TRANSPORTATION COMMITTEE AGENDA

Friday, December 9, 2005
9 a.m. to 12 noon
SANDAG Board Room
401 B Street, 7th Floor
San Diego

AGENDA HIGHLIGHTS

- FY 2007 FEDERAL APPROPRIATIONS PROCESS FOR TRANSPORTATION PROJECTS
- DRAFT 2030 REVENUE CONSTRAINED RTP: 2006 UPDATE AND DRAFT SUPPLEMENTAL EIR
- DRAFT 2006 STATE TRANSPORTATION IMPROVEMENT PROGRAM
- FUNDING PRIORITIES FOR COASTAL RAIL CORRIDOR MAJOR CAPITAL PROJECTS

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Welcome to SANDAG. Members of the public may speak to the Transportation Committee on any item at the time the Committee is considering the item. Please complete a Speaker’s Slip, which is located in the rear of the room, and then present the slip to Committee staff. Also, members of the public are invited to address the Committee on any issue under the agenda item entitled Public Comments/Communications/Member Comments. Speakers are limited to three minutes. The Transportation Committee may take action on any item appearing on the agenda.

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### APPROVAL OF NOVEMBER 4, 2005, MEETING MINUTES

Members of the public will have the opportunity to address the Transportation Committee on any issue within the jurisdiction of the Committee. Speakers are limited to three minutes each and shall reserve time by completing a “Request to Speak” form and giving it to the Clerk prior to speaking. Committee members also may provide information and announcements under this agenda item.

The Regional Planning and Transportation Committees unanimously approved 14 projects recommended by SANDAG staff for Pilot Smart Growth Incentive Program funding at their joint meeting on September 2, 2005. During the meeting, Steve Otto of the San Ysidro Business Association and Scott Kessler of the San Ysidro Business Improvement District raised concerns about the project scoring methodology. The attached memorandum responds to the issues raised.

Metropolitan Transit System (MTS) Chief Executive Officer Paul Jablonski will recognize the SANDAG staff who helped make the Mission Valley East Light Rail Transit extension project a success.

### CONSENT ITEMS (3 through 6)

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#### +3. COMPREHENSIVE 2007 REGIONAL TRANSPORTATION PLAN (RTP):

**FORMATION OF AN AD HOC WORKING GROUP TO REVIEW TRANSPORTATION PROJECT EVALUATION CRITERIA** (Rachel Kennedy)

Staff proposes forming an ad hoc working group to review and update the transportation project evaluation criteria for the Comprehensive 2007 RTP update. One or two volunteers from the various existing transportation and planning advisory groups would join transportation agency staff on the working group. The Transportation Committee is asked to approve the formation of and charter for the Transportation Project Evaluation Criteria Ad Hoc Working Group, which would begin meeting in January 2006.

#### +4. DRAFT 2006 STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM** (José A. Nuncio)

Caltrans has released its draft 2006 State Highway Operations and Protection Program (SHOPP) for review and comment. The SHOPP is a four-year program updated every two years and includes safety, rehabilitation, and operations projects on the state highway system. The draft 2006 SHOPP includes approximately $205 million for the San Diego region from FY 2007 to FY 2010. The Transportation Committee is asked to approve the submittal of comments to Caltrans for inclusion with its submittal of the 2006 SHOPP to the California Transportation Commission.
+5. UNMET TRANSIT NEEDS HEARING RESULTS (James Floyd)  ACCEPT

SANDAG’s Subcommittee for Accessible Transportation (SCAT), acting as the region’s Social Service Transportation Advisory Council, received testimony to learn of transit needs of seniors and persons with disabilities. A Noticed Public Hearing was held in San Diego and additional publicized meetings to receive comments were held in four locations around the region. Additional comments were received electronically and by mail. The Transportation Committee is asked to accept these comments for consideration during the annual regional short range transit planning process.

+6. FULL ACCESS AND COORDINATED TRANSPORTATION (FACT) (Dan Levy)  INFORMATION

SANDAG, through SourcePoint, is the Coordinated Transportation Service Agency (CTSA) for San Diego County. CTSA assists the non-profit sector with coordinating its specialized transportation programs and improving the management of these programs. Full Access and Coordinated Transportation (FACT) is a community-based group that has recently emerged that envisions a single region-wide agency that would provide a centralized dispatching function for all specialized transportation providers. FACT is promoting a pilot project in the North County area. SANDAG staff is currently participating in the FACT initiative to evaluate feasibility and appropriate organizing structure, and also is reviewing the role of the CTSA to determine if potential changes could be made to support the FACT initiative. This report is presented for information.

CHAIR’S REPORT

7. FREEWAY TRANSIT LANE DEMONSTRATION PROJECT  INFORMATION

The Transit Freeway Lane Demonstration Project is scheduled to begin on Monday, December 5, 2005. A press tour of the operation was held on December 1, 2005. The one-year demonstration, modeled after a successful program in Minneapolis, converts freeway shoulders to transit lanes during the peak periods along a section of SR 52 and I-805 to provide congestion by-pass for existing transit Route 960. The demonstration will evaluate the effectiveness in improving travel time and reliability for transit, safety and passenger, freeway auto driver and bus driver perceptions. If successful, the demonstration could become permanent and be expanded to other freeway transit operations in the region. Staff will show a short video of the demonstration in operation.
REPORTS (8 through 11)

-8. FISCAL YEAR 2007 FEDERAL APPROPRIATIONS PROCESS FOR TRANSPORTATION PROJECTS (Ellen Roundtree)

It is anticipated that the FY 2007 federal appropriations process will begin in early February 2006. To provide our Congressional delegation with SANDAG’s transportation project proposals for the FY 2007 appropriations cycle, the Transportation Committee and the Board should develop a prioritized list of project funding requests during January 2006. In light of the many competing needs that Congress is currently facing, it is likely that there will be limited funding for discretionary projects. Therefore, the Transportation Committee is asked to approve criteria for selecting transportation projects for the FY 2007 federal appropriations cycle.

-9. DRAFT 2030 REVENUE CONSTRAINED REGIONAL TRANSPORTATION PLAN (RTP): 2006 UPDATE AND DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (SEIR) (Mike Hix)

Every three years, SANDAG is required to demonstrate that its long-range Revenue Constrained Transportation Plan meets federal air quality conformity standards. Staff has updated the 2030 Revenue Constrained Regional Transportation Plan (RTP) to reflect a revenue forecast that includes the TransNet extension and revised state and federal funding assumptions. The Plan includes the TransNet Early Action Program, along with updated capital and operating costs for all projects. The Transportation Committee is asked to: (1) accept for distribution the Draft RTP and Draft Supplemental Environmental Impact Report (SEIR) for public review; and (2) schedule a public hearing and the close of the public comment period on the Draft RTP and Draft SEIR for the January 27, 2006, Board of Directors business meeting.

-10. DRAFT 2006 STATE TRANSPORTATION IMPROVEMENT PROGRAM (José A. Nuncio)

The 2006 State Transportation Improvement Program (STIP) covers the five-year period from FY 2007 through FY 2011. The Transportation Committee approved development criteria for the 2006 State Transportation Improvement Program at its October 21, 2005, meeting. Based on these criteria, staff developed the proposed programming recommendations contained in the report. The Transportation Committee is asked to recommend that the Board of Directors approve the 2006 STIP programming proposal. Final submittal to the California Transportation Commission is due by January 30, 2006.
+11. PRIORITIES FOR COASTAL RAIL CORRIDOR MAJOR CAPITAL PROJECTS
(Ellen Roundtree)

The Caltrans Division of Rail has requested that SANDAG and North County Transit District (NCTD) weigh in on prioritizing major capital projects along the coastal rail corridor in preparation for an estimated $63.6 million in funding for interregional rail projects made available through reprogramming existing projects and/or application of double track funds as identified in state law. The Transportation Committee is asked to recommend a priority listing of interregional rail improvement projects in the coastal rail corridor to Caltrans Division of Rail.

12. UPCOMING MEETINGS

The next two meetings of the Transportation Committee are scheduled for Friday, January 6, 2006, and Friday, January 20, 2006, both at 9 a.m. – 12 noon.

13. ADJOURNMENT

+ next to an agenda item indicates an attachment
TRANSPORTATION COMMITTEE

December 9, 2005

AGENDA ITEM NO.: 1

Action Requested: APPROVE

TRANSPORTATION COMMITTEE DISCUSSION AND ACTIONS
MEETING OF NOVEMBER 4, 2005

The meeting of the Transportation Committee was called to order by Chair Joe Kellejian (North County Coastal) at 9:10 a.m. See the attached attendance sheet for Transportation Committee member attendance.

1. APPROVAL OF MEETING MINUTES

Councilmember Bob Emery (Metropolitan Transit System [MTS]) noted a correction to the minutes from the October 21, 2005, meeting related to item No. 11 on the 2006 State Transportation Improvement Program (STIP) Development Guidelines. The action on that item indicated that Councilmember Phil Monroe (South County) made the motion and that the motion was approved unanimously, which is incorrect. Staff was directed to determine the correct maker of this motion and the vote. [Subsequent to this meeting, the clerk determined that Councilmember Jerome Stocks (NCTD) was the maker of this motion, and there were two votes against the motion (Councilmembers Emery and Rindone)].

Action: Upon a motion by Supervisor Ron Roberts (County of San Diego) and a second by Councilmember Jerry Rindone (South County), the Transportation Committee approved the minutes from the October 21, 2005, meeting with the corrections to be made. Xema Jacobson (San Diego County Regional Airport Authority) abstained.

2. PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS

Chuck Lungerhausen, a member of the public, commented on two items. The first is that on Channel 8, on the 11 p.m. news this past Wednesday, a San Diego State University (SDSU) co-ed made the statement that the trolley has brought crime to the campus. However, no supporting evidence was given; it was just this reckless comment. The second item has to do with a news item by Channel 7/39 on Thursday at 4:30 p.m. and 6 p.m. about the toll road from Orange County that this Committee approved that could have significant environmental impacts no matter which route is selected. He said that expanding this toll road from six to eight lanes will create a significant impact to San Diego County because more traffic will be directed to Interstate 5 (I-5). He suggested that we build a parking structure in Old Town with reasonable fees so that visitors will use public transit to get to places like the beaches. He suggested perhaps we should build an elevated tram system to the beach areas.
Councilmember Monroe stated that he saw the same newscasts as Mr. Lungerhausen, and further on in those newscasts an SDSU security officer said there was no supporting documentation to the co-ed’s statement.

Councilmember Jim Madaffer (City of San Diego) indicated that the incidents of crime at SDSU has nothing to do with the trolley and a lot to do with gangs.

Chair Kellejian called on Toni Bates to talk about Councilmember Judy Ritter's request for information from a previous Committee meeting.

Ms. Bates, Division Director of Transit Planning, stated that at the September 16 Committee meeting staff presented a report on the development review process in which SANDAG works with jurisdictions to incorporate transit facilities and accommodations into new developments. Councilmember Ritter had asked for a list of the development projects and the jurisdictions in which they were located that contributed transit improvements as part of the development project. A list and map of these developments was distributed, with the development project name, projects grouped by jurisdiction, and the type of transit facility provided.

Councilmember Stocks said that out of 240 development projects, only 28 improvements were not in North County Transit District’s (NCTD's) area. He encouraged SANDAG to be in tune with this information.

CONSENT ITEMS (3 THROUGH 4)

3. LOS ANGELES–SAN DIEGO–SAN LUIS OBISPO RAIL CORRIDOR AGENCY (LOSSAN) BOARD OF DIRECTORS MEETING REPORT (INFORMATION)

The LOSSAN Rail Corridor Agency seeks to increase ridership, revenue, capacity, reliability, and safety on the coastal rail line from San Diego to Los Angeles to San Luis Obispo. Known as Amtrak’s Pacific Surfliner corridor, it is the second busiest intercity passenger rail corridor nationwide and Amtrak’s fastest growing. This report summarizes the actions from the LOSSAN Board meeting on September 14, 2005.

4. CALIFORNIA STATEWIDE HIGH-SPEED PASSENGER RAIL SYSTEM QUARTERLY UPDATE (INFORMATION)

The California High-Speed Rail Authority (CHSRA) is the state agency responsible for planning, constructing, and operating a high-speed train system serving California’s major metropolitan areas. The proposed system stretches over 800 miles and would connect San Diego, Los Angeles, the Central Valley, San Francisco, and Sacramento using a state-of-the-art, electrified system capable of speeds in excess of 200 miles per hour. SANDAG continues to monitor and comment on the work of the CHSRA. This report is the regular quarterly update to the Transportation Committee.

Action: Upon a motion by Councilmember Madaffer and a second by Supervisor Roberts, the Transportation Committee approved Consent Items 3 and 4.
CHAIR’S REPORT

5. UPDATE ON COMPREHENSIVE OPERATIONAL ANALYSIS (COA) BLUE RIBBON COMMITTEE (INFORMATION)

Chair Kellejian stated that he and Councilmember Monroe have served on this Blue Ribbon Committee. The last meeting of this Committee was held on October 12. The Blue Ribbon Committee reviewed the service proposals to focus resources on urban areas, provide commuter services along major corridors, reduce/eliminate traditional transit services in areas of low ridership, and introduce the concept of market-based services, with these services designed to address the unique community needs of specific markets. SANDAG’s interest will be to link the COA strategy and services to its regional policies through the Regional Short-Range Transit Plan (RSRTP), work with MTS to develop innovative ways to address service needs in the areas without traditional transit service, and address park-and-ride needs along the proposed commute corridors.

Chair Kellejian said that the Blue Ribbon Committee expressed concern about the ability to fund the COA proposals. MTS staff indicated that the urban and corridor services would require about 90 percent of the available funds, leaving 10 percent for community-based services.

Chair Kellejian said that the next step is for MTS to take the recommendation to the public and to the MTS Board. There will be a series of public open houses to share the proposed service changes and to solicit input. A presentation to the Transportation Committee will be scheduled following the public open houses.

Councilmember Monroe asked for a briefing on the COA’s objectives and goals as the workshops occur.

Chair Kellejian mentioned that the proposed service reductions amount to about $4 million out of the $8 million shortfall. Paul Jablonski, MTS Chief Executive Officer, said it was premature to quantify an amount. He said that we are building the system from the ground up, and there are still some areas needing refinement.

Chair Kellejian commended MTS for taking this comprehensive system look and for reviewing the needs of the people of San Diego County.

REPORTS

6. DRAFT TransNet PLAN OF FINANCE FOR THE EARLY ACTION PROGRAM (APPROVE)

Chair Kellejian stated that in 2005 shortly after passage of the TransNet Extension, we told the public that we would get started on projects right away. Staff came to the Transportation Committee and SANDAG Board for comprehensive input into the Early Action Plan. We are now looking at the financial piece to proceed with implementation.
Councilmember Emery indicated that a letter from MTS Chair Leon Williams was distributed requesting that this item be tabled to the December meeting due to action taken by the MTS Executive Committee related to long-range capital improvement shortfalls. This request was based upon the timing of the COA, the Blue Ribbon Committee report, and the Early Action Projects before us. The Transportation Committee members from MTS have supported the Early Action Projects and the concept of getting on line early. That was prior to the identification of the capital improvement shortfalls, which total about $30 million per year. We want more time to look at this to be sure that the dollars being expended on the Early Action Projects are not at the expense of capital improvement projects.

Chair Kellejian stated that we would move ahead with this item. There is some financial background that MTS needs to provide to the Committee with regard to this request. Staff can take up that issue as we go along.

Craig Scott, TransNet Program Manager, reported that the TransNet Plan of Finance provides the financial strategy for paying for the projects in the Early Action Program (EAP). There are 47 major highway and transit projects included in Proposition A. The EAP is a big first step that includes work on 20 of those 47 corridors. This work ranges from environmental document preparation on some corridors to completing the entire corridor improvement as identified in the ballot measure. We will look at cost estimates and schedules for the balance of the 47 corridors in concert with the development of the 2007 Regional Transportation Plan (RTP). This Plan of Finance process provides the baseline for the TransNet program and will be continuously reviewed and refined. The initial financial strategy that the Transportation Committee approved in May 2005 included expanding the TransNet commercial paper program from $135 million to $335 million to help pay for the expenditures on the EAP in the early years of the program; issuing short-term notes, if needed through 2008; issuing long-term bonds in 2008; and investigating interest rate hedging opportunities to lock in today’s low rates. By the end of next week, the expanded commercial paper program will be in place to fund the EAP projects, and an interest rate hedging proposal will be presented to the Board for consideration at its November meeting.

Mr. Scott said that the EAP was approved in January 2005, with the idea to “jump start” these major projects before the TransNet Extension starts in FY 2009. In May 2005, additional transit components were included in the EAP. He reviewed the EAP projects.

Mr. Scott explained that the Plan of Finance process included updating all costs and revenues to future year (escalated) dollars; developing updated cost estimates, schedules and detailed cash flows for each EAP project; updating the TransNet revenue forecast; and updating estimates for potential state/federal/other matching funds. The financial model calculates the amount of borrowing needed to meet the identified project cash flows. This financial analysis can be conducted for the overall TransNet program, as well as for each of the major program components. He showed the 40-year TransNet revenue assumptions.

Mr. Scott reviewed three major policy choices for the Transportation Committee: (1) to bond or not to bond, (2) what share of TransNet Major Corridor funds should go to the EAP, and (3) what share of available state and federal matching funds (primarily State Transportation Improvement Program [STIP], Congestion Mitigation Air Quality [CMAQ], and Surface Transportation Program [STP] funds) should go to the EAP. Mr. Scott reviewed
the use of STIP/CMAQ/STP funds in four major categories for the FY 1998-2009 time frame. He described the TransNet Extension Expenditure Plan update for revenues and costs based on the assumed use of STIP/CMAQ/STP funds at the 85 percent and the 100 percent levels. He noted that the ballot measure included the assumption that we would fund the projects on a 50/50 (TransNet/other funds) basis. If we funded the projects at an 85 percent level, there would be an 8 percent shortfall; if we funded at the 100 percent level, there would be a 3 percent shortfall. He showed a diagram of the key funding assumptions for the 2030 Regional Transportation Plan to show how we will pay for the shortfall.

Mr. Scott reviewed the funding scenarios that were analyzed:

Scenario 1 – 100 percent of STIP/CMAQ/STP, using 100 percent of TransNet for the EAP
Scenario 2 – 85 percent of STIP/CMAQ/STP, using 100 percent of TransNet for the EAP
Scenario 3 – 85 percent of STIP/CMAQ/STP, using 90 percent of TransNet for the EAP
Scenario 4 – no bonding, using 85 percent of STIP/CMAQ/STP and 100 percent of TransNet for the EAP

Mr. Scott showed the EAP project delivery schedule and described a chart showing the costs and revenues through 2015, based on one of the bonding scenarios. He noted that an important question is: can we afford the EAP construction schedules? The answer is that we can afford them with all of the bonding scenarios but not if we don’t bond. If we don’t bond, there will be an average four-year delay in completing the EAP.

Mr. Scott also reviewed for each scenario the total bonding required, the financing costs associated with the bonds, and the available remaining funds for non-EAP projects. He provided additional information related to the three policy choices including the cost of bonding compared to the benefits of accelerating project implementation and avoiding cost escalation. In addition, on the question of what share of TransNet Major Corridor funds should go to the EAP, he said that the Committee should determine if the focus is on completing the EAP or spreading the funds to other projects. Should more projects be completed or more projects started? The other key issue to consider is whether to use state and federal funds to match the EAP or other projects.

Mr. Scott reviewed the staff recommendation of Scenario 3. The benefits of that scenario include maintaining the focus on the EAP while leaving funding available for other non-EAP and non-TransNet projects. The benefits of accelerating the projects through the use of bonds exceed the cost of bonding. He noted that the assumed matching fund levels and fund set asides will be reconsidered in future updates based on updated information.

Mr. Scott said that following approval of one of the scenarios, the next steps would be to present the final Plan of Finance to the SANDAG Board in December, coordinate the next major update to the Plan of Finance with the 2007 RTP, develop a program office for cost/schedule management, closely monitor all key assumptions, and update the Transportation Committee as issues arise.

Chair Kellejian stated that part of the TransNet Extension Ordinance and Expenditure Plan was the formation of an Independent Taxpayers Oversight Committee (ITOC). He asked that a member of this committee provide a report.
Maryam Babaki, ITOC member, indicated that they held a special meeting last Wednesday to look at the draft Plan of Finance and a proposal regarding interest rate hedging. In general, the ITOC was in favor of moving forward with the use of bonding based on Scenario 3 in the draft Plan of Finance. The ITOC found the plan to be well laid out and the hedging proposal to be innovative. The ITOC will be discussing both topics further at its November 9, 2005, meeting.

Chair Kellejian said that there was one request to speak.

Jay Powell, representing the City Heights Development Corporation, spoke in support of staff’s recommendation to accelerate the completion of the Interstate 15 (I-15) bus rapid transit (BRT) from downtown San Diego to the State Route (SR) 163 merge as part of the EAP. He expressed appreciation for SANDAG and the Transportation Committee for including this project in the EAP. He mentioned a concern about the project delivery schedule. The schedule calls for this project to be completed by 2012, and they would like this project to be accelerated before that time.

Board Comments:

Councilmember Madaffer asked that a copy of the presentation graphics be distributed to Committee members. He said that we have to remind ourselves what we promised to the voters when we asked them to approve TransNet. There are a lot of transit-related components in the EAP. He asked what percent of the EAP is transit related. Mr. Gallegos replied that about 43 percent of the funding was for major transit projects. He said that MTS expressed some concerns about whether this would be enough money.

Councilmember Emery said that it isn’t a question about being enough; it is more a question of where the funds will be directed. The request from MTS for a delay in no way suggests getting away from the EAP or the other proposed projects in TransNet. We should look at this funding for all the projects. There are two operating agencies with significant operating deficiencies. In a perfect world, we would direct 100 percent of the funds for the EAP, but we don’t have that latitude. We have to operate and restructure capital improvement projects.

Councilmember Madaffer stated that it is obvious our regional transportation needs far outweigh the TransNet funds. He thought it was good to hear that the Independent Taxpayer Oversight Committee recognizes the intelligence of bonding now to avoid the added costs of delay, which is huge. The public is expecting transportation solutions today. Members of the Committee previously received a map that showed the major facilities in the region. If we don’t approve the staff recommendation we will be breaching our promise to the voters.

Chair Kellejian clarified that a hedging proposal with regard to Scenario 3 will go to the SANDAG Board in November rather than December. The reason for moving this action forward is to anchor the interest rate as soon as possible. We have firms standing by waiting for this decision.
Mr. Gallegos said that the key is whether you’re going to bond or not. If you look at the hedging proposal and you choose not to bond, then you take a risk. What we are hearing is that the timing is important because both short- and long-term interest rates are headed up. The Transportation Committee and Board indicated that we should take advantage of the low interest rates. We need to know what direction to take.

Councilmember Stocks commented that a big part of our job is to watch the public purse strings. By bonding, we can avoid costs and a four-year delay. He supported the staff recommendation. He understood that MTS is concerned about deferred major maintenance for capital investment. We do need to find a way to pay for those projects. This is a concern but not appropriate when discussing TransNet. This action is about the EAP.

Supervisor Slater-Price expressed strong support for staff’s recommendation. We need to move in a timely fashion. The voters are waiting to see what will happen.

Mayor Pro Tem Ed Gallo (NCTD) asked about the 10 percent set aside. Mr. Gallegos responded that the EAP is a subset of the TransNet projects. The 10 percent set-aside funds is money available for other TransNet projects.

Mayor Pro Tem Gallo said he understood Mr. Emery’s comments on the request to delay action on this item, however, he agreed with Mr. Stocks that we need to act.

Councilmember Scott Peters (City of San Diego) agreed that MTS raised some important issues. We should know what the answers are before we take this action. He asked MTS to come back with information before the SANDAG Board acts. We should at least understand the implications before we act.

Mr. Gallegos said that this is not a cast-in-concrete decision. He said that you are not going to spend all of the money tomorrow. You will review this plan on a year-by-year basis. Additionally, there is $1.2 billion for transit improvements in the EAP. He suggested moving forward with a caveat that the transit agencies report back with their needs identified. That will give us a chance to evaluate those needs and review the funding opportunities. He reminded Committee members that there are choices to make.

Councilmember Peters asked why the Super Loop project cost was reduced to $21 million. We have been talking about a 2008 timeline and now it says 2010. Ms. Bates stated that the $30 million in the RTP includes both capital and operating. Mr. Gallegos said that the timeline is what was assumed for the Plan of Finance analysis. Councilmember Peters said that staff should reconcile the timeline with the community group that has been working on that project.

Supervisor Roberts said that the issue is not the amount of money. The key is that there is flexibility in the way we draw down the dollars. MTS has issues, and it is not just replacing equipment. There is money to get things done. There is enough flexibility to move forward today. He asked for a copy of this presentation and requested that Transportation Committee members have color copies of the PowerPoint presentations from this point on.
Mr. Gallegos noted that there are tradeoffs, but the key is to get the major corridors completed.

Chair Kellejian reiterated that there is a 10 percent set aside for other purposes. We need to have some sort of comprehensive plan for future transit needs.

Mayor Art Madrid (East County) said that this has been a work in progress and hasn’t been presented at the last minute. The voters’ confidence with elected officials is slipping. We have to follow-up on those commitments. It is critical that we move forward. He would like to see the rationale for the letter from MTS.

Karen King, NCTD Executive Director, said that the transit agencies had no knowledge that this item was going to this meeting until the agenda package came out. The first opportunity to review this item was on Wednesday, and NCTD had no time to develop anything more comprehensive than the one-page letter that was distributed. We need to look at what the 10 percent set aside for non-EAP projects will buy, and how much of the need it will cover. The analysis of the transit operators’ capital improvement needs should be part of this report.

Ms. King asked about the difference in financing costs listed in two places in the staff report. Mr. Scott replied that the costs shown as part of the scenario analysis were in future dollars, while the costs discussed as part of the cost-benefit analysis related to bonding was in today’s dollars.

Councilmember Monroe mentioned that he had been informed about a meeting of city engineers yesterday when they were discussing this item. He was relieved when he understood we are only talking about one piece of the pie. He asked if the city engineers were shown these slides. Mr. Gallegos answered that they had received the same presentation. It comes down to discretionary spending. The TransNet Extension included a $2,000 impact fee, which is new money. In addition, Proposition 42 dollars weren’t around for the first TransNet ordinance. The engineers are concerned about tradeoffs and wondering if they will be losing projects. Mr. Gallegos noted that the TransNet Extension has some provisions that are different than the first TransNet Ordinance.

Councilmember Monroe stated that the $2.5 billion in savings is both “hard” and “soft” dollars. The “soft” dollars are a result of reduced commuter time and accidents. Mr. Scott agreed that those dollar estimates for travel time savings and accident reductions are social costs and not direct cost savings for the TransNet program; however, they are costs to those stuck in traffic.

Mr. Jablonski said that a lot of the transit infrastructure improvement projects are contained within TransNet. It is important to understand that everyone wants the projects to be done as soon as possible. We are looking at $1.25 billion in bonding costs to avoid $309 million in construction delay costs. We are showing this benefit as $2.4 billion. The analysis is not done until you take those dollars you save, see what projects you can do with those savings, and see what money will be saved from getting those projects done.
Marney Cox, SANDAG Chief Economist, stated that the public basically has an understanding about focusing expenditures on key projects. We collect money to provide the facilities and the benefits of those improvements that are broadly distributed. We have focused expenditures to achieve those benefits. If you focus the expenditures, the entire system benefits in two ways: system benefits and time-savings benefits. In the I-15 corridor, a one-way trip will have a 24 percent reduction in trip time. That's about 12 minutes off the normal trip time. On SR 52, it is more significant...a 40 percent improvement. You are knocking off time for those commuters on that roadway. It allows people on I-5 to take advantage of the improvements on I-15. Even with additional trips transferring from I-5 to I-15, you will have time savings on I-15 and SR 52. Those savings are significant. If we could move forward on all improvements, we would make similar improvements in all corridors.

Councilmember Emery commented that time savings on a freeway doesn’t buy catenary wire or new buses. The MTS system has to rely on its budget. A cut in service will put more people back onto the freeway system. There is a significant shortfall in the MTS system.

**Action:** Upon a motion by Councilmember Madaffer and a second by Councilmember Stocks, the Transportation Committee directed staff to further develop the final TransNet Plan of Finance based on Scenario 3 for consideration by the SANDAG Board of Directors at its December Board meeting. Scenario 3 uses bonding to complete the projects in the Early Action Program (EAP) on the proposed schedules, sets aside 10 percent of TransNet Major Corridor funds for other non-EAP TransNet projects, and leaves 15 percent of future STIP/CMAQ/STP funds available for other non-TransNet projects.

Pedro Orso Delgado, Caltrans District 11 Director, said that one of the next steps of the Early Action Program is to have Early Action Corridor Managers, and we are already working on that piece. We are in the interview process, and some Early Action Corridor Managers have been appointed.

Councilmember Madaffer requested a quarterly monitoring report on the key assumptions and asked that staff pass items through the ITOC. Mr. Gallegos agreed to provide that quarterly report.

7. **DRAFT FY 2006-FY 2010 REGIONAL SHORT RANGE TRANSIT PLAN (APPROVE)**

Dan Levy, Senior Transit Planner, said that under Policy 018, SANDAG is responsible for preparing a consolidated Regional Short Range Transit Plan (RSRTP). This report is an update on the plan development. The purpose of the RSRTP is to provide a five-year blueprint for the growth and development of the regional transit system. The elements of the Plan include a system inventory, development of a regional policy basis for service, identification of deficiencies and solutions, and an action plan. There are a number of concurrent major plans and policies such as the Regional Comprehensive Plan’s (RCP) Smart Growth Concept Map, the RTP Update, the Independent Transit Planning Review (ITPR), and the agency planning initiatives including the COA and the Sprinter Bus Redesign Action Plan.

The following are challenges for the five-year RSRTP planning period: regional congestion is a major concern, funding continues to be limited, ridership has been falling, TransNet has raised the public’s expectations, and consolidation is expected to bring improved planning
and service. In addition, there are several other initiatives underway that will affect the RSRTP: the RCP Smart Growth Concept Map development, the 2007 Regional Transportation Plan Update, the Independent Transit Planning Review, the MTS Comprehensive Operational Analysis, and the NCTD Sprinter bus plan.

The RTP Transit First Vision provides a family of services to meet the diverse needs of the region. The COA has introduced a “tiers of service” concept that assigns different types of service to particular areas or markets and may also be used by NCTD to help redesign bus services for the Sprinter. The approach of the RSRTP will be to develop Service Design Guidelines that support this framework by identifying regional deficiencies, permit regional evaluation of services, and define appropriate levels of service. They must be applicable across the region; responsive to differing markets and needs; understandable by the public; and consistent for SANDAG, MTS, and NCTD.

The Service Design Guidelines and Transit Agency Planning will build on the tiered approach of the COA: the urban network, commuter services, and community-based services. Service zones will be developed to provide areas having similar patterns of development with similar levels of service. The Guidelines will address financial performance, productivity, access (walking distance), comfort (crowding), convenience (frequency and service span), reliability (schedule adherence), and warrants for new service.

The Service Design Guidelines would be structured as a hierarchy with objectives, indicators, and targets. The objectives would define the service goal, the indicators would describe the best method of measuring attainment of the goal, and the target would set the level to be attained. In future years, it should only be necessary to adjust the target value if the policy objectives change or funding levels are significantly altered.

SANDAG, MTS, and NCTD will jointly develop guidelines for each zone, consistent with the RCP, RTP, COA, and Sprinter Bus Redesign.

He reviewed the schedule and the recommended action.

Councilmember Emery stated that this is a good process to integrate all of the efforts. He expressed interest in how the zones will be developed.

Councilmember Stock agreed that it is good and correct to identify various service zones. He asked about our obligation for lifeline service. He thought this type of discussion would occur as we move forward. He thanked staff for a good report.

Action: Upon a motion by Councilmember Emery and a second by Councilmember Monroe, the Transportation Committee endorsed the purpose, regional context, and approach for developing the FY 2006-2010 Regional Short Range Transit Plan as described in the report.

8. UPCOMING MEETINGS

The next meeting of the Transportation Committee is scheduled for Friday, December 9, 2005, at 9 a.m.
9. **ADJOURNMENT**

Chair Kellejian adjourned the meeting at 11:00 a.m.

Attachment: Attendance Sheet
## CONFIRMED ATTENDANCE
### SANDAG TRANSPORTATION COMMITTEE MEETING
#### NOVEMBER 4, 2005

<table>
<thead>
<tr>
<th>GEOGRAPHICAL AREA/ORGANIZATION</th>
<th>JURISDICTION</th>
<th>NAME</th>
<th>MEMBER/ALTERNATE</th>
<th>ATTENDING</th>
<th>COMMENTS</th>
</tr>
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<tbody>
<tr>
<td>North County Coastal</td>
<td>City of Solana Beach</td>
<td>Joe Kellejian (Chair)</td>
<td>Member</td>
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<td></td>
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<tr>
<td></td>
<td>City of Oceanside</td>
<td>Jim Wood</td>
<td>Alternate</td>
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<tr>
<td>North County Inland</td>
<td>City of Poway</td>
<td>Mickey Cafagna</td>
<td>Member</td>
<td>No</td>
<td></td>
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<tr>
<td></td>
<td>City of Vista</td>
<td>Judy Ritter</td>
<td>Alternate</td>
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<tr>
<td>East County</td>
<td>City of Santee</td>
<td>Jack Dale</td>
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<td></td>
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<td></td>
<td>City of La Mesa</td>
<td>Art Madrid</td>
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<tr>
<td>South County</td>
<td>City of Chula Vista</td>
<td>Jerry Rindone</td>
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<td></td>
<td>City of Coronado</td>
<td>Phil Monroe</td>
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<td>City of San Diego</td>
<td>----</td>
<td>Jim Madaffer</td>
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<td></td>
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<td></td>
<td>----</td>
<td>Scott Peters</td>
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<tr>
<td>County of San Diego</td>
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<td>Ron Roberts</td>
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<td></td>
<td>----</td>
<td>Pam Slater-Price</td>
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<td></td>
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<tr>
<td></td>
<td>----</td>
<td>Dianne Jacob</td>
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<td>Metropolitan Transit Development Board</td>
<td>City of Poway</td>
<td>Bob Emery</td>
<td>Member</td>
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<tr>
<td>Metropolitan</td>
<td>MTS</td>
<td>Leon Williams</td>
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<td>North County Transit District</td>
<td>City of Encinitas</td>
<td>Jerome Stocks</td>
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<td>Will be attending for North County Inland</td>
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<td></td>
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<td></td>
<td>City of Escondido</td>
<td>Ed Gallo</td>
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<td>San Diego County Regional Airport Authority</td>
<td>City of Lemon Grove</td>
<td>Mary Sessom</td>
<td>Member</td>
<td>No</td>
<td></td>
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<tr>
<td></td>
<td>Governor’s Appointee</td>
<td>Xema Jacobson</td>
<td>Alternate</td>
<td>Yes</td>
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<td>ADVISORY/LIAISON Caltrans</td>
<td>----</td>
<td>Pedro Orso-Delgado</td>
<td>Member</td>
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<td></td>
<td>___</td>
<td>Bill Figge</td>
<td>Alternate</td>
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<td></td>
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<tr>
<td>Regional Planning Stakeholders Working Group</td>
<td>----</td>
<td>Sandor Shapery</td>
<td>Member</td>
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</table>
TO: SANDAG Regional Planning and Transportation Committees  
FROM: Bob Leiter  
SUBJECT: Response to Comments from San Ysidro Pilot Village Corridor Project Representatives Regarding Pilot Smart Growth Incentive Program Scoring

The Regional Planning and Transportation Committees unanimously approved the 14 projects recommended by SANDAG staff for Pilot Smart Growth Incentive Program funding, at their joint meeting on September 2, 2005. During the meeting, Steve Otto of the San Ysidro Business Association and Scott Kessler of the San Ysidro Business Improvement District raised concerns about the project scoring methodology. Specifically, they took issue with the “Intensity of Development” criterion and believed that the San Ysidro Project should be given credit for residential densities proposed in a pending community plan amendment. In their testimony, they asserted that other projects were evaluated and scored based upon anticipated residential densities that resulted in a “double standard” scoring process.

SANDAG staff met with Mr. Otto and Mr. Kessler to discuss the issues they raised at the September 2 meeting. This discussion helped us better understand the basis for their comments at the Regional Planning and Transportation Committees joint meeting and clarified for them the process we used to score the projects. Knowing that community plan amendments were being processed in a number of the proposed project areas, they had assumed we would be using the proposed densities in these communities to score the Intensity of Development criterion. When they saw the scores, and that their project was not given credit for the densities in the pending San Ysidro community plan amendment, they assumed we were not scoring the projects consistently.

Staff explained that all projects were evaluated according to the same standards and that the process for determining “Intensity of Development” included two steps.

1. First, staff examined the residential and employment densities of the areas within a quarter-mile radius of each project, based on data in SANDAG’s Series 10 Forecast. Densities included in the SANDAG Series 10 Forecast are based on each jurisdiction’s general plans and community plans as of 2001.

2. Second, staff compared the resulting densities to the densities prescribed for that smart growth place type, as defined in the Regional Comprehensive Plan. The closer the project was to meeting the densities prescribed for its place type, the higher the score awarded for “Intensity of Development.”
Staff further explained that this analysis, and the reliance on the SANDAG Series 10 Forecast, was necessary to ensure that residential and employment densities for all project areas could be determined efficiently and consistently. Densities stated in general plan and community plan amendments adopted after 2001 were not used to arrive at the “Intensity of Development” score for any of the applicants. It was also noted that projects like the San Ysidro proposal were awarded points based upon projected residential and employment densities in the “Related Land Development” criterion. In this category, all of the projects where approvals for higher densities and densities were in process received some additional credit.

After this exchange of information, Mr. Otto and Mr. Kessler agreed that the process for evaluating the projects was consistent, though they continued to assert that more credit should have been given to proposed increases in density. Staff will incorporate these comments into the forthcoming “Lessons Learned” report and work with the San Ysidro community when future funding opportunities arise to help them develop an effective project application.
COMPREHENSIVE 2007 REGIONAL TRANSPORTATION PLAN (RTP): File Number 3000400
FORMATION OF AN AD HOC WORKING GROUP TO REVIEW TRANSPORTATION PROJECT EVALUATION CRITERIA

Introduction

Over the years, SANDAG has developed and updated evaluation criteria for prioritizing transportation projects for inclusion in the Regional Transportation Plan (RTP). The last RTP update took place in 2003, during the preparation of MOBILITY 2030. Evaluation criteria are applied to regional arterial, highway, freeway connectors, high-occupancy-vehicle (HOV) connectors, and regional transit projects. These criteria will be reviewed and updated for the preparation of the Comprehensive 2007 RTP. Additional criteria were recently added for regional rail grade separations, and a goods movement category is also under consideration.

Recommendation

The Transportation Committee is asked to approve the formation of and the charter for the Transportation Project Evaluation Criteria Ad Hoc Working Group (Attachment 1).

Discussion

Staff proposes to form an ad hoc working group to review and make recommendations on the update of the transportation project evaluation criteria. Representatives from the following standing committees and working groups will be invited to participate:

<table>
<thead>
<tr>
<th>Committee/Group</th>
<th>Number of Representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Planning Stakeholders Working Group (SWG)</td>
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<tr>
<td>Cities/County Transportation Advisory Committee (CTAC)</td>
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<td>Regional Planning Technical Working Group (TWG)</td>
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<td>Bicycle-Pedestrian Working Group (BPWG)</td>
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<tr>
<td>Regional Housing Working Group (RHWG)</td>
<td>1</td>
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<tr>
<td>Regional Freight Working Group (FWG)</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition to SANDAG staff, staff from Caltrans, Metropolitan Transit System, and North County Transit District will be asked to join the new Ad Hoc Working Group.

The ad hoc working group is expected to meet monthly through fall 2006, but may meet more frequently depending on key milestone dates for the Comprehensive 2007 RTP. Recommendations from the ad hoc working group would be discussed with each of the participants’ committees and working groups. Additionally, this ad hoc working group might be asked to review the performance indicators used in the analysis of transportation alternatives of the 2007 RTP. The performance
measures for the overall transportation system are closely related to the transportation project evaluation criteria.

The first meeting is tentatively scheduled for Monday, January 23, 2006, from 1:30 to 3:30 p.m. at SANDAG. A meeting agenda will be sent to the appointed representatives in advance.

BOB LEITER
Director of Transportation and Land Use Planning

Attachment: 1. Transportation Project Evaluation Criteria Ad Hoc Working Group Charter

Key Staff Contact: Rachel Kennedy, (619) 699-1929, rke@sandag.org
COMMITTEE/WORKING GROUP CHARTER
Transportation Project Evaluation Criteria
Ad Hoc Working Group

PURPOSE
The Transportation Project Evaluation Criteria Ad Hoc Working Group will review and make recommendations on the update of the evaluation criteria used for prioritizing transportation projects for inclusion in the Comprehensive 2007 Regional Transportation Plan (RTP).

LINE OF REPORTING
The Transportation Project Evaluation Criteria Ad Hoc Working Group will report to the Transportation Committee.

RESPONSIBILITIES
The Transportation Project Evaluation Criteria Ad Hoc Working Group will review current evaluation criteria, provide suggestions for modifications, and examine potential new project evaluation criteria for the Comprehensive 2007 RTP. The working group may also be asked to review the performance indicators used in the analysis of transportation alternatives of the 2007 RTP. The performance measures for the overall transportation system are closely related to the transportation project evaluation criteria.

MEMBERSHIP
The Ad Hoc Working Group will be comprised of two representatives from each of the following committees/working groups: the Regional Planning Stakeholders Working Group (SWG), Cities/County Transportation Advisory Committee (CTAC), and Regional Planning Technical Working Group (TWG); and one member from each from the Bicycle-Pedestrian Working Group (BPWG), Regional Housing Working Group (RHWG), and Regional Freight Working Group (FWG). In addition to SANDAG staff, staff from Caltrans, Metropolitan Transit System, and North County Transit District will also be asked to participate.

MEETING TIME AND LOCATION
The Ad Hoc Working Group is expected to meet monthly at SANDAG, but may meet more frequently depending on key milestone dates for the Comprehensive 2007 RTP.

SELECTION OF THE CHAIR
SANDAG staff will chair the Ad Hoc Working Group meetings.

DURATION OF EXISTENCE
The Transportation Project Evaluation Criteria Ad Hoc Working Group will meet beginning in January 2006 and will complete their work by early 2007.
SAN DIEGO ASSOCIATION OF GOVERNMENTS
TRANSPORTATION COMMITTEE

December 9, 2005

AGENDA ITEM NO.: 4

Action Requested: APPROVE

DRAFT 2006 STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM File Number 1109100

Introduction

Caltrans headquarters has released its draft 2006 State Highway Operations and Protection Program (SHOPP) for review and comment. The SHOPP is a four-year program updated biennially, and it includes safety, rehabilitation, and operations projects on the state highway system. The 2006 SHOPP will cover from Fiscal Year (FY) 2006/07 to FY 2009/10. The draft 2006 SHOPP includes approximately $205 million in improvement projects for the San Diego region.

Recommendation

The Transportation Committee is asked to approve sending the following comments to Caltrans for inclusion with its submittal of the 2006 SHOPP to the California Transportation Commission:

1. SANDAG concurs with the proposed listed SHOPP projects. This list includes an increase in the commitment for operational projects, including auxiliary lanes, ramp meters, and changeable message signs. We encourage Caltrans headquarters to continue and expand upon this focus on operational projects.

2. SANDAG requests that Caltrans headquarters identify the resources to begin environmental work on the westbound I-8 to northbound I-5 connector operational improvements project. SANDAG had previously committed to pursuing federal funds as a match to Caltrans SHOPP resources. The region was successful in having $4.8 million identified for this project as part of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorization. Caltrans headquarters should step up its commitment to this important operational improvement project.

3. SANDAG requests that Caltrans headquarters identify resources to begin preliminary engineering and environmental work on operational improvements needed on rural State Route 94 between Otay Lakes Road and the SR 188 junction.

Discussion

The SHOPP includes several programs that Caltrans manages as owner and operator of the state highway system. These programs include collision reduction, storm water mitigation, pavement, bridge and landscaping preservation, roadside rest areas, and operations. The draft 2006 SHOPP proposes to program approximately $205 million distributed as shown in Table 1. The full listing of the projects, including location and work description is included in Attachment 1.
Table 1. Draft 2006 SHOPP - San Diego Region

<table>
<thead>
<tr>
<th>Program</th>
<th>Amount ($000s)</th>
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<tbody>
<tr>
<td>Collision Reduction</td>
<td>18,270</td>
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<td>Storm Water Mitigation Mandates</td>
<td>42,828</td>
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<td>Bridge Preservation</td>
<td>6,305</td>
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<td>Roadway Preservation</td>
<td>38,694</td>
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<tr>
<td>Mobility</td>
<td>83,404</td>
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<tr>
<td>Roadside Preservation</td>
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<td><strong>Total</strong></td>
<td><strong>205,169</strong></td>
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The statewide draft 2006 SHOPP proposes to program approximately $7.8 billion over the four-year period. The San Diego region’s share is approximately 2.6 percent. As a point of comparison, during the 2004 SHOPP the state programmed approximately $5.1 billion statewide, and the San Diego region received approximately $122 million, or about 2.4 percent of the total. It should be noted that SHOPP funds are programmed based on different factors and conditions, depending on the program. Some of these factors and conditions include number and severity of accidents, age of pavement or landscape inventory, wear and tear, metal fatigue, and others.

There are several projects included in the draft 2006 SHOPP that when completed will help relieve congestion. These include a southbound auxiliary lane on Interstate 5 (I-5) between Genesee Avenue and Sorrento Valley, an eastbound auxiliary lane on I-8 between Second Street and Greenfield Drive, and north and southbound auxiliary lanes on I-15 between Citracado Parkway and Valley Parkway.

Other traffic congestion improvement projects include ramp meters, detector stations, and changeable message signs. It should be noted that a regional ramp meter project previously programmed in the State Transportation Improvement Program (STIP) that had been delayed a number of times due to lack of funds in the STIP is included now in the SHOPP. This approximately $7.2 million project will complete the set of ramp meters on I-805 that the City of Chula Vista and SANDAG had previously programmed with other funds.

**Next Steps**

Caltrans is requesting comments from the regions by December 19, 2005. The draft 2006 SHOPP is scheduled to be adopted by the California Transportation Commission at its March 2006 meeting.

RENEE WASMUND
Director of Finance

Attachment: 1. Draft 2006 SHOPP Project List – San Diego

Key Staff Contact: José A. Nuncio, (619) 699-1908, jnu@sandag.org
### Draft 2006 SHOPP Project List

#### San Diego

($1,000)

<table>
<thead>
<tr>
<th>Route</th>
<th>Post Miles</th>
<th>Location/Description</th>
<th>PPNO</th>
<th>EA</th>
<th>Program Code</th>
<th>Prog Year</th>
<th>State RW</th>
<th>State Const</th>
<th>State Total</th>
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<tbody>
<tr>
<td>8</td>
<td>R28.2/R28.6</td>
<td>In Alpine at Tavern Road - install signal and widen ramp</td>
<td>0649</td>
<td>26770K</td>
<td>201.010</td>
<td>2006/07</td>
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<td>56</td>
<td>0.7/2.4</td>
<td>East of El Camino Real UC to east of Carmel Country Road OC - construct median barrier</td>
<td>0723</td>
<td>26840K</td>
<td>201.010</td>
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<td>78</td>
<td>35.1</td>
<td>Near Ramona - at Olive Street - install new signal</td>
<td>0845</td>
<td>26740K</td>
<td>201.010</td>
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<td>451</td>
<td>1,545</td>
<td>1,996</td>
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<td>Var</td>
<td>In San Diego - at various locations, Rtes 5, 8, 15,78,94,125,805</td>
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<td>Var</td>
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#### Collision Reduction

- In San Diego - at various locations - upgrade metal median guardrail to concrete
- In San Diego - at the Kearny Mesa Operations Center - storm water mitigation

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<tr>
<th>Route</th>
<th>Post Miles</th>
<th>Location/Description</th>
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<th>EA</th>
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<td>Construct slope stabilization and revegetate slopes</td>
<td>0975</td>
<td>080620</td>
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<td>8</td>
<td>R37.8/R39.4</td>
<td>Route 79 to 0.6 mi 2.5 km E of Route 79 - construct drainage improvements</td>
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#### Mandates

- In San Diego - at the Kearny Mesa Operations Center - storm water mitigation
- Construct slope stabilization and revegetate slopes
- Rainbow Creek Nutrients TMDL - construct infiltration devices and bioswales
- Mission Valley, Lake Jennings Park Road and Sea World Drive - retrofit extended detention basins
- Chollas Creek Metals TMDL - construct sand filters & infiltration devices Phase 1 of 4
- Chollas Creek Metals TMDL - construct sand filters and infiltration devices Phase 2 of 4
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<th>Location/Description</th>
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<td>23.2</td>
<td>In San Diego County, near Oceanside - at Pala Creek Bridge #57-0072 - bridge replacement</td>
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<td>188</td>
<td>0.0/0.8</td>
<td>In San Diego County - US/MEX border to Humphries Road - rehabilitate roadway</td>
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</tr>
<tr>
<td>905</td>
<td>2.9/5.7</td>
<td>In San Diego County - Route 5 to Route 805 - grind PCC pavement, slab replacement and rehabilitate ramp</td>
<td>0961</td>
<td>27480K</td>
<td>201.121</td>
<td>2007/08</td>
<td>0</td>
<td>5,835</td>
<td>5,835</td>
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<tr>
<td>67</td>
<td>19.0/24.3</td>
<td>In San Diego County - Whispering Oaks Drive to SR-78 - apply 30 mm open graded overlay</td>
<td>0745</td>
<td>26120</td>
<td>201.122</td>
<td>2007/08</td>
<td>0</td>
<td>1,591</td>
<td>1,591</td>
<td></td>
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<tr>
<td>75</td>
<td>17.3/20.5</td>
<td>In San Diego County - from Naval Base Entrance to SD/Coronado Bay Bridge - Apply Microsurfacing</td>
<td>0753</td>
<td>27720</td>
<td>201.122</td>
<td>2007/08</td>
<td>0</td>
<td>1,591</td>
<td>1,591</td>
<td></td>
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<tr>
<td>75</td>
<td>17.3/20.5</td>
<td>In San Diego County - from Naval Base Entrance to SD/Coronado Bay Bridge - Apply Microsurfacing</td>
<td>0753</td>
<td>27720</td>
<td>201.122</td>
<td>2007/08</td>
<td>0</td>
<td>1,591</td>
<td>1,591</td>
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<tr>
<td>76</td>
<td>32.9/52.3</td>
<td>In San Diego County - Valley Center Road to SR-79 - apply micorsurfacing</td>
<td>0763</td>
<td>27780</td>
<td>201.122</td>
<td>2009/10</td>
<td>0</td>
<td>1,126</td>
<td>1,126</td>
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<tr>
<td>78</td>
<td>0.0/3.3</td>
<td>In San Diego County - Route 5 to College Blvd. - apply 20 mm Asphalt Rubber Open Graded Overlay</td>
<td>0846</td>
<td>27700</td>
<td>201.122</td>
<td>2006/07</td>
<td>0</td>
<td>1,751</td>
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<tr>
<td>78</td>
<td>16.0/17.6</td>
<td>In San Diego County - Route 15 to Broadway - Apply 20 mm Asphalt Rubber Open Graded Overlay</td>
<td>0847</td>
<td>27710</td>
<td>201.122</td>
<td>2006/07</td>
<td>0</td>
<td>773</td>
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<td>79</td>
<td>20.3/35.3</td>
<td>In San Diego County - Route 78 to Warner Springs - Apply 20 mm Asphalt Rubber Open Graded overlay</td>
<td>0856</td>
<td>27770</td>
<td>201.122</td>
<td>2009/10</td>
<td>0</td>
<td>1,688</td>
<td>1,688</td>
<td></td>
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<tr>
<td>79</td>
<td>35.3/53.0</td>
<td>In San Diego County - from Warner Springs to County Border - Apply 20 mm Asphalt Rubber Open Graded overlay</td>
<td>0857</td>
<td>27810</td>
<td>201.122</td>
<td>2009/10</td>
<td>0</td>
<td>2,026</td>
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<td>94</td>
<td>39.0/65.4</td>
<td>In San Diego County - Route 188 to Route 8 - apply 20 mm Asphalt Rubber Open Graded Overlay</td>
<td>0823</td>
<td>27690</td>
<td>201.122</td>
<td>2006/07</td>
<td>0</td>
<td>2,060</td>
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## Draft 2006 SHOPP Project List

### San Diego

**($1,000)**

<table>
<thead>
<tr>
<th>Route</th>
<th>Post Miles</th>
<th>Location/Description</th>
<th>PPNO</th>
<th>FA</th>
<th>Program Code</th>
<th>Prog Year</th>
<th>State RW</th>
<th>State Const</th>
<th>State Total</th>
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<tbody>
<tr>
<td>94</td>
<td>14.9/30.0</td>
<td>In San Diego County - Route 54 to Marron Valley Road - Apply 30 mm Open Graded AC overlay</td>
<td>0824</td>
<td>27750</td>
<td>201.122</td>
<td>2009/10</td>
<td>0</td>
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<tr>
<td>282</td>
<td>0.0/0.69</td>
<td>In San Diego County - Route 75 to Alameda Blvd - apply microsurfacing</td>
<td>0920</td>
<td>27730</td>
<td>201.122</td>
<td>2007/08</td>
<td>0</td>
<td>318</td>
<td>318</td>
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<tr>
<td>905</td>
<td>5.9/11.6</td>
<td>In San Diego County - Route 805 to Siempre Viva Road - apply microsurfacing</td>
<td>0964</td>
<td>27740</td>
<td>201.122</td>
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<td>3,278</td>
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<tr>
<td>5852</td>
<td>Var</td>
<td>In San Diego County - at various locations - culvert rehab</td>
<td>0876</td>
<td>27080K</td>
<td>201.151</td>
<td>2009/10</td>
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### Mobility

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<th>PPNO</th>
<th>FA</th>
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<th>Prog Year</th>
<th>State RW</th>
<th>State Const</th>
<th>State Total</th>
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<tbody>
<tr>
<td>15</td>
<td>M13.2/M16.8</td>
<td>In Mira Mesa - south of Miramar Way to north of Mira Mesa Blvd. - landscape mitigation</td>
<td>0233Y</td>
<td>256700</td>
<td>201.310</td>
<td>2009/10</td>
<td>0</td>
<td>2,943</td>
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<tr>
<td>5</td>
<td>R29.5/R30.1</td>
<td>In San Diego - Genesee Avenue to south of Sorrento Valley Overhead - construct southbound auxiliary lane</td>
<td>0129P</td>
<td>065000</td>
<td>201.310</td>
<td>2008/09</td>
<td>0</td>
<td>3,220</td>
<td>3,220</td>
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<tr>
<td>8</td>
<td>17.4/R18.7</td>
<td>In El Cajon - Second Street to Greenfield Drive - construct auxiliary lane eastbound and remove pedestrian overcrossing bridge</td>
<td>0187P</td>
<td>063801</td>
<td>201.310</td>
<td>2008/09</td>
<td>55</td>
<td>19,122</td>
<td>19,177</td>
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<tr>
<td>15</td>
<td>R29.1/R30.8</td>
<td>Citracado Parkway to Valley Parkway - construct NB/SB aux lane</td>
<td>0233E</td>
<td>232650</td>
<td>201.310</td>
<td>2008/09</td>
<td>715</td>
<td>18,485</td>
<td>19,200</td>
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<tr>
<td>805</td>
<td>21.2/27.8</td>
<td>In San Diego County in San Diego from 0.8 km north of Linda Vista OC to 1.2 km north of Mira Mesa Blvd UC - install transportation systems management field elements</td>
<td>0629</td>
<td>2379VK</td>
<td>201.315</td>
<td>2007/08</td>
<td>0</td>
<td>7,999</td>
<td>7,999</td>
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<tr>
<td>8</td>
<td>6.1/10.2</td>
<td>On I-8 from 0.3 km west of Fairmount Avenue UC to 1.0 km east of Lake Murray Blvd OC. - install fiber optics, CCTV, detector stations (loops),CMS.</td>
<td>0650</td>
<td>23796K</td>
<td>201.315</td>
<td>2009/10</td>
<td>5</td>
<td>8,351</td>
<td>8,356</td>
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Excludes: Seismic Retrofit Bond Funded and TEA projects

Sorted by: County, Program Category, Route and Post Miles

<table>
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<tr>
<th>Route</th>
<th>Post Miles</th>
<th>Location/Description</th>
<th>PPNO</th>
<th>EA</th>
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<th>Prog Year</th>
<th>State RW</th>
<th>State Const</th>
<th>State Total</th>
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<tbody>
<tr>
<td>56</td>
<td>0.0/9.7</td>
<td>In San Diego county in San Diego at various locations - install ramp meters, CCTV’s, CMS’s, fiber optics; also on Route 5 (PM R32.3/R33.0) and on Route 15 (PM M17.3)</td>
<td>0725</td>
<td>26930K</td>
<td>201.315</td>
<td>2009/10</td>
<td>0</td>
<td>14,181</td>
<td>14,181</td>
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<tr>
<td>805</td>
<td>6.1/8.0</td>
<td>Telegraph Canyon Road to Bonita Road - install northbound ramp meters and HOV lanes</td>
<td>0938</td>
<td>27620K</td>
<td>201.315</td>
<td>2006/07</td>
<td>0</td>
<td>7,159</td>
<td>7,159</td>
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<tr>
<td>188</td>
<td>0.0/0.3</td>
<td>At Tecate - Mexican border to Humphries Road and Route 188/Thing Road intersection - construct a Commercial Vehicle Enforcement Facility (CVEF)</td>
<td>0887</td>
<td>256500</td>
<td>201.321</td>
<td>2006/07</td>
<td>487</td>
<td>682</td>
<td>1,169</td>
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</table>

**Roadside Preservation**

<table>
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<tr>
<th>Route</th>
<th>Post Miles</th>
<th>Location/Description</th>
<th>PPNO</th>
<th>EA</th>
<th>Program Code</th>
<th>Prog Year</th>
<th>State RW</th>
<th>State Const</th>
<th>State Total</th>
</tr>
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<tbody>
<tr>
<td>805</td>
<td>15.7/17.6</td>
<td>In San Diego - Landis Street to Route 8 - planting restoration and upgrade irrigation</td>
<td>0933</td>
<td>257900</td>
<td>201.210</td>
<td>2006/07</td>
<td>0</td>
<td>4,944</td>
<td>4,944</td>
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<tr>
<td>805</td>
<td>2.2/3.3</td>
<td>In San Diego - Del Sol Blvd. UC to Otay River Bridge - replace planting / upgrade irrigation</td>
<td>0412</td>
<td>07110K</td>
<td>201.210</td>
<td>2008/09</td>
<td>0</td>
<td>4,043</td>
<td>4,043</td>
</tr>
<tr>
<td>5</td>
<td>R59.4/R60.0</td>
<td>Near Oceanside - at Aliso Creek Rest Areas - upgrade of Safety Roadside Rest Areas</td>
<td>0897</td>
<td>261400</td>
<td>201.250</td>
<td>2007/08</td>
<td>0</td>
<td>4,981</td>
<td>4,981</td>
</tr>
<tr>
<td>8</td>
<td>R49.0</td>
<td>Near Pine Valley - at Buckman Springs Safety Roadside Rest Area - upgrade of Safety Roadside Rest Area</td>
<td>0643</td>
<td>243200</td>
<td>201.250</td>
<td>2006/07</td>
<td>0</td>
<td>1,700</td>
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</tr>
</tbody>
</table>

Total San Diego | 1,713 | 203,457 | 205,170 |
UNMET TRANSIT NEEDS HEARING RESULTS

Introduction

SANDAG's Subcommittee for Accessible Transportation (SCAT), acting as the region's Social Service Transportation Advisory Council, held hearings to receive public comments on unmet transit needs in San Diego County, pursuant to Section 99238.5 of the California Public Utilities Code. Also attending the hearings were representatives from the Metropolitan Transit System (MTS) and North County Transit District (NCTD). The purpose of the hearings is to assist SANDAG and the region’s transit operators in identifying unmet needs of transit-dependent and transit-disadvantaged persons, including the elderly, persons with disabilities, and persons of limited means.

Recommendation

The Transportation Committee is asked to accept comments from the Unmet Transit Needs Hearing process for consideration as part of the annual Regional Short Range Transit Plan. The comments received also will be forwarded to MTS and NCTD for operational planning purposes.

Discussion

A noticed Public Hearing was held in San Diego on December 1, 2005. Additional meetings to receive public comment were held in four locations (El Cajon, Vista, San Diego, and Chula Vista) in October 2005. Many agencies, advisory committees, and interested individuals were notified of the hearings, in addition to a published public notice in four of the region’s newspapers and on SANDAG’s Web site. Comments were accepted in person, in writing, by phone, e-mail, and via an electronic form available on SANDAG’s Web site.

As of the writing of this report, testimony was received from 23 respondents, making 40 individual comments. These comments fell into several categories for both fixed-route and paratransit services for seniors and persons with disabilities. They included requests for expanded fixed-route and American with Disabilities Act (ADA) paratransit services, and transit accessibility improvements. Comments were also received from employers voicing needs for transit services for their employees. General comments about the needs of transportation-disadvantaged persons will be used by SANDAG in the updates of the Regional Short Range Transit Plan and the Regional Transportation Plan (RTP). Many comments were specific to individual fixed-route and paratransit services and will be forwarded to the transit agencies.
At its December 1, 2005, meeting, SCAT reviewed the public hearing comments (summarized in Attachment 1) and made a recommendation that the Transportation Committee receive the comments and consider options to address any unmet needs, as part of the upcoming 2006 Regional Short Range Transit Plan process, and forward the list of comments to MTS, NCTD, and other appropriate agencies for response and follow up.

BOB LEITER
Director of Land Use and Transportation Planning

Attachment:  1. Summary of Comments on Unmet Transit Needs

Key Staff Contact:: James Floyd, (619) 699-1921, jfl@sandag.org
SUMMARY OF COMMENTS ON UNMET TRANSIT NEEDS

Unmet needs are defined as needs that might reasonably be met by establishing or contracting for new public transportation or specialized transportation services, or by expanding existing services.

Because all state Transportation Development Act (TDA) funding is currently used for transit projects and operations and none is being used for non-transit-related projects, there are currently no TDA funds available to meet the identified reasonable unmet needs. The comments received at the meetings have therefore been divided into three categories:

- Comments on unmet needs that are reasonable to meet, but for which there is no funding available.
- Comments on unmet needs that are not reasonable to meet due to inconsistency or incompatibility with adopted plans and policies (such as the Regional Comprehensive Plan, Regional Transportation Plan, and Regional Short Range Transit Plan), needs that are beyond the scope of safe and normal operating practices of the transit agencies, or needs not related to the establishment or contracting for new public transportation or specialized transportation services.
- Comments on needs not directly applicable to service provision.

Below is a summary of the comments and testimony received during the public comment period. The complete report, available from SANDAG, will be forwarded to the Metropolitan Transit System (MTS) and North County Transit District (NCTD).

UNMET TRANSIT NEEDS THAT ARE REASONABLE TO MEET, BUT FOR WHICH THERE IS NO FUNDING AVAILABLE

1. Fixed-Route Services
   - There were three requests from businesses seeking better fixed-route services to serve their employees, including one request for rural service, one request for commuter service to southern Riverside County, and one request for a new COASTER shuttle.
   - There were six requests to re-introduce the former NCTD Route 348 in Escondido that was removed last year. These requests included a petition of more than 100 residents as well a petition of more than 20 local businesses in Escondido.
   - There were requests for service in several parts of North County.

2. Complementary ADA Paratransit Services
   - Several comments were received regarding the desire for developing a county-wide coordinated transportation system that would serve seniors as well as persons with disabilities.
• One comment concerned the need for improved services for seniors without Americans with Disabilities Act (ADA) certification that are unable to use fixed-route services. ADA services are for those who, because of a disability, are unable to use fixed-route transit service. Age alone is not a criterion for ADA service. ADA services are available only where fixed-route services are provided.

• There was one request for creating a paratransit link between San Diego and Riverside. Currently there is no connection.

UNMET TRANSPORT NEEDS COMMENTS THAT ARE NOT REASONABLE TO MEET

1. **Other Transit Comments**

   • There were additional comments regarding the development of trolley improvements, including requests for trolley service to Eastern Chula Vista, Sorrento Mesa and along Clairemont Drive.

   Not reasonable to meet as extensions of the Trolley to these areas is not consistent with the Regional Comprehensive Plan (RCP), Regional Transportation Plan (RTP), and Regional Short Range Transit Plan (RSRTP). However, Bus Rapid Transit Services are planned for Eastern Chula Vista and Sorrento Mesa in the RTP.

COMMENTS ON NEEDS NOT DIRECTLY APPLICABLE TO NEW OR EXPANDED SERVICE.

1. **Accessibility Issues**

   There were comments from throughout the region regarding the need for safe sidewalks, shelters and seating at transit stops, adequate lighting, and other safety and accessibility issues.

   Not applicable as the comment is not related to the establishment or contracting for new public transportation or specialized transportation services. However, the RCP, RTP and RSRTP all identify the partnerships with the transit agencies and local jurisdictions to provide pedestrian and accessible neighborhoods and amenities at transit stops and stations.

2. **Operational Issues**

   There were several comments about drivers, including the request for greater sensitivity training for drivers when assisting passengers with developmental disabilities.

   Not applicable as the comment is not related to the establishment of new or expanded transit, public transportation, or specialized transportation service. However, these comments will be forwarded to the transit agencies for information and possible action.
3. **Other Comments**

- A comment suggested an improvement to the sdcommute.com Web site for ease of use.

- Additional comments were received regarding the need for better coordination of services, usefulness of advisory groups, and alternatives to transit and environmental justice concerns.

Not applicable as the comments are not related to the establishment of new or expanded public transportation or specialized transportation service. However, SANDAG will take these comments under advisement.
FULL ACCESS AND COORDINATED TRANSPORTATION (FACT)  

**Introduction**

SANDAG, through SourcePoint, is the Coordinated Transportation Service Agency (CTSA) for San Diego County. CTSA assists the nonprofit sector with coordinating its specialized transportation programs and improving the management of these programs. CTSA provides free training and technical assistance to specialized transportation providers. The Transportation Development Act (TDA) of California provides a legal framework that would enable the CTSA to assume more responsibility and function as a Consolidated Transportation Service Agency that would more actively be involved in improving transportation services for the disabled and elderly. To date, SANDAG’s CTSA has not functioned in this capacity.

Full Access and Coordinated Transportation (FACT) is a community-based group that has recently emerged and is willing to take on the type of consolidation envisioned in the TDA legislation. FACT envisions a single region-wide agency that would provide a centralized dispatching function for all specialized transportation providers. Any eligible person requiring a ride would only have one number to call, and the centralized dispatch would identify the appropriate provider for the trip request. SANDAG staff is currently participating in the FACT initiative to evaluate feasibility and appropriate organizing structure. FACT is working with North County Transit District (NCTD) to establish a North County pilot project that would create a centralized dispatching function for North County service providers.

Attachment 1 to this report is a copy of a report on FACT provided to the NCTD Board on November 17, 2005. Attachment 2 is an information sheet on FACT.

**Discussion**

Consolidating transportation services through a single common dispatch has been undertaken successfully in other regions around the country. The FACT initiative is a significant community-based response to an ongoing need for improved transportation service for seniors and persons with disabilities. SANDAG staff is reviewing the role of the CTSA as it is currently structured to determine if changes should be made to support the FACT initiative. We will bring a full report to the Transportation Committee in early 2006 on the progress of FACT and the North County pilot project, as well as information on the organizational, regulatory, and legal issues associated with the ability of CTSA and/or FACT to undertake the proposed activities.

BOB LEITER  
Director of Land Use and Transportation Planning

Attachments:  
1. Report on FACT provided to the NCTD Board on 11/17/05  
2. FACT Information Sheet

Key Staff Contact: Dan Levy, (619) 699-6942, dle@sandag.org
STAFF REPORT
TO THE BOARD

TITLE: Report: Full Access and Coordinated Transportation (FACT)

STAFF CONTACT: Alane Haynes
E-mail: ahaynes@nctd.org
Phone: 760/966-6607

TIME SENSITIVE: YES ☒ NO ☒

STAFF RECOMMENDATION:
That the Board receive the FACT presentation and ask their represented jurisdictions to support the project.

DESCRIPTION:
FACT is a regional coordinated transportation project that will start with a Pilot Project in North County.

BACKGROUND:
NCTD staff is playing a key role in the formation of a regional coordinated transportation system in San Diego County. In March 2005, three of the five member FACT team attended a Mobility Planning Services Institute in Washington, D.C. At this conference, the vision of FACT was birthed – “All people living in San Diego County will have full mobility within their community through an accessible transportation system that meets their individual need.” The mission of FACT is to create a coordinated system of providers with centralized dispatching so that a person needing a ride would only have one number to call. One of the goals is to have a pilot project in North County.

Currently in San Diego County, there are two providers of public transit and over 250 specialized transportation services, many of which duplicate service areas. Even with the large number of transportation service providers, there are significant unmet transportation needs, particularly among the elderly, those with disabilities, and/or with limited income. A transportation system that coordinates human service transportation providers with public and private transit has been found in many communities throughout the nation to be an efficient and cost-effective use of limited transportation resources.

The Federal Government, to make better use of the 62 Federal programs that fund transportation, has initiated a national effort towards coordination, “United We Ride.” In California, the Transportation Development Act mandates coordination of social service transportation. Funds are allocated to each county for a “Consolidated Transportation Service Agency” (CTSA). The CTSA in San Diego County is a member of the FACT team, and is housed at SANDAG. SANDAG is currently re-evaluating the definition, function and appropriate location of the CTSA.

The first official FACT meeting was held on October 7, 2005 and was well attended (50+), with representatives from the North County cities, elected officials or their representatives, public and private transportation providers, and staff from the County and SANDAG. There is strong interest from local cities’ staff and council members, social service agencies and the public. A Steering Committee was formed and met on November 3, 2005, and will begin strategic planning in January 2006.

FISCAL IMPACT:
None at this time.
THE FACT SHEET

VISION
The vision of Full Access and Coordinated Transportation (FACT) is that all people living in San Diego County will have full mobility within their community through an accessible transportation system that meets their individual need.

MISSION
The mission of Full Access and Coordinated Transportation (FACT) is to create a transportation system that will provide access and mobility for the people of San Diego County by augmenting existing resources. This will be accomplished by creating partnerships that will eliminate barriers, developing alternative models of transportation, and accessing additional sources of funding.

WHAT IS COORDINATED TRANSPORTATION
Coordinated transportation is a system that integrates human service agencies that provide transportation with public and private transit providers. This system creates the most efficient use of limited transportation resources, by avoiding the duplication caused by overlapping individual program efforts and encouraging the use and sharing of existing community resources.

WHAT IS ACCESSIBILITY
Accessibility refers to facility designs that accommodate the widest range of potential users, including people with mobility and visual impairments (disabilities) and other special needs.

Although accessibility addresses the needs of people with disabilities, it is a comprehensive concept that can benefit all users. Increased walkway widths, low-floor buses and smooth walking surfaces improve convenience for all travelers, not just those with mobility impairments. Curb ramps are important for people using handcarts, scooters, baby strollers and bicycles, as well as wheelchair users.

Accessibility should be comprehensive, resulting in numerous mobility options from origin to destination for the greatest possible range of potential users. It should consider all possible obstacles that may exist in buildings, transportation terminals, sidewalks, paths, roads and vehicles.

“UNITED WE RIDE”
United We Ride is a national initiative to build a fully coordinated Human Service Transportation System. The initiative coordinates 62 different Federal programs that fund transportation services, through 10 federal departments and the National Council on Disabilities.

United We Ride supports development of coordinated human services transportation systems through State coordination grants, a community planning self-assessment tool, technical assistance and other resources to help their communities succeed.

A Federal Executive Order was issued in February 2004 to establish an Interagency Transportation Coordinating Council on Access and Mobility (CCAM). CCAM is charged with simplifying access, increasing cost efficiencies, and reducing duplication of federal rules and regulations.

LOOKING TO THE FUTURE
FACT envisions a centralized dispatching system for all transportation resources - public, private and volunteer. This will be a “One Number to Call” system: anyone who needs to travel anywhere in the County can call one number, and have their transportation needs arranged.

THE REALITY
FACT recognizes that our vision is grand and extremely comprehensive. We believe it is important to have a far reaching vision that truly changes the transportation system for everyone living in San Diego County.

We realize this will take time, money, resources and patience. But it will be well worth it!
WHO WE ARE
FACT is a brand new organization conceived by
- Alane Haynes
  ADA Administrator, North County Transit District
- Lydia Callis
  CTSA Coordinator, San Diego Association of Governments
- Rob Carley
  Executive Director, Area Board XIII, State Council on Developmental Disabilities
- Loyd Davis
  Consumer Counselor, San Diego Center For the Blind
- Floyd Willis
  Executive Assistant to the Director, Aging and Independence Services, San Diego County

UNDERLYING PRINCIPLES
Transportation services should be based on the needs of the people living in their communities.
Transportation providers, public and private, will overcome perceived barriers and pool their resources to meet the needs of people in their communities.
In order to have fully accessible communities, all barriers to transportation should be eliminated.

Mobility Management ideas and concepts must be integrated into the SANDAG long term plan for transportation in San Diego County.
A non-profit organization with a singular mission can tap into a wider range of funding programs for alternative transportation services.
Acting as the coordinator and administrator of local transportation funds; eliminating duplication of services and implementing new cost-effective programs at a rate much more competitive than public agencies are capable and without jurisdictional barriers.
By partnering resources, economies of scale are created that allow for a more cost-effective use of resources.

CURRENT ACTIVITIES
FACT meets monthly to discuss and create the philosophies and actions steps needed to realize our goal.

FACT is working to create a non profit corporation that will become the Mobility Management Center for San Diego County.
FACT is planning a community meeting in October to introduce the vision and mission to transportation providers, elected officials, city and county staff, and all other interested individuals.

THE NEXT STEPS
After FACT has achieved non-profit status, a Coordinator position will be established to work full time on the vision and mission of FACT.
An invitation will go out to stakeholders to join a Steering Committee that will develop a strategic plan and work toward accomplishing the goals of that plan.
A Leadership Committee will be created made up of influential community leaders and elected officials that will provide visible, unified support for the FACT vision.
A Coordinated Transportation Pilot Program will be created in the North County area that will serve as a test bed for applying FACT ideas and concepts.
After the successful completion of the North County Pilot Program, create a Coordinated Transportation system to metropolitan San Diego and eventually all of San Diego County.

WORKING TOGETHER
FACT will work in partnership with existing groups including:

Coordinated Services Transportation Agency (CTSA) which is a planning and educational entity for specialized transportation providers facilitates the coordination of all appropriate agencies and transportation providers into transportation networks for each sub-regional area within the San Diego region.
Council on Access and Mobility (CAM) Formerly the Paratransit Coordinating Council (PCC), CAM is the advisory council to the CTSA. Composed of representatives of specialized transportation providers throughout the region, the collective knowledge of these organizations is a valuable resource to draw from in planning for improved services.

Revised: 7.20.05
The FACT Sheet is available in alternative formats. For more information call: 619 645 3046
FISCAL 2007 FEDERAL APPROPRIATIONS PROCESS
FOR TRANSPORTATION PROJECTS

Introduction

Each year, SANDAG approves a list of transportation projects for funding consideration during the annual federal appropriations process.

In January 2005, the Transportation Committee recommended and the SANDAG Board of Directors approved a list of transportation projects for federal funding consideration in both the multi-year transportation bill and the FY 2006 appropriations bill. The multi-year transportation bill, Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which passed in August 2005, authorized over $258 million in project earmarks to the San Diego region. The Transportation, Treasury, Housing and Urban Development (HUD), the Judiciary, the District of Columbia and Independent Appropriations Act 2006, approved by Congress on November 18, 2005, appropriated $32.6 million in project earmarks.

It is anticipated that the FY 2007 transportation appropriation process will begin in early February 2006. In order to provide Members of Congress with SANDAG’s proposals for this next cycle of funding, the Transportation Committee and the Board should develop a list of projects in January 2006. In light of the many competing needs that Congress is currently facing, it is likely that the funding levels for discretionary projects will be limited. To develop a listing of projects for project funding requests, a process for project selection is recommended.

Recommendation

The Transportation Committee is asked to discuss the proposed selection process summarized in the Discussion section below and approve the criteria for project selection for the FY 2007 federal transportation appropriations cycle.

Discussion

The federal process for submitting project funding proposals to Members of Congress for inclusion in the FY 2007 Transportation Appropriations Act is anticipated to begin in February 2006. To enable SANDAG to participate in the process, the Transportation Committee and the Board should approve the listing of project proposals in January 2006. In 2005, the Transportation Committee and ultimately the Board reaffirmed the prior year’s list, with modifications resulting from funding received or project deletion. The Transportation Committee and the Board also added new transit projects as requested by the transit agencies.
Staff believes that with limited federal resources available, the use of criteria for project selection during the FY 2007 cycle could improve the process and help identify specific project proposals where FY 2007 funding could be utilized most effectively. Before a project could be considered, staff recommends that the project must be in the adopted Regional Transportation Plan, MOBILITY 2030. Staff has developed the following additional criteria for project selection. These criteria are consistent with those followed when prioritizing prior Traffic Congestion Relief Program (TCRP) and State Transportation Improvement Program (STIP) projects. These criteria were developed to initiate discussion by the Transportation Committee, and other suggestions are encouraged.

- Projects are in construction and require additional funding
- Projects that are “ready to go” to construction
- Projects that have significant local funding identified
- Projects that are environmentally cleared
- Projects that improve security and safety in the region
- Projects that protect the region’s investment in infrastructure, including rolling stock

Projects that meet a greater number of these criteria would be ranked higher.

**Next Steps**

Following approval of the criteria by the Transportation Committee, staff will begin the development of the FY 2007 project listing. We have been informed that the transit agencies will be submitting project proposals in early January 2006. Other agencies wishing to submit projects proposals should do so prior to January 10, 2006. A draft listing of project proposals will be presented to the Transportation Committee on January 20, 2006.

ELLEN ROUNDTREE  
Director of Government Relations

Key Staff Contact: Ellen Roundtree, (619) 699-6960, ero@sandag.org
DRAFT 2030 REVENUE CONSTRAINED REGIONAL TRANSPORTATION PLAN (RTP): 2006 UPDATE AND
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (SEIR) File Number 3000400

Introduction

The Regional Transportation Plan (RTP) is the public policy blueprint for how people and goods will move around the San Diego region over the next 25 years. MOBILITY 2030 is the most recent RTP and was adopted by the SANDAG Board of Directors in March 2003. The next regularly scheduled RTP update needs to occur no later than March 2006, in order to meet the federal requirement that SANDAG make an air quality conformity determination of the long-range transportation plan every three years. Staff has prepared the draft 2030 Revenue Constrained RTP: 2006 Update to meet these requirements.

The RTP cycle is changing to every four years, but the new federal transportation reauthorization legislation SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) was passed too late to negate SANDAG’s need to proceed with a technical RTP update. The draft 2030 Revenue Constrained RTP: 2006 Update is based on the MOBILITY 2030 RTP. MOBILITY 2030 included two limited funding scenarios: the $30 billion Revenue Constrained scenario and the $42 billion Reasonably Expected scenario. While the Reasonably Expected Scenario in MOBILITY 2030 remains the vision for the region, the 2006 Update addresses only the Revenue Constrained scenario. This is the alternative required by federal law for determining air quality conformity.

A comprehensive RTP update is underway for adoption in 2007. This major RTP update will incorporate a new 2030 regional growth forecast, develop a strong connection between smart growth land use and transportation planning, and include various strategic initiatives from the Regional Comprehensive Plan (RCP). It also will incorporate the results of the Independent Transit Planning Review and the Smart Growth Concept Map, which are currently being developed. Additionally, issue papers will be developed to address new areas related to transportation such as energy demand, toll facilities, and public safety and homeland security. Staff is working with the various SANDAG advisory committees on the components of the Comprehensive 2007 RTP and will bring products and options to the Policy Advisory Committees and the Board of Directors at key decision points.

Recommendation

The Transportation Committee is asked to: (1) accept for distribution the Draft 2030 Revenue Constrained Regional Transportation Plan (RTP): 2006 Update (Attachment 1); (2) accept for distribution the Draft Supplemental Environmental Impact Report (SEIR) (Attachment 2) prepared for the 2030 Revenue Constrained Regional Transportation Plan: 2006 Update; and (3) schedule a public hearing and closing date for public comments on the Draft 2030 RTP and Draft SEIR for January 27, 2006, at the regular Board of Directors business meeting.
Discussion

Why a 2006 Technical Update?

The 2030 Revenue Constrained Regional Transportation Plan: 2006 Update is a technical update to the MOBILITY 2030 Regional Transportation Plan (RTP). MOBILITY 2030 was adopted in March 2003, and contained three 2030 scenarios: a conservative Revenue Constrained Plan at $30 billion, a mid-range Reasonably Expected Revenue Plan at $42 billion, and an Unconstrained Plan whose projects totaled $67 billion. The 2006 Update only changes the forecasted revenues and projects included in the Revenue Constrained Scenario. The more robust Reasonably Expected Plan remains the vision of the region and MOBILITY 2030.

The Revenue Constrained Plan is an alternative required by federal law as the basis for analyzing the air quality impacts of the long-range transportation plan. The air quality conformity analysis must be performed every three years, and the Revenue Constrained Plan can only assume current sources and trends of federal, state, and local transportation revenues projected out to 2030. By updating the Revenue Constrained Plan in 2006, the region would satisfy existing federal law. The new federal transportation bill, SAFETEA-LU, does not change the cycle to four years until July 2007.

Difference between 2003 and 2006 Revenue Constrained Plan Updates

In order to prepare the 2030 Revenue Constrained RTP: 2006 Update, the focus was to maintain the previous Revenue Constrained network and incorporate any changes since 2003. The first task was to update project cost estimates from 2002 to 2005 dollars, reflecting both inflation and the dynamic changes in our economy since 2003. Then projects which were completed and opened to users and traffic since adoption of the RTP in 2003 were removed from the Plan. Among these were the Mission Valley East Trolley Extension and the SR 125 freeway segments in Spring Valley and El Cajon.

The next step to update the Revenue Constrained network was to add in all of the projects identified in the TransNet Early Action Program (EAP) that were not already in the Revenue Constrained network. The EAP was approved by the SANDAG Board of Directors in January 2005, and additional transit components to the EAP were approved in May 2005. New EAP projects added to the Revenue Constrained network include SR 76 between Mission Road and I-15, I-5 improvements between SR 76 and Vandegrift Boulevard and between I-805 and La Jolla Village Drive, and the Super Loop serving University of California, San Diego (UCSD) and University Towne Center.

After adjusting phasing and implementation schedules, the new Revenue Constrained project total was roughly $35.6 billion. This was compared to the updated 2030 forecasted revenues, which include the extension of TransNet beyond 2008. These revenues alone were not enough to achieve the advanced schedules for the EAP projects. It was necessary to assume TransNet bond proceeds to advance the EAP projects and balance the cash flow needed in each decade of the Plan.

The advanced EAP projects include improvements or environmental work on most of the region’s major facilities, including the I-15 Managed Lanes north of SR 163 and the expansion of I-5 in North County Coastal, and the I-805 improvements in South Bay. Transit is affected as well, with earlier phasing for the Super Loop and increased trolley frequencies. However, advancing all of the EAP
projects did affect non-EAP transit projects in the Revenue Constrained Plan, either delaying implementation (such as Route 611 on El Cajon Boulevard), or reducing planned frequencies. Details of all the revenue constrained projects and services are found in Chapter 4 of the Draft 2030 Revenue Constrained RTP: 2006 Update.

When comparing the past and present 2030 Revenue Constrained Plans, revenues for the 2006 Revenue Constrained Plan update are estimated at over $35 billion, roughly $6 billion more than the Revenue Constrained Plan from 2003. While 2030 forecasted revenues are up, they are offset by increased cost estimates for construction, operations, and maintenance. Another reason for the smaller increase in revenues is that with a 2030 horizon year, there are three fewer years in the Plan since the 2003 estimate, and contributions during that time from state and federal sources were less than expected.

Table 1 below compares the expenditures for the two Revenue Constrained Plans, breaking out the expenditures of the Systems Development component of Mobility and combining all the others.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>MAJOR EXPENDITURES/REVENUE CONSTRAINED SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT CATEGORIES</td>
<td>2003 Revenue Constrained</td>
</tr>
<tr>
<td>Systems Development &amp; Operations</td>
<td></td>
</tr>
<tr>
<td>Regional Facilities</td>
<td>$20,631</td>
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<tr>
<td>Local Street and Roads</td>
<td>$8,260</td>
</tr>
<tr>
<td>Land Use/Systems Management/Demand Management</td>
<td>$685</td>
</tr>
<tr>
<td>Total</td>
<td>$29,576*</td>
</tr>
</tbody>
</table>

*2002 Dollars
**2005 Dollars

Supplemental EIR

The 2030 Revenue Constrained RTP: 2006 Update only proposes changes to the Revenue Constrained Plan in MOBILITY 2030. In MOBILITY 2030, the Revenue Constrained scenario was an alternative to the “project,” the Reasonably Expected scenario. For environmental review of the 2030 Revenue Constrained RTP: 2006 Update, the Revenue Constrained Plan are therefore compared against the Reasonably Expected scenario in MOBILITY 2030.

The proposed project, the 2030 Revenue Constrained Regional Transportation Plan: 2006 Update (the “Plan”), revises or eliminates certain projects in the Systems Development component of MOBILITY 2030 in accordance with recent calculations of project costs and a new evaluation of revenue constraints. Pursuant to the provisions of the California Environmental Quality Act (CEQA), SANDAG prepared an Initial Study document to evaluate the potential environmental effects of the
proposed Plan to determine the appropriate form of environmental documentation pursuant to CEQA. Based on the Initial Study findings, SANDAG has prepared and will circulate a Supplemental EIR disclosing the new major impacts of the Plan for the issue of traffic/circulation.

The MOBILITY 2030 EIR concluded there would be no significant impact in the area of Transportation/Circulation because conditions would improve from the base year conditions (year 2000). For the 2030 Revenue Constrained RTP: 2006 Update, the future condition would degrade from the existing condition which would result in a new significant impact that was not addressed in the MOBILITY 2030 RTP EIR. It has been determined that the Final EIR for MOBILITY 2030 adequately addresses the other issues associated with adoption of the 2030 Revenue Constrained RTP (2006 Update).

**Next Steps**

Upon action by the Transportation Committee, the Draft 2030 Revenue Constrained RTP: 2006 Update and Draft SEIR will be circulated to local jurisdictions, Metropolitan Transit System, North County Transit District, Caltrans, and other interested parties. The documents also will be available on the SANDAG Web site. It should be noted that if the Draft SEIR is unavailable by December 9, it will be distributed as soon as possible thereafter, and the 45-day comment period for the Draft SEIR will begin at the time the document is distributed. Major milestones are summarized below:

- **December 9, 2005:** Release of Draft 2030 Revenue Constrained RTP: 2006 Update and Draft SEIR
- **January 27, 2006:** Public Hearing on Draft RTP
- **February 2006:** Transportation Committee reviews comments and proposed changes to Draft RTP and Draft SEIR
- **February 24, 2006:** SANDAG Board certifies Final SEIR, approves air quality conformity finding, and adopts Final 2030 Revenue Constrained RTP: 2006 Update

BOB LEITER  
Director of Land Use and Transportation Planning

Attachments:  
1. Draft 2030 Revenue Constrained Regional Transportation Plan (RTP): 2006 Update  
2. Draft Supplemental Environmental Impact Report (SEIR) (to be distributed at the Transportation Committee meeting)

Key Staff Contact: Michael Hix, (619) 699-1977, mhi@sandag.org
DRAFT 2030
REVENUE CONSTRAINED
REGIONAL TRANSPORTATION
PLAN (2006 UPDATE)

SANDAG

401 B Street, Suite 800
San Diego, CA 92101
(619) 699-1900

December 2005
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(Advisory Member)
Hon. Luis Cabrera C.,
Consulate General of Mexico

As of September 28, 2005
ACKNOWLEDGEMENTS

Many individuals aided in the preparation of material contained in this long-range Regional Transportation Plan. In particular, the cooperation and involvement of members of various SANDAG committees and working groups are acknowledged.

SANDAG COMMITTEES AND WORKING GROUPS

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Regional Planning Committee
Transportation Committee
Regional Planning Stakeholders Working Group
Cities/County Transportation Advisory Committee
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San Diego Region Conformity Working Group

SANDAG STAFF

Gary Gallegos, Executive Director
Eric Pahlke, Deputy Executive Director
Julie Wiley, General Counsel
Jeff Tayman, Director of Technical Services
Garry Bonelli, Communications Director
Bob Leiter, Director of Land Use and Transportation Planning
Toni Bates, Division Director of Transit Planning
Michael Hix, Principal Transportation Planner, Project Manager
Heather Werlick, Senior Transportation Planner, Assistant Project Manager
Kim Kawada, Executive Program Manager
Craig Scott, TransNet Program Manager
Elisa Arias, Senior Transportation Planner
Susan Brown, Manager of Financial Programming
Richard Chavez, Principal Transportation Engineer
Colesen Clementson, Principal Regional Planner
Jane Clough-Riquelme, Associate Regional Planner
Linda Culp, Senior Transportation Planner
John Duve, Associate Transportation Planner
Carolina Gregor, Senior Regional Planner
Rachel Kennedy, Associate Transportation Planner
Sookyung Kim, Associate Transportation Planner
Jeff Martin, Senior Research Analyst
Bill McFarlane, Principal Research Analyst
Jose Nuncio, Senior Engineer/Financial Programming
Mario Oropeza, Senior Transportation Planner
Rob Rundle, Principal Regional Planner
Ed Schafer, Senior Research Analyst
SANDAG STAFF (CONTINUED)

Dave Schumacher, Principal Transportation Planner
Ray Traynor, Principal Transportation Planner
Shelby Tucker, Assistant Regional Planner
Stephan Vance, Senior Transportation Planner
Limeng Yu, Associate Research Analyst
Anne Steinberger, Communications Manager
Joy De Korte, Public Information Specialist
Pam Albers, Supervisor of Graphics Design
Tom Neel, Associate Graphics Designer
Lisa Starace, Graphic Designer I
Sue Strohmeyer, Administrative Office Supervisor
Sue Green, Administrative Office Specialist
Gwen Kruger, Administrative Office Specialist
Phillip Johnston, Office Services Specialist
Lia Mogle, Office Services Specialist
Tom Goggin, Office Services Specialist
Mark Polinsky, Office Services Specialist

SANDAG also recognizes the various staff from the California Department of Transportation (Caltrans), Metropolitan Transit System (MTS), and North County Transit District (NCTD) for their participation and assistance with this RTP.
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CHAPTER 1
EXECUTIVE SUMMARY

INTRODUCTION

The 2030 Revenue Constrained Regional Transportation Plan: 2006 Update is a technical update to the MOBILITY 2030 Regional Transportation Plan (RTP). MOBILITY 2030 was adopted in March 2003, and contained three 2030 funding scenarios: a conservative Revenue Constrained Plan at $30 billion, a mid-range Reasonably Expected Revenue Plan at $42 billion, and an Unconstrained Plan at $67 billion. This 2006 Update only changes the forecasted revenues and projects included in the Revenue Constrained Scenario. The more robust Reasonably Expected Plan remains the vision of the region and MOBILITY 2030.

The Revenue Constrained Plan is an alternative required by federal law as the basis for analyzing the air quality impacts of the long-range transportation plan. The air quality conformity analysis must be performed every three years, and the Revenue Constrained Plan only can assume current sources and trends of federal, state, and local transportation revenues projected out to 2030. By updating the Revenue Constrained Plan in 2006, the region would satisfy existing federal law. The new federal transportation bill, SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), does not change the cycle to four years until July 2007.

Two key items shape the changes between the Revenue Constrained Plan in 2003 and 2006. First, the forecast of funding sources through the year 2030 has been updated to include the extension of TransNet beyond 2008. Second, the project list was revised, limited by the available funding. The project list includes the TransNet Early Action Program, along with revised project cost estimates that reflect the dynamic changes in our economy since 2003. One minor change also included in the 2030 Revenue Constrained Regional Transportation Plan: 2006 Update is the final 2030 Regional Growth Forecast, which was adopted for planning purposes after MOBILITY 2030.

MOBILITY 2030 was based on the Reasonably Expected Revenue Scenario that assumed additional funding such as the then proposed extension of the TransNet one-half cent sales tax. Following the 2006 technical update will be a new Comprehensive RTP in 2007 that also will explore additional funding beyond Revenue Constrained. The 2007 RTP will develop a stronger connection between smart growth land use and transportation planning, bringing together the results of the Independent Transit Planning Review and Smart Growth Concept Map. Additionally, issue papers will be developed to address RTP-related strategic initiatives from the Regional Comprehensive Plan and new areas related to transportation such as energy demand, toll facilities, and public safety and homeland security.
A SMARTER PLAN

The foundation of the 2006 Revenue Constrained Plan 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 our cities and the County implement smart growth as our communities are developed and redeveloped over time. To this end, the 2006 Revenue Constrained Plan helps strengthen the land use–transportation connection and offers regional transportation funding incentives to jurisdictions that 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 a Regional Comprehensive Plan (RCP) in 2004 that serves as the 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.

What’s the Vision for Transportation?

The vision in the MOBILITY 2030 Regional Transportation Plan is to develop a flexible transportation system that focuses on moving people and goods—not just vehicles. The vision is to provide more convenient, fast, and safe travel choices for public transit, ridesharing, walking, biking, private vehicles, and freight. It commits the region to preserve its existing transportation resources and manage the regional transportation system efficiently.

At the core of MOBILITY 2030 are seven policy goals:

- **Mobility** – Improve the mobility of people and freight
- **Accessibility** – Improve accessibility to major employment and other regional activity centers
- **Reliability** – Improve the reliability and safety of the transportation system
- **Efficiency** – Maximize the efficiency of the existing and future transportation system
- **Livability** – Promote livable communities
- **Sustainability** – Minimize effects on the environment
- **Equity** – Ensure an equitable distribution of the benefits among various demographic and user groups

While all goals are considered interrelated and important, Mobility is considered the Plan’s highest goal.
Building on Our Progress

The 2006 Revenue Constrained Plan builds upon the existing transportation system in place today and the major projects in progress since 2003. Several highway improvements are currently under construction, including the I-5/I-805 merge widening, the I-15 Managed Lanes (new carpool lanes and Bus Rapid Transit stations), various widening projects on Interstates 5, 15, and State Route 78.

Transit projects in the construction phase are the SPRINTER in North County and modifications to several Trolley and COASTER stations, such as San Ysidro and Oceanside Transit Center. Construction is underway on the Oceanside-Escondido bikeway 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, 94, and 905. Transit projects in the design or environmental phases include the Mid-Coast Light Rail Transit (LRT).

A PLAN FOR BETTER MOBILITY

There are four major components of Mobility: 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. The 2006 Revenue Constrained Plan focuses on updates to the Systems Development component. Systems Development provides needed regional transportation improvements, viable travel choices, and connections to our daily activities.

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 2006 Revenue Constrained Plan 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 2006 Revenue Constrained Plan includes a flexible roadway system, which can be used by transit and high-occupancy vehicles (HOVs), and improves goods movement through the region.
CHAPTER 1
EXECUTIVE SUMMARY

Regional Transit Vision
The 2006 Revenue Constrained Plan 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 2006 Revenue Constrained Plan. 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 2006 Revenue Constrained Plan. The proposed transit services take advantage of a new generation of advance-design vehicles, which have the flexibility of buses and the look and feel of rail. These low-floor vehicles along with smart fare 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 2006 Revenue Constrained 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 2006 Revenue Constrained Plan includes funding for transit priority treatments. The 2006 Revenue Constrained 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. The 2006 Revenue Constrained Plan is shown on Figure 1.2.

IMPLEMENTING THE 2006 REVENUE CONSTRAINED PLAN

Implementing the 2006 Revenue Constrained Plan requires close cooperation and coordination among all transportation agencies, local jurisdictions, and the traveling public. The 2006 Revenue Constrained Plan relies on efficient and more cost-effective use of our existing and projected transportation funds to provide the proposed improvements. The Revenue Constrained Scenario provides a conservative budget for future transportation improvements, but is only the initial phase of achieving the larger vision of MOBILITY 2030.
Figure 1.2
2030 REVENUE CONSTRAINED NETWORK (2006 UPDATE)
December 2005

- Highways - HOV/Managed Lanes
- Transits
- Highways - General Purpose Lanes
- Highways - Access Improvements
- HOV Connectors
- Freeway Connectors

MAP AREA

San Diego Region

County of San Diego

MAP AREA

San Diego Region

Camp Pendleton

Coronado

National City

Chula Vista

Imperial Beach

Tijuana, B.C.

United States

Mexico

Highways - Access Improvements

MILES
0 3 6
KILOMETERS
0 4.83 9.6
CHAPTER 2
REGIONAL TRENDS THROUGH 2030:
HOW ARE WE GROWING AND CHANGING?

DEMOGRAPHICS

The San Diego region has resumed its familiar pattern of growth. Since the recession ended in the mid-1990s, population growth in the region has averaged about 40,000 persons per year. Currently, the region’s rate of population change is higher than the nation. This has been the case since the region’s economy emerged from the recession of the early 1990s. SANDAG’s 2030 Regional Growth Forecast projects that between 2000 and 2030 the region will add over one million more people, 314,000 new homes, and 440,000 new jobs. Figure 2.1 compares the region’s historic and future growth rates to those of the nation.

In spite of those figures our growth rate is actually slowing, and that trend will continue. During the late 1980s the region was adding as many as 90,000 persons per year, an annual growth rate of three percent. By the mid-2010s, the region’s growth rate will be approximately one percent per year, a rate similar to that of the nation. Currently, Riverside County, Imperial County, and Tijuana, Mexico, are all growing at faster rates than San Diego.

All population growth comes from just two sources: natural increase (births minus deaths), and net migration (people who move here minus those who move away). Migration consists of two components: domestic migration and foreign immigration. The amount of legal foreign immigration is controlled by the federal government, and has remained fairly constant over the past decade. No major change in immigration levels is expected in the foreseeable future. Domestic migration—people moving to and from other parts of the state or the nation—fluctuates each year, usually based on the condition of the local economy. During the recession years in the early 1990s, for example, more people left the region to search for economic opportunities elsewhere.

FIGURE 2.1—POPULATION GROWTH RATE

SANDAG projects that between 2000 and 2030 the region will add over one million more people, 314,000 new homes, and 440,000 new jobs.
As the region grows during the next 25 years, some basic demographic characteristics of the population will change. As a group, we will become both older and more ethnically diverse. The increase in diversity is the result of the various ethnic groups growing at different rates. While the region as a whole is expected to grow by about 37 percent by 2030, the Hispanic and the Asian/Other groups will each almost double in size during that time period. The Black population will grow by almost 28 percent, slightly below the regional rate. In contrast, the non-Hispanic White population will slightly decrease by about 1 percent. This pattern is similar to what we have been seeing for the last couple of decades.

Figure 2.2 shows that by 2030 the Hispanic proportion of the region’s population will rise from today’s 27 percent to 37 percent. The Asian/Other group will increase to 18 percent of the total population from its current 13 percent. The Black population will stay relatively constant at about five percent. The biggest change will be seen in the non-Hispanic White group, whose portion of the total population will drop from today’s 55 percent down to 40 percent. When their share falls below 50 percent—by 2010—there will be no ethnic majority in the region. Statewide, that is true today. The 2000 Census found that just 47 percent of Californians are non-Hispanic Whites.

In addition to ethnic changes, our region also is aging. Over 30 percent of the region’s population is baby boomers, the huge group of people born between 1946 and 1964. Their presence will help to raise the median age in the region from today’s 33.2 years old to 39 years old in 2030—an increase of 17 percent. By 2030, the number of people age 65 and older will increase by 136 percent. Fully 19 percent of the region’s population will be in that age group then, which is a higher percentage than is seen today in the state of Florida.

**FIGURE 2.2—THE REGION’S CHANGING ETHNIC COMPOSITION**
EMPLOYMENT & HOUSING

Job growth is directly linked to population growth. When there is an abundance of jobs in a region, domestic in-migration increases as people move to take advantage of the economic opportunities. SANDAG’s 2030 Regional Growth Forecast predicts that the region will add about 440,000 new jobs by 2030. Half of those jobs will be created during the first 15 years of the forecast period, and the remaining during the second 15 years.

Jobs will be created across all industry sectors. However, the largest gains will be seen in the relatively low-paying Services sector, which is expected to grow by 50 percent. We are already beginning to see the impacts of the disparity between local wages and housing costs. More and more people are choosing to keep their jobs within the region, but move to more affordable homes in Riverside and Imperial Counties, and northern Baja California, Mexico.

This interregional commuting will continue to increase, and is reflected in the 2030 Regional Growth Forecast. Over the 30-year period it is estimated that 93,330 more households will have residents living in Riverside County or Baja California while working within the San Diego region. Long-distance commuting, both interregional and from within the region, has a tremendous impact on our transportation facilities.

However, increases in interregional commuting will have some dampening effect on local housing demand. Providing homes for an additional one million people over the next 30 years will still require at least 314,000 new housing units within the region. We are running out of large, environmentally-acceptable land parcels that are planned for residential use.

In 2000, about 60 percent of the region’s housing stock consisted of single-family units, and about 35 percent are multifamily. (The remaining five percent are mostly mobile homes.) The combination of a scarcity of vacant, developable single-family land and increasing congestion on our roads and highways will lead to a shift in housing characteristics. Of the 314,000 units the region will build over 30 years, it is expected that more than half will be some sort of multifamily configuration, including stacked flats, attached town homes, and mixed-use projects. This shift in housing type reflects the region’s emphasis on smart growth, providing better housing availability, and an expected shift in housing preferences as the region’s population ages. Much of this development will occur as redevelopment of older areas.

Figures 2.3 and 2.4 show four ranges each of population and employment densities, respectively, per quarter square mile in 2030.
CHAPTER 2
REGIONAL TRENDS THROUGH 2030: HOW ARE WE GROWING AND CHANGING?

AIR QUALITY

The federal Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set national air quality standards. The State of California has adopted even more stringent standards.

Under federal and state air quality regulations, special requirements in non-attainment areas ensure that proposed transportation activities—plans, programs, and projects—do not cause new, or contribute to existing, air quality problems. Compliance with these regulations is referred to as “transportation conformity,” which requires analyses that demonstrate that forecasted emissions are within healthy air quality limits. The air quality conformity analysis for the 2006 Revenue Constrained Plan is included in Appendix B.

Cleaner Air

The San Diego region’s primary air pollution problems are caused by ozone, also known as photochemical smog. Emissions from cars, power plants, chemical plants, and other sources cause smog. Pollution transported from the Los Angeles air basin also adversely affects our region’s smog levels. The U.S. EPA has added a new standard that measures ozone levels over 8-hour periods. The more stringent 8-hour ozone standard will protect the public against longer exposure periods. The U.S. EPA has designated the San Diego region as non-attainment for the 8-hour ozone standard effective on June 15, 2004.

In spite of large increases in vehicle miles traveled over the past two decades, the region’s air quality has actually gotten better over time. Figure 2.5 displays the downward trends in air pollution levels in the region since 1984.

In spite of large increases in vehicle miles traveled over the past two decades, the region’s air quality has actually gotten better over time. Figure 2.5 displays the downward trends in air pollution levels in the region since 1984.

Improvements from the transportation sector are primarily the result of advances in technology. The elimination of lead in gasoline, lower fuel volatility, and the advancement of emissions control systems have significantly reduced air quality emissions, including reactive hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx).

Continued Commitment to Better Air

Air quality remains an important concern for the region. Federal and state standards are safeguards against the adverse health effects of pollution. The Revenue Constrained Plan reaffirms the region’s commitment to maintain air quality standards. The integration of smart growth development combined with the investments in public transit, managed/HOV lanes, pedestrian, and bicycle facilities will help lessen dependency on motor vehicle travel, which, in turn, will benefit the region’s air quality.
Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies. SANDAG’s plans, projects, and programs comply with the principles of environmental justice and all associated federal and state requirements.

Environmental Justice encourages better land use decisions, improves access to jobs, helps promote good air quality, and strengthens neighborhoods. It also supports community involvement in regional planning and programming through improved communications and active engagement with the process.

Promoting Public Involvement
In order to avoid any adverse impacts of the RTP on minority1, low income, or other populations at risk of adverse impacts, SANDAG is undertaking a program to promote community involvement in the planning process. Through its expanded community outreach, SANDAG is attempting to learn of the community’s needs for improved transportation and listen to proposals for accomplishing the improvements.

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1 Minority groups include African-American, Asian, American Indian or Alaskan Native, and Native Hawaiian or Other Pacific Islander. In addition, persons of Hispanic ethnicity are considered a minority group.
A public outreach program began prior to the release of the draft 2006 Revenue Constrained Plan. Appendix A provides additional information about the public outreach activities. Through this program, SANDAG Directors and staff members informed stakeholders about the technical update and solicited input and comments throughout the planning process.

To remain in contact with the community and open to its comments, SANDAG has a number of committees and working groups to advise it on transportation and transit plans and programs.

SANDAG maintains an extensive Web site of information and invites public communications through e-mail, phone, and attendance at meetings.

SANDAG continues its program of promoting the use of public transit and invites the low-income community, especially those who are transit-dependent, to communicate with SANDAG on their needs to access jobs, school, and personal business locations.

There are 18 Native American reservations and 17 tribal governments in the San Diego region. In 2002 SANDAG held the first ever Tribal Governments/SANDAG Board of Directors Summit to promote cooperation between SANDAG and the Tribal Governments. Additional summits will be held to continue the dialogue between the governments. The next summit is scheduled for March 2006.

Tribal consultation is an integral component of SANDAG’s Public Involvement Policy, and government-to-government relations with area tribes is a core component of the Borders Committee mission and responsibilities. SANDAG is partnering with the Reservation Transportation Authority (RTA), a tribal-owned agency dedicated to supporting the transportation needs of native nations in Southern California, in facilitating the involvement of area tribes in the transportation planning process. A representative of the Southern California Tribal Chairmen’s Association (SCTCA), an intertribal council of tribal leaders in San Diego, is now an advisory member of SANDAG’s Borders Committee. Through this mechanism of communication, SANDAG is ensuring that the transportation needs of the tribal nations and their members and the residents of the reservations are considered in the development of the RTP.
**Population and Ethnicity**
The San Diego region is an ethnically diverse area, and it will become more so by 2030. Just ten years ago, the non-Hispanic White population of the region was 65 percent of total population. Census 2000 data show that non-Hispanic Whites now constitute 55 percent of the population, continuing to decline to 40 percent by 2030. Hispanics comprise 27 percent of the region’s population today and will make up 37 percent of the population by 2030.

Between 2000 and 2030, the Asian/Other population will increase from 13 percent to 18 percent. The Native American population, which is a portion of the Asian/Other population, will remain steady at about 1 percent of the region’s total population. The share of Black/African American population will remain at 5 percent to 6 percent.

**Income and Other Factors**
In 1999, the region’s median household income as reported by the U.S. Census Bureau was $47,067, with 12 percent of the population of the region living below the federal poverty thresholds. Comparable figures for 1989 were $35,000 median household income and 11 percent of the population below the poverty thresholds. By 2030, the median household income is predicted to increase to $72,000 (in 1999 dollars).

Other characteristics of the region’s population of concern to Environmental Justice programs include the following:

- In 2000, 33 percent of the region’s population spoke a language other than English at home.
- 21.5 percent of the population was foreign-born.
- Persons with disabilities accounted for 18 percent of the non-institutionalized population.
**CHAPTER 2**
**REGIONAL TRENDS THROUGH 2030: HOW ARE WE GROWING AND CHANGING?**

**ACTIONS**

The following actions support the Regional Trends Through 2030 Chapter recommendations.

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Quality and Conformity</strong> – The following proposed actions support the RTP goal of Sustainability.</td>
<td></td>
</tr>
<tr>
<td>1. Implement the Regional Air Quality Strategy (RAQS), with the assistance of SANDAG where appropriate, and ensure that transportation plans contribute to the implementation of the RAQS and conform to the current State Implementation Plan (SIP).</td>
<td>APCD and SANDAG</td>
</tr>
<tr>
<td>2. Review and update the Transportation Control Measures (TCM) Plan for Air Quality for consistency with changing goals and policies. Any revisions to the TCM Plan would be submitted to the APCD for inclusion in mandated updates of the RAQS and the SIP.</td>
<td>SANDAG and APCD</td>
</tr>
<tr>
<td>3. Encourage local jurisdictions to implement smart growth strategies, including the APCD’s Air Quality/Land Use Guidelines.</td>
<td>SANDAG</td>
</tr>
<tr>
<td><strong>Environmental Justice</strong> – The following proposed actions support the RTP goals of Accessibility and Equity.</td>
<td></td>
</tr>
<tr>
<td>4. Seek comments from minority and low-income communities in planning and programming efforts to ensure that plans and programs do not adversely affect the communities.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>5. Work with the region’s transit operators to ensure that transit services are available to minority, disabled, elderly, and low-income persons so that they have access to services, employment, and schools.</td>
<td>SANDAG</td>
</tr>
</tbody>
</table>
The financial analysis of the recommended transportation improvements of the 2006 update of the 2030 Revenue Constrained Regional Transportation Plan focuses on transit, highway, and local street and road improvements. The revenue constrained plan provides a conservative budget for future transportation improvements based on existing and known funding sources and historical trends. Based on the forecasts of available revenues, new capital projects and the operating, maintenance, and rehabilitation costs of the region’s transportation systems were phased over the next 26 years. Actions are recommended to maintain the revenues necessary to implement the improvements recommended in the 2006 update of the Revenue Constrained RTP.

**REVENUE ASSUMPTIONS**

The financial plan and analysis focuses on implementing the 2006 update to the Revenue Constrained Plan, which was adopted in 2003 as part of MOBILITY 2030. The update of the revenue constrained plan also meets the federal requirements for demonstrating a financially constrained long-range transportation plan. This plan focuses on transit, highway, and local street and road improvements (Systems Development) as well as the Land Use, Systems Management, and Demand Management components.

This constrained financial plan is required by state and federal planning regulations and is limited to current sources and levels of federal, state, and local transportation revenue projected out to the year 2030. This scenario includes federal and state formula funds as well as federal and state discretionary funds for existing projects. State and federal gas taxes are assumed to stay at today’s levels (18 cents and 18.4 cents per gallon, respectively). In addition, based on the November 2004 voter approval of extension of the TransNet transportation sales tax through 2048, this analysis includes 22 years of additional TransNet revenues beyond the expiration of the initial measure in 2008. Available funding that is discretionary for either capital or operations was assumed to be distributed as needed.

Figure 3.1 and Table 3.1 summarize major funding sources totaling approximately $35.7 billion. TransNet funds are included both as pay-as-you-go revenues and revenue bonds. Together these two TransNet sources comprise approximately $8.6 billion, or about 24 percent of the total. The remaining local funding totals approximately $14.9 billion, or about 42 percent of the $35.7 billion, with state and federal funds providing 22 percent and 12 percent, respectively.
A summary of the major project expenditures is provided in Table 3.2 and Figure 3.2. Transit projects account for approximately $12.3 billion, or about 35 percent of the total. Highway projects account for approximately $12.2 billion (35 percent of the total), including the Managed Lanes/High-Occupancy-Vehicle (HOV) facilities ($4.8 billion). Local street and road projects are estimated to total nearly $10 billion, or about 27 percent, and the final category of land use, systems management, and demand management strategies totals approximately $1.1 billion, or about 3 percent of the $35.6 billion.

The specific projects and services included in the Revenue Constrained Plan are described in Chapter 4.

The following summary details the assumptions regarding each local, state, and federal funding source. All funding sources are shown in 2005 dollars.

**Local Revenues**

- **TransNet ½ Percent Local Sales Tax Revenues** – were assumed to increase each year over the $228.6 million received in FY 2005 based on the growth in taxable retail sales as projected by the SANDAG Demographic and Economic Forecasting Model (DEFM). The amounts shown for the revenue constrained scenario represent the funds estimated to be available for the entire planning period. The measure to extend TransNet included revised provisions for programmatic allocation of the revenues. While the initial TransNet measure provided for one-third distribution to each highways, local streets and roads, and transit, the new measure specifies percentages for a variety of purposes, including major corridors (which may include highways, transit, or both), local streets and roads, transit operations or capital, an environmental mitigation program, a smart growth incentive program, non-motorized transportation improvements, and a $2,000 per dwelling unit developer impact fee, among others. With bond counsel concurrence, the net revenues from the initial TransNet measure are assumed to be available to advance projects from the expenditure plan for the TransNet extension. The amounts remaining from the initial measure, including interest earnings less current debt service payments on bonds issued to date, have been assumed to provide borrowing capacity to advance projects.

Borrowing assumptions include the issuance of short-term commercial paper to carry project needs until 2008. Once the revenue stream from the TransNet extension begins, short-term debt can be converted to long-term bond debt. The bonding debt coverage has been limited to 1.3 times debt service; i.e., annual revenues must be at least 1.3 times the annual debt service payment. This 1.3 coverage ratio applies to the program as a whole.
Transportation Development Act (TDA) ¼ Percent Sales Tax Funds – were assumed to grow from the $113 million received in FY 2005 in the same manner as TransNet funds since TDA funds also are based on growth in the sales tax. The total TDA funds projected were reduced by 3 percent to account for administration and planning activities as provided in state law. TDA funds may be used for transit operating or capital purposes, but are not eligible for use on non-transit-related highway or local street and road improvements.

Local Street and Road Gas Tax Subventions – The current level of gas tax subventions to the 18 Cities and the County of San Diego for local street and road purposes was assumed to continue to be available (actual receipts totaled $97.7 million in FY 2003). The total of these revenues for the region was increased each year based on the estimated growth rate in the number of gallons of fuel consumed in the region based on Caltrans projections reflecting future fuel efficiency, vehicle miles traveled (VMT), and vehicle fleet mix projections (i.e., gas, diesel, electric, etc.).

Local Street and Road General Fund and Other Revenues – Based on information provided in the State Controller annual reports for local street and road expenditures and revenues, the average amount of general fund contributions and other revenues (including fines and forfeitures, interest earnings, and other miscellaneous revenue sources) used for local street and road expenditures in recent years was assumed to continue. These funds have varied greatly over the last eight years, with annual changes ranging from a negative 27.9 percent to an annual increase of 37.8 percent. Therefore, only a modest 3 percent annual growth rate has been assumed.

Toll Road Funding – the funding derived from debt financing backed by future toll revenues has been assumed to be available in the same time periods as the construction for the major phases of the SR 125 and SR 241 toll road projects.

State Revenues

State Transportation Improvement Program (STIP) Funds – have been based on the preliminary 2006 STIP Fund Estimate issued by the California Department of Finance in cooperation with the California Transportation Commission. Only those projects already programmed through 2009 are assumed. For the remaining two years of the 2006 STIP, the funds have been estimated using the region’s historical share of the state total. Future years have been based on an average of these STIP estimates through 2011 and escalated continuing the trends established in the preliminary 2006 STIP Fund Estimate. Deductions were made for previous commitments, including Assembly Bill (AB) 3090 reimbursements and Grant Anticipation Revenue Vehicle (GARVEE) bond payback for the I-15 Managed Lanes.
It should be noted that the STIP Fund Estimate increasingly relies on the availability of Proposition 42 funding and assumes that a significantly high proportion of the State Highway Account funding will be used for maintenance of the existing State Highway System.

Based on the provisions of Senate Bill (SB) 45, the San Diego region should continue to receive at least a minimum formula “County Share” of statewide levels and a comparable portion of the STIP Interregional program funds over time as well. The total STIP funds assumed include revenue from both the Regional and Interregional STIP shares. The STIP funds are flexible and are available for capacity-enhancing highway, transit, and local road capital projects, as well as for transportation demand management (TDM) efforts and planning and program monitoring activities.

- **State Transit Assistance (STA) Funds** – were assumed to increase based on the forecasts of growth in the state Public Transportation Account as provided in the preliminary 2006 STIP Fund Estimate through FY 2011, continuing the same growth rates used in the Fund Estimate for the years beyond 2011.

- **Traffic Congestion Relief Program (TCRP) Funds** – were assumed to be available for specific projects as the projects are ready to be delivered. More than $278 million in TCRP funds has been allocated through FY 2006, leaving a balance of approximately $204 million remaining to be allocated.

- **State Highway Operations, Maintenance, and Rehabilitation Funds** – The 2006 Fund Estimate assumes a revenue constrained funding level of $1.8 billion for Caltrans’ State Highway Operations and Protection Program (SHOPP) Capital Outlay and nearly $500 million for support in FY 2006. These figures have been escalated by Caltrans from that fiscal year forward. At this time, the Fund Estimate has assumed that over 90 percent of the State Highway Account (SHA) revenues will be available to meet Caltrans’ identified needs for state highway operations and maintenance needs. By state law, these expenditures are given priority over new construction and are funded “off the top” of the SHA before any funding for new construction projects is allocated. The 2006 Fund Estimate assumes that meeting the SHOPP needs will require this high level of SHA funds. For state highway safety, rehabilitation, and operations needs, funds were assumed to be available through SHOPP at the current level of $50 million per year, with a 2 percent per year real growth based on recent trends. To obtain the regional funding level for the SHOPP, a historical proportional factor is applied to this statewide revenue constrained figure. Costs for SHOPP-eligible projects were constrained to the estimated funds available.
The 2006 base year estimates of $9.3 million per year for operations and administration costs and $49.9 million per year for maintenance revenues have been increased at 3 percent per year to reflect a gradual increase in these costs above the rate of inflation as the size of the system to be maintained grows over time. These estimates were derived from a survey of historical allocations that Caltrans has received for these activities.

Federal Revenues

- **FTA Discretionary (Section 5309) Funds** – were assumed through FY 2006 based on the amounts identified in the Federal Transit Administration (FTA) Full Funding Grant Agreements (FFGA) for the Mission Valley East Light Rail Transit (LRT) project and the SPRINTER rail project, and other existing bus earmarks. For FY 2007 through 2009, it was assumed that the region would receive a population-based share of the national Section 5309 levels identified in the recently passed SAFETEA-LU, and beyond 2009 the San Diego share has been increased at 5 percent per year. The San Diego region’s population is about 1 percent of the national total. However, for this revenue constrained scenario, a share of discretionary funds equal to 0.45 percent of the national total was assumed based on the San Diego region’s receipts of bus program earmarks over the last five years.

- **FTA Formula (Section 5307 and 5309) Funds** – include the Section 5307 formula funds as well as the Rail Modernization formula funds under the Section 5309 program. These funds were assumed to grow based on the guaranteed funding levels specified in the federal SAFETEA-LU through FY 2009 and at 5 percent per year thereafter. Both of these funding sources may be used for capital or preventive maintenance.

- **Surface Transportation Program (STP) Funds** – the Regional STP fund estimates were based on the current trends in actual annual apportionments consistent with SAFETEA-LU. The estimates for the period of the federal reauthorization were provided by the California Department of Transportation (Caltrans), through which the funds are subvented. Caltrans also recommended an assumed growth rate beyond 2009 of 2 percent per year. These funds are flexible and may be used for a wide range of capital projects including highway, transit improvement, and other purposes.

- **Congestion Mitigation and Air Quality (CMAQ) Funds** – the CMAQ fund estimates were based on the current trends in actual annual apportionments consistent with SAFETEA-LU. The estimates for the period of the federal reauthorization were provided by Caltrans, through which the funds are subvented. Caltrans also recommended an assumed growth rate beyond 2009 of 2 percent per year. These funds are flexible and may be used for a wide range of capital projects and TDM activities, with the exception of roadway improvements that provide increased capacity for single-occupant vehicles.
➤ **Miscellaneous Federal/State/Private/Other Capital Revenues** – there are a variety of smaller annual state and federal programs as well as periodic “demonstration” program funds that provide additional funding for the region’s transportation improvements on a semi-regular basis. It was assumed that about $42 million per year would be available from such sources. Based on historical trends, it was assumed that 78 percent of these funds would come from highway resources and 22 percent from transit programs.
FIGURE 3.2—MAJOR PROJECT EXPENDITURES/REVENUE CONSTAINED SCENARIO ($35 Billion)
### TABLE 3.1—MAJOR REVENUE SOURCES/REVENUE CONSTRAINED SCENARIO

<table>
<thead>
<tr>
<th>REVENUE SOURCES</th>
<th>ESTIMATED REVENUE ($ IN MILLIONS)</th>
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<tbody>
<tr>
<td><strong>Local</strong></td>
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<tr>
<td>TransNet Cash</td>
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<td>TransNet Bond Proceeds</td>
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<td>Transportation Development Act (TDA)</td>
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<td>City/County Local Gas Taxes</td>
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<td>General Fund/Misc. Local Road Funds</td>
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<td>Toll Road Funding (SR 241)</td>
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<td>Miscellaneous/Carryover from Prior Years</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>State</strong></td>
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<td>State Transportation Improvement Program (STIP)/Traffic Congestion Relief Program (TCRP)</td>
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<tr>
<td>Proposition 42</td>
<td>$103</td>
</tr>
<tr>
<td>State Transit Assistance (STA) Program</td>
<td>$104</td>
</tr>
<tr>
<td>State Highway Account Funds for Operations &amp; Maintenance (O&amp;M) Rehab.</td>
<td>$750</td>
</tr>
<tr>
<td>Miscellaneous/Carryover from Prior Years</td>
<td>$435</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$1,817</td>
</tr>
<tr>
<td><strong>Federal</strong></td>
<td></td>
</tr>
<tr>
<td>Federal Transit Administration (FTA) Discretionary</td>
<td>$243</td>
</tr>
<tr>
<td>Federal Transit Administration Formula</td>
<td>$375</td>
</tr>
<tr>
<td>Regional Surface Transportation Program (RSTP)/Congestion Mitigation and Air Quality (CMAQ) Program</td>
<td>$354</td>
</tr>
<tr>
<td>Miscellaneous/Carryover from Prior Years</td>
<td>$402</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$1,374</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$8,841</strong></td>
</tr>
</tbody>
</table>
### TABLE 3.2—MAJOR EXPENDITURES/REVENUE CONSTRAINED SCENARIO

<table>
<thead>
<tr>
<th>PROJECT CATEGORIES</th>
<th>ESTIMATED COST ($ IN MILLIONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Systems Development &amp; Operations</strong></td>
<td></td>
</tr>
<tr>
<td>Highways</td>
<td></td>
</tr>
<tr>
<td>Managed Lane/High-Occupancy-Vehicle (HOV) Facilities</td>
<td>$929</td>
</tr>
<tr>
<td>System Completion/Widening Projects</td>
<td>$2,516</td>
</tr>
<tr>
<td>Operations</td>
<td>$55</td>
</tr>
<tr>
<td>Maintenance</td>
<td>$294</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>$402</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$4,196</td>
</tr>
<tr>
<td>Transit</td>
<td></td>
</tr>
<tr>
<td>Major New Facilities</td>
<td>$1,171</td>
</tr>
<tr>
<td>Miscellaneous Capital/Rehabilitation/Replacement</td>
<td>$248</td>
</tr>
<tr>
<td>Operating Subsidies</td>
<td>$593</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$2,012</td>
</tr>
<tr>
<td>Local Streets and Roads</td>
<td></td>
</tr>
<tr>
<td>New Facility Construction</td>
<td>$1,100</td>
</tr>
<tr>
<td>Regional Arterials</td>
<td>$80</td>
</tr>
<tr>
<td>Operations &amp; Maintenance (O&amp;M)/Rehabilitation</td>
<td>$1,180</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$2,360</td>
</tr>
<tr>
<td>Land Use/Systems Management/Demand Management</td>
<td></td>
</tr>
<tr>
<td>Smart Growth Incentive Program</td>
<td>$31</td>
</tr>
<tr>
<td>Bicycle/Pedestrian Improvements</td>
<td>$29</td>
</tr>
<tr>
<td>Transportation Systems Management</td>
<td>$107</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>$33</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$8,768</td>
</tr>
</tbody>
</table>
# ACTIONS

The following actions support the Financial Strategies Chapter recommendations.

## FINANCIAL STRATEGIES

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Legislative and Funding Actions</strong></td>
<td></td>
</tr>
<tr>
<td>1. Maximize opportunities to leverage local transportation sales tax revenues to</td>
<td>SANDAG, local agencies</td>
</tr>
<tr>
<td>attract additional state and federal funds to the region for transportation and</td>
<td></td>
</tr>
<tr>
<td>related infrastructure improvements.</td>
<td></td>
</tr>
<tr>
<td>2. Support federal transportation legislation that provides for the following</td>
<td>SANDAG</td>
</tr>
<tr>
<td>principles:</td>
<td></td>
</tr>
<tr>
<td>a. Ensuring stable and consistent funding levels for highway and transit</td>
<td></td>
</tr>
<tr>
<td>programs.</td>
<td></td>
</tr>
<tr>
<td>b. Maintaining budget firewalls to protect the Trust Fund balances for</td>
<td></td>
</tr>
<tr>
<td>transportation expenditure purposes and ensuring that transportation programs</td>
<td></td>
</tr>
<tr>
<td>are not negatively impacted by the Revenue Aligned Budget Authority.</td>
<td></td>
</tr>
<tr>
<td>c. Maintaining or increasing the level of revenue flowing into the Trust</td>
<td></td>
</tr>
<tr>
<td>Fund by increasing the federal gas tax rate and/or eliminating or reducing</td>
<td></td>
</tr>
<tr>
<td>transfers of tax exemptions that shift transportation revenues to other</td>
<td></td>
</tr>
<tr>
<td>purposes.</td>
<td></td>
</tr>
<tr>
<td>d. Ensuring adequate levels of funding to allow regions to continue to</td>
<td></td>
</tr>
<tr>
<td>achieve levels of air quality attainment.</td>
<td></td>
</tr>
<tr>
<td>e. Maximizing flexibility of federal spending by consolidating federal</td>
<td></td>
</tr>
<tr>
<td>categorical programs.</td>
<td></td>
</tr>
<tr>
<td>f. Providing for the continuation, expansion, and flexibility of transit</td>
<td></td>
</tr>
<tr>
<td>funding to ensure maintenance and expansion of existing systems.</td>
<td></td>
</tr>
<tr>
<td>3. Support state transportation legislation that provides for the following</td>
<td>SANDAG</td>
</tr>
<tr>
<td>principles:</td>
<td></td>
</tr>
<tr>
<td>a. Increasing state highway revenues as needed to maintain, rehabilitate,</td>
<td></td>
</tr>
<tr>
<td>and operate the existing state highway system, to match all available federal</td>
<td></td>
</tr>
<tr>
<td>highway funds, and to fully fund all new construction and right-of-way projects</td>
<td></td>
</tr>
<tr>
<td>identified in the current State and Regional Transportation Improvement</td>
<td></td>
</tr>
<tr>
<td>Programs (TIPs), and also to substantially increase funding for future STIP</td>
<td></td>
</tr>
<tr>
<td>periods.</td>
<td></td>
</tr>
<tr>
<td>b. Ensuring that funding from transportation-specific programs such as</td>
<td></td>
</tr>
<tr>
<td>Proposition 42 and Public Transportation Account spillover revenues are not</td>
<td></td>
</tr>
<tr>
<td>diverted from the transportation purposes.</td>
<td></td>
</tr>
</tbody>
</table>
## FINANCIAL STRATEGIES

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Ensuring that any reevaluation of the present formula &quot;County Share&quot; funding provisions and/or any other revenue distribution formula does not penalize counties that provide local sales tax or other local funding to state highway projects.</td>
<td></td>
</tr>
<tr>
<td>d. Establishing state/local matching programs or other programs to reward counties that have implemented local sales taxes or other major local funding sources for transportation improvements.</td>
<td></td>
</tr>
<tr>
<td>e. Sharing of both diesel fuel tax revenues and truck weight fees with local cities and counties, and with Caltrans.</td>
<td></td>
</tr>
<tr>
<td>f. Increasing transit revenues to support transit operating and capital improvements, including transit guideway projects.</td>
<td></td>
</tr>
<tr>
<td>4. Support legislative financial incentives that encourage the linkage between transportation, land use, housing, environment, and the economy.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>5. Support mechanisms that leverage federal, state, and local dollars such as public/private partnerships and development fees.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>6. Support efforts that expedite transportation project delivery such as design-build, construction management at risk, and other alternative delivery methods.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>7. Support maximization of highway, road, and railroad capacity through the implementation of value pricing, use of freeway shoulder lanes and other priority treatments, and other mechanisms that provide for more efficient use of highways, roads, and railroads.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>8. Support the continuation or establishment of programs that protect federal and state-owned or funded assets such as the interstate, state routes, and railroad corridors.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>9. Support programs and policies that recognizing that goods movement is a critical factor in our transportation corridors, highways, roads, and railroads.</td>
<td>SANDAG</td>
</tr>
</tbody>
</table>

### Local Jurisdiction Actions

<table>
<thead>
<tr>
<th>Local Jurisdiction Actions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Maintain current levels of local general fund and other local discretionary fund support to the local street and road program so that any new or increased revenues to the local street and road program will augment and not supplant current revenues.</td>
<td>Local jurisdictions</td>
</tr>
</tbody>
</table>
## FINANCIAL STRATEGIES

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Actions</td>
<td></td>
</tr>
<tr>
<td>11. Aggressively pursue the continuation and expansion of existing sources of</td>
<td>SANDAG, transit operators</td>
</tr>
<tr>
<td>transit funding and support modifications to those sources to ensure full</td>
<td></td>
</tr>
<tr>
<td>utilization and maximum flexibility.</td>
<td></td>
</tr>
<tr>
<td>12. Work with local, state, and federal officials to ensure that the region</td>
<td>SANDAG, transit operators</td>
</tr>
<tr>
<td>receives an equitable share of available discretionary transit funds.</td>
<td></td>
</tr>
<tr>
<td>13. Adjust fare levels and productivity as appropriate and as needed to maintain</td>
<td>SANDAG, transit operators</td>
</tr>
<tr>
<td>and improve farebox recovery levels over time in order to maximize the level of</td>
<td></td>
</tr>
<tr>
<td>transit service that can be provided.</td>
<td></td>
</tr>
<tr>
<td>14. Pursue private sector involvement in the funding of transit facility</td>
<td>SANDAG, transit operators, and local jurisdictions</td>
</tr>
<tr>
<td>development and operation through developer contributions, benefit assessment</td>
<td></td>
</tr>
<tr>
<td>districts, joint development and value capture projects, and other efforts to</td>
<td></td>
</tr>
<tr>
<td>contribute toward unfunded regional transit facilities.</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 4
SYSTEMS DEVELOPMENT:
MORE TRAVEL CHOICES

This Chapter describes the priorities for regional transportation infrastructure and service improvements of the 2006 Revenue Constrained Plan. It includes sections on transit, highways and arterials, intercity rail, border improvements, goods movement and intermodal facilities, aviation, regional bikeways, and other non-motorized alternatives.

The existing regional network consists of 610 miles of highways (including 16 miles of HOV lanes), 94 miles of regional transit service, and more than 760 miles of regional arterials.

DEVELOPING THE REVENUE CONSTRAINED NETWORK

The 2006 Revenue Constrained Plan is based on the Revenue Constrained network included in the MOBILITY 2030 Plan adopted in 2003. In addition to the projects and services included in the previous revenue constrained network, the updated network advances those projects identified in the TransNet Early Action Program (EAP), which was approved by the SANDAG Board of Directors in January 2005. Additional transit components to the EAP were approved in May 2005. Several projects, programs, and services that also are part of the TransNet Program of Projects are not in the 2006 Revenue Constrained Plan and would be implemented beyond 2030, since the TransNet extension is in effect until 2048.

The concept of the EAP is to “jump-start” the implementation of several key projects prior to the beginning of TransNet extension in FY 2009, with the objective of completing those projects within the first five to seven years of the new program. Table 4.1 describes the projects included in the TransNet EAP.

Figure 4.1 illustrates the Revenue Constrained Network. It includes the major highway projects, freeway and HOV connectors, corridor and regional transit routes, as well as the regional arterial system. The regional arterial system is clearly defined in Figure 4.2 and, as part of the local street and road network, works in conjunction with the system of highways and transit services to provide a significant amount of mobility throughout the region.
## TABLE 4.1—TRANSNET EARLY ACTION PROGRAM – PROJECT DESCRIPTIONS

<table>
<thead>
<tr>
<th>EARLY ACTION PROJECT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-5 HOV Lane Extension</td>
<td>Extend northbound HOV lane to Manchester Avenue, construct southbound HOV lane between Manchester Avenue and I-805</td>
</tr>
<tr>
<td>I-5 Lomas Santa Fe Interchange</td>
<td>Reconfigure on-ramps and off-ramps, modify local circulation</td>
</tr>
<tr>
<td>I-5 North Coast</td>
<td>Complete environmental document for I-5 widening between La Jolla Village Drive and Vandegrift Boulevard</td>
</tr>
<tr>
<td>I-15 BRT Stations (SR 163 to SR 78)</td>
<td>Modify Escondido transit center, construct transit centers at Del Lago, Rancho Bernardo, Sabre Springs, and Mira Mesa</td>
</tr>
<tr>
<td>I-15 BRT DARs (Hale &amp; Hillery)</td>
<td>Construct direct access ramps (DARs) at Hale Avenue and Hillery Drive</td>
</tr>
<tr>
<td>I-15 BRT Stations (Downtown to SR 163) and Service</td>
<td>Construct transit centers at University Avenue and El Cajon Boulevard, modify Downtown transit centers, BRT service between Escondido and Downtown San Diego</td>
</tr>
<tr>
<td>I-15 FasTrak™</td>
<td>Install and operate managed lane technology between SR 163 and SR 78</td>
</tr>
<tr>
<td>I-15 Middle (SR 56 to Centre City Pkwy)</td>
<td>Cover cost increases including purchase of the moveable barrier, noise barrier, and direct access ramps</td>
</tr>
<tr>
<td>I-15 North (Centre City Pkwy to SR 78)</td>
<td>Construct four managed lanes with fixed median barrier, add auxiliary lanes</td>
</tr>
<tr>
<td>I-15 South (SR 163 to SR 56)</td>
<td>Construct four managed lanes with moveable median barrier, add auxiliary lanes</td>
</tr>
<tr>
<td>I-805 North (SR 52 to I-5)</td>
<td>Complete environmental document for I-805 widening</td>
</tr>
<tr>
<td>I-805 South (SR 905 to SR 94)</td>
<td>Complete environmental document for I-805 widening</td>
</tr>
<tr>
<td>Mid-Coast LRT</td>
<td>Construct and operate LRT service between Old Town transit center, University of California at San Diego (UCSD), and University Towne Centre (UTC)</td>
</tr>
<tr>
<td>Otay BRT (Phase 1)</td>
<td>BRT service between Otay Mesa and Downtown San Diego</td>
</tr>
<tr>
<td>SR 52 (SR 125 to SR 67)</td>
<td>Construct four-lane freeway between SR 125 and SR 67</td>
</tr>
<tr>
<td>SR 52 Westbound Truck Lane</td>
<td>Extend general purpose lane from 1.4 miles east of Santo Road to I-15</td>
</tr>
<tr>
<td>SR 52 Managed Lanes (I-805 to SR 125)</td>
<td>Construct two managed lanes</td>
</tr>
<tr>
<td>SR 76 (Melrose to Mission Road)</td>
<td>Widen from two lanes to four lanes</td>
</tr>
<tr>
<td>SR 76 (Mission to I-15)</td>
<td>Widen from two lanes to four lanes</td>
</tr>
<tr>
<td>SR 76 Environmental Enhancement</td>
<td>Environmental enhancements for SR 76 widening between Mission Road and I-15</td>
</tr>
<tr>
<td>Super Loop BRT</td>
<td>BRT service between UCSD and UTC</td>
</tr>
</tbody>
</table>
Figure 4.1
2030 REVENUE
CONSTRAINED NETWORK
(2006 UPDATE)
December 2005

Highways - HOV/Managed Lanes
Transit
Highways - General Purpose Lanes
HOV Connectors
Freeway Connectors

MILES
KILOMETERS

MAP AREA
San Diego Region

Oceanside Carlsbad Encinitas Del Mar Solana Beach Poway San Diego Coronado Imperial Beach Lemon Grove La Mesa Santee El Cajon Escondido Vista San Marcos Camp Pendleton

County of San Diego

PACIFIC OCEAN

SANDAG

33
REGIONAL TRANSIT VISION

The Regional Transit Vision (RTV) calls for a network of fast, flexible, reliable, safe, and convenient transit services that connect our homes to the region’s major employment centers and major destinations. The 2006 Revenue Constrained Plan includes 11 of the Vision’s 38 routes.

Other proposed services showcase the integration of public transportation and local land uses. The new routes operate at higher speeds than current transit routes. Stations would be spaced farther apart than current transit services, and there would be priority treatments on highways and arterials in order to attain these higher speeds and ultimately make transit more competitive with the automobile. In our local communities, stations must be integrated into activity centers. These stations will be pedestrian- and bicycle-friendly, and serve as pleasant wait environments for transit customers.

There is particular attention to the transit customer in the RTP. The proposed transit services take advantage of a new generation of advance design vehicles, which have the flexibility of buses and the look and feel of rail. These low-floor vehicles along with “smart fare cards” and upgraded stations allow for easier and speedier boarding. Real-time information using “next vehicle” technology will let patrons know when the next vehicle will be arriving.

A Network of Services

Market research, trip movement analysis, and input from local jurisdictions were used to develop four Regional Transit Vision service concepts. Each transit service concept accommodates distinct market needs, and together provides a network of complementary services to the region.

Regional Yellow Car services provide the fastest type of service and are designed to serve longer-distance regional trip-making. Yellow Car services travel at an average of 40 miles per hour and have limited stops. The COASTER commuter rail system is an existing example of Yellow Car service. These Regional services take advantage of many of the Managed/HOV facilities included in the RTP. Examples of new Regional services include a route connecting Escondido and the I-15 corridor with Centre City and the San Diego International Airport, and a route that connects the rapidly growing Otay Ranch area and the I-805 corridor with Centre City.
Corridor level Red Car services provide rapid, very frequent transit services along the region’s major travel corridors. Average speed for Red Car service is 25 miles per hour, and stops are more frequent than Yellow Car services. The San Diego Trolley is an existing example of Red Car service. An example of the new Corridor services is the SPRINTER Rail line, which provides service between Oceanside and Escondido along the SR 78 corridor and is proposed to be extended to Westfield Shoppingtown North County.

The two remaining service concepts provide critical feeder and shuttle services to the Yellow and Red Car networks. Blue Car services are essentially the local bus network serving shorter-distance trips within our communities with frequent stops. Green Car services are local shuttles that circulate through local communities and employment centers to connect people to and from their homes and work sites and the Yellow and Red Car networks.

Table 4.2 lists the phased new Yellow and Red Car transit services and their proposed headways (frequency of service) during peak and off-peak periods, along with proposed service improvements to existing rail services. Table 4.3 lists the phased major capital transit expenditures. The corresponding network of Regional (Yellow Car) and Corridor (Red Car) services included in the 2006 Revenue Constrained Plan is depicted in Figure 4.3.

Updates on the Horizon

Independent Transit Planning Review. In early 2005, SANDAG commissioned an independent review of the concepts outlined in the Regional Transit Vision and MOBILITY 2030. This review is being conducted by a consultant with the help of an international peer review panel of transit experts. This review will determine the most effective and cost-efficient transit service and infrastructure plan for the region well into the future (30 years).

In addition to a comprehensive review of the Regional Transit Vision and related transit projects, the Independent Transit Planning Review will address the relationship of the Metropolitan Transit System (MTS) Comprehensive Operational Analysis (COA) and NCTD Fast Forward Strategic Business Plan to the vision and project plans. Final approval of the Independent Transit Planning Review recommendations is expected in early 2006 and will be incorporated into the 2007 Comprehensive RTP update.

MTS Comprehensive Operational Analysis (COA). In 2004, MTS embarked on the COA to restructure metropolitan area transit services to better address current travel patterns and markets. The goals are to improve the attractiveness and effectiveness of bus and trolley services and achieve long-term financial sustainability through increased ridership and productivity.
### TABLE 4.2—PHADED TRANSIT SERVICES - 2006 REVENUE CONSTRAINED PLAN

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ROUTE</th>
<th>DESCRIPTION</th>
<th>PEAK HEADWAY (MINUTES)</th>
<th>OFF-PEAK HEADWAY (MINUTES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>628</td>
<td>Centre City to Otay Mesa via SR 94/I-805 (Limited Shoulder Use)</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>2010</td>
<td>634</td>
<td>UCSD/UTC Super Loop</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>2014</td>
<td>510</td>
<td>Increase in Blue Line Service (current headways 7½/15)</td>
<td>7.5</td>
<td>10</td>
</tr>
<tr>
<td>2014</td>
<td>610</td>
<td>Escondido to Centre City &amp; SDIA via I-15/SR 94 (Limited Shoulder Use)</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>2020</td>
<td>570</td>
<td>Mid-Coast LRT</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>2020</td>
<td>611</td>
<td>El Cajon Boulevard to Centre City</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>2020</td>
<td>628</td>
<td>Centre City to Otay Mesa via SR 94/I-805</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2030</td>
<td>398</td>
<td>Increase in COASTER Service (current headways 36/120)*</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>2030</td>
<td>399</td>
<td>Increase in SPRINTER Rail - North County Fair (Rail) (opening headways 30/30)</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>2030</td>
<td>510</td>
<td>Increase in Blue Line Trolley Service</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>2030</td>
<td>520</td>
<td>Increase in Orange Line Trolley Service (current headways 15/15)</td>
<td>7.5</td>
<td>15</td>
</tr>
<tr>
<td>2030</td>
<td>530</td>
<td>Increase in Green Line Trolley Service (current headways 15/15)</td>
<td>7.5</td>
<td>15</td>
</tr>
<tr>
<td>2030</td>
<td>570</td>
<td>Mid-Coast LRT</td>
<td>7.5</td>
<td>15</td>
</tr>
<tr>
<td>2030</td>
<td>610</td>
<td>Escondido to Centre City &amp; SDIA via I-15/SR 94</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2030</td>
<td>621</td>
<td>Coronado &amp; Centre City to Sorrento Mesa via Hillcrest/Genesee Avenue</td>
<td>10</td>
<td>10-30</td>
</tr>
</tbody>
</table>

1. These projects are included in the 2009, 2010, 2014, 2020, and 2030 analysis years for air quality assessment.

* Average headways
### TABLE 4.3—MAJOR TRANSIT EXPENDITURES – 2006 REVENUE CONSTRAINED PLAN ¹ ($ MILLIONS)

<table>
<thead>
<tr>
<th>PROJECT CATEGORIES</th>
<th>2005-2010</th>
<th>2011-2020</th>
<th>2021-2030</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major New Capital Facilities</td>
<td>$1,171</td>
<td>$1,953</td>
<td>$3,110</td>
<td>$6,234</td>
</tr>
<tr>
<td>SPRINT R Rail</td>
<td>$385</td>
<td>$0</td>
<td>$0</td>
<td>$385</td>
</tr>
<tr>
<td>Mid-Coast Light Rail</td>
<td>$0</td>
<td>$940</td>
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¹ These projects are included in the 2009, 2010, 2014, 2020, and 2030 analysis years for air quality assessment

* Funding from state/federal discretionary transportation sources
Figure 4.3
2030 REVENUE CONSTRAINED TRANSIT NETWORK (2006 UPDATE)
December 2005

- Corridor Service
- Regional Service

MILES
0 3 6 9.6
KILOMETERS
0 4.83 9.6

SANDAG
The COA is primarily concerned with improvements to existing transit services over the short- and mid-term. A number of service changes were implemented in July 2005 as part of Phase 1 and MTS is currently developing the more substantial restructuring in Phase 2. The latter is scheduled for completion in early 2006.

As new corridors are served by more innovative transit services, including bus rapid transit (BRT), there will be opportunities to modify existing services and convert operating funds from existing to new services. These modifications will be evaluated as more detailed corridor planning is completed and as new services are brought on-line.

Fifty-six percent (56%) of total transit capital funding is dedicated to the new, rapid Regional and Corridor services included in the Revenue Constrained Plan, while the remaining 44 percent is invested in existing and planned rail systems, such as the COASTER commuter rail and Trolley.

**Implementing the Regional Transit Vision**

**TransNet Early Action Transit Projects.** MTS, NCTD, and SANDAG have worked cooperatively to develop a number of short-range transit projects that will put the Regional Transit Vision on the street for people to experience firsthand. These early action projects are expected to be implemented within the first five to seven years of the TransNet Extension program, which begins in FY 2009. Early action projects will reveal the customer experience called for in the Regional Transit Vision, demonstrate the integration of transit and land use policies, and help build public support for future investments. These proposed projects include the Mid-Coast Light Rail, University City Super Loop, and I-805 and I-15 Bus Rapid Transit services, as shown in previous Table 4.1.

Preliminary engineering and design studies are underway on many transit priority improvements such as queue jumpers. To advance these transit infrastructure improvements once preliminary studies are complete, the Revenue Constrained Plan sets aside $97 million within the next 5 years to fund project capital needs.

**Regional Rail Grade Separations.** Many of the new or improved Yellow and Red Car services included in the 2006 Revenue Constrained Plan will use regional arterials and traverse the street network. As transit service frequency is increased over time, it will become important to examine the need for light rail grade separations at critical intersections throughout the region. The Revenue Constrained funding scenario includes $122 million for regional rail grade separations. SANDAG has worked with the transit agencies and local jurisdictions to develop a regional evaluation process and criteria to prioritize intersections, such as along the Blue Line Trolley in South Bay and the SPRINTER Rail in the North County area. A draft set of criteria has been developed and will be incorporated into the 2007 Comprehensive RTP. The $122 million is intended to fund those top priority projects as determined through this regional evaluation.

The early action transit projects will demonstrate the integration of transit and land use policies, and help build public support for future investments.

The Revenue Constrained Plan includes $122 million for regional rail grade separations.
Transit Center Parking Needs. Providing adequate parking at existing major transit stations as well as at future stations is essential to the success of the Regional Transit Vision. In June 2002, SANDAG conducted a study of parking demand at COASTER commuter rail stations on behalf of NCTD. The study concluded that the lack of adequate parking is a detriment to increased commuter rail ridership and quantified future parking needs at each station. The study showed that 40 percent of COASTER riders drive alone to the station. (This is consistent with other commuter rail operations such as Metrolink, which operates in the Southern California region.)

The Revenue Constrained Plan includes $930 million of funding for improvements to existing stations serving the COASTER and Trolley and for new Yellow and Red Car stations. Proposed improvements include additional parking, real-time information displays, and other customer features that integrate transit stations into community centers.

Freeway/Transit Lane Demonstration Project. Many of the new Regional and Corridor services ultimately take advantage of the Managed/HOV network proposed in the Revenue Constrained Plan. However, for the newer transit services that are moving ahead of the completion of Managed/HOV facilities, the Revenue Constrained Plan assumes that these services would operate on freeway shoulder lanes on a limited basis during congested periods. Limited use of freeway shoulder lanes would allow transit services to bypass traffic “pinch points” and provide competitive travel times. MTS and Caltrans are implementing a demonstration project along a segment of SR 52 to test the use freeway shoulders for transit in 2005.

Accessible Transportation. The American with Disabilities Act (ADA) requires that all transit vehicles have wheelchair lifts and other equipment to make them accessible to persons with disabilities. In addition, transit operators must provide a complementary service for those persons who, because of their disabilities, are unable to travel to the transit station.

In compliance with federal and state regulations, all transit vehicles in the region are equipped with lifts and other accessibility features. A complementary paratransit system also is in place, providing curb-to-curb services to those who are ADA-certified eligible.

In addition, the Revenue Constrained Plan supports continued coordination of activities to provide transit to those who are transit-dependent, but who are not eligible for ADA-accessible service, or who are clients of non-profit agencies.

The region’s senior citizens also will benefit from a grant program that designates funds from the TransNet extension for specialized transportation services for seniors. TransNet designates 3.25 percent of the total 16.25 percent in annual transit operating and capital funding for this program, which will yield approximately $1.0 million annually when the program starts in 2008.
In preparation for developing the Senior Transportation Mini-Grant Program funding criteria, SANDAG is conducting a survey of the region’s seniors to determine their travel needs and limitations, to locate gaps in service, and to identify areas to improve or develop community-based transportation programs for seniors.

**Coastal Rail Improvement Program**

Our coastal rail corridor, a predominantly single-track railway, is shared by commuter and intercity passenger and freight rail services. On an annual basis, 2 million commuters ride COASTER trains south or Metrolink trains north from Oceanside using the coastal rail corridor. The corridor is part of Amtrak’s second-busiest intercity rail corridor nationwide (carrying another 2.5 million annual passengers), and the coastal corridor is served by Burlington Northern Santa Fe freight rail services. Facing shared challenges, the Revenue Constrained Plan targets critical improvements in areas that will benefit all users of the coastal rail corridor.

The Revenue Constrained Plan includes substantial improvements to the corridor, including the completion of double tracking the rail line between Orange County and Centre City San Diego and a tunnel at Del Mar, conditional upon appropriate environmental impact analyses. Because intercity rail services share the coastal rail corridor with commuter rail and freight operations, the Revenue Constrained Plan assumes that 75 percent of the rail and tunnel improvements will be funded by non-local sources, such as Amtrak or other federal and state revenue sources. For nearly 30 years, the State of California has supported Pacific Surfliner services with both capital and operating assistance. Over this period, 87 percent of capital funding has been contributed by state and federal sources.

Amtrak’s intercity passenger rail network connects the region to the rest of the nation with stations at downtown San Diego, Solana Beach, and Oceanside. Our region is part of Amtrak’s Pacific Surfliner Corridor, a 351-mile corridor that stretches between San Diego to Los Angeles to San Luis Obispo. The Pacific Surfliner is one of Amtrak’s busiest, second only to the Northeast Corridor. Two-thirds of the 2.5 million annual Amtrak passengers use the region’s three intercity stations. Figure 4.4 displays the Southern California intercity rail network.

The Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor Agency coordinates planning and programming on the coastal rail line. SANDAG, MTS, and NCTD are voting members of LOSSAN along with regional transportation and planning agencies in Orange, Los Angeles, Ventura, Santa Barbara, and San Luis Obispo Counties. LOSSAN sets priorities for improvements in the corridor that will increase the capacity of the rail line and the reliability of service.
High-speed rail trains could reach speeds in excess of 200 miles per hour in more rural areas on a dedicated, fully-grade-separated system, making it possible to travel from San Diego to San Francisco in under four hours.

NCTD is the owner of the railway between the Orange County line and the southern limits of the City of Del Mar. MTS owns the railway south to the Santa Fe Depot in the City of San Diego. NCTD operates and maintains the entire San Diego County portion of the LOSSAN corridor.

In October 2004, Caltrans completed a Strategic Business Plan for the Los Angeles to San Diego portion of the coastal rail corridor, calling for significant improvements to the Pacific Surfliner. Caltrans also regularly updates its five- and ten-year statewide plans for conventional rail services. These plans are the basis for planned improvements in the coastal rail corridor. Caltrans expects to finalize a programmatic environmental impact report/environmental impact statement for the Los Angeles to San Diego rail corridor by Spring 2006.

Intercity passenger rail service is subsidized by Amtrak, the State of California, and local agencies. Over the past ten years, Amtrak and the State of California have made significant investments in the corridor and have invested more than $1.5 billion statewide, while local agencies have contributed another $500 million. These have resulted in faster, more frequent and convenient service, improved stations, and increased ridership through the coastal corridor.

High-Speed Rail Services

The California High-Speed Rail Authority (Authority) was created by the California Legislature in 1996 to develop a plan for the construction, operation and financing of a statewide, intercity high-speed passenger rail system. The Authority has developed plans for an 800-mile system, which consists of five corridors connecting the major metropolitan areas of the state. Trains could reach speeds in excess of 200 miles per hour in more rural areas on a dedicated, fully grade-separated system, making it possible to travel from San Diego to San Francisco in under four hours, according to preliminary travel time analyses.

The San Diego region would be connected to the proposed high-speed rail system by two potential corridors—the Inland Corridor and the Coastal Corridor. The Inland Corridor (Los Angeles to San Diego via Riverside County) stretches from the Los Angeles area through the Riverside and Temecula areas to downtown San Diego via Interstate 15. The Coastal Corridor (Los Angeles to San Diego via Orange County) stretches from the Los Angeles area through Orange County and terminating at Irvine. Amtrak services would feed into the high-speed rail network at this point.

A programmatic environmental impact report/environmental impact statement for the proposed statewide high-speed rail network was finalized by the Authority in August 2005.
Figure 4.4
LOS ANGELES - SAN DIEGO - SAN LUIS OBISPO (LOSSAN) RAIL CORRIDOR
December 2005
Intercity Rail - Pacific Surfliner (Los Angeles - San Diego - San Luis Obispo)
Connecting Commuter/ Light Rail Services (Including future)
Other Amtrak Connections
AMBUS
Commuter Rail Stations
Intercity and/or Commuter Rail Stations
Future Rail Stations
Map Not to Scale

Nevada

Imperial

San Diego

San Bernadino

Riverside

Orange

Santa Fe Depot
Solana Beach
Santa Fe Depot
San Juan Capistrano
San Clemente
Oceanside Transit Center

Los Angeles Union Station
Fullerton
Anaheim
Santa Ana
San Juan Capistrano
San Clemente

San Luis Obispo
Santa Maria
Lompoc
Solvang
Santa Barbara
Ventura
Oxnard
Moorpark
Simi Valley
Chatsworth
Camarillo Van Nuys Burbank Airport
Glendale

Los Angeles

Ventura

Santa Barbara

San Luis Obispo

San Diego

San Luis Obispo

Orange

Imperial

San Diego

San Bernadino

Riverside

Orange

Santa Fe Depot
Solana Beach
Santa Fe Depot
San Juan Capistrano
San Clemente
Oceanside Transit Center

Los Angeles Union Station
Fullerton
Anaheim
Santa Ana
San Juan Capistrano
San Clemente

San Luis Obispo
Santa Maria
Lompoc
Solvang
Santa Barbara
Ventura
Oxnard
Moorpark
Simi Valley
Chatsworth
Camarillo Van Nuys Burbank Airport
Glendale

Los Angeles

Ventura

Santa Barbara

San Luis Obispo

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SANDAG is currently underway with a feasibility study of a magnetic levitation (MAGLEV) system between the San Diego region and a potential regional airport in the Imperial Valley. This East/West study also will include a brief comparative analysis of maglev and conventional high-speed rail services. Conclusion of the study is planned for April 2006. Contingent upon a change in federal legislation, SANDAG also plans a feasibility study of maglev along a North/South alignment. Once the necessary funding actions are approved, this study is expected to conclude in 12 to 18 months.

**A FLEXIBLE ROADWAY SYSTEM**

Roadways in the region serve multiple purposes and accommodate different types of travel. They accommodate transit vehicles, automobiles, movement of freight, and bicycles. The local streets and arterials connecting our communities are typically used for shorter trips, while the region’s highways link our homes with major job and activity centers and accommodate our longer trip needs. The 2006 Revenue Constrained Plan recognizes that improvements and capacity enhancements are needed to improve mobility on our highways and regional arterial networks, especially where transit and other alternatives are not as feasible as they are in the region’s more urbanized areas.

A flexible highway system allows the same lanes used by transit to also be used by carpools, vanpools, and fee-paying patrons (similar to FasTrak™, where fees fund transit services in the I-15 corridor). As shown in Figure 4.5, the 2006 Revenue Constrained Plan includes an extensive network of Managed/HOV lanes, which are critical to many of the proposed regional transit services. These lanes operate at free-flow speeds, provide a quicker ride to HOVs, and several of them also serve solo drivers who want to pay a fee to save time. Table 4.4 summarizes the major capital improvements included in the 2006 Revenue Constrained Plan. Highway and regional arterial improvements in the Revenue Constrained Plan are integrated and coordinated to support as well as complement the expanded transit system. Table 4.5 lists the phasing of highway projects included in the 2006 Revenue Constrained Plan.

**Completing Regional Highways**

The Revenue Constrained Plan includes the funding to maintain and preserve the existing system (see Chapter 3 – Financial Strategies). Improving the efficiency of the regional transportation system also is a priority, as are Systems Management and Demand Management strategies.
The Revenue Constrained Plan will complete highways such as SR 52 east to SR 67 in Santee, SR 76 in North County, and State Routes 11, 125, and 905 serving the South Bay and our border with Mexico. These same facilities serve both commuter and freight travel in the region. New freeway to freeway connections will be completed along Interstate 5 at its junctions with State Routes 56 and 78, and the interim connectors at State Routes 94/125 will be replaced with a full facility. Highway capital improvements make up $8.6 billion of the Revenue Constrained Plan.

The Managed/HOV Network
Unlike neighboring Orange and Los Angeles Counties to the north, the San Diego region lacks an HOV network on our regional highways. Currently, about 16 miles of mainline HOV facilities exist on portions of Interstates 5, 15, and 805, and SR 54. The Revenue Constrained Plan initiates the development of a robust Managed/HOV network that includes major four-lane managed facilities on Interstates 5, 15, and 805, and HOV facilities on State Routes 52, 54, 94, and 125. The managed lane facilities on Interstates 5 and 805, and SR 52, are modeled after the I-15 Managed Lanes project.

The I-15 model showcases the integration of transit and roadways into a flexible transportation system for the corridor. Currently under development, the I-15 Managed Lanes will create a 20-mile managed lane facility between State Routes 163 and 78. When completed, it will feature a four-lane HOV facility with a movable barrier (similar to the movable barriers on the San Diego-Coronado Bridge), multiple access points to the regular highway lanes, and direct access ramps for buses and other HOVs. High-frequency bus rapid transit services would operate in these lanes, connecting North County areas to job centers at Sorrento Valley/Sorrento Mesa/UTC, Kearny Mesa, and downtown San Diego. The project is an innovative solution to the growing traffic congestion in the corridor that will offer a premium level of service to transit users, ridesharers, and solo paying commuters during rush hours. During the off-peak periods, these same lanes could be used to facilitate goods movement through the region.
Figure 4.5
2030 REVENUE CONSTRAINED HIGHWAY NETWORK (2006 UPDATE)
December 2005

- Managed/HOV Lanes
- General Purpose Lanes
- Access Improvements
- Freeway Connectors
- HOV Connectors

C = Conventional Highway
E = Expressway
F = Freeway
HOV = High Occupancy Vehicle
MB = Movable Barrier
ML = Managed Lanes
T = Toll Road

MILES
0 3 6
KILOMETERS
0 4.83 9.6

SANDAG
TABLE 4.4—MAJOR CAPITAL IMPROVEMENTS – 2006 REVENUE CONSTRAINED PLAN

### Transit Facilities

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<td>Coastal Rail Tunnel at Del Mar*</td>
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### HOV and Managed Lane Facilities

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<td>6F/8F</td>
<td>8F + 2HOV</td>
<td>$247</td>
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<td>I-15</td>
<td>SR 163</td>
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<td>8F</td>
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<td>8F</td>
<td>8F + 4ML</td>
<td>$183</td>
</tr>
<tr>
<td>SR 52</td>
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<td>I-125</td>
<td>4F/6F</td>
<td>6F + 2HOV/2ML(R)</td>
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</tr>
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<tr>
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</tr>
<tr>
<td>I-805</td>
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<td>I-8</td>
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<td>I-805</td>
<td>Mission Valley Viaduct</td>
<td>8F</td>
<td>8F + 4ML</td>
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<tr>
<td>I-805</td>
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**Subtotal** $4,908

### HOV Connectors

<table>
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<tr>
<th>Freeway</th>
<th>Intersecting Freeway</th>
<th>Movement</th>
<th>Budget ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-5</td>
<td>I-805</td>
<td>North to North &amp; South to South</td>
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</tr>
<tr>
<td>I-15</td>
<td>SR 94</td>
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**Subtotal** $407

### Highway System Completion

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<tr>
<th>Freeway</th>
<th>From</th>
<th>To</th>
<th>Existing</th>
<th>Improvements</th>
<th>Budget ($M)</th>
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</thead>
<tbody>
<tr>
<td>I-5/I-805</td>
<td>Port of Entry – Mexico</td>
<td>Mexico</td>
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<tr>
<td>SR 11</td>
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**Subtotal** $1,903
### Highway Widening, Arterials, and Freeway Interchanges

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<tr>
<th>Routes</th>
<th>From</th>
<th>To</th>
<th>Existing</th>
<th>Improvements</th>
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<td>I-15</td>
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<td>$49</td>
</tr>
<tr>
<td>SR 75/SR 282***</td>
<td>Glorietta Blvd.</td>
<td>Alameda Blvd.</td>
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<td>6C + 2TU (Preliminary Engineering only)</td>
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<tr>
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<td>4C</td>
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<tr>
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<td>SR 241**</td>
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Regional Arterials and Local Access Freeway Interchanges

<p>| | |</p>
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### Freeway Connectors

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Subtotal | $494  |

Total | $15,281 |

KEY:
- C = Conventional Highway Lanes
- F = Freeway Lanes
- MB = Movable Barrier
- ML = Managed Lanes (HOV & Value Pricing)
- ML(R) = Managed Lanes (Reversible)
- T = Toll Lanes
- TU = Tunnel

- * funding from state/federal discretionary transportation funding sources
- ** privately funded
- *** funding from federal discretionary defense funding sources
TABLE 4.5 – PHASED HIGHWAY PROJECTS – 2006 REVENUE CONSTRAINED PLAN

<table>
<thead>
<tr>
<th>YEAR BUILT BY</th>
<th>FREWAY</th>
<th>FROM</th>
<th>TO</th>
<th>EXISTING</th>
<th>IMPROVEMENT</th>
<th>($ MILLIONS)</th>
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<tbody>
<tr>
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<td></td>
<td>CUMULATIVE</td>
<td>COST</td>
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<td>Inspection Facility</td>
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<tr>
<td>2010</td>
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<td>Glorietta Blvd.</td>
<td>Alameda Blvd.</td>
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<tr>
<td>2014</td>
<td>SR 76</td>
<td>Melrose Drive</td>
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<td>2C</td>
<td>4C</td>
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<td>I-5</td>
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<td>Sea World Drive</td>
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<td>Vandegrift Blvd.</td>
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<td>I-15</td>
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<td>$49</td>
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## CHAPTER 4
SYSTEMS DEVELOPMENT: MORE TRAVEL CHOICES

<table>
<thead>
<tr>
<th>YEAR BUILT BY</th>
<th>FREEWAY</th>
<th>FROM</th>
<th>TO</th>
<th>EXISTING</th>
<th>IMPROVEMENT</th>
<th>COST ($ MILLIONS)</th>
<th>CUMULATIVE COST ($ MILLIONS)</th>
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<td>Freeway Connectors</td>
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<td>$6,072</td>
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<tr>
<td>2020</td>
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<td>Orange County</td>
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<td>4T/6T</td>
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<td>$6,222</td>
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<td>2020</td>
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<td>SR 54</td>
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<td>$8,134</td>
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<td>SR 54/SR 125</td>
<td>I-805</td>
<td>SR 94</td>
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</tbody>
</table>

¹ These projects are included in the 2009, 2010, 2014, 2020, and 2030 analysis years for air quality assessment.

* SR 241 - 4 toll lanes from I-5 to Cristianitos interchange; 6 toll lanes from Cristianitos Interchange to Orange County line

**KEY:**
- C = Conventional Highway Lanes
- F = Freeway Lanes
- ML = Managed Lanes (HOV & Value Pricing)
- MB = Movable Barrier
- HOV = High Occupancy Vehicle Lanes
- ML(R) = Managed Lanes (Reversible)
- T = Toll Lanes
- TU = Tunnel
In addition to mainline Managed/HOV facilities, the Revenue Constrained Plan includes direct HOV to HOV connectors at the I-5/I-805 merge and at the I-15/SR 94 interchange.

**Completing the Arterial Network**

Like highways, the arterial network plays a role in improving regional transit as well as serving subregional trips.

The Revenue Constrained Plan funds transit priority treatments on arterials, such as traffic signal priority measures (priority for transit by extending the green phase of the traffic light, for example), “queue jumpers” to bypass bottlenecks on local streets, and grade separations, where needed. The Revenue Constrained Plan includes major transit capital projects, such as transitways, double tracking, and direct access ramps between freeway HOV lanes and major transit stations. These facilities link regional arterials to the Managed/HOV network and transitways at strategic locations like major stations, providing transit vehicles with easy access to the regional network.

Completing the Regional Arterial System is a priority in the Revenue Constrained Plan. The regional arterial system provides critical links to the highway network and serves as alternative routes to the highways themselves. Figure 4.2 illustrates the regional arterial system.

Planned improvements to the regional arterial system are identified in the local circulation elements of the cities and county. Funding is intended to come from the local jurisdictions, which are responsible for improving regional roadways and local streets to meet their residents’ needs and mitigate the effects of local land use developments. Proposition 42 funds and the voter-approved $2,000 per dwelling unit for regional arterials (beginning in 2008 with the extension of TransNet) would contribute to the construction of these facilities.

The Revenue Constrained Plan assumes additional arterial improvements besides capacity enhancing projects. These include traffic signal coordination, traffic detection systems, transit priority measures, and management systems needs to optimize the arterial network and integrate arterial operations with other modes.
CHAPTER 4
SYSTEMS DEVELOPMENT: MORE TRAVEL CHOICES

PLANNING ACROSS BORDERS

The 2030 Regional Growth Forecast recognizes interregional travel trends and accounts for future housing for our workers both within the San Diego region as well as outside of the region’s boundaries.

Today, 41 percent of the vanpools participating in SANDAG’s Regional Vanpool Program originate from Riverside County.

The last several years have seen a steady increase in interregional and international commuting, as more people are choosing to live in Riverside and Imperial Counties, and Baja California, Mexico, while keeping their jobs here. SANDAG’s 2030 Regional Growth Forecast recognizes these travel trends and accounts for future housing for our workers both within the San Diego region as well as outside of the region’s boundaries.

I-15 Interregional Partnership Program

The I-15 Interregional Partnership (I-15 IRP) is a voluntary partnership of local officials representing SANDAG and the Western Riverside Council of Governments. The I-15 IRP was formed in 2001 to address the imbalance of jobs and housing that has developed between the San Diego region and southwestern Riverside County in the past decade and the lengthy commute that has resulted. In 2003, the I-15 IRP completed an Existing Conditions report documenting the volume and travel characteristics of interregional commuters along with existing roadway conditions in the I-15 Corridor. In 2004, the I-15 IRP completed a study that identifies short and long-term strategies to address both the causes and impacts caused by the increasing number of interregional commute trips in the corridor.

Short-term strategies, most of which are currently underway, include promotion of transportation demand management (TDM) strategies, including interregional coordination of rideshare programs between Riverside County Transportation Commission (RCTC) and SANDAG, implementing park and ride lots along the I-15 corridor, and joint marketing and promotion of alternative transportation services (e.g., carpools, vanpools, and public transit) targeting solo commuters in the corridor.

There already is a strong market for these types of services. As of October 2005, 191 of the 459 vanpools (42 percent) participating in SANDAG’s Regional Vanpool Program originated from Riverside County. The Riverside Transit Agency (RTA) began commuter express bus service in 2003, and there is private transit service connecting Riverside County residents with jobs in the San Diego region.
The 2006 Revenue Constrained Plan includes Managed/HOV lanes on I-15 north to SR 78. Along with planned HOV lanes in Riverside, the 2006 Revenue Constrained Plan supports ridesharing and transit in the north I-15 corridor.

In 2005, SANDAG received a grant for Phase Two of the I-15 IRP. Phase Two will focus on implementation of economic development, transportation, and housing strategies that were identified in the first phase of the project.

**Binational Transportation**

To accommodate the dynamic border transportation system, the Revenue Constrained Plan includes major projects to improve access to border crossings. Long-term forecasts developed using the San Diego Region-Baja California cross-border travel demand model project that cross-border vehicle traffic will more than double between 1995 and 2020.

**International Border Crossings.** The San Diego region shares a common international border with the Municipalities of Tijuana and Tecate in the State of Baja California, Mexico. The population of the border area of San Diego and Tijuana-Tecate surpassed 4.5 million people in 2000. Three ports of entry serve the region—San Ysidro, Otay Mesa, and Tecate. Those who cross the border into the United States often face long and unpredictable waits.

The U.S. Department of Homeland Security (DHS) was created in 2002 and consolidated the principal border and transportation security agencies—the Immigration and Naturalization Service, U.S. Customs Service, U.S. Coast Guard, Animal and Plant Health Inspection Service, and the Transportation Security Agency. The mission of DHS includes ensuring safe and secure borders, welcoming lawful immigrants and visitors, and promoting the free-flow of commerce.

San Ysidro is the busiest land port of entry in the western hemisphere. It is the region’s primary gate for auto and pedestrian traffic in both directions. More than 48,000 passenger vehicles cross daily into San Diego at this port of entry. About 26,000 pedestrians travel through this border crossing into San Diego daily. Most people who cross northbound on foot or on their bicycles use the Trolley or buses to complete their journey.
In 2004, Otay Mesa handled more than $22 billion dollars worth of freight, making this commercial crossing the busiest along the California-Baja California border.

A fourth border crossing is being planned at East Otay Mesa to improve traffic flows between the two countries and to provide an alternate entry for vehicles and commercial trucks.

Commercial truck traffic uses the Otay Mesa and Tecate ports of entry. The Otay Mesa port has 100 bays for handling truck inspections and serves autos and pedestrians as well. Truck, auto, and pedestrian traffic all use the same facility at Tecate. The Otay Mesa commercial crossing continues to rank third in terms of the dollar value of trade that passes through it along the U.S.-Mexico border (after Laredo-Nuevo Laredo and El Paso-Ciudad Juarez in Texas). In 2004, Otay Mesa handled more than $22 billion dollars worth of freight, making this commercial crossing the busiest along the California-Baja California border. The Tecate port of entry handled another $1 billion in trade in 2004. The Caltrans Global Gateways Development Program (GGDP)\(^1\) identified the California/Mexico border region as a major international trade region, and the Otay Mesa port of entry as one of the key border crossings.

The existing ports of entry infrastructure is already taxed, and growth in trade is expected to continue across the border in both directions over time. Short-term circulation improvements to alleviate existing congested conditions for southbound commercial vehicles at the Otay Mesa port of entry are in progress at this time.

Two miles east of Otay Mesa, a fourth border crossing is being planned at East Otay Mesa to improve traffic flows between the two countries and to provide an alternate entry for vehicles and commercial trucks. This new port of entry and SR 11, a four-mile, four-lane state highway, will connect the U.S./Mexico border to key regional, state, and international highways, and Imperial County to the east. In Mexico, the East Otay Mesa port of entry would connect with the Tijuana-Rosarito Corridor under construction and to the Tijuana-Tecate free and toll roads. In 2001, Caltrans submitted a draft application to the Department of State to initiate the federal review and approval processes for the East Otay Mesa border crossing.

The federal and state governments of the United States and Mexico, the City of San Diego, and the Municipality of Tijuana continue to study various possibilities for the reopening of the closed gate at Virginia Avenue-El Chaparral, located west of the San Ysidro border crossing. Realignment of I-5 and I-805 would be necessary to provide access to the inspection facilities.

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\(^1\) Caltrans, Global Gateways Development Program (January 2002)
Binational Intermodal Transportation System. Key intermodal components of the binational transportation system include rail, roadways, transit, and port facilities. Rehabilitation and restoration to modern service of the San Diego and Arizona Eastern (SD&AE) Railway will improve the potential market for international and interstate movement of goods in, out, and through the Southern California/Baja California region. In addition to the SD&AE Railway, proposals to expand port facilities at the Ports of San Diego and Ensenada are likely to affect cross-border freight transportation. However, these proposed improvements are not expected to significantly reduce the amount of cross-border truck traffic on the region’s highways and arterials. (Railroads typically transport bulk cargo distances greater than 500 miles, while trucks haul cargo to shorter distance markets.)

Implementation of the trucking provisions of the North America Free Trade Agreement (NAFTA) to allow trucks from the United States and Mexico freely in each country is still pending. Nevertheless, binational commercial vehicle traffic uses the San Diego regional highway system. In 2004, more than 796,000 trucks crossed northbound at the San Diego region-Baja California border. About 57 percent of these truck trips have other California counties as their final destination, while 21 percent are destined outside of the state. The remaining trucks travel within the San Diego region.

Major highway projects addressing binational transportation needs that are included in the Plan include State Route 905 to connect Interstates 5 and 805 to the Otay Mesa Port of Entry, the future SR 125 tollway that will connect the Otay Mesa Port of Entry with the San Diego regional and interregional highway network, and the future SR 11 that will link to the proposed East Otay Mesa border crossing. Other investments included in the Revenue Constrained Plan on Interstates 5, 8, 15, and 805 will serve these key international trade corridors.
The movement of goods in the San Diego region involves intermodal systems of rail, ports and maritime shipping, air cargo, pipelines, and trucks. In an increasingly global economy, optimizing goods movement is vital to the San Diego region’s economic competitiveness. Figure 4.6 shows the location of intermodal facilities in the region.

Caltrans developed the Global Gateways Development Program (GGDP) as a strategy to improve the capacity and efficiency of California’s goods movement system. The GGDP focused on high priority seaports, airports, international border crossings, trade corridors, major railroads, and highways. It identified access and intrastate transportation system improvements for potential federal, state, and other funding.

Currently, SANDAG is conducting a study to create a Regional Freight Strategy. With the assistance of a newly formed Freight Working Group, a more comprehensive approach addressing goods movement will be included in the next update of the RTP in 2007.

**Rail**

The Burlington Northern Santa Fe (BNSF) and the San Diego and Imperial Valley (SDIV) railroads transport rail freight in the San Diego region. BNSF maintains a freight easement over the 62 miles of coastal mainline and the 20-mile branch line between Escondido and Oceanside. The BNSF also interchanges freight with the SDIV and with the U.S. Navy. In 2004, San Diego railroads moved 2.8 million tons of freight (21,600 carloads), an overall increase of 23.2 percent over 2003. The Port of San Diego is the main generator of freight for BNSF in the I-5 corridor south of the greater Los Angeles area. Rail-borne commodities handled at the port consist of soda ash, lumber, and import automobiles.

The SDIV Railroad is a Class II Carrier or “short-haul” railroad. It has been the freight operator on the SD&AE Railway since 1984. In 2001, Carrizo Gorge Railway took over operations between Tijuana and Tecate, Baja California. Main commodities moved include liquefied petroleum gas, lumber, beverages, paper, grain, and sand.
Existing freight service between San Diego and Tecate can be extended to the Imperial Valley by rehabilitating the 70-mile Desert Line portion of the SD&AE, which has been out of service since 1983. In May 2002, the SD&AE and SDIV granted a contract to Carrizo Gorge Railway to repair, operate, and maintain the Desert Line. The connection with the Union Pacific Railroad in Imperial Valley would link San Diego and its port to the rest of the United States and Mexico and improve the region’s potential market opportunities.

A 1999 feasibility study estimated that restoration of the SD&AE Railway for basic service would cost $43 million. This will rehabilitate the Desert Line to handle single-stack intermodal traffic and “conventional” rail carload traffic such as bulk commodities. Planned basic service improvements include an intermodal transfer facility to gather and distribute potential diversions of truck traffic passing through the SD&AE’s service territory in the region. To accommodate modern service (at an additional cost of $62.4 million), the rail line would need to be improved to handle modern rail cars, including double-stack platforms and triple-deck automobile carriers, and would need to build supporting facilities including storage yards. In January 2005, the Carrizo Gorge Railway began limited freight service on the Desert Line after completing initial repairs to allow the clear passage of trains. Despite this success, full funding of the rehabilitation effort is still needed to restore the Desert Line to the proposed basic and modern service levels. The Transportation Enhancements Act for the 21st Century (TEA-21) has provided $10 million toward SD&AE improvements at the San Ysidro Intermodal Yard and for other related purposes.

Maritime Shipping
The Port of San Diego oversees and plans for the development of commerce, navigation, fisheries, and recreation within San Diego Bay and the surrounding tidelands. Maritime commerce is carried out at two marine terminals located on the San Diego Bay—the 10th Avenue Marine Terminal in San Diego and the National City Marine Terminal at 24th Street.

Together, the two marine terminals handle approximately 2.8 million tons of cargo annually². Built in the 1950s, the 10th Avenue Marine Terminal is San Diego’s general cargo terminal. It supports cool/frozen storage, break bulk, dry/liquid bulk, and small container operations. National City is the primary West Coast port of entry for Honda, Acura, Volkswagen, Audi, Porsche, Lotus, Bentley, Isuzu, Mitsubishi Fuso, and Hino Motors vehicles. In 2002, approximately 330,000 motor vehicles were handled for distribution by rail and truck throughout the United States.

² U.S. Maritime Administration, Commodity Flows Report, 2004
Recent terminal improvements, including rail infrastructure, have resulted in more than a 50 percent increase of Port maritime revenues. Lumber is another important commodity handled at the National City Marine Terminal, which is transported by barge and break bulk ships from the Pacific Northwest.

Near-term infrastructure improvements are planned for both marine terminals to increase their efficiency in handling goods. The Port of San Diego’s master and strategic plans include developing the 10th Avenue terminal incrementally into a container terminal, including the development of a multi-purpose cargo terminal, continued development of the National City terminal for storage and distribution of automobiles and lumber, and development of alternative railroad service for intermodal cargo users.

**Marine Terminal Ground Access.** Providing ground access is important to the efficient intermodal operation of the marine terminals. In 2003, the Central I-5 Corridor Study evaluated ground access improvements for both terminals. At the 10th Avenue terminal, potential improvements include a grade separation at 28th Street/Harbor Drive, improved terminal access from an elevated Harbor Drive/Crosby Street intersection, and a viaduct directly connecting I-5 to Harbor Drive, facilitating access to and from the north. In 2004, the Marine Terminal Community Committee (MTCC) proposed an alternative viaduct alignment at 32nd Street/Harbor Drive and Interstate 15. Further analysis, enabled by a Caltrans Partnership Planning Grant, will evaluate the potential alignments of the viaduct, working with the community to minimize local impacts and select a preferred alignment. Proposed projects at the National City terminal include improvements at Civic Center Drive and Bay Marina Drive (24th Street) interchanges, along with an extension of Tidelands Boulevard to Harbor Drive.

**Air Cargo**

Most air cargo in the San Diego region is handled through San Diego International Airport (SDIA), although a small percentage of it is handled at other general aviation airports. Air cargo activity has grown rapidly at SDIA, increasing at an average annual rate of 8.5 percent from 1980 to 2002. In 2003, SDIA handled 155,000 tons of air cargo, which is typically divided into air freight and air mail. Air freight, including express and small packages, constitutes 80 percent air cargo. Air mail is the other 20 percent. Assuming a range of growth percentages, the 2004 SDIA Airport Activity Forecast projects air cargo tons to reach between 487,000 and 622,000 tons by 2030.
Figure 4.6
INTERMODAL/FREIGHT FACILITIES
December 2005

Rail Line
- Major Yard Facility
- Current Ports of Entry
- Potential Future Ports of Entry

Marine Cargo Terminal
Cruise Ship Terminal
International Airport

MILES
0  3  6  9
KILOMETERS
0  4.83  9.6  14.4
SDIA’s three air cargo terminals house two freight forwarders, Burlington Air Express and LEP Profit International Airlines, and United Airlines and Southwest Air cargo operations. Other air freight operators include Federal Express, Emery Air Freight, United Parcel Service, Airborne Express, Burlington Air Express, and Ryan International. Outbound cargo is sorted and containerized off-site, and then trucked to the airport and loaded directly on the aircraft. Similarly, inbound cargo is loaded directly onto trucks from the aircraft and sorted off-site. The Global Gateways Development Program identified San Diego International Airport as one of the priority global gateways in California. Ground access to SDIA is discussed under the Aviation section later in the chapter.

Commercial Trucking
In the San Diego region, Interstates 5, 805, and 15 are the major north-south corridors that accommodate commercial trucks, while Interstate 8 and State Routes 94/125, and 905/Otay Mesa Road are the region’s primary east-west truck corridors. These north-south and east-west corridors serve both domestic and international trade routes.

The Revenue Constrained Plan includes several improvements that will benefit the major commercial vehicle corridors. Major capital improvements are slated for Interstates 5, 8, 15, and 805, and State Routes 11, 94, 125, and 905 (see earlier Table 4.4). These include widening projects to accommodate Managed/HOV and general purpose lanes to improve mobility, accessibility, and contribute to more reliable travel times for commercial trucks in addition to the region’s commuters. All the above highways were identified in the GGDP as priority global gateways in California.

AVIATION

The existing airport system in the San Diego region is composed of 16 airports, including one major commercial facility (San Diego International Airport), four military airports, and 11 general aviation airports. Table 4.6 lists the commercial and general aviation airports in the region.

Airport Planning. The Airport Site Selection Program is currently evaluating long-term solutions to meet projected 2030 commercial air passenger and air cargo demand in the San Diego region. Another important program objective is to maximize for the region the potential economic benefit of meeting the air service demand. The program is being conducted by the San Diego County Regional Airport Authority (SDCRAA), the regional government entity with jurisdiction over airport planning.

The Airport Site Selection Program is evaluating long-term solutions to meet projected 2030 commercial air passenger and air cargo demand in the San Diego region. The San Diego County Regional Airport Authority is scheduled to take a proposed solution to the voters in November 2006.
The projected figures for air passenger and air cargo demand cannot be accommodated at San Diego International Airport, given its limited options for expansion.

The Airport Economic Analysis, conducted in 2001, quantified the role that San Diego International Airport (SDIA) plays in the regional economy. The report estimated that the region's economy could miss out on $29.6 billion to $93.8 billion of Gross Regional Product by 2030 if airport facilities fall short of meeting the regional demand for air passenger and air cargo services.

Unconstrained passenger demand would roughly double over today's volume, estimated as high as 32.7 million in 2030. Unconstrained cargo demand would grow more quickly, reaching 622,000 tons by 2030. Freight volumes continued to increase over the last five years, and passenger volumes have surpassed the levels reached before September 2001.

The projected figures for air passenger and air cargo demand cannot be accommodated at SDIA, given its limited options for expansion. This includes potential on-site improvements under consideration as the Airport Authority prepares an Airport Master Plan for SDIA. The Airport Master Plan and EIR are scheduled for release in 2006. Pending completion of the Airport Site Selection Program and the result of the future ballot measure, the networks in the 2006 Revenue Constrained Plan assume that SDIA will continue to serve as the region's primary commercial airport. Future RTP updates will incorporate the region's decision on a regional airport solution.

**SDIA Ground Access.** Providing ground access is critical to the successful operation of the airport. The primary access to the terminals on the south side of SDIA is via North Harbor Drive. The updated Airport Master Plan is now being prepared by the Airport Authority, and focuses on expanded facilities at the existing south terminals. The Airport Master Plan also will address improved local circulation, as traffic congestion is one of the first critical issues the growing airport must overcome.

Longer-term ground access improvements to SDIA were evaluated in the Central I-5 Corridor Study. Recommended improvements included direct freeway ramps from I-5 to Pacific Highway, exclusive bus/HOV lanes between the Old Town Transit Center and the airport, and intersection upgrades on Laurel Street. These improvements should be reevaluated, as they were based on earlier Airport Master Plan layouts that included a new north terminal on Pacific Highway. Any future recommendations from the Airport Authority regarding alternative airport sites will be incorporated into future regional network analyses, as appropriate.
<table>
<thead>
<tr>
<th>AIRPORT</th>
<th>TYPE</th>
<th>OWNER</th>
<th>MASTER PLAN DATE</th>
<th>CAPACITY EXPANSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agua Caliente Springs Airport</td>
<td>General Aviation</td>
<td>County of San Diego</td>
<td>None</td>
<td>None planned</td>
</tr>
<tr>
<td>Borrego Valley Airport</td>
<td>General Aviation</td>
<td>County of San Diego</td>
<td>1995</td>
<td>None planned</td>
</tr>
<tr>
<td>Brown Field</td>
<td>General Aviation</td>
<td>City of San Diego</td>
<td>1980</td>
<td>On hold</td>
</tr>
<tr>
<td>Fallbrook Community Airpark</td>
<td>General Aviation</td>
<td>County of San Diego</td>
<td>Adoption Pending early 2005</td>
<td>None planned</td>
</tr>
<tr>
<td>Gillespie Field Airport</td>
<td>General Aviation</td>
<td>County of San Diego</td>
<td>Late 2005 (expected completion)</td>
<td>None planned</td>
</tr>
<tr>
<td>Jacumba Airport</td>
<td>General Aviation</td>
<td>County of San Diego</td>
<td>None</td>
<td>None planned</td>
</tr>
<tr>
<td>McClellan-Palomar Airport</td>
<td>Commercial and General Aviation</td>
<td>County of San Diego</td>
<td>1997 Revalidated May 2004</td>
<td>None planned</td>
</tr>
<tr>
<td>Montgomery Airport</td>
<td>General Aviation</td>
<td>City of San Diego</td>
<td>1980 (Adoption of updating pending – late 2005)</td>
<td>None planned</td>
</tr>
<tr>
<td>Oceanside Municipal Airport</td>
<td>General Aviation</td>
<td>City of Oceanside</td>
<td>1994</td>
<td>None planned</td>
</tr>
<tr>
<td>Ocotillo Airport</td>
<td>General Aviation</td>
<td>County of San Diego</td>
<td>None</td>
<td>None planned</td>
</tr>
<tr>
<td>Ramona Airport</td>
<td>General Aviation</td>
<td>County of San Diego</td>
<td>Prepared 1994; never adopted</td>
<td>Extend runway to accommodate firefighting aircraft</td>
</tr>
<tr>
<td>San Diego International Airport</td>
<td>Commercial and General Aviation</td>
<td>San Diego County Regional Airport Authority</td>
<td>1998 (update in progress)</td>
<td>Various</td>
</tr>
</tbody>
</table>
CHAPTER 4
SYSTEMS DEVELOPMENT: MORE TRAVEL CHOICES

REGIONAL BIKEWAYS

Most neighborhood bicycle trips can be accommodated on local streets where traffic volumes are lower and vehicle speeds are slower. However, converting a higher share of both community and intercommunity trips to bicycling will require improvements to the region’s bikeway network.

While all roadways are open to bicycle travel unless it is specifically prohibited, the California Highway Design Manual establishes three classifications of facilities specifically for bicycle traffic as shown in Table 4.7. The Revenue Constrained Plan includes an intercommunity bikeway network that is a combination of these facility types.

Bicycle Facility Types. Table 4.8 and Figure 4.7 show the planned regional bikeway corridors network. The purpose of the network is to connect all the major communities in the region with convenient and attractive bikeways. The network was designed to ensure that all high-demand corridors are covered, and that there is good bike access to the transit system of the future. Where adequate bikeways currently exist, or where projects currently are being developed, Figure 4.7 depicts the bikeway’s alignment. In some cases however, only the need for bikeway improvements has been identified. In that case, only a general corridor is depicted. Where local jurisdictions have adopted bicycle transportation plans, the bikeways in the network were based on those plans. Where no plan exists, the corridors were selected in consultation with local agency staff.

<table>
<thead>
<tr>
<th>FACILITY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike Path (Multi-Use Trail), Class I</td>
<td>An 8- to 12-foot paved path within its own right-of-way to provide a non-motorized connection or access where it cannot be provided on the roadway.</td>
</tr>
<tr>
<td>Bike Lanes, Class II</td>
<td>Five-foot lanes striped on the outside of the roadway and identified with signs and pavement markings.</td>
</tr>
<tr>
<td>Bike Route, Class III</td>
<td>Roads designated by signs as preferred routes for bicycle travel.</td>
</tr>
<tr>
<td>BIKEWAY</td>
<td>AREAS SERVED</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Coastal Rail Trail</td>
<td>Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, and San Diego</td>
</tr>
<tr>
<td>Camp Pendleton Trail</td>
<td>Oceanside to San Clemente</td>
</tr>
<tr>
<td>I-15 Bikeway</td>
<td>Riverside County to Mid-City San Diego</td>
</tr>
<tr>
<td>San Luis Rey River Trail</td>
<td>North Oceanside from the Beach to SR 76</td>
</tr>
<tr>
<td>Inland Rail Trail</td>
<td>Escondido, San Marcos, Vista, Oceanside, and adjacent unincorporated areas</td>
</tr>
<tr>
<td>Palomar Airport Road/</td>
<td>Carlsbad to San Marcos</td>
</tr>
<tr>
<td>San Marcos Blvd.</td>
<td></td>
</tr>
<tr>
<td>La Costa Ave./Rancho Santa Fe Road</td>
<td>Encinitas to San Marcos</td>
</tr>
<tr>
<td>El Camino Real Corridor</td>
<td>Oceanside, Carlsbad, Encinitas, and Solana Beach</td>
</tr>
<tr>
<td>Escondido Creek Bikeway</td>
<td>Escondido</td>
</tr>
<tr>
<td>Mid-County Bikeway</td>
<td>Del Mar, San Diego, Rancho Santa Fe, and Escondido</td>
</tr>
<tr>
<td>SR 56 Bikeway</td>
<td>San Diego and Poway</td>
</tr>
<tr>
<td>Scripps Poway Parkway</td>
<td>Scripps Ranch, Poway</td>
</tr>
<tr>
<td>Central Coast Corridor</td>
<td>Torrey Pines, La Jolla, Pacific Beach, Mission Beach, Mission Bay, Point Loma, and Downtown San Diego</td>
</tr>
<tr>
<td>SR 52 Bikeway</td>
<td>Clairemont, Kearny Mesa, Santee</td>
</tr>
<tr>
<td>San Diego River Bikeway</td>
<td>Ocean Beach, Mission Valley, Mission Trails Regional Park, Santee</td>
</tr>
<tr>
<td>East County - Centre City Corridor</td>
<td>La Mesa, Mid-City, North Park, Downtown San Diego</td>
</tr>
<tr>
<td>SR 94 Corridor Bikeway</td>
<td>Lemon Grove, Mid-City, Downtown San Diego</td>
</tr>
<tr>
<td>SR 125 Corridor</td>
<td>Santee, La Mesa, Lemon Grove, Bonita, Chula Vista, Otay Mesa</td>
</tr>
<tr>
<td>Sweetwater River Bikeway</td>
<td>Chula Vista, National City, Bonita</td>
</tr>
<tr>
<td>SR 54 Bikeway</td>
<td>Lakeside, El Cajon, Rancho San Diego, Spring Valley</td>
</tr>
<tr>
<td>I-8 Corridor</td>
<td>Lakeside to Imperial County</td>
</tr>
<tr>
<td>Bayshore Bikeway</td>
<td>San Diego, Coronado, National City, Chula Vista, and Imperial Beach</td>
</tr>
<tr>
<td>Chula Vista Greenbelt</td>
<td>Otay River, Chula Vista, Otay Lakes</td>
</tr>
<tr>
<td>SR 905 Corridor</td>
<td>Otay Mesa, International Border</td>
</tr>
</tbody>
</table>
CHAPTER 4
SYSTEMS DEVELOPMENT: MORE TRAVEL CHOICES

IMPROVING NON-MOTORIZED ALTERNATIVES

Bicycling and walking are quintessentially local modes of transportation, but both can play a part in the region’s transportation network. Nearly 40 percent of all home-to-work trips could be made in about 30 minutes by bicycle, and 40 percent of home-based trips not associated with work are within ten minutes by bike.

Making the region’s transportation network more accessible will require an expanded financial commitment to bicycling and walking infrastructure. Some improvements can be accomplished relatively easily when new streets are built or old ones are reconstructed. However, some parts of the region’s transportation network will need to be retrofitted without the benefit of a major reconstruction. Financing these improvements is one of the challenges that the region faces.

Planning and Designing for Pedestrians
SANDAG recently took a significant step toward establishing more walkable communities when it adopted Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region (June 2002). This document provides guidance on a wide range of factors affecting walkability such as:

- Providing a mix of land uses within communities that makes more destinations accessible on foot
- Building interconnected street networks that provide more direct access
- Designing streets that connect a community rather than divide it
- Street crossing designs and traffic calming measures that create a more pedestrian-friendly street environment while minimizing the impact to traffic flow
- Streetscapes designed to a pedestrian scale, and site layouts that encourage pedestrian access
- Sidewalk design that provides space for the variety of functions the sidewalk must perform

Ideally, this type of development should be focused along transit corridors and around transit hubs.

SANDAG will assist member agencies in developing policies that facilitate implementation of these developments. In addition, regional transportation funding decisions will be influenced by how well the transportation projects and related land uses accommodate bicycling and walking.
Access to Public Transit

The principles in Planning and Designing for Pedestrians support the region’s goals for improving access to public transit. Mixed land use and network connectivity make it easier for public transit to efficiently take people where they want to go. Well-designed sidewalks and crosswalks make walking to and from transit more attractive. The guidelines show how to do this, and how to incorporate transit stops into pedestrian walkways so there will be room for both.

Bicycle Facilities and Access

Communities that support walking as a means of access usually are bicycle-friendly communities as well. The mix of land uses bring more destinations into easy bicycling range where the bicycle can fill the gap between destinations that can be reached on foot and those that would require a transit or auto trip. Calming traffic on pedestrian-oriented streets usually makes them more attractive places to ride a bike.

Beyond these improvements, bicycle access is improved where the road network provides space for bicyclists and road surfaces are well-maintained. Where the street network cannot adequately serve bicyclists, separate bike paths should be built. These bike paths or trails also can provide access for pedestrians. Also important are adequate bike parking and other support facilities and ongoing education and promotional programs.

Bike Parking. Bicycle theft is one of the deterrents to bicycle travel, but it can be overcome by providing quality bicycle parking facilities. Fortunately, good bicycle parking can be provided at a very modest cost. In contrast, poor quality bike parking is often underutilized because it is either inconvenient, does not effectively secure the bike, or both. Through its Bicycle-Pedestrian Working Group, SANDAG has developed bicycle parking guidelines that should be disseminated and adopted around the region. For bicycle commuting trips, employers should be encouraged to provide bike lockers or other high-security parking.

On-Demand Bike Lockers. On-demand bicycle lockers allow bicycle commuters to use any locker at a given site on a first-come, first-served basis. Such lockers are being pilot tested for consideration for new and replacement installations of the region’s existing bicycle lockers. These state-of-the-art lockers use electronic keys, allow multiple users the opportunity to use the same locker, and have the ability to provide information about utilization and demand. The potential benefits of the on-demand lockers include reduced program administration costs, reduced inappropriate usage of the lockers, and increased utilization. In addition, the total number of lockers required at any given site may be reduced as the number of lockers required only needs to meet the peak demand. Currently a locker is provided for every registered user, regardless of how often that person uses it. Upon successful completion of the pilot program, the entire system could be converted as old lockers reach the end of their useful life.
Support facilities such as clothing lockers and showers greatly enhance the experience of bicycling to and from the workplace and also serve to encourage employees to consider bicycling as a viable commute choice. Where employment density warrants, local agencies should consider policies that encourage building owners and employers to provide clothing lockers and showers for their employees to accommodate longer bike trips.

Bicycle Education. The most frequently cited reason for not riding a bicycle is concern for personal safety. This is understandable since bicyclists are very vulnerable in collisions with motor vehicles. However, education on proper bicycle riding can significantly improve the bicyclist’s safety, which, in turn, can help to overcome some of this resistance. Since there is no regionwide bicycle safety education program, efforts should be made to make bicycle safety information available to both adults and children. Bicycle education for children should be provided through the schools. Instituting an ongoing program in the schools will likely require development of a teacher training program. Effective programs that can serve as a model have been instituted in Texas and Nevada. Opportunities also may exist to distribute bicycle safety materials to adults in conjunction with campaigns that promote alternatives to driving alone, but a program will have to be developed and funding sources will have to be identified for such an effort. To further encourage both bicycling and walking, the Revenue Constrained Plan also continues support for the SANDAG/RideLink annual Bike to Work Day and support for events like the annual Walk Your Child to School Day.

Bicycle and Pedestrian Program Funding
Financing bicycle and pedestrian projects, and providing incentives for community designs that support these modes, is one of the challenges facing the region. Often, no separate funding for these improvements is required when bicycle and pedestrian infrastructure improvements are included as part of a larger transportation project. However, there are many communities in the region that would benefit from improved bicycle and pedestrian facilities that do not anticipate new construction or major redevelopment. Financing improvements in these areas is often difficult. The annual revenues from the Transportation Development Act for bicycle and pedestrian projects (currently about $2.5 million), and the $1 million in annual TransNet funds set aside for bicycle projects, provide less than half the funds requested in each annual funding cycle.

However, there are no completed pedestrian plans, and some of the bicycle transportation plans so old they need to be updated. This makes it difficult to estimate the full cost of meeting the region’s needs to support bicycling and walking. However, based on existing bicycle transportation plans, ongoing planning and design efforts for major regional bikeway projects, and historical experience regarding the annual demand for bicycle and pedestrian funding, current bicycle project needs for the region are at least $332 million.
ACTIONS

The following actions support the Revenue Constrained Plan’s Systems Development Chapter recommendations.

## SYSTEMS DEVELOPMENT

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional Network and Systems</strong> – The following proposed actions support the RTP goals of Mobility and Accessibility.</td>
<td></td>
</tr>
<tr>
<td>1. Maintain evaluation criteria for prioritizing highway, regional transit, and arterial projects, and update these criteria to better reflect the goals of the RTP, as needed.</td>
<td>SANDAG</td>
</tr>
<tr>
<td>2. Allocate regional funds to transportation projects, programs, and services based on established criteria, which provide priority to implementing smart growth, the TransNet Early Action Program, and other SANDAG Board policies.</td>
<td>SANDAG</td>
</tr>
<tr>
<td><strong>Regional Transit Vision</strong> – The following proposed actions support the RTP goals of Mobility, Accessibility, Reliability, Livability, Sustainability, and Equity.</td>
<td></td>
</tr>
<tr>
<td>3. Implement appropriate transit priority measures on local streets and regional arterials such as signal priority or queue jumper lanes for transit vehicles.</td>
<td>Local jurisdictions, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>4. Fund regional program to develop early action transit projects, pursue additional revenue sources to match regional program, and develop a prioritized list of projects for consideration in future funding cycles.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>5. Fund regional rail grade separation program, pursue additional revenue sources to match regional program, and adopt prioritization criteria to identify regional priorities.</td>
<td>SANDAG, MTS, NCTD, &amp; Caltrans</td>
</tr>
<tr>
<td>6. Determine the transit alignment, identify station locations, and select the appropriate technology, as required, for the regional transit services as prioritized in the RTP.</td>
<td>SANDAG, MTS, NCTD, &amp; Caltrans</td>
</tr>
<tr>
<td>7. Secure future rights-of-way and pursue implementation of improved transit services, including early action projects, as opportunities occur.</td>
<td>SANDAG, MTS, NCTD, &amp; Caltrans</td>
</tr>
<tr>
<td>8. Refine design guidelines for transit stations to incorporate customer features, bicycle and pedestrian access, and other design considerations.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>9. Consistent with the priorities identified in the RTP, expand fixed route services into developing areas when sufficient density and funding exist to make service cost-effective, enhance transit service to existing developed areas, and provide feeder services to new rail stations.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
</tbody>
</table>
# Systems Development: More Travel Choices

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Annually update the regional short-range transit plans (RSRTP), and implement service productivity, reliability, and efficiency improvements.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>11. Implement the service productivity and other recommendations from the performance audit process of the Transportation Development Act.</td>
<td>SANDAG, MTS, NCTD, &amp; other transit operators</td>
</tr>
<tr>
<td>12. Conduct study of existing public/private funding partnerships for transit services nationwide. Identify applicable partnerships for the San Diego region.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>13. Evaluate parking demand and needs at major transit stations in the region.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>14. Identify private and public funding sources and market the potential for smart growth/joint development of transit parking structures and other improvements.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
</tbody>
</table>

### Commuter, Intercity, and High-Speed Rail

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Finalize the programmatic environmental impact report/environmental impact statement for conventional rail improvements in the Los Angeles to San Diego coastal rail corridor.</td>
<td>Caltrans, SANDAG, NCTD, &amp; MTS</td>
</tr>
<tr>
<td>16. Support efforts to secure federal and state funding to improve and expand the LOSSAN intercity passenger rail services.</td>
<td>SANDAG, MTS, NCTD, Amtrak, &amp; Southern California Rail Agencies</td>
</tr>
<tr>
<td>17. Proceed with project-level environmental studies, design, and implementation of double tracking, and other rail improvement projects in the coastal rail corridor.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>18. Coordinate with efforts of the California High-Speed Rail Authority for high-speed passenger rail service on the inland I-15 corridors.</td>
<td>SANDAG, California High-Speed Rail Authority, MTS, NCTD, &amp; Riverside County Transportation Commission</td>
</tr>
<tr>
<td>19. Continue to coordinate coastal rail efforts with the LOSSAN member agencies and explore new initiatives, such as the COASTER-Amtrak-Caltrans Rail-2-Rail program.</td>
<td>SANDAG, MTS, NCTD, Caltrans, &amp; Amtrak</td>
</tr>
</tbody>
</table>
## SYSTEMS DEVELOPMENT

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accessible Transit</strong></td>
<td></td>
</tr>
<tr>
<td>20. Improve accessibility of transit stops and walkways to stops for persons with disabilities and identify potential funding programs for these improvements.</td>
<td>SANDAG, MTS, NCTD, &amp; Local Jurisdictions</td>
</tr>
<tr>
<td>21. Improve connections and transfers between paratransit and fixed-route transit operations.</td>
<td>SANDAG, MTS, NCTD, Paratransit Operators, &amp; Coordinated Transportation Service Agency</td>
</tr>
<tr>
<td>22. Facilitate efforts to promote coordination among fixed-route and paratransit operators and non-profit agencies in the region.</td>
<td>SANDAG, MTS, NCTD, Paratransit Operators, &amp; Coordinated Transportation Service Agency</td>
</tr>
<tr>
<td>23. Continue educational efforts on use of transit and accessibility equipment among persons with disabilities.</td>
<td>SANDAG, MTS, &amp; NCTD</td>
</tr>
<tr>
<td>24. Continue to use SANDAG’s Subcommittee on Accessible Transportation (SCAT) to recognize the changing transit needs of seniors and persons with disabilities, including those too frail to access traditional fixed route and ADA paratransit services. Assist with solutions development.</td>
<td>SANDAG, MTS, NCTD, Paratransit Operators, &amp; Coordinated Transportation Service Agency</td>
</tr>
<tr>
<td>25. Utilize recommendations made in the June, 2000, Senior Transportation Study commissioned by SANDAG to implement projects addressing the needs of the aforementioned transportation disadvantaged populations.</td>
<td>SANDAG, MTS, NCTD, Paratransit Operators, &amp; Coordinated Transportation Service Agency</td>
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</tbody>
</table>

Highways and Arterials - The following proposed actions support the RTP goals of Mobility, Reliability, Efficiency, and Sustainability.

<table>
<thead>
<tr>
<th>Proposed Actions</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. Incorporate planned highway network identified in the RTP into local general plans, community plans, and specific project development plans, and reserve appropriate right-of-way through the subdivision review process and other means.</td>
<td>Local Jurisdictions</td>
</tr>
<tr>
<td>27. Develop Project Study Reports (PSRs) in accordance with the priorities identified in the RTP.</td>
<td>Caltrans</td>
</tr>
<tr>
<td>Proposed Actions</td>
<td>Responsible Parties</td>
</tr>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>28. Provide operational and other improvements, such as auxiliary and passing lanes where appropriate, to improve safety and to maximize the efficiency of highways and arterials. Fund regional program to relieve highway “pinch points,” pursue additional state and federal funding to match regional program, and develop a prioritized list of potential projects for consideration in future funding cycles.</td>
<td>SANDAG, Caltrans, &amp; Local Jurisdictions</td>
</tr>
<tr>
<td>29. Implement signal timing programs along the designated Regional Arterial System, and improve traffic signal operations by interconnecting signalized intersections under centralized control, and by coordinating with ramp signal systems at freeway interchanges.</td>
<td>SANDAG &amp; Local Jurisdictions</td>
</tr>
<tr>
<td>30. Develop guidelines to ensure that all regionally funded transportation projects preserve or enhance existing non-motorized access, and provide for appropriate access where such facilities are planned.</td>
<td>SANDAG, in cooperation with Local Jurisdictions</td>
</tr>
<tr>
<td><strong>Borders, Goods Movement, and Intermodal Facilities – The following proposed actions support the RTP goals of Mobility, Accessibility, Efficiency, and Reliability.</strong></td>
<td></td>
</tr>
<tr>
<td>31. Complete I-15 Interregional Partnership Program (IRP) and incorporate IRP recommendations, as appropriate, into development of future RTPs.</td>
<td>SANDAG, Western Riverside Council of Governments, Caltrans, &amp; other local agencies</td>
</tr>
<tr>
<td>32. Evaluate the development of other interregional partnerships with other neighboring counties and Mexico to address land use and transportation needs.</td>
<td>SANDAG &amp; other agencies</td>
</tr>
<tr>
<td>33. Secure funding for needed transportation infrastructure in the region’s border areas and coordinate the implementation of border-related capital and operating improvements with the federal General Services Administration (GSA).</td>
<td>Caltrans, SANDAG, City of San Diego, County of San Diego, GSA, &amp; Mexico</td>
</tr>
<tr>
<td>34. Identify public and private funds and partnerships to reopen the Desert Line of the SD&amp;AE Railway for revenue service.</td>
<td>SANDAG &amp; MTS</td>
</tr>
<tr>
<td>35. Encourage off-peak use of rail capacity for rail freight movement, and evaluate using Managed/HOV facilities for goods movement during off-peak periods.</td>
<td>NCTD &amp; MTS (owners of rail rights-of-way within the region), Caltrans, &amp; SANDAG</td>
</tr>
<tr>
<td>36. Review the potential for consolidating intermodal rail, truck, and air cargo freight terminals at specific staging areas.</td>
<td>Caltrans, SANDAG, Port of San Diego, MTS, and Shippers</td>
</tr>
<tr>
<td>Proposed Actions</td>
<td>Responsible Parties</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Aviation – The following proposed actions support the RTP goals of Mobility and Efficiency.</td>
<td></td>
</tr>
<tr>
<td>37. Complete the technical studies for the Airport Site Selection Program and, in 2006, place an advisory proposition on the countywide ballot regarding a proposed regional airport solution(s).</td>
<td>San Diego County Regional Airport Authority (SDCRAA)</td>
</tr>
<tr>
<td>38. Adopt and implement the Airport Master Plan for San Diego International Airport (SDIA) in order to meet capacity needs over the next 20 years.</td>
<td>SDCRAA</td>
</tr>
</tbody>
</table>
SANDAG implemented a public communications and outreach plan for the 2006 Revenue Constrained Plan to secure input from stakeholders on the update and to start the process for early and ongoing input into the comprehensive RTP update in 2007. The activities for the 2006 update of the 2030 Revenue Constrained Plan included:

- Developed dedicated Web page that was regularly updated with RTP information and announcements.
- Distributed information, requests for comment, public meeting announcements via Web site, and electronic updates.
- Provided announcements in monthly reGion newsletter, monthly Board Actions, regional and community newspapers, and other publications.
- Distributed/presented information at Policy committee meetings: Transportation Committee, Regional Planning Committee, Borders Committee, SANDAG Board of Directors meetings.
- Distributed/presented information at the Regional Planning Stakeholders Working Group, the Cities/County Transportation Advisory Committee, the Regional Planning Technical Working Group, and the San Diego Conformity Working Group meetings.
- Promoted 2006 Update at speaking engagements with business, community, and other stakeholder groups.
- Responded to requests for speakers.
APPENDIX B
AIR QUALITY PLANNING AND TRANSPORTATION CONFORMITY

BACKGROUND

The federal Clean Air Act (CAA), which was last amended in 1990, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. California has adopted state air quality standards that are more stringent than the NAAQS. Areas with levels that exceed the standard for specified pollutants are designated as non-attainment areas.

The U.S. EPA requires that each state containing non-attainment areas develop plans to attain the NAAQS by a specified attainment deadline. These attainment plans are called State Implementation Plans. The San Diego County Air Pollution Control District (APCD) prepares the San Diego portion of the California State Implementation Plan (SIP). Once the standards are attained, further plans—called Maintenance Plans—are required to demonstrate continued maintenance of the NAAQS.

SANDAG and the U.S. Department of Transportation (DOT) must make a determination that the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP) conform to the SIP for air quality. Conformity to the SIP means that transportation activities will not create new air quality violations, worsen existing violations, or delay the attainment of the national ambient air quality standards.

On March 28, 2003, the SANDAG Board of Directors made a finding of conformity of the 2030 Revenue Constrained RTP and adopted this Plan. The U.S. DOT made its conformity determination on April 9, 2003. The 2004 RTIP was found in conformity with the SIP by the SANDAG Board of Directors and by the U.S. DOT on July 23, 2004, and on October 4, 2004, respectively.

On April 15, 2004, the U.S. EPA designated the San Diego air basin as non-attainment for the new 8-hour ozone standard. This designation took effect on June 15, 2004. The air basin has been classified as a basic non-attainment area under Subpart 1 of the Clean Air Act, and the attainment date for the 8-hour ozone standard is June 15, 2009. Several areas that are tribal lands in eastern San Diego County were excluded from the non-attainment designation. As shown in Figure B.1 on page 99, La Posta Areas #1 and #2, Cuyapaipe, Manzanita, and Campo Areas #1 and #2 are attainment areas for the 8-hour ozone NAAQS. In cooperation with the San Diego APCD and SANDAG, the California Air Resources Board (ARB) must develop an 8-Hour Ozone Attainment Plan for submission to the U.S. EPA by June 15, 2007.

The Final Transportation Conformity Rule Amendments for the New 8-Hour Ozone and PM2.5 National Ambient Air Quality Standards of July 2004 require that conformity of the RTP and the RTIP for non-attainment areas be determined to the 8-hour ozone standard by June 15, 2005. The SANDAG Board of Directors made a finding of conformity of the 2030 RTP and 2004 RTIP, as amended, on April 22, 2005. The U.S. Department of Transportation (DOT) issued its conformity finding on May 20, 2005.

The San Diego region also has been designated by the U.S. EPA as a federal maintenance area for the carbon monoxide (CO) standard. On November 8, 2004, ARB submitted the 2004 Revision to the California State Implementation Plan for Carbon Monoxide to the U.S. EPA for approval. Conformity of transportation plans and programs must be redetermined to the new CO budget included in the Plan once the U.S. EPA approves the SIP revision. Approval is anticipated in January 2006.

On December 17, 2004, the U.S. EPA designated the San Diego region as a non-attainment area for PM2.5. However, on April 5, 2005, the U.S. EPA modified the designation status of the San Diego air basin to attainment, based on monitoring data for the three-year period of 2002 to 2004.

TRANSPORTATION CONFORMITY: REGIONAL EMISSIONS ANALYSIS AND MODELING PROCEDURES

Introduction

SANDAG has updated the Revenue Constrained Plan to conduct the required air quality conformity analysis within a three-year cycle. Conformity of the 2030 RTP expires on April 9, 2006. Chapter 3 provides information on revenue assumptions and Chapter 4 describes the 2006 Revenue Constrained Plan.

Growth Forecasts

Every three to five years, SANDAG produces a long-range forecast of population, housing, and employment growth for the San Diego region. The most recent is the Final 2030 Regional Growth Forecast, which was accepted by the SANDAG Board of Directors on December 19, 2003, for use in planning studies.

The forecast process relies on three integrated forecasting models. The first one, the Demographic and Economic Forecasting Model (DEFM), provides a detailed econometric and demographic forecast for the entire region. The second one, the Interregional Commuting Model, provides a forecast of commuting between the San Diego region, southwest Riverside County, and Tijuana/Northern Baja California. The third one, the Urban Development Model, allocates the results of the first two models to subregional areas based upon the current plans and policies of the jurisdictions.

The Final 2030 Regional Growth Forecast is based solely on the adopted general plans and community plans and policies of the 18 cities. For the unincorporated area, the forecast is based on the most recent (December 2002) version of the County’s GP2020 plan update, as directed by the Board of Supervisors.

In July 2005, SANDAG consulted with the San Diego Region Conformity Working Group (CWG) on the use of the Final 2030 Regional Growth Forecast for the air quality conformity analysis of the 2006 Revenue Constrained Plan. Previously, both U.S. DOT and U.S. EPA concurred that approved plans should be used as input in the air quality conformity process. Table B.1 shows the regional population and employment growth forecast for the San Diego region through 2030.
TABLE B.1—SAN DIEGO REGIONAL POPULATION AND EMPLOYMENT FORECAST

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2,813,833</td>
<td>1,384,676</td>
</tr>
<tr>
<td>2010</td>
<td>3,211,721</td>
<td>1,528,522</td>
</tr>
<tr>
<td>2020</td>
<td>3,528,605</td>
<td>1,672,883</td>
</tr>
<tr>
<td>2030</td>
<td>3,855,085</td>
<td>1,824,030</td>
</tr>
</tbody>
</table>

Source: SANDAG, December 2003

Transportation Modeling

SANDAG follows a widely used four-step transportation modeling process of trip generation, trip distribution, mode choice, and assignment to forecast travel activity in the San Diego region. After trip generation, several iterations through the trip distribution, mode choice, and assignment steps are made to bring travel demand into equilibrium with supply. Finally, travel model results are combined with additional input and output functions to form the complete modeling chain. Travel forecasting procedures are described in more detail in SANDAG’s Final 2030 Forecast Process and Model Documentation (April 2004) and the Addendum to Transportation Model Documentation (June 2005).

The estimates of regional transportation related emissions analysis meet the requirements established in the Transportation Conformity Rule, Sections 93.122(b) and 93.122(c). These requirements relate to the procedures to determine regional transportation-related emissions, including the use of network based travel models, methods to estimate traffic speeds and delays, and the estimation of vehicle miles of travel.

TransCAD is the transportation planning computer package used by SANDAG to provide a framework for performing much of the computer processing involved with modeling. Another software package used extensively in the modeling process is ArclInfo. This geographic information system (GIS) maintains, manipulates, and displays transportation, land use, and demographic data. SANDAG has written numerous programs that provide a linkage between TransCAD and ArclInfo. Other programs manipulate data and perform some modeling functions such as trip generation and mode choice.

A number of data files and surveys are used to calibrate the transportation models. These include:

- 1995 Travel Behavior Survey
- 2001 Caltrans Statewide Travel Survey
- 2001-2003 San Diego Regional Transit Survey
- External Trip Surveys
- Traffic Generation Studies
- 1991 San Diego Visitor Survey
- 2000 Census Transportation Planning Package
In addition to model parameters derived from these surveys, there are three major inputs to the transportation models:

- growth forecast inputs used to describe existing and planned land use patterns and demographic characteristics
- highway networks used to describe existing roadway facilities and planned improvements to the roadway system
- transit networks used to describe existing and planned public transit service

**Highway Networks**

The regional highway networks in the 2006 Revenue Constrained Plan include all roads classified by local jurisdictions in their General Plan circulation elements. These roads include freeways, expressways, and the Regional Arterial System (RAS). The RAS consists of all conventional state highways, prime arterials, and selected major streets. In addition, some local streets are included in the networks for connectivity between zones.

The route improvements and additions in the 2006 Revenue Constrained Plan are developed to provide adequate travel service that is compatible with adopted regional policies for land use and population growth. All regionally significant projects are included in the quantitative emissions analysis. These include all state highways, all proposed National Highway System routes, all regionally significant arterials, and all FHWA functionally classified “Other Principal Arterials.”

The networks also account for programs intended to improve the operation of the highway system, including high-occupancy-vehicle (HOV) lanes and ramp metering. Existing and proposed toll facilities also are modeled to reflect time, cost, and capacity effects of these facilities. The SR 125 South project and SR 241 are the only modeled toll facilities in the San Diego region.

In addition, several managed/HOV lanes are included in the Revenue Constrained Plan. Facilities with proposed managed lanes include I-5, I-15, I-805, and SR 52. Managed lanes are defined as reversible HOV routes and HOV routes with two or more lanes in the peak direction. It is assumed that the excess capacity not utilized by carpools and transit on these facilities would be managed so that single-occupant vehicles could use these lanes under a pricing mechanism. Traffic flows would be managed so that the facility would operate at level of service C or better.

Based on the networks and programs described above, the transportation forecasts of the 2006 Revenue Constrained Plan differentiate between four highway modes: drive alone/non-toll, drive alone/toll, shared ride/HOV, and shared ride/non-HOV.

SANDAG normally maintains networks for 2000 (the 2030 Regional Growth Forecast base year) and the years 2010, 2020, and 2030. A 2014 network also was created to conduct air quality conformity analyses of the 2006 Revenue Constrained Plan to the 2014 1-hour ozone emissions budgets. Additionally, a base year 2002 network and a 2009 network were created to conduct the interim emissions test for the 8-hour ozone standard attainment year.

Table 4.5 in Chapter 4 lists the major highway projects included in the analysis and their implementation phasing. The Regional Arterial System shown in Figure 4.2 and a list of those arterials was described in Table TA 7.5 of Technical Appendix 7 - Transportation Evaluation Criteria and Rankings of MOBILITY 2030. Other
locally funded projects also have been included in the air quality conformity analysis. These projects are funded with TransNet funds, a 20-year half-percent local sales tax for transportation that expires in 2008; TransNet extension funds, a 40-year half-percent local sales tax extension approved by voters in 2004 that expires in 2048; and other local revenue sources.

**Transit Networks**

SANDAG also maintains transit network datasets for existing and proposed transit systems. Most transit routes run over the same streets, freeways, HOV lanes, and ramps used in the highway networks. As a result, the only additional facilities that are added to the transportation coverage for transit modeling purposes are:

- trolley and commuter rail lines
- streets used by buses that are not part of local general plan circulation elements

There are seven transit modes, which group routes with similar operating characteristics: commuter rail, trolley, regional bus rapid transit (BRT), corridor BRT, limited express bus, express bus, and local bus. Regional and corridor BRT modes were recently added to represent a new type of transit service proposed in the 2030 RTP. BRT service would have stations and operating characteristics similar to commuter rail and trolleys, but service would be provided by advanced design buses operating on HOV lanes, some grade-separated transit ways, and surface streets. Once TransCAD transit networks have been built, TransCAD finds minimum time paths between transit access points (TAPs). TAPs are selected transit stops that are used to represent walk and auto access to the transit system. The following four sets of paths are created for modes:

- AM peak period local bus
- AM peak period premium service
- Mid-day local bus
- Mid-day premium service

Bus speeds assumed in the transit networks are derived from modeled highway speeds and reflect the effects of congestion. Regional and express transit routes on surface streets are assumed to operate out of congestion due to priority transit treatments. Higher bus speeds may result for transit vehicles operating on highways with HOV lanes and HOV bypass lanes at ramp meters, compared to those routes that operate on highways where these facilities do not exist.

In addition to transit travel times, transit fares are required as input to the mode choice model. TransCAD procedures replicate the San Diego region’s complicated fare policies, which differ between:

- buses which collect a flat fare of between $1.75 and $4.00 depending on the type of service,
- trolleys which charge a variable fare of between $1.25 and $3.00 depending on how many stations are traversed,
- commuter rail which has a zone-based fare of between $3.50 and $4.75,
- proposed regional BRT routes which are assumed to charge a distance-based fare of between $0.14 and $0.60 per mile that replicates limited express and commuter rail fares, and
- proposed corridor BRT routes which are assumed to use trolley station-based fares.
Fares are expressed in 2004 dollars and are assumed to remain constant in inflation-adjusted dollars over the forecast period.

Near-term transit route changes are drawn from short-range plans produced by transit agencies. Longer-range improvements are proposed as a part of the RTP development and other transit corridor studies. Locally funded, regionally significant transit projects have been included in the air quality conformity analysis of the 2006 Revenue Constrained Plan. These transit projects also are funded with TransNet funds or other local revenue sources. Once network coding is completed, the transportation models are run for the applicable scenarios (2002, 2009, 2010, 2014, 2020, and 2030). Table 4.2 in Chapter 4 lists the major regional transit projects included in the analysis and their implementation phasing.

**Trip Generation**

Trip generation is the first step in the transportation modeling process. Average weekday trip ends by all forms of transportation starting and ending in each zone are estimated for ten trip types: home-work, home-college, home-school, home-shop, home-other, work-other, other-other, serve passenger, visitor, and airport. The model computes person trips, which account for all forms of transportation including automobiles, trucks, taxicabs, motorcycles, public transit, bicycling, and walking.

The trip generation model works by applying trip rates to zone-level growth forecasts. The model calculates each of the trip ends separately, as trip productions and attractions. Trip production rates are expressed as trips per household, while trip production rates vary by trip type and structure type. Trip attractions are expressed as trips per acre of nonresidential land use or trips per household. Trip attraction rates vary by trip type and land use category. The Final 2030 Regional Growth Forecast was used to produce trip generation forecasts for the years 2002, 2009, 2010, 2014, 2020, and 2030. Trip generation rates were established by utilizing data from traffic generator studies and expanding rates from the 1995 Travel Behavior Survey and 2001 Caltrans Statewide Travel Survey.

SANDAG’s regional transportation model uses a relatively high trip generation rate for households (8.1 vehicle trips per day), which may account for possible increases in trip-making as new facilities are built. Also, the model accounts for travel diversion among facilities.

The model reduces future year person trips by a small amount to reflect increased use of tele-working and e-commerce. Reduction factors of three percent to five percent were applied to selected trip purposes and land uses.

**Trip Distribution**

After trip generation, trip movements between zones are determined using a doubly-constrained gamma-function gravity model form of the trip distribution model. Inputs to the trip distribution model include zone-level trip generation forecasts by trip type, zone-to-zone impedances, and gamma-function parameters by trip type. The model is designed to modify trip patterns in response to new development and reflects shortened trip lengths in the vicinity of Smart Growth, mixed-use developments. The model also modifies trip patterns as new roadways are added.

The model is calibrated to match observed trip length frequencies from the 1995 Travel Behavior Survey and 2001 Caltrans Statewide Travel Survey. Zone-to-zone impedances are a composite measure of peak and off-peak travel times and costs by highway, transit, and non-motorized modes. Several iterations of trip...
distribution, mode choice, and assignment are performed to bring model-estimated highway travel into equilibrium with supply. After each iteration or feedback loop, impedances are recomputed to reflect changes in highway congestion.

**Mode Choice**

At this point in the modeling process, total person trip movements between zones are split into different forms of transportation by highway, transit, and non-motorized modes (bicycling and walking). Highway modes include drive alone/non-toll, drive alone/toll, shared-ride/HOV, and shared-ride/non-HOV. Nine transit modes differentiate transit trips by three ride modes (rail/BRT, express bus, and local bus) and three access modes (walk, drive, and drop-off). The mode choice model is designed to link mode use to demographic assumptions, highway network conditions, transit system configuration, land use alternatives, parking costs, transit fares, and auto operating costs. Trips between zone pairs are allocated to modes based on the cost and time of traveling by a particular mode compared to the cost and time of traveling by other modes. For example, vehicle trips on a congested route would be more likely to be diverted to light rail than vehicle trips on an uncongested freeway.

Income level also is considered since lower-income households tend to own fewer automobiles, and therefore make more trips by transit and carpooling. People in higher-income households tend to choose modes based on time and convenience rather than cost. The mode choice model is calibrated using 1995 and 2001 Travel Behavior Survey trip tables by mode and income, and 2001-2003 Regional Transit Survey transit trip characteristics. Regional-level Census 2000 work trip mode shares were also used to fine-tune mode share estimates.

Highway and transit travel times reflect highway congestion effects from the final iteration of the feedback loop. The model produces a.m. peak, p.m. peak, and off-peak period trip tables for vehicles and transit riders. The a.m. peak period is from six to nine in the morning and the p.m. peak period is from three to six in the afternoon. The off-peak period covers the remaining 18 hours of the day. A series of mode choice model runs were performed in the course of analyzing the 2006 Revenue Constrained Plan through two model iterations.

**Highway and Transit Assignment**

**Highway**

Highway assignment produces traffic volume estimates for all roadway segments in the system. These traffic volumes are an important input to emissions modeling. Similarly, transit trips are assigned to transit routes and segments.

SANDAG loads traffic using TransCAD’s “Multi-Modal Multi-Class Assignment” function. The highway assignment model works by finding roads that provide the shortest travel impedance between each zone pair. Trips between zone pairs are then accumulated on road segments making up minimum paths. Highway impedances consider posted speed limits, signal delays, congestion delays, and costs. The model computes congestion delays for each segment based on the ratio of the traffic volume to roadway capacity. Motorists may choose different paths during peak hours when congestion can be heavy and off-peak hours when roadways are typically free-flowing. For this reason, traffic is assigned separately for a.m. peak, p.m. peak, and off-peak periods. Vehicle trip tables for each scenario reflect increased trip-making due to population growth and variations in travel patterns due to the alternative transportation facilities/networks proposed.
Model accuracy is assessed by comparing model-estimated traffic volumes with actual traffic counts obtained through SANDAG’s traffic monitoring program and Highway Performance Monitoring System (HPMS) estimates of vehicle miles of travel (VMT).

After completing the highway assignments, additional processing is needed. Adjustments are made for calibration error volume, HOV/managed lane volume, bus volumes, hourly distribution factors, level of service (LOS), and travel time.

**Transit**

For transit assignment, TransCAD software assigns Transit Access Point (TAP)-to-TAP transit trips to the network. Eight separate transit assignments are produced for peak and off-peak periods; walk and auto access; and local bus and premium service. These individual assignments are summed to obtain total transit ridership forecasts.

Before assigning transit trips, external transit trips coming into San Diego from outside the region need to be added to the internal transit trips estimated by the mode choice model. Currently, few transit trips enter from the north or east; however, over 20,000 transit trips cross the Mexican border each day. An external transit trip table for the base year is developed from onboard transit ridership surveys and factored to future years based on border-crossing trends to account for these trips.

For accuracy, transit ridership forecasts from the transit assignment model are compared with transit counts from SANDAG’s transit passenger counting program to determine whether transit modeling parameters need to be adjusted.

Some of these comparisons of model-estimated boardings with actual boardings include:

- system level boardings, which may reveal transfer rate problems and lead to changes to the transfer wait time factor in the mode choice model,
- boardings by mode, which may reveal modal biases and lead to changes in mode choice modal constants,
- boardings by frequency of service, which may show biases that lead to changes in the first wait factor in the mode choice model,
- Centre City screenline crossings, which may lead to changes in parking costs, boardings by stop location, which may indicate problems which specific generators such as a university.

**Post-TransCAD Processing**

Standard TransCAD output needs to be reformatted and adjusted to be useful for emissions modeling. Several routines and computer programs have been written to accomplish the following major functions:

- Correcting link-specific traffic volume forecasts for calibration error,
- Adding in estimated travel on roads not in the transportation modeling process,
- Computing link speeds based on corrected link volumes, Highway Capacity Manual relationships between congestion and speed (or signal delay),
- Splitting link volumes into heavy-duty truck and other traffic to obtain speed distributions by vehicle class,
- Preparing a data set that contains total VMT, number of trip starts, and VMT by speed category by time of day for each vehicle class.
Motor Vehicle Emissions Modeling

Emissions Model

In October 2002, ARB released EMFAC 2002, an emissions inventory model that calculates emissions for motor vehicles operating in California. It is an integrated model that combines emission rate data with vehicle activity to calculate regional emissions. The U.S. EPA approved EMFAC 2002 for use in conformity determinations on April 1, 2003.

The EMFAC 2002 model supports calculation of emissions for the Burden mode. The Burden mode is used for calculating regional emission inventories. In this mode the model reports total emissions as tons per day for each pollutant, by vehicle class and the total vehicle fleet. The Burden mode uses emission factors that have been corrected for ambient conditions and speeds combined with vehicle activity to calculate emissions in tons per day. Vehicle activity includes the number of vehicles, daily vehicle miles traveled, and the number of daily trips.

The air quality analysis of the 2006 Revenue Constrained Plan was conducted using EMFAC 2002’s Burden mode. Projections of daily regional emissions were prepared for reactive organic gases (ROG), nitrogen oxides (NOx), and carbon monoxide (CO).

On-road motor vehicle emissions are attributed to several different processes:

- Starting exhaust
- Running exhaust
- Idle exhaust (calculated for heavy-duty trucks only)
- Resting and diurnal evaporation
- Running losses
- Hot soak evaporation

Emission factors vary by vehicle class, fuel usage, and technology. Thirteen vehicle classes are modeled: passenger car, two types of light-duty trucks, medium-duty trucks, two types of light-heavy-duty trucks, medium-heavy-duty trucks, heavy-heavy-duty trucks, line-haul vehicles, urban bus, school bus, motorcycle, and motorhome. The fuels modeled are gasoline, diesel, and electrically-powered vehicles. Technology categories can be grouped into catalyst, noncatalyst, and diesel.

Emission factors for processes that vary by temperature (i.e., starting exhaust, hot soak, and running exhaust) are broken down further by specified temperature ranges. Exhaust emission factors also are broken down by speed range.

Regional Emissions Forecasts

Regional transportation forecasts were initiated in August 2005. Output from the TransCAD model was then reformatted and adjusted to be useful for emissions modeling.

8-Hour Ozone Standard

The Transportation Conformity Rule prescribes different conformity tests for 8-hour ozone areas that have 1-Hour Ozone State Implementation Plan (SIP) budgets and for areas that do not have 1-hour ozone SIPs. The

In August 2004, SANDAG consulted with the CWG on various options for interim emissions analysis. The approach agreed by the CWG is as follows:

- Under the new 8-hour ozone standard, the San Diego air basin falls under Boundary Scenario 2, where the 8-hour ozone area is smaller than and within the 1-hour ozone boundary. Figure B.1, on page 99, shows the Eastern San Diego County attainment areas, which are tribal lands (Cuyapaipe, La Posta #1 and #2, Campo #1 and #2, and Manzanita). The CWG agreed to use the existing approved budget for the entire 1-hour ozone non-attainment area for the analysis years for which 1-hour ozone budgets are available (2010 and 2014), and for the remaining analysis years (2020 and 2030).
- To conduct the interim emissions test for 2009, the CWG agreed to use the no-greater-than-2002 test for the attainment year 2009.

In July 2005, the CWG reaffirmed the approach described above for the 8-hour ozone emissions analysis of the 2006 Revenue Constrained Plan. Countywide forecasts of average weekday ROG and NOx emissions were produced for 2002, 2009, 2010, 2014, 2020, and 2030 using the EMFAC 2002 model. ROG and NOx emissions are based on the summer season.

The analysis years were selected to comply with sections 93.106(a)(1) and 93.118(a) of the Transportation Conformity Rule. According to these sections, the first horizon year (2010) must be within ten years from the base year used to validate the regional transportation model (2000), the last horizon year must be the last year of the transportation plan’s forecast period (2030), and the horizon years may be no more than ten years apart (2020). In addition, as explained above, the interim regional emissions analysis for the 8-hour ozone standard must be conducted for the emissions budgets in the applicable SIP (ROG and NOx budgets for 2010 and 2014). Finally, emissions forecasts for 2002 and 2009 were prepared to conduct the interim attainment year 2009 test.

**CO Standard**

CO regional emissions were projected for 2010, 2020, and 2030 for the conformity determination of the 2006 Revenue Constrained Plan. CO emissions are based on the winter season.

**Emissions Modeling Results**

An emissions budget is the part of the SIP that identifies emissions levels necessary for meeting emissions reduction milestones, attainment, or maintenance demonstrations.

To determine conformity of the 2006 Revenue Constrained Plan, the plan must comply with the interim emission analysis described in the Regional Emissions Forecast section.

Table B.2 summarizes the 2006 Revenue Constrained Plan air quality conformity analysis for the 8-hour ozone standard. This analysis shows that the 2006 Revenue Constrained Plan (including interim years) meets the applicable budgets and interim tests. Projected ROG and NOx emissions for 2009 are lower than the base year 2002, and those for 2010, 2014, 2020, and 2030 are below the SIP budgets for 2010 and 2014.
Table B.2—2006 Revenue Constrained Plan
Air Quality Conformity Analysis for 8-Hour Ozone

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Weekday Vehicle Starts (1,000s)</th>
<th>Average Weekday Vehicle Miles (1,000s)</th>
<th>ROG</th>
<th>NOx</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>SIP Emissions Budget Tons/Day</td>
<td>SIP Emissions Budget Tons/Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ROG Emissions Tons/Day</td>
<td>NOx Emissions Tons/Day</td>
</tr>
<tr>
<td>2002</td>
<td>13,251</td>
<td>77,172</td>
<td>---</td>
<td>130</td>
</tr>
<tr>
<td>2009</td>
<td>14,088</td>
<td>84,302</td>
<td>---</td>
<td>83</td>
</tr>
<tr>
<td>2010</td>
<td>14,239</td>
<td>84,897</td>
<td>46</td>
<td>88</td>
</tr>
<tr>
<td>2014</td>
<td>14,799</td>
<td>89,033</td>
<td>36</td>
<td>66</td>
</tr>
<tr>
<td>2020</td>
<td>15,643</td>
<td>94,332</td>
<td>36</td>
<td>66</td>
</tr>
<tr>
<td>2030</td>
<td>17,195</td>
<td>104,698</td>
<td>36</td>
<td>22</td>
</tr>
</tbody>
</table>


Table B.3 shows that projected CO emissions from the 2006 Revenue Constrained Plan are below the 1993 CO budget. In November 2004, ARB submitted the 2004 Revision to the California State Implementation Plan for Carbon Monoxide to the U.S. EPA for approval. This plan established a 2003 CO budget at 730 tons per day. Once the U.S. EPA approves this SIP revision, which is anticipated in December 2005, the new CO budget will become the applicable budget for conformity determinations for 2003 and subsequent years. The projected CO emissions from the 2006 Revenue Constrained Plan also are below the new CO budget.

Table B.3—2006 Revenue Constrained Plan
Air Quality Conformity Analysis for Carbon Monoxide

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Weekday Vehicle Starts (1,000s)</th>
<th>Average Weekday Vehicle Miles (1,000s)</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>SIP Emissions Budget Tons/Day</td>
</tr>
<tr>
<td>2010</td>
<td>14,239</td>
<td>84,897</td>
<td>1,195</td>
</tr>
<tr>
<td>2020</td>
<td>15,643</td>
<td>94,332</td>
<td>1,195</td>
</tr>
<tr>
<td>2030</td>
<td>17,195</td>
<td>104,698</td>
<td>1,195</td>
</tr>
</tbody>
</table>

Exempt Projects

Section 93.126 of the Transportation Conformity Rule exempts certain highway and transit projects from the requirement to determine conformity. The categories of exempt projects include safety, mass transit, air quality (ridesharing, and bicycle and pedestrian facilities), and other (such as planning studies).

Table B.4 on the following page illustrates the exempt projects considered in the 2006 Revenue Constrained Plan. This table shows short-term exempt projects. Additional unidentified projects could be funded with revenues expected to be available from the continuation of existing state and federal programs.

Implementation of Transportation Control Measures

There are four federally-approved TCMs that must be implemented in San Diego, which the SIP refers to as Transportation Tactics. They include ridesharing, transit service improvements, traffic flow improvements, and bicycle facilities and programs.

These TCMs were established in the 1982 SIP, which identified general objectives and implementing actions for each tactic. The TCMs have been fully implemented. Ridesharing, transit, bicycling, and traffic flow improvements continue to be funded, although the level of implementation established in the SIP has been surpassed. No TCMs have been removed or substituted from the 1-Hour Ozone Maintenance Plan, which is the applicable SIP. The list of actions that implemented the TCMs is available at SANDAG.
<table>
<thead>
<tr>
<th>Project/Program Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bikeway, Rail Trail, and Pedestrian Projects</strong></td>
</tr>
<tr>
<td>Bayshore Bikeway</td>
</tr>
<tr>
<td>Downtown Encinitas Streetscape II</td>
</tr>
<tr>
<td>Castle Park Elementary School Sidewalk Improvements</td>
</tr>
<tr>
<td>Fourth Avenue Sidewalk Improvements</td>
</tr>
<tr>
<td>Hazard Center Road Bike Path Study at SR 163</td>
</tr>
<tr>
<td>Brandon Road Sidewalk</td>
</tr>
<tr>
<td>Julian Avenue Sidewalks</td>
</tr>
<tr>
<td>Plaza Bonita Class I Bikeway</td>
</tr>
<tr>
<td>University Avenue/Yale Avenue Pedestrian Enhancements</td>
</tr>
<tr>
<td>Mira Mesa Boulevard Bikeway</td>
</tr>
<tr>
<td>Adams Avenue Bikeway</td>
</tr>
<tr>
<td>Balboa Avenue/Tierrasanta Boulevard Bikeway</td>
</tr>
<tr>
<td>Cliff Street Pedestrian/Bicycle Bridge</td>
</tr>
<tr>
<td>Inland Rail Trail</td>
</tr>
<tr>
<td>Coastal Rail Trail</td>
</tr>
<tr>
<td><strong>Regionwide Traffic Incident Management</strong></td>
</tr>
<tr>
<td>Freeway Service Patrol</td>
</tr>
<tr>
<td><strong>Safety Improvement Program</strong></td>
</tr>
<tr>
<td>Hazard Elimination</td>
</tr>
<tr>
<td>Bridge Rehabilitation/Preservation</td>
</tr>
<tr>
<td>Collision Reduction</td>
</tr>
<tr>
<td>Roadway/Roadside Preservation</td>
</tr>
<tr>
<td>Noise Barrier Program</td>
</tr>
<tr>
<td><strong>Transportation Demand Management</strong></td>
</tr>
<tr>
<td>RideLink Regional Rideshare Program</td>
</tr>
<tr>
<td>Regional Vanpool Program</td>
</tr>
<tr>
<td><strong>Transportation Management Systems</strong></td>
</tr>
<tr>
<td>Automated Traveler Information System (ATIS)</td>
</tr>
<tr>
<td>Intermodal Transportation Management System (IMTMS)</td>
</tr>
<tr>
<td>Joint Transportation Operations Center (JTOC)</td>
</tr>
<tr>
<td>Fiber-Optic/Closed-Circuit Camera (I-8/I-15/I-805)</td>
</tr>
<tr>
<td>Traffic Management System (I-805, SR 94)</td>
</tr>
<tr>
<td>Ramp Meters (I-5/I-805, SR 94)</td>
</tr>
</tbody>
</table>
Interagency Consultation Process and Public Input

The consultation process followed to prepare the air quality conformity analysis for the 2030 Revenue Constrained Plan complies with the San Diego Transportation Conformity Procedures adopted in July 1998. In turn, these procedures comply with federal requirements under 40 CFR 93. Interagency consultation involves SANDAG (as the MPO for San Diego County), the APCD, Caltrans, ARB, DOT, and U.S. EPA.

Consultation is a three-tier process that:

1. formulates and reviews drafts through a conformity working group;
2. provides local agencies and the public with opportunities for input through existing regional advisory committees and workshops; and
3. seeks comments from affected federal and state agencies through participation in the development of draft documents and circulation of supporting materials prior to formal adoption.

SANDAG consulted on the development of the air quality conformity analysis of the 2006 Revenue Constrained Plan at meetings of the San Diego Region Conformity Working Group (CWG), as follows:

- On July 20, 2005, SANDAG staff presented the schedule for the preparation of the 2006 Revenue Constrained Plan and its conformity analysis. Staff initiated consultation on criteria and procedures for determining conformity. Items discussed included interim emissions analysis, the use of latest planning assumptions, implementation of TCMs, emissions model and budgets, as well as consultation and public involvement.
- On August 17, 2005, SANDAG staff presented additional information on the 2006 Revenue Constrained Plan including: revenue constrained plan assumptions, travel demand modeling, transportation control measures, and public outreach activities.
- On September 19, 2005, SANDAG staff presented the draft list of revenue constrained highway projects, transit services, and exempt projects, as well as revenues and expenditures projected through 2030.
- On October 5, 2005, SANDAG released the draft air quality conformity analysis of the 2006 Revenue Constrained Plan to the San Diego Region CWG for a 30-day review and comment period. On October 19, 2005, the draft air quality analysis was discussed at the meeting of the San Diego Region CWG.

On December 9, 2005, the Transportation Committee will be asked to accept for distribution the draft 2006 Revenue Constrained Plan and draft conformity analysis for public review and comment. A Public Hearing will be scheduled at the January 27, 2006, meeting of the SANDAG Board of Directors. The Board will be asked to make a finding of conformity and adopt the 2006 Revenue Constrained Plan on February 24, 2006.

Members of the public are welcome to provide comments at meetings of the San Diego Region CWG, the Transportation Committee, and the SANDAG Board of Directors.
Eastern San Diego County Attainment Areas For The 8-Hour Ozone NAAQS
DRAFT 2006 STATE TRANSPORTATION IMPROVEMENT PROGRAM

Introduction

The 2006 State Transportation Improvement Program (STIP) covers the five-year period from FY 2007 through FY 2011. This report presents the draft 2006 STIP funding proposal, which totals nearly $178 million. It was developed based on criteria approved by the Transportation Committee at its October 21, 2005, meeting. Proposed major projects include the State Route (SR) 52 Extension from SR 125 to SR 67, the Mid-Coast Trolley Extension to University City, and the Transportation Enhancement program. It should be noted that no new STIP funding was identified for the San Diego region as part of the 2006 STIP. The draft 2006 STIP includes only previously programmed 2004 STIP projects, and does not include any new projects.

Recommendation

The Transportation Committee is asked to recommend that the Board of Directors program the 2006 STIP as follows:

<table>
<thead>
<tr>
<th>2006 STIP Project or Program</th>
<th>Amount ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SR 52 Extension from SR 125 to SR 67, construction:</td>
<td>$140.893</td>
</tr>
<tr>
<td>2. Mid-Coast Trolley Extension to University City, design and right-of-way:</td>
<td>$5.254</td>
</tr>
<tr>
<td>3. Freeway Incident Detectors, Construction:</td>
<td>$6.050</td>
</tr>
<tr>
<td>4. SANDAG Planning and Program Monitoring:</td>
<td>$2.558</td>
</tr>
<tr>
<td>5. Transportation Enhancement:</td>
<td>$22.964</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$177.719</strong></td>
</tr>
</tbody>
</table>

Discussion

At the October 21, 2005, meeting, the Transportation Committee approved the following criteria for programming the 2006 STIP:

1. Complete projects currently programmed in the STIP
2. Place particular emphasis on programming and completing TransNet Early Action projects
3. Program projects at the earliest possible time they can be constructed or implemented
4. Maintain existing STIP funding levels as a minimum on existing programmed projects
5. Reflect the efforts by the region and Caltrans to complete some of these projects outside the STIP through other funding sources
Based on direction from the Transportation Committee, $23.5 million in programming adjustments would be available for reprogramming to other existing STIP projects. Attachment 1 details the programming adjustments.

**STIP Background**

The STIP is a five-year transportation funding program that is typically used for capacity-increasing projects such as new or widened freeways, freeway improvements including operational, Traffic Systems Management and others, as well as transit projects and vehicle procurements. The STIP is renewed every two years, with two new years of programming capacity added in the process. The last time the STIP was adopted was in 2004 and the five-year cycle ends FY 2008/09. There are approximately three and a half years remaining in the 2004 STIP. It is now time for the 2006 STIP to be developed by the regions. The development of the 2006 STIP is based on regional priorities in combination with funding availability as determined by the California Transportation Commission (CTC) through its Fund Estimate.

The 2006 Fund Estimate identifies all revenues that are forecast to flow to various transportation accounts in the next five years. These revenue estimates reflect current law, such as Proposition 42, and are supposed to flow reliably according to statute from year to year. However, a significant portion of them has instead become subject to the annual state budget negotiation process, making them less reliable. Nonetheless, the CTC is required to determine the potential funding that could become available for the five-year period ending in FY 2010/11 if no budgetary diversions occur away from transportation.

According to the 2006 Fund Estimate recently adopted by the CTC, there is $5.6 billion in programming capacity statewide through the STIP. Of this amount, approximately $3.8 billion represents prior commitments from the 2004 STIP, including payback of Grant Anticipation Revenue Vehicle (GARVEE) bonds and AB 3090 reimbursements, as well as previously programmed projects. New statewide STIP programming capacity is approximately $1.8 billion. This new programming capacity has been distributed to the counties based on the status of their share balance. Counties that have already programmed their balances through advances in previous STIP cycles do not get additional programming capacity.

What this means to the San Diego region is that our 2006 STIP programming is limited to the amount already programmed on existing regional projects plus the funds from FY 2005/06 projects whose allocation requests have been placed on hold by the CTC. This totals nearly $151 million and reflects currently programmed projects between FY 2006/2007 and 2008/2009, plus $4 million from FY 2005/2006 projects currently on hold, for a grand total available of $155 million. This figure does not include any TE funds as these are administered separately nor does it include any of the GARVEE bond payback or AB 3090 reimbursements, which have been taken off the top and are unavailable for reprogramming. The only way to increase funding for projects already programmed in the STIP is through redirections from other STIP programmed projects.
Remaining 2004 STIP

The 2004 STIP remaining program is distributed as shown in Table 1 below:

### Table 1. 2004 STIP Remaining Projects ($000’s)

<table>
<thead>
<tr>
<th>Project</th>
<th>FY 2006/07</th>
<th>FY 2007/08</th>
<th>FY 2008/09</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. SR 52 Extension to SR 67: Right of Way</td>
<td>49,620</td>
<td></td>
<td></td>
<td>49,620</td>
</tr>
<tr>
<td>1b. SR 52 Extension to SR 67: Construction</td>
<td></td>
<td>68,920</td>
<td></td>
<td>68,920</td>
</tr>
<tr>
<td>2. Mid-Coast Extension to University City: Right of Way Acquisition</td>
<td></td>
<td>5,254</td>
<td></td>
<td>5,254</td>
</tr>
<tr>
<td>3. I-805 Incident Detectors</td>
<td></td>
<td></td>
<td>6,050</td>
<td>6,050</td>
</tr>
<tr>
<td>4. Planning and Program Monitoring (PPM)</td>
<td>334</td>
<td>334</td>
<td>785</td>
<td>1,453</td>
</tr>
<tr>
<td>5. I-805 Ramp Meters</td>
<td></td>
<td></td>
<td>7,163</td>
<td>7,163</td>
</tr>
<tr>
<td>6. SR 54/SR 125 HOV Lanes Design</td>
<td></td>
<td></td>
<td>6,500</td>
<td>6,500</td>
</tr>
<tr>
<td>7. Rideshare Program</td>
<td>1,824</td>
<td>1,879</td>
<td>1,935</td>
<td>5,638</td>
</tr>
<tr>
<td>8. Federal Matching Funds</td>
<td>187</td>
<td></td>
<td></td>
<td>187</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51,965</strong></td>
<td><strong>7,467</strong></td>
<td><strong>91,353</strong></td>
<td><strong>150,785</strong></td>
</tr>
</tbody>
</table>

Projects in italics are included in the TransNet Early Action Program

As part of the draft 2006 STIP, it is proposed that programming adjustments on projects listed 5 through 8 in Table 1 above be implemented. Details on the adjustments are described in more detail in Attachment 1.

### Proposed 2006 STIP

The funding available for the 2006 STIP is shown below in Table 2. The 2006 STIP does not include any new programming capacity apart from a small amount of added federal Transportation Enhancement (TE) funds, which have limited applicability. In summary, the 2006 STIP includes approximately $155 million of STIP funds and $23 million in TE funds, for a total of approximately $178 million.

### Table 2. 2006 STIP Funding Available

<table>
<thead>
<tr>
<th>Funding</th>
<th>Amount ($000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STIP Funds</strong></td>
<td></td>
</tr>
<tr>
<td>a. 2006 STIP Targets</td>
<td>150,785</td>
</tr>
<tr>
<td>b. Rollover funds from FY 2006</td>
<td>3,970</td>
</tr>
<tr>
<td>c. Subtotal 2006 STIP (a+b)</td>
<td>154,755</td>
</tr>
<tr>
<td><strong>TE Funds</strong></td>
<td></td>
</tr>
<tr>
<td>d. Existing TE Funds (FY 2007-09)</td>
<td>16,617</td>
</tr>
<tr>
<td>e. TE Fund Augmentation</td>
<td>6,347</td>
</tr>
<tr>
<td>f. Subtotal TE (d+e)</td>
<td>22,964</td>
</tr>
<tr>
<td><strong>Total 2006 STIP Funding Available (c+f)</strong></td>
<td><strong>177,719</strong></td>
</tr>
</tbody>
</table>


As discussed at the October 21, 2005, Transportation Committee meeting, the CTC has given SANDAG funding targets that, if enforced, would delay most of the regional funding by about two to three years. The CTC, however, is willing to consider flexibility to program funds for major projects that are or will be ready to go in the first two years of the STIP (FY 2007 and FY 2008), even if the STIP targets show little or no funding available in those years. This flexibility is dependent on the project readiness that other regions with large programming targets in FY 2007 and FY 2008 may have. The 2006 STIP is proposed to be programmed as shown in Table 3. Project-specific discussion follows Table 3.

**Table 3. Proposed 2006 STIP ($000s)***

<table>
<thead>
<tr>
<th>Project</th>
<th>FY 2006/07</th>
<th>FY 2007/08</th>
<th>FY 2008/09</th>
<th>FY 2009/10</th>
<th>FY 2010/11</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIP Funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a. SR 52 – Right-of-Way</td>
<td>12,915</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,915</td>
</tr>
<tr>
<td>1b. SR 52 - Construction</td>
<td>66,700</td>
<td>61,278</td>
<td></td>
<td></td>
<td></td>
<td>127,978</td>
</tr>
<tr>
<td>2. Mid-Coast Extension – Design and Right-of-Way Acquisition</td>
<td>5,254</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,254</td>
</tr>
<tr>
<td>3. Freeway Incident Detectors - Construction</td>
<td>6,050</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6,050</td>
</tr>
<tr>
<td>4. Planning and Program Monitoring</td>
<td>334</td>
<td>334</td>
<td>630</td>
<td>630</td>
<td>630</td>
<td>2,558</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>79,949</strong></td>
<td><strong>61,612</strong></td>
<td><strong>11,934</strong></td>
<td><strong>630</strong></td>
<td><strong>630</strong></td>
<td><strong>154,755</strong></td>
</tr>
<tr>
<td>TE Funds</td>
<td>6,026</td>
<td>4,268</td>
<td>4,500</td>
<td>4,295</td>
<td>3,875</td>
<td>22,964</td>
</tr>
<tr>
<td><strong>Total 2006 STIP</strong></td>
<td><strong>85,975</strong></td>
<td><strong>65,880</strong></td>
<td><strong>16,434</strong></td>
<td><strong>4,925</strong></td>
<td><strong>4,505</strong></td>
<td><strong>177,719</strong></td>
</tr>
</tbody>
</table>

1. **SR 52 Extension from SR 125 to SR 67:** The programming change would advance the start of construction by two years, from FY 2009 to FY 2007. In addition, of the $23.5 million identified earlier resulting from 2004 STIP programming adjustments, approximately $22.3 million would be redirected for construction of this project. Programmed STIP funds on this project would be approximately $12.9 million to conclude the right-of-way phase and $128.0 million for construction, for a total of $140.9 million in STIP funding. This $446.6 million dollar project is scheduled to be complete by 2009.

2. **Mid-Coast Trolley Extension to University City:** It is proposed that the $5.3 million in the current STIP be programmed in FY 2009 for design. This funding would be delayed by one year from the current FY 2008 to allow for completion of the environmental document on the expanded scope to University City. An additional opportunity to program new STIP funds would be during the 2008 STIP cycle, once the environmental document has been approved. This approximately $900 million project is scheduled to be complete by FY 2015.

3. **Freeway Incident Detectors:** This project is fully programmed. No change in programming is proposed. This project installs incident detectors on Interstate 5 (I-5), SR 52, SR 94, and I-805. This $6.1 million project is scheduled to be operational by 2009.
4. SANDAG Planning and Program Monitoring: Statute allows Regional Transportation Planning Agencies to fund part of their planning and program monitoring activities through the STIP. This formula-based allocation would allow an additional $1.1 million to be programmed for SANDAG with the extension of the STIP to FY 2011.

Transportation Enhancements Program: In September 2005, the Transportation and Regional Planning Committees approved programming the $19.1 million in TE funds available through the 2004 STIP period to the Pilot Smart Growth Incentive Program (PSGIP). With the 2006 STIP, there is an option of programming $6.3 million in additional TE programming capacity on the PSGIP. Another option is to identify other TE-eligible projects for programming.

**Next Steps**

Pending approval by the Transportation Committee on December 9, this report will be presented to the SANDAG Board of Directors for final approval at the December 16, 2005, meeting. SANDAG needs to submit the 2006 STIP to the CTC prior to January 30, 2006. The CTC is scheduled to adopt the statewide STIP at its April 27, 2006, meeting.

RENEE WASMUND
Director of Finance

Attachment: 1. 2004 STIP Programming Adjustments

Key Staff Contact: José A. Nuncio, (619) 699-1908, jnu@sandag.org
## 2004 STIP Programming Adjustments ($000s)

<table>
<thead>
<tr>
<th>Project</th>
<th>Programmed Amount</th>
<th>Adjustment Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I-805 Ramp Meters</td>
<td>7,163</td>
<td>Some ramp meters are partially constructed, funding for remaining sites are included in Caltrans’ State Highway Operations and Protection Program (SHOPP) for the 2006 cycle. Shift $7.2 million to other existing STIP projects.</td>
</tr>
<tr>
<td>2. SR 54/SR 125 HOV Lanes: Design</td>
<td>6,500</td>
<td>Defer design and implement in coordination with TransNet-funded I-805 Managed Lanes. Shift $6.5 million to other existing STIP projects.</td>
</tr>
<tr>
<td>3. Rideshare Program</td>
<td>5,638</td>
<td>Fund with Congestion Mitigation &amp; Air Quality (CMAQ) or other funds. Shift $5.6 million to other existing STIP projects.</td>
</tr>
<tr>
<td>4. Federal Matching Funds</td>
<td>187</td>
<td>Fund with TransNet or other funds. Shift $187,000 to other existing STIP projects.</td>
</tr>
<tr>
<td><strong>Subtotal Adjustments</strong></td>
<td><strong>19,488</strong></td>
<td></td>
</tr>
<tr>
<td>5. Roll-over funds from FY 2006</td>
<td>3,970</td>
<td>Funding available due to the CTC’s placing on hold the allocation request of $440,000 for federal matching funds program and $3.5 million for the Regional Rideshare program.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23,458</strong></td>
<td><strong>Available for reprogramming to other projects</strong></td>
</tr>
</tbody>
</table>
**Introduction**

The California Department of Transportation (Caltrans) Division of Rail has requested that SANDAG and North County Transit District (NCTD) weigh in on prioritizing major capital projects along the coastal rail corridor in preparation for an estimated $63.6 million in funding for interregional rail projects made available through reprogramming existing projects and/or application of double track funds as identified in state law (AB 2928). The available funding is limited to use on projects that benefit intercity rail (i.e., are located along the coastal rail corridor or at specific stations served by intercity rail service).

**Recommendation**

The Transportation Committee is asked to recommend a priority listing of interregional rail improvement projects to Caltrans Division of Rail. The priority listing below was approved by the NCTD Board of Directors at its November 17, 2005, meeting. In addition to NCTD’s list, adding a pedestrian grade crossing in the City of Encinitas in the amount of $5.1 million is also recommended as a Priority 2 project.

<table>
<thead>
<tr>
<th>PRIORITY</th>
<th>PROJECT DESCRIPTION</th>
<th>PHASE</th>
<th>PROPOSED ALLOCATION ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Santa Margarita River Bridge and Second Track</td>
<td>Final Design and Construction</td>
<td>$40.2 ($38.5 cost plus $1.7 contingency)</td>
</tr>
<tr>
<td>1</td>
<td>Del Mar Bluffs Stabilization</td>
<td>Construction</td>
<td>$7.0* ($2.0 for first 1,000 feet plus $5.0 toward future stabilization)</td>
</tr>
<tr>
<td>2</td>
<td>Oceanside Double Track</td>
<td>Construction</td>
<td>$9.8</td>
</tr>
<tr>
<td>3</td>
<td>Signal Communication System Replacement</td>
<td>Assessment and initial upgrades</td>
<td>$1.0</td>
</tr>
<tr>
<td>4</td>
<td>Sorrento-to-Miramar Double Track</td>
<td>Phase 1, final design</td>
<td>$1.7</td>
</tr>
<tr>
<td>5</td>
<td>Sorrento-to-Miramar Double Track</td>
<td>Phase 2, final design</td>
<td>$2.2</td>
</tr>
<tr>
<td>6</td>
<td>San Dieguito River Bridge and Second Track</td>
<td>Preliminary design and environmental</td>
<td>$1.7</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$63.6</strong></td>
</tr>
</tbody>
</table>

Excerpts from the NCTD Board agenda of November 17, 2005, with project priorities identified, are included as Attachment 1.
Discussion

Over the past several years, the region has received a variety of federal and state funding to implement major capital improvements on the coastal railroad corridor, including federal capital investment funds, State Transportation Improvement Program (STIP) funds, and Traffic Congestion Relief Program (TCRP) funds. These programs have project limitations and restrictions. Although dependent upon the next release of Proposition 42 funds, there is a potential availability of $35 million in TCRP funds specifically identified in law for double track projects or a maintenance facility in San Diego. In addition, there is approximately $27.3 million in STIP interregional dollars currently programmed for the Sorrento-to-Miramar Double Track project and $1.3 million in remaining Proposition 116 funds, identified for coastal rail corridor improvements in San Diego. If and when this funding is made available, there is a potential for an estimated $63.6 million for use on the San Diego coastal rail corridor.

It is important to note that approximately $22 million of the $35 million in TCRP funding was originally intended for a maintenance yard for Amtrak intercity service; however, the plans for this facility have been put on hold. In addition, there is a recommendation to move the lion’s share of the $27.3 million currently programmed for the Sorrento-to-Miramar Double Track project because the full project is severely under-funded, and moving it to other projects in the railroad corridor would provide a more immediate benefit to the coastal railroad. The funding was originally derived from the intercity portion of the STIP.

The Division of Rail has requested that SANDAG and NCTD develop a prioritization plan to use this potential estimated $63.6 million in funding on projects that are consistent with the original intent of the funds, that enhance railroad capacity, and that are ready to go. Eligible projects were evaluated by NCTD based on the following criteria:

- Improvement to rail corridor safety
- Improvement to operational reliability
- Capacity increase to overall railroad
- Travel time savings
- Readiness to move to construction
- Total funding need

Attachment 2 summarizes NCTD’s evaluation of the eligible rail corridor projects using the above criteria as well as estimated total costs for each project.

Next Steps

Following Transportation Committee action, the priority listing would be submitted to the Caltrans Division of Rail, which would review the region’s priorities and determine if they are consistent with the statewide priorities. A variety of administrative and California Transportation Commission (CTC) actions would be required. The timing and availability of the funding is subject to the continuation of Proposition 42.

Additional Interregional Rail Funding Available through the 2006 STIP

As you might recall in September 2005, the Transportation Committee recommended the submittal of two interregional rail improvement projects to Caltrans Division of Rail for funding through the 2006 STIP intercity rail program: the construction of the Solana Beach Parking Structure...
($6.0 million) and final design of the Santa Margarita River Bridge Replacement and Second Track Project ($1.0 million).

In separate actions, the City of Encinitas submitted a funding proposal for a pedestrian grade separation project ($5.1 million), and the Caltrans Division of Rail submitted project proposals for two additional double track projects in the San Diego region: one project located in Carlsbad between the Carlsbad Village Drive Coaster Station and Cannon Road ($15.3 million), and the other located in Camp Pendleton between Las Pulgas and San Onofre ($25.2 million).

These 2006 STIP interregional rail project proposals and anticipated funding are separate from the proposals for the estimated $63.6 million in potential funding discussed above.

ELLEN ROUNDTREE
Director of Government Relations

Attachment: 1. Excerpts from the NCTD Board Agenda of November 17, 2005, with Project Priorities Identified
2. Excerpts from the NCTD Board Agenda of November 17, 2005, NCTD Evaluation of Major Coastal Corridor Capital Projects

Key Staff Contact: Ellen Roundtree, (619) 699-6960, ero@sandag.org
EXCERPTS FROM THE NCTD BOARD AGENDA OF NOVEMBER 17, 2005
WITH PROJECT PRIORITIES IDENTIFIED

Priority 1:
Santa Margarita River Bridge and Second Track Project
This project would add a 0.8 mile section of double track to connect two existing passing tracks, upgrade an existing 1.7-mile segment of passing track, and replace an aging 713-foot steel thru-truss and timber pile trestle bridge with a new concrete and steel double-track bridge. The current single-track bridge dates back to 1919 and is near the end of its useful life. The bridge is a critical link in the LOSSAN corridor, with every Amtrak, Metrolink Orange County Line, and COASTER train needing to traverse it for either revenue service or equipment moves to Oceanside Transit Center from Stuart Mesa Maintenance Facility.

The CTC approved $2.5 million for design and environmental work on this bridge, which has been fully used to fund all of the design and environmental work to date. This project is currently at 90% design completion and could be ready to go to construction in six months, assuming availability of approximately $1 million of additional funding to complete final design. As such, it is one of NCTD’s most ready-to-go major capital projects. The current construction estimate is approximately $37.5 million. Two years ago NCTD spent nearly $600,000 on relatively minor repairs to two spans in the timber trestle portion of the bridge and will face increasing repair costs in coming years if this bridge is not replaced soon.

Priority 1
Del Mar Bluffs Stabilization
The coastal bluffs supporting the rail alignment along 1.6 miles of NCTD railroad right-of-way in the City of Del Mar have a history of landslides and surface failures. In addition, the bluffs are subject to ongoing erosion and failures that could threaten the viability of rail service. Accordingly, NCTD has undertaken a series of projects to improve drainage and stabilize the Bluffs. Del Mar Bluffs Stabilization Project 2 focuses on alternatives that stabilize the track bed support within the high-priority areas identified in the Del Mar Bluffs Geotechnical Study. A total of 2,400 lineal feet of bluff have been identified as in need of stabilization measures to ensure continued safe railroad operations for the next 20 years.

At the October, 2005, meeting, the Board adopted the Type Selection Report which evaluates the repair methodologies to be used, and proposes the use of soldier piles for bluff stabilization. At that same meeting, SANDAG also committed to taking responsibility for removal of all exposed portions of the soldier piles at the time when the tracks are relocated off the bluffs. Final engineering for 1,400 feet should be completed by the end of calendar year 2005. This project currently has construction funding programmed and available of $3.7 million. SANDAG will be contracting for construction of stabilization of up to 1,000 feet in 2006, depending on how far these remaining capital funds will go.

It is critically important to rail operational safety to continue efforts in the remaining areas determined to be unstable. It should be noted that this project was one of only two projects state-
wide that received STIP funding allocations in FY 05 due to the critical need to shore up the bluffs. Based on discussion at the November 3, 2005 Planning Committee meeting, staff proposes supplementing the current effort to stabilize the first 1,000 feet with up to $2 million, depending on project need. Before further stabilization would be undertaken beyond the first 1,000 feet, SANDAG and NCTD would take a fresh look at all stabilization areas and options, including seawalls as well as soldier piles. The City and the California Coastal Commission would be involved early on in this review. This review effort, and subsequent construction of additional stabilization coming from that review, would be funded by a proposed addition of $5 million re-programmed from the Sorrento – Miramar project. This project would not be eligible for the TCRP funding since it would not provide double tracking, but would be eligible for Inter-Regional STIP funding as a benefit to intercity rail.

**Priority 2**

**Oceanside Double-Track Project**

This project would extend an existing passing track in downtown Oceanside by constructing a 1.2 mile extension of double-track from Oceanside Blvd. to just north of the Buena Vista Lagoon, and would add a new 240-foot bridge over Loma Alta Creek (MP 227.6). This project would also include the replacement of the existing single track timber trestle bridge at the Creek if sufficient funding is available.

The California Department of Transportation is the lead agency for this project, and has entered into a Memorandum of Understanding with NCTD. As such, this is a Division of Rail project and does not appear in NCTD’s CIP. The Department has contracted with Amtrak to perform project design, environmental clearance and construction. Draft permit applications have been completed. Plans, Specifications and Estimate have been completed to the pre-final stage (close to 100%). The Project is now on hold until construction funds are secured. A very recent construction cost estimate placed construction at $9.8 million.

**Priority 3**

**Signal Communications System Upgrade/Replacement Program**

The railroad signal train control system is 1970’s based technology, with a central communications system that relies on radio transmit and receive signals. The current system is safe, however, in the past two years we have experienced increasing periods of radio interference as a result of a heavy regional radio noise floor washing out the radio frequency-based system. Because of the built-in fail-safe features, these radio communications problems result in train delays until signal communications are re-established. In the near term, staff believes programming $1 million would be sufficient to conduct an in-depth analysis of the current radio communications system and make upgrades to this radio system to increase reliability. In the long run, we may need to migrate to a fiber-optic-based signal system, relieving NCTD’s radio based control system of having to function within an area of heavy radio interference. The cost to move to fiber will be significant, and could approach $8 million. Both the near term and long term projects would significantly sustain operational reliability and increase system capacity. This project would qualify for STIP funding but not the TCRP funds.
**Priority 4 and 5**  
**Sorrento to Miramar Curve Realignment and Second Main Track Project**

This project would straighten several curves and add a 3.1-mile second track, partially within NCTD’s existing right-of-way and partially on the north side of Soledad Canyon, between Sorrento Valley and Miramar. This stretch of existing track has the steepest grades and sharpest curves on the entire coastal mainline, and has been the site of several freight train derailments over the past 30 years due to the difficult track conditions. The most recent derailment, in December 2004, severely impacted COASTER and Amtrak service for two months until repairs could be completed. By realigning some of the curves and building a second track, safer, more reliable operations and higher passenger train speeds can be obtained.

Environmental clearance was obtained in October 2002 and 60% design is complete. Remaining STIP project funding currently programmed in FY 2008 for final design and construction is $27.3 million. Previous allocation requests submitted to the CTC for final design and construction funds were placed on a pending STIP allocation list. More recent estimates indicate this project will cost at least $45 million and is therefore significantly under-funded. For this reason, SANDAG and NCTD are considering identifying a Phase I project that could build a portion of the project within NCTD existing right-of-way. A potential Phase I project could build a 1.3 mile extension of the existing Sorrento Valley siding part way up the Miramar Hill grade, reducing by 42% the length of the slow section of curving single track. Completing final design on this 1.3 mile segment only is estimated to cost $1.7 million, with construction pegged at approximately $22.9 million. Phase II, which would cover the remaining 1.8 mile segment, would cost an estimated $2.2 million for final design, and possibly $30 million or more to construct, including right-of-way acquisition. Staff believes that, given the amount of available funding tied up in this project, its current design status, and the current inability to fund the entire project, the best approach would be to reprogram the bulk of the $27.3 million to other high priority projects that are more construction-ready, while retaining $1.7 million for final design of Phase I and $2.2 million for final design of Phase II.

**Priority 6**  
**San Dieguito River Bridge Replacement and Second Track Project**

This project would replace a single-track 1,038-foot long timber trestle bridge with a concrete and steel double-track bridge, add a 1.1 mile segment of second main track, and connect the existing passing tracks at Solana Beach and Del Mar. The resultant double track segment will be 2.8 miles in length, greatly improving operational flexibility and service reliability. The existing bridge is an aging timber trestle with portions dating back to 1928. It has suffered marine borer attack and underwent $500,000 in repairs four years ago. Increasing repairs are anticipated if this bridge is not replaced in the next five to ten years.
In 2001, the CTC approved $855,000 to begin preliminary design and environmental work on this bridge, but the allocation request was frozen before NCTD was able to begin the design effort. The CTC has programmed the preliminary design and environmental funding for this project in the FY 2007 STIP. However, an estimated $2.5 million is needed to complete a preliminary design and environmental process. A very preliminary total project cost estimate would be $28 - $30 million, but would require design and environmental work to at least the 30% level to come up with a firmer estimate.
<table>
<thead>
<tr>
<th>Proposed Priority</th>
<th>Project Description</th>
<th>Improvement to Rail Corridor Safety</th>
<th>Improvement to Operational Reliability</th>
<th>Capacity Increase to overall Railroad</th>
<th>Travel Time Savings</th>
<th>Readiness to Move to Construction</th>
<th>Immediate Unfunded Need (Est)</th>
<th>Ultimate Cost to Complete (Est)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Santa Margarita River Bridge</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>$1 M (Final Design)</td>
<td>$38.5 M (Design &amp; Constr)</td>
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<tr>
<td>1</td>
<td>Del Mar Bluffs Stabilization</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>$2 M (Complete 1st 1,000 ft)</td>
<td>$7 M (Design review / constr)</td>
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<tr>
<td>2</td>
<td>Oceanside Double Track Project</td>
<td>=</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>Constr Ready</td>
<td>$9.8 M (Constr)</td>
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</tr>
<tr>
<td>3</td>
<td>Signal Comm. System Replacement</td>
<td>+</td>
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<td>=</td>
<td>+</td>
<td>-</td>
<td>$1 M (Initial study &amp; repairs)</td>
<td>$8 M (Ultimate replacement with fiber)</td>
</tr>
<tr>
<td>4</td>
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<td>+</td>
<td>+</td>
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<td>$1.7 M (final design only)</td>
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<td>5</td>
<td>Sorrento to Miramar Curve / 2nd Track - Phase 2 - 1.8 miles</td>
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<td>+</td>
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<td>$2.2 (final design only)</td>
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<tr>
<td>6</td>
<td>San Dieguito River Bridge / 2nd Track</td>
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<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>$2.5 M (Prelim design &amp; enviro), $855K programmed</td>
<td>$28 - $30 M constr.</td>
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<td>7</td>
<td>Bridge and Infrastructure Replacement</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>-</td>
<td>TBD</td>
<td>$159 M</td>
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Key:  
+ Meets Criterion  
- Criterion not met  
= Neutral impact