PATHWAYS FOR THE FUTURE

SANDEF

2030
San Diego Regional Transportation Plan
Final

NOVEMBER 2007
2030 REGIONAL TRANSPORTATION PLAN

Pathways for the Future

Adopted
November 30, 2007
The 18 cities and county government are SANDAG serving as the forum for regional decision-making. SANDAG builds consensus; plans, engineers, and builds public transit; makes strategic plans; obtains and allocates resources; and provides information on a broad range of topics pertinent to the region's quality of life.

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As of December 10, 2007

2030 Regional Transportation Plan
ACKNOWLEDGEMENTS

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Ask anyone what’s the biggest problem in San Diego, and you’ll probably hear “traffic.” However, if we have learned anything in the last decade, it’s that we can’t build our way out of traffic congestion. This leaves us at a crossroads – the road less traveled may hold the key to how we commute in the future.

During the next 25 years, we can expect to share our communities with more than a million new neighbors. We will create 465,000 more jobs and build 290,000 new homes. The major appeal is our region’s quality of life. While it may mean different things to different people, we can all agree that quality of life encompasses safe and livable communities, affordable housing, competitive job opportunities, a healthy environment, good schools and community facilities, and a transportation system that provides easy access to work, school, and other activities. The 2030 San Diego Regional Transportation Plan: Pathways for the Future (RTP or the “Plan”) is our region’s blueprint for a transportation system that enhances our quality of life and meets our mobility needs now and in the future.

**A SMARTER PLAN**

The foundation of the 2030 RTP lies in better connecting our freeway, transit, and road networks to our homes, schools, work, shopping, and other activities. In this era of budget and infrastructure deficits, the ultimate success of this Plan will be measured by how well we implement smart growth as our communities are developed and redeveloped over time. To this end, the 2030 RTP helps strengthen the land use – transportation connection and offers regional transportation funding incentives to support smarter, more sustainable land use.

Improving transportation is one component of a much larger vision to sustain and improve our region’s quality of life. SANDAG adopted the Regional Comprehensive Plan (RCP) in 2004 that serves as a foundation for integrating land uses, transportation systems, infrastructure needs, and public investment strategies within a regional smart growth framework. The RCP is the regional vision to prepare for change and meet our future needs. The 2030 RTP is the transportation component of the RCP.

SANDAG last updated the RTP in 2003. Since then, public policy discussions have helped shape a new and evolving vision for the San Diego region’s future. At the heart of the 2030 RTP is the updated Regional Transit Plan, a 21st century strategy to develop a seamless public...
CHAPTER 1
EXECUTIVE SUMMARY

At the heart of the 2030 RTP is the Regional Transit Plan, a 21st century strategy to develop a seamless public transportation system for the region – one that is integrated with our growing communities and that ultimately is competitive with driving a car during rush hours.

How is the Plan Developed?

The 2030 RTP is the product of collaboration between SANDAG, all 18 Cities and the County government, and our transportation partners – the San Diego Metropolitan Transit System (MTS), the North County Transit District (NCTD), and the California Department of Transportation (Caltrans) – along with a wide range of interest groups and other agencies.

With this RTP, SANDAG has established better communication and cooperation with the 17 sovereign tribal governments in the region. The San Diego region contains 18 reservations, more than any other county in the United States. In March 2006 SANDAG held a Tribal Summit with more than 120 participants and 12 elected officials from the region’s tribal governments. This historic meeting was followed by the formation of the Interagency Technical Working Group in September 2006, serving as a forum for tribal governments in the region to discuss and coordinate transportation issues of mutual concern with the various public planning agencies in the region. In January 2007 a representative from the Southern California Tribal Chairman’s Association was added to the SANDAG Board of Directors and policy advisory committees.

The 2030 RTP also looks beyond the San Diego region to link transportation and land use planning across our borders with Orange, Riverside, and Imperial Counties, and Baja California, Mexico. The last several years have seen a steady increase in interregional and international commuting, as more people are choosing to live in Riverside County or Baja California, Mexico while keeping their jobs here. The 2030 Regional Growth Forecast Update recognizes these travel trends and accounts for future housing both within the San Diego region, as well as outside of the region’s boundaries.

To accommodate the dynamic crossborder transportation system, the 2030 RTP includes major projects to improve access to border crossings, expand freight rail service, and coordinate commercial vehicle crossings.

transportation system for the region – one that is integrated with our growing communities and that ultimately is competitive for many commuters with driving a car during rush hours.

To accommodate the dynamic crossborder transportation system, the 2030 RTP includes major projects to improve access to border crossings, expand freight rail service, and coordinate commercial vehicle crossings. On a collective basis, these projects will modernize and transform transportation infrastructure along the U.S./Mexico border from San Diego/Tijuana east to Arizona/Sonora.
Building on Our Progress

The 2030 RTP builds upon the existing transportation system in place today and the major projects in progress from MOBILITY 2030. Projects completed since MOBILITY 2030 include State Route (SR) 56 between Interstates 5 and 15, SR 125 from SR 54 to SR 94, and the Green Line Trolley to San Diego State University. Several highway improvements are currently under construction, including the I-15 Managed Lanes (new carpool lanes and bus rapid transit stations), South Bay Expressway SR 125 South, and various widening projects on I-5 and SR 52.

Transit projects in the construction phase are the SPRINT in North County and modifications to several Trolley and COASTER stations, such as San Ysidro and Oceanside Transit Center. Construction has begun on the Inland Rail Trail between Oceanside and Escondido and Coastal Rail Trail, widening regional arterials such as Rancho Santa Fe Road in Carlsbad and San Marcos, and incident detection systems (installation of closed-circuit television) along stretches of Interstates 15 and 805, and SR 163.

Roadway projects in the design or environmental phases include: Interstates 5, 15, 805, and State Routes 52, 76, and 905. Transit projects in the design or environmental phases include the Mid-Coast Light Rail Transit (LRT), and the I-15 Bus Rapid Transit (BRT) and the South Bay BRT.

A PLAN FOR BETTER MOBILITY

As in MOBILITY 2030, the 2030 RTP is developed around four main components: Land Use, Systems Development, Systems Management, and Demand Management (Figure 1.1). Each component has a unique, yet interdependent, role in improving mobility and travel in the San Diego region through the year 2030.

Land Use determines where our homes, schools, work, shopping, and other activities are located and can profoundly affect the way in which we move around the region and within our communities. Systems Development provides needed regional transportation improvements, viable travel choices, and connections to our daily activities.

Systems Management helps to maximize system operations so that we make the best use of our existing transportation resources and provide travelers with real-time travel information to assist them in making informed travel choices.
Finally, Demand Management focuses on reducing trips on the transportation system during peak periods and encouraging alternatives to driving alone (e.g., transit, carpooling, vanpooling, biking, and walking).

**Land Use-Transportation Connection: We Must Grow Smarter**

The 2030 RTP is founded on a land use plan that reflects the commitments from the 18 Cities and County to “smart growth.”\(^1\) It recognizes that growth and change will continue in the region during the next several decades, and all local jurisdictions can make positive contributions toward preparing for that change. Transportation infrastructure and services must be coordinated with land use planning if we are to avoid increased traffic congestion, reduced mobility, and a deteriorating quality of life. Figure 1.2 is the Smart Growth Concept Map, showing the existing, planned, and potential areas for smart growth development. We cannot fix our persistent transportation problems by focusing solely on transportation. To encourage better transportation and land use coordination, the 2030 RTP includes $206 million through the TransNet program for a Smart Growth Incentive Program. It will be developed based on SANDAG’s experience with the $22.5 million Pilot Smart Growth Incentive Program that was implemented as a result of MOBILITY 2030.

**Systems Development: More Travel Choices**

New and better connections are planned to more efficiently move people on buses, trolleys, trains, and cars throughout the region. When implemented, the projects in the 2030 RTP will improve the region’s highway and roads network and transform it into a robust system with more lanes dedicated to carpools and buses integrated with new, high-quality regional transit services. The 2030 RTP includes a flexible roadway system, which can be used by transit and high occupancy vehicles (HOVs), and improves goods movement through the region.

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\(^1\) Smart growth is a compact, efficient, and environmentally sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities.
The 2030 RTP Network (Figure 1.3) looks into the future to deliver a new transportation vision. It focuses on providing real-time, competitive travel choices during rush hours when most of our traffic congestion occurs. Since much of this demand is driven by the need to commute to and from work and school, the Plan looks at incentives for encouraging alternative commuter travel choices. This includes making it more convenient, fast, and safe to ride transit, carpool, or vanpool during peak hours, or bike or walk to work or school. In our fast-paced world, saving time is a very real and powerful incentive for encouraging these more sustainable travel choices.

**Regional Transit Plan**

The 2030 RTP calls for a network of fast, flexible, reliable, safe, and convenient transit services that connect us to the region’s major employment and activity centers. Other proposed services showcase the integration of public transportation and local land uses, a central theme of the 2030 RTP. The new routes operate at higher speeds, averaging 40 miles per hour for regional services and 25 miles per hour for corridor services.

In our local communities, transit stations must be integrated into the activity centers. These areas will be pedestrian- and bicycle-friendly and serve as pleasant walk-and-wait environments for customers.

There is particular attention to the transit customer in the Plan. The proposed transit services take advantage of a new generation of advanced-design vehicles, which have the flexibility of buses and the look and feel of rail. These low-floor vehicles, along with smart fare Compass Cards, allow for easier and speedier boarding. Upgraded stations and real-time information will let patrons know when the next vehicle will be arriving.

**Integrating Transit and Roadways**

Competitive transit service must be able to operate in congestion-free lanes. The Plan includes an extensive network of Managed/HOV lanes on the highway system designed to accommodate transit services, as well as carpools, vanpools, and fee-paying patrons (similar to I-15 FasTrak® where fees fund transit services in the I-15 corridor). On arterials, the Plan includes funding for transit priority treatments and regional funding to help complete regionally significant arterials. The Plan also includes major transit capital projects, such as transitways, double tracking, direct access ramps, and grade separations and provides operational funding for the expanded regional transit system.

**Systems Management: Making Better Use of What We Have**

Billions of dollars have already been invested in roads and transit in the San Diego region. We need to maximize the return on this significant investment through better management and more efficient operation of the existing networks. A wide range of systems management strategies

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The Plan focuses on providing real-time, competitive travel choices during rush hours when most of our traffic congestion occurs.

The Plan includes an extensive network of Managed/HOV lanes on the highway system designed to accommodate transit services as well as carpools, vanpools, and fee-paying patrons.
CHAPTER 1
EXECUTIVE SUMMARY

Systems Management helps get the most efficiency out of our existing system, makes travel services more reliable, convenient, and safe, and reduces traffic delays caused by accidents and incidents.

systems totaling more than a half billion dollars is included in the Plan. Systems Management helps get the most efficiency out of our existing system, makes travel services more reliable, convenient, and safe, and reduces traffic delays caused by accidents and incidents.

Freeway Service Patrol
Specific programs and projects include expanding the Freeway Service Patrol (FSP), roving tow trucks that today patrol 225 miles of the region’s highways during rush hours to assist stranded motorists whose vehicles break down or run out of fuel. By removing disabled vehicles from the roadway quickly, the FSP has helped ease traffic congestion caused by minor incidents.

High Occupancy Toll (HOT) Lanes
The 2030 RTP also includes plans for “HOT lanes” on our major north-south freeways, including Interstates 5, 15, and 805. HOT lanes are limited access lanes in which carpools, vanpools, and buses have first priority and travel for free, while other vehicles gain access by paying a fee. The lanes are managed through variable pricing to maintain free-flow conditions even during rush hours, and revenues are used to support transportation improvements within the corridor.

The expansion of HOT lanes builds upon the success of the I-15 FasTrak® program, which has been operating since 1996 on the I-15 Express Lanes from the I-15/SR 163 junction to SR 56. The net revenues generated by the program currently fund the Inland Breeze express bus service in the corridor.

New Technologies
The cornerstone of the region’s Intelligent Transportation Systems Strategy is the development of the Integrated Performance Management Systems Network that will interconnect the region’s local transportation management centers.

- Freeway Management – Installs loop detectors, cameras, communications, and new computer hardware and software to improve incident detection and clear accidents and coordinate freeway and arterial operations.

- Arterial Management – Provides new hardware and software to local jurisdictions to improve traffic signal timing, optimize traffic flow on regional arterials, and coordinate signals with freeway ramps, bus rapid transit service, and rail crossings.

- Transit Management – Provides new in-vehicle equipment and computer hardware and software to improve route planning, scheduling, and on-time performance. The system also will provide real-time transit information through kiosks and message boards.
Figure 1.3
2030 REASONABLY EXPECTED REVENUE NETWORK
November 2007

- Managed/HOV Lanes
- General Purpose/Toll Lanes
- Transit/Rail
- Freeway Connectors
- HOV/BRT Connectors
- Additional Freight Projects

MILES
0 3 6
KILOMETERS
0 4.83 9.6

San Diego Region
MAP AREA
Advanced Traveler Information System (511) – The real-time data collected from the freeway, arterial, and transit systems is provided to travelers via the phone and the Internet so that they can better plan the time and path of their trips.

FasTrak® and Compass Card Electronic Payment Systems – Provides customers and operators with a simple Compass Card system for a seamless method to pay for and use transit services. Future expansion will provide for on- and off-street parking, and linkage with a patron’s FasTrak® account.

Demand Management: Taking the Pressure Off the System

Steps to reduce peak-period travel or change when and how people travel will become increasingly important in the future. Demand Management focuses on encouraging alternatives to driving alone and minimizing demand on the transportation system during peak periods.

The strategies in the Plan to manage demand are not all new. Since 1995, SANDAG has operated a regional transportation demand management program called RideLink. Programs offered through RideLink include a regional vanpool program, a regional bike locker program, and a regional subsidy program to provide start-up funds to employers to provide their employees with financial incentives to try new ways to commute. The 2030 RTP includes additional funding for this component, encouraging teleworking and flexible work hours to help manage peak demand.

HOW DO WE IMPLEMENT THE PLAN?

Implementing the 2030 RTP requires close cooperation and coordination among all transportation agencies, local jurisdictions, and the traveling public. The Plan relies on efficient and more cost-effective use of our traditional transportation funds and expanding sources of transportation revenues to fund a higher level of investment in proposed improvements.

A new regional approach to transportation planning and project implementation began in 2003. Many of the transit functions of San Diego MTS and NCTD Boards were consolidated at SANDAG, enabling local mayors, council members, and county supervisors in this region to streamline transportation decision-making. In essence, all regional transportation planning, fund allocation, project development, and construction, especially in the public transit arena, are now the responsibility of SANDAG. Policy decisions about the future of public transit and how buses, trolleys, and rail projects connect with travel on local roads and highways can be better integrated into the RTP.
Funding and Financial Scenarios

In developing the 2030 RTP, two funding scenarios were identified: the Revenue Constrained, limited to $41 billion in traditional funding sources, and the Reasonably Expected Revenue, a more aggressive $57 billion scenario that includes additional funding. The Revenue Constrained scenario is a federally required scenario that must be analyzed for air quality purposes and is used to program projects in the Regional Transportation Improvement Program (RTIP).

In assessing funding scenarios, it is critical that sufficient financial resources are available to complete the investments in our priority corridors. With rising project costs, the limited sources of revenue in the Revenue Constrained scenario would reduce the level of improvements in several major corridors. As a result, the SANDAG Board directed that the 2030 RTP be based on the more robust Reasonably Expected Revenue scenario for the development, operation, and maintenance of the transportation facilities and services in the Plan. This assumes both current sources of transportation revenue, as well as future revenue sources – such as attracting additional state and federal funds for major capital projects and increases in state and federal gas taxes based on historical trends.

Revenues and expenditures under both scenarios in the 2030 RTP are balanced and phased by decade, between 2006-2010, 2011-2020, and 2021-2030. Those projects that are listed in the initial years of the RTP are the same ones that are either already programmed in the five-year RTIP (currently the five-year period ends in FY 2010/11) or are anticipated to be included in future near-term updates of the RTIP.

Measuring the Plan’s Success

The 2030 RTP was developed by examining how different land use and transportation network scenarios meet regional measures of performance. The evaluation of performance measures is the first step in establishing performance standards that will enable us to benchmark our progress toward meeting the Plan’s policy goals and objectives.

The Plan significantly reduces roadway congestion compared to a No Build scenario, slightly lower than even current conditions. Figure 1.4 shows level of service by direction in the year 2006, and Figure 1.5 shows projected level of service by direction in 2030 with the Plan’s improvements in place. As seen in these two figures, levels of service (LOS) A through D indicate free-flow conditions, while LOS E and F indicate growing congestion, unstable flow, and stop-and-go traffic.
Figure 1.4
2006 MODELED LEVEL OF SERVICE
(With Average Daily Traffic Volumes - In Thousands)

November 2007

- **A to D**: Free Flow
- **E**: Intermittent Congestion
- **F (0-2 Hours)**: Congested Flow
- **F (2-4 Hours)**: Pronounced Congestion
- **F (>4 Hours)**: Sustained Congestion

**MAP AREA**

- San Diego Region
- Orange County
- Riverside County
- San Diego County
- Imperial Beach
- Tijuana, B.C.

**SANDAG**

2030 Regional Transportation Plan
Figure 1.5
2030 REASONABLY EXPECTED REVENUE NETWORK LEVEL OF SERVICE
(With Average Daily Traffic Volumes - In Thousands)
November 2007

- A to D: Free Flow
- E: Intermittent Congestion
- F (0-2 Hours): Congested Flow
- F (2-4 Hours): Pronounced Congestion
- F (> 4 Hours): Sustained Congestion

MAP AREA

San Diego Region

MAP AREA

San Diego Region