Traffic**

SR 78 at Barham Road

Year 2011: 160,000

**Note:** Ridership at Vista Transit Center screenline for SPRINTER and Route 302, 318, and 320 buses.
SR 76 Corridor

The section of SR 76 from Oceanside to I-15 serves as a major commuter route. Starting at I-5, it links the City of Oceanside with the communities of Bonsall, Fallbrook, Pala, Pauma Valley, Rincon, and Lake Henshaw. East of I-15, SR 76 serves mainly rural communities and tribal reservations. Portions of SR 76 are currently experiencing delay during peak periods. The problem is compounded by insufficient highway capacity, as well as a lack of parallel routes and cross-street traffic access.

In order to alleviate the congestion on this corridor, SANDAG is widening and realigning SR 76 between Melrose Drive in Oceanside and I-15. In November 2012, the “Middle Segment” from Melrose Drive to South Mission Road was completed, widening a portion of the corridor to a four-lane highway. Construction on the first phase of the SR 76 “East Segment,” the final leg of a series of improvements to the corridor, started in summer of 2012. Work to widen and upgrade the SR 76/I-15 interchange is expected to be complete in summer 2014. The second phase – to widen the road from South Mission Road to I-15 – is slated to begin in fall/winter 2013. The project is part of the TransNet Early Action Program. More information is available at KeepSanDiegoMoving.com.

Mid-Coast Corridor

The Mid-Coast Corridor Transit Project proposes to extend the San Diego Trolley from the Old Town Transit Center north to University City. Travel demand is expected to increase in the Mid-Coast Corridor, and the Trolley extension will provide a fast, reliable, high-capacity transit choice in the corridor.

In July 2010, the SANDAG Board of Directors unanimously approved the Locally Preferred Alternative for the Trolley extension project. The alternative will run parallel to I-5 for most of the route, and will provide service from Old Town to UCSD and Westfield UTC Transit Center. The Draft Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report (SEIS/SEIR) was released in May 2013 for public review and comment. The final SEIS/SEIR is expected to be completed in 2014. SANDAG is seeking funding for the project from the Federal Transit Administration (FTA) through the New Starts Program. In September 2011, the FTA approved the Mid-Coast project’s entry into preliminary engineering, officially placing it in the pipeline to receive New Starts funding. A 50 percent local match to the FTA funding will be provided by a combination of state and regional funds, including TransNet. The project is part of the TransNet Early Action Program. More information is available at KeepSanDiegoMoving.com.

Trolley Renewal

After nearly 30 years of operation, the Metropolitan Transit System’s San Diego Trolley is undergoing a massive overhaul. New low-floor trolleys, track, and station platforms are all part of the project to update the system over the next several years. Construction began in fall 2010 and is scheduled to be complete by 2015.

The renewal project is focused on upgrading the Blue and Orange lines. Work includes adding station amenities; raising station platforms to accommodate low-floor vehicles; replacing old rail and overhead wire; and improving switching, signaling, and crossovers. When the overhaul is complete, riders will see minutes shaved off travel time. With the realignment of the Green Line in September 2012, riders no longer need to transfer when traveling from Mission Valley to the Convention Center or PETCO Park. The project is part of the TransNet Early Action Program. More information is available at KeepSanDiegoMoving.com.

SR 905 Corridor

SR 905 is a 12-mile corridor extending from I-5 to the Otay Mesa Port of Entry (POE). It is a vital route for interregional and commercial traffic. The Otay Mesa POE is California’s busiest commercial border crossing, with approximately 1.4 million truck crossings accounting for $35.5 billion in goods movement in 2012. Continued growth in goods movement through the Otay Mesa POE has led to increased demand on the SR 905 corridor, and it is expected to continue to grow over time.

Prior to recent improvements, cars and heavy trucks using SR 905 from I-805 to the Otay Mesa POE traveled on Otay Mesa Road, a six-lane arterial with nearly a dozen signalized intersections. Travel times during peak periods along this six-mile
arterial between I-805 and the POE were estimated
to be approximately 45 minutes.

A number of improvements have been completed
as part of this multi-phase corridor improvement
project. In 2005, the Siempre Viva Road
interchange was completed near the Otay Mesa
POE as the initial phase of planned improvements.
In 2010, a new six-lane freeway from Siempre
Viva Road to Britannia Boulevard was completed,
providing partial freeway capacity along the
corridor. A revamped SR 905/I-805 interchange
opened to traffic in February 2012, providing
additional capacity for increased traffic (including
freight trucks) anticipated from the new freeway
facility. The final phase of construction was
completed in July 2012 with the opening of a new
six-lane freeway facility from Britannia Boulevard
to I-805.

With the completion of the SR 905 freeway, traffic
from I-805 now has a direct freeway connection
to the POE and other intermodal facilities in Otay
Mesa. Travel time savings due to the new freeway
facility range from 20 to 25 minutes, a 50 percent
reduction compared to previous corridor travel
on Otay Mesa Road. These improvements were
partially funded by the TransNet program.

Improvements to the SR 905 corridor also will
benefit the planned addition of a third border
crossing – Otay Mesa East – and a connecting
toll road, SR 11. SR 11 will extend a four-lane
highway two miles east from SR 905 to the new
crossing. The new highway and port of entry will
ease congestion and reduce lengthy border wait
times at the existing Otay Mesa POE. Construction
is scheduled to begin in 2013, contingent on
available funding.

**SR 125 – South Bay Expressway**

The South Bay Expressway (State Route 125) is
a 10-mile toll road from SR 905 near the Otay
Mesa Port of Entry to SR 54 near Spring Valley.
The highway provides quick and convenient
travel choices between eastern Chula Vista,
Downtown San Diego, East County, Sorrento
Valley, I-8, I-15, Otay Mesa, and Mexico. Many
major shopping, entertainment, recreational,
and educational destinations – including the
Otay Ranch Town Center, the Olympic Training
Center, and Southwestern College – are located
near the highway.

In December 2011, SANDAG acquired the lease
to operate the toll road for $341.5 million with
the primary goal of diverting traffic off I-805 and
local streets in Chula Vista. Effective June 30,
2012, the SANDAG Board of Directors reduced
toll prices by as much as 40 percent on South
Bay Expressway.

In the first six months after the tolls were
reduced, the number of trips taken on the
toll road exceeded 5.65 million, ahead of
projections. Average daily traffic grew to more
than 30,500 trips, 22 percent higher than the
previous year. The higher traffic volume seen
on South Bay Expressway following the toll
reduction indicates that traffic is being shifted to
the toll road.
Data Sources and Methodology

Getting Around the Region

Figure 1.1
Freeway Miles Traveled per Person - Weekdays
Sources: Caltrans, Freeway Performance Measurement System (PeMS Version 12.2); California Department of Finance, County Population Estimates (Table E-1)
Data: Freeway vehicle miles of travel (VMT), County Population
Period: Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: All

Figure 1.2
What Roadways Do We Use?
Source: SANDAG, San Diego Regional Model, Series 12 Forecast, 2012 RTIP Model Network
Data: Vehicle miles of travel (VMT), Lane-Miles
Period: Calendar Year 2012
Days: Weekdays (Monday through Friday)
Hours: All

Figure 1.3
Weekday Transit Passenger Miles
Sources: San Diego Metropolitan Transit System, North County Transit District, SANDAG Passenger Counting Program Reporting
Datum: Passenger miles of travel
Period: Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: All

Figure 1.4
Weekday Transit Ridership
Source: San Diego Metropolitan Transit System, North County Transit District, 2010-2014 SANDAG Coordinated Plan
Datum: Passenger boardings, includes fixed-route buses, Trolley, COASTER, and SPRINTER, excludes Coronado Ferry
Period: Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: All

Figure 1.5
Weekday Transit Passengers per Revenue Mile
Source: San Diego Metropolitan Transit System, North County Transit District, 2010-2014 SANDAG Coordinated Plan
Datum: Passenger boardings, includes fixed-route buses, Trolley, COASTER, and SPRINTER, excludes Coronado Ferry, Revenue Mileage
Period: Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: All

Figure 1.6
Average Weekday Bus and Rail Ridership
Source: San Diego Metropolitan Transit System, North County Transit District, SANDAG Passenger Counting Program Reporting
Datum: Passenger boardings for Trolley, COASTER, SPRINTER, and Passenger boardings for fixed-route buses
Period: Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: All

Figure 1.7
What Alternative Choices are Travelers Using?
Source: American Community Survey, One-Year Estimates, U.S. Census Bureau
Datum: Means of Transportation to Work (Table B8301)
Geography: San Diego County, California
Period: Calendar Years 2007 through 2011

Figure 1.8.
Top 5 Regional Vanpools by Ridership
Source: Vanpool Program, SANDAG
Datum: Monthly Vanpool Ridership
Period: December 2012

How is the System Working?

Figure 2.1
Annual Peak Period Freeway Delay - Weekdays
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Datum: Vehicle hours of delay (35 mph threshold)
Period: Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: 6 to 10 a.m., 3 to 7 p.m.

Figure 2.2
Regional Bottlenecks
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Datum: Vehicle hours of delay (35 mph threshold) by selected freeway segment
Period: Calendar Years 2005 through 2009
Days: Weekdays (Monday through Friday)
Hours: All
Delay normalized by lane mileage for each freeway segment.
Eastbound SR 78 from Mar Vista Rd to I-15: 8.5 miles, 3 lanes, 25.5 lane miles
Northbound I-5 from I-805 to Manchester Ave: 8.1 miles, 4 lanes, 32.4 lane miles
Southbound SR-163 from I-15 to I-5: 3.5 miles, 2 lanes and 7.5 miles, 4 lanes, 37 lane miles
Southbound I-805 from I-5 to I-8: 10.9 miles, 4 lanes, 43.6 lane miles
Northbound I-805 from I-8 to I-5: 10.9 miles, 4 lanes, 43.6 lane miles
SB I-15 from SR 78 to Centre City Pkwy: 3.9 miles, 4 lanes, 15.6-lane-miles

Figure 2.3
Delay by Freeway During Commute Periods
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Datum: Vehicle hours of delay (35 mph threshold)
Period: Calendar Year 2012
Days: Weekdays (Monday through Friday)
Hours: 6 to 10 a.m., 3 to 7 p.m.
Delay aggregated for each freeway corridor in both directions for the portions of freeway route with available detection.
Figure 2.4
2012 Top 10 Transit Routes by Ridership
Source: San Diego Metropolitan Transit System, North County Transit District, 2010-2014 SANDAG Coordinated Plan
Datum: Transit boardings for selected routes
Period: Calendar Year 2012
Days: All
Hours: All

Figure 2.5
Regional Transit Ridership – TransNet Program
Source: San Diego Metropolitan Transit System, North County Transit District, 2010-2014 SANDAG Coordinated Plan
Datum: Transit boardings for selected routes
Period: Calendar Years 2008 through 2012
Days: All
Hours: All

My Corridor Commute

Figure 3.1
Existing Freeway Detection
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Datum: Freeway Detection Coverage
Period: As of December 31, 2012

Figures 3.2, 3.8, 3.14, 3.19 and Figure 3.23
Average Weekday Travel
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Datum: Average Vehicle miles of travel (VMT)
Period: Annual, Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: All
VMT reflects travel in the freeway general purpose lanes for the featured commute corridors.

Figures 3.3, 3.9, 3.15, 3.16, 3.20 and Figure 3.24
Average Freeway Travel Time
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Datum: Average (Mean) Departure Travel Time
Period: Annual, Calendar Years 2008 through 2012
Days: Midweek (Tuesday through Thursday)
Hours: Morning Departure Time: 8 a.m., Evening Departure Time: 5 p.m.

Figures 3.4, 3.10, 3.17, 3.21 and Figure 3.25
Freeway Travel Time Reliability
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Data: Annual 50-Percentile (Median) Departure Travel Time, Annual 95-Percentile Departure Travel Time
Period: Annual, Calendar Years 2008 through 2012
Days: Midweek (Tuesday through Thursday)
Hours: Morning Departure Time: 8 a.m., Evening Departure Time: 5 p.m.
Budget Time is calculated as the difference between the 95-percentile travel time and the 50-percentile travel time.

Figures 3.5, 3.11 and 3.26
Average Weekday Transit Ridership
Source: San Diego Metropolitan Transit System, North County Transit District, 2010-2014 SANDAG Coordinated Plan Reporting
Datum: Transit ridership for specific routes and at selected route screenlines
Period: Annual, Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Hours: All

Figure 3.6
Annual Weekday Delay by Freeway Segment
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Datum: Vehicle hours of delay (35 mph threshold)
Period: Annual, Calendar Years 2008 through 2012
Days: Weekdays (Monday through Friday)
Delay aggregated for each freeway segment in both directions for the portions of freeway route with available detection.

Figures 3.7, 3.13, 3.18 and 3.22
Project Improvements: Before and After
Source: Freeway Performance Measurement System (PeMS Version 12.2), Caltrans
Data: Freeway vehicle miles of travel (VMT), Freeway vehicle hours of delay (35 mph threshold)
Period: Monthly, Calendar Years 2006 through 2012 (I-5 North); Calendar Years 2003 through 2012 (I-15/SR 163); Calendar Years 2008 through 2012 (I-805 and SR-52);
Days: Weekdays (Monday through Friday)
Hours: All

Figure 3.12
Average Weekday Express Lanes Traffic
Source: Fastrak Toll System, SANDAG
Datum: Vehicle Counts at selected Express Lane toll gantries
Period: Monthly, Calendar Years 2003 through 2012
Days: Weekdays (Monday through Friday)
Hours: All

Freeway Annual Average Daily Traffic (AADT)
Source: Annual Average Daily Traffic Volumes, Caltrans Data Traffic Branch
Period: Calendar Year 2011
Days: All
Hours: All