



Arterial Life Cycle Program

2007 ANNUAL REPORT

on the status of the implementation of

PROPOSITION 400

AUGUST 2007



Transit Life Cycle Program



Freeway Life Cycle Program

Maricopa Association of Governments

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ON THE STATUS OF THE IMPLEMENTATION OF
PROPOSITION 400**

August 2007

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SUMMARY OF FINDINGS AND ISSUES

The *Draft 2007 Annual Report on the Status of the Implementation of Proposition 400* has been prepared by the Maricopa Association of Governments (MAG) in response to Arizona Revised Statute (ARS) 28-6354. ARS 28-6354 requires that MAG annually issue a report on the status of projects funded through Proposition 400, addressing project construction status, project financing, changes to the MAG Regional Transportation Plan, and criteria used to develop priorities. In addition, background information is provided on the overall transportation planning, programming and financing process. The key findings and issues from the 2007 Annual Report are summarized below.

MAG REGIONAL TRANSPORTATION PLAN

The MAG Regional Transportation Plan (RTP) provides the blueprint for the implementation of Proposition 400. By Arizona State law, the revenues from the half-cent sales tax for transportation must be used on projects and programs identified in the RTP adopted by MAG. The RTP identifies specific projects and revenue allocations by transportation mode, including freeways and other routes on the State Highway System, major arterial streets, and public transportation systems.

- The 2007 Update of the RTP complies with new Federal transportation planning regulations required after July 1, 2007.

On July 25, 2007, the MAG Regional Council approved the MAG Regional Transportation Plan - 2007 Update and the MAG FY 2008-2012 Transportation Improvement Program. The 2007 RTP Update was structured to comply with the regional transportation planning requirements of the Federal Safe, Accountable, Flexible, Efficient, Transportation Equity Act - A legacy for Users (SAFETEA-LU). These requirements must be met for plans adopted or amended after July 1, 2007. The 2007 RTP Update addresses several new topics to respond to SAFETEA-LU, including consultation on environmental mitigation and resource conservation, transportation security, and an updated public participation process.

- A major amendment to delete State Route (SR) 153/Sky Harbor Expressway from the RTP was approved by the MAG Regional Council, contingent upon air quality conformity analysis.

During FY 2007, a major amendment to the RTP was proposed to delete State Route (SR) 153/Sky Harbor Expressway from the RTP, and shift the available funding to improvements on SR 143/Hohokam Expressway. This proposal resulted from recent analyses that indicate that the original concept for SR 153 as a connector to I-10 at 40th Street would no longer be effective.

On July 25, 2007, the MAG Regional Council approved the proposed amendment, after completion of a thirty-day review period and agency consultation as set forth in Arizona Revised Statute (A.R.S.) 28-6353. This approval is contingent upon air quality conformity analysis of the amendment, which will occur later in 2007.

- Project phasing for the development of the Northwest Extension of the light rail transit (LRT) system was adjusted.

As part of the 2007 Update of the RTP, the LRT Northwest Extension will be implemented in two phases instead of a single project. The first phase will be from 19th Ave./Bethany Home Rd. to Dunlap Ave. (completion in 2012), and the second phase will be from Dunlap Ave. to 25th Ave./Mountain View Rd. (completion 2017). These changes were implemented to maintain flexibility relative to other future extensions of the LRT system and provide for the more efficient use of Federal CMAQ funds.

- Work continued on the transportation framework studies.

During FY 2007, work continued on two transportation framework studies, covering the West Valley and parts of Pinal County. The findings of these studies, which are anticipated in FY 2008, will be a resource for possible adjustment and expansion of the RTP, as part of future updates of the Plan. In addition, during FY 2007 work was initiated on "Building a Quality Arizona: Statewide Intrastate Mobility Reconnaissance Study for the state of Arizona". MAG is managing this study as a partner with ADOT, as well as the Councils of Governments and Metropolitan Planning Organizations covering all of Arizona.

- The 2007 Update of the RTP meets air quality conformity requirements.

MAG conducted a technical air quality analysis that demonstrated that the 2007 RTP Update and the MAG FY 2008-2012 Transportation Improvement Program meet the air quality conformity requirements of applicable State and Federal air quality implementation plans. The U.S. Department of Transportation, in coordination with the U.S. Environmental Protection Agency, concurred with this finding on August 16, 2007.

HALF-CENT SALES TAX AND OTHER TRANSPORTATION REVENUES

The half-cent sales tax for transportation approved through Proposition 400 is the major funding source for the MAG Regional Transportation Plan (RTP), providing over half the revenues for the Plan. In addition to the half-cent sales tax, there are a number of other RTP funding sources, which are primarily from State and Federal agencies.

- Fiscal Year 2007 receipts from the Proposition 400 half-cent sales tax were 6.7 percent higher than the full year receipts from the half-cent tax in FY 2006.

During FY 2007, receipts from the Proposition 400 half-cent sales for transportation totaled \$391 million. This amount is 6.7 percent higher than the full year receipts from the half-cent tax in FY 2006. (During the first half of FY 2006, the half-cent tax was implemented under Proposition 300.) The growth in receipts on a monthly basis between FY 2006 and 2007 has slowed from 10.9 percent in July 2006 to 1.0 percent in June 2007.

- Forecasts of Proposition 400 half-cent revenues are 5.5 percent higher for the period FY 2008 through FY 2026, compared to the 2006 Annual Report.

Future half-cent revenues for the period FY 2008 through FY 2026 are forecasted to total \$14.4 billion. This amount is 5.5 percent higher than the forecast for the same period presented in the 2006 Annual Report. ADOT will update the half-cent forecasts in the latter part of calendar 2007, taking into account recent slowing in revenue growth as appropriate.

- Forecasts of ADOT Funds dedicated to the MAG area for FY 2008 through FY 2026 are 2.2 percent higher than the 2006 Annual Report estimate.

The forecast for ADOT funds totals \$7.8 billion for FY 2008 through FY 2026, which is 2.2 percent greater than the 2006 Annual Report forecast. This funding source represents nearly one-half of the total funding for the Freeway/Highway Life Cycle Program.

- Forecasts of MAG Federal Transportation Funds for FY 2008 through FY 2026 are unchanged from the 2006 Annual Report estimate.

MAG Federal Transportation Funds for FY 2008 through FY 2026 are forecasted to total \$5.5 billion. This estimate is unchanged from the amount projected in the 2006 Annual Report. These funding sources have been allocated to both transit and highway projects in the Regional Transportation Plan.

- STAN funding was revised by the Legislature to include reimbursement for interest expenses.

As part of the FY 2008 State budget, the Arizona State Legislature transferred \$62 million from the State Highway Fund to the State Transportation Acceleration Needs (STAN) account. In House Bill 2793, the Legislature established a subaccount for the reimbursement of interest expenses incurred by or on behalf of a local jurisdiction for the acceleration of transportation

projects. The bill allocated \$10 million from the \$31 million in funding given to the MAG region for this purpose.

FREEWAY/HIGHWAY LIFE CYCLE PROGRAM

The Freeway/Highway Life Cycle Program extends through FY 2026 and is maintained by the Arizona Department of Transportation (ADOT) to implement freeway/highway projects listed in the MAG Regional Transportation Plan (RTP). The program utilizes funding from the Proposition 400 half-cent sales tax extension, as well as funding from State and Federal revenue sources.

- The Red Mountain Freeway (Loop 202) was completed between University Dr. and US 60.

During FY 2007, construction on the Red Mountain Freeway (Loop 202) was completed on the north half of the system interchange with US 60, and on the segment between Southern Ave. and University Dr. These projects were opened to traffic in June 2007. The segment between University Dr. and Power Rd. was also under construction in FY 2007 and is anticipated to be open to traffic by Fall 2008. These projects represent the final segments in the Proposition 300 - Regional Freeway Program.

- Additional general purpose and HOV lanes on the Superstition Freeway (U.S. 60) were completed between Gilbert Rd. and Power Rd.

Construction of addition general purpose and high occupancy vehicle (HOV) lanes from Gilbert Rd. to Power Rd. on the Superstition Freeway was completed in FY 2007, and opened to traffic June 2007.

- A number of major freeway/highway construction projects were advertised for bids during FY 2007.

During FY 2007, projects were advertised for bids covering:

- Higley Rd./US 60: TI improvements
- 43rdAve.-51st Ave./I-10: TI improvements
- Carefree Hwy./I-17: TI improvements
- Jomax Rd.-Dixileta Dr./I-17: New TI
- 64th St./Loop 101: New TI
- Bullard Ave./I-10: New TI
- SR 51 (Shea Blvd. to Loop 101): New HOV lanes (including HOV ramp connections at Loop 101)
- Loop 101 (Princess Dr. to Red Mountain Fwy.): New HOV lanes
- SR 85 (MC 85 to Southern Ave. and MP 139.01 to 141.71): Widen to 4-lanes
- SR 87 (Forest Bndry. to New Four Peaks Rd.): Road improvements

- SR 93 (Wickenburg Bypass): New roadway
- Projects on a number of freeways were accelerated through the use of STAN funding.

On December 13, 2006, the MAG Regional Council approved a set of projects to be funded from the Statewide Transportation Acceleration Needs (STAN) Account. Specific projects advanced included:

- I-10 (Verrado Way to Sarival Ave.): General Purpose lanes, advanced from 2023 to 2009.
 - I-17 (Anthem Wy. to Carefree Hwy.): General Purpose Lanes, advanced from 2024 to 2009.
 - Loop 101/Pima Fwy. (Tatum Blvd. to Princess Dr.): HOV Lanes, advanced from 2011 to 2008.
 - Loop 101/Price Fwy. (Baseline Rd. to 202/Santan Fwy.): HOV Lanes, advanced from 2010 to 2008.
 - Loop 303 (Bell Rd. T.I.): Partial Interchange, advanced from 2011/15 to 2008.
 - Loop 303 (Cactus Rd. and Waddell Rd.): Bridge Structures, advanced from 2011/15 to 2008.
 - SR 802/Williams Gateway Fwy. (202/Santan Fwy. to Meridian Rd.): Major Right-of-Way Protection, advanced from 2016/20 to 2007.
- STAN funding was allocated to reimburse interest expenses in connection with the acceleration I-10 widening projects.

On September 6, 2007, the MAG Regional Council approved providing 70 percent (\$7 million) of the funding available through the STAN subaccount for interest reimbursement to participating West Valley cities for their share of the interest cost for the acceleration of widening projects on I-10 between Loop 303 and Loop 101. Thirty percent (\$3 million) was allocated to cover a portion of the regional share of interest costs for the acceleration of the projects.

- Estimated future costs for the Freeway/Highway Life Cycle Program are in balance with projected revenues.

For the remainder of the Freeway/Highway Life Cycle Program, which covers the period FY 2008 through FY 2026, projected revenues are in balance with estimated future projects costs, with revenues exceeding costs by approximately \$237 million. However, trends toward increasing project costs, which were reported in the both the 2005 and 2006 Annual Reports, continue to be an issue.

- Material cost increases were experienced for a number of FY 2007 projects and projects in the FY 2008-2026 Life Cycle Program.

During FY 2007, the MAG Regional Council approved cost increases requested by ADOT totaling \$204 million for the freeway/highway projects, which were programmed for FY 2007. It was determined that the cost increases could be accommodated within available cash flow. Also, cost increases for certain projects in FY 2008-2026 resulted in an increase in the total program cost of \$740 million. These changes were included in the MAG Regional Transportation Plan - 2007 Update and the MAG FY 2008-2012 Transportation Improvement Program, which were approved by the MAG Regional Council on July 25, 2007.

- Project cost increases and extended environmental/design study schedules will have a substantial impact on the ability to deliver the Freeway/Highway Life Cycle Program within the originally anticipated schedule. This will require a review and possible adjustment of the Program in the near future.

During the past several years, major cost increases for the construction of roads, buildings and other capital facilities have been experienced in Arizona, and throughout the United States as well. While the rate of these increases has recently moderated somewhat, unit costs for right-of-way, construction materials, and project bids remain greatly in excess of what they were just a few years ago. To date, it has been possible to accommodate these cost increases, and estimated future costs are currently within projected revenues for the Freeway/Highway Life Cycle Program.

However, additional major cost increases are expected in the future, as scoping, design concepts, and environmental assessments are completed. Preliminary information from ongoing studies on the Loop 202 (South Mountain Freeway), Loop 303, SR 801 (I-10 Reliever) and the I-10 (Local/Express Lanes) indicate that the total cost of these projects could be in the range of \$2-3 billion more than the funding currently allocated to them in the Life Cycle Program. In addition to cost increases, the time required to complete environmental and design studies on the South Mountain Freeway and the I-10 Local/Express Lanes has been greater than originally anticipated. These factors will have a substantial impact on the ability to deliver the Freeway/Highway Life Cycle Program within the originally anticipated schedule. This will require a review and possible adjustment of the Program in the near future.

- There are a number of possible approaches, or combination of approaches, to address the potential imbalance between Freeway/Highway Life Cycle Program costs and revenues.

Maintaining the cost-revenue balance in the Freeway/Highway Life Cycle Program will represent a continuing challenge for the planning and programming process. This effort will require effective financing and cash flow management, phasing of project scopes, and Plan and Program adjustments as may be appropriate. Potential approaches to this issue include:

- Financial approaches that enhance revenues during the program period, such as more aggressive bonding of future revenues and public/private partnerships.
- Project phasing strategies that produce project scopes and designs that are in scale with available funding, so that plan elements can be implemented within future funding levels.
- Extension of the planning and programming period into the future with adopted project priorities, which captures additional funding for project implementation.

ARTERIAL STREET LIFE CYCLE PROGRAM

The Arterial Street Life Cycle Program (ALCP) extends through FY 2026 and is maintained by the Maricopa Association of Governments (MAG) to implement arterial street projects in the MAG Regional Transportation Plan (RTP). The Program receives major funding from both the Proposition 400 half-cent sales tax and Federal highway programs. Although MAG is charged with the responsibility of administering the overall program, the actual construction of projects is accomplished by local government agencies that provide funding to match regional level revenues.

- The Arterial Street Life Cycle Program Procedures and Project Listing were updated during FY 2007.

On December 13, 2006, MAG adopted changes to the Arterial Life Cycle Program Policies and Procedures to facilitate efficient administration of the Program. In addition, on June 27, 2007 the FY08 ALCP project listing was adopted to reflect updated information regarding project development status.

- During FY 2007, \$14 million in reimbursements were distributed to local governments from the Arterial Street Life Cycle Program, and work is continuing for reimbursements in FY 2008.

Three jurisdictions received reimbursements for project work during FY 2007 totaling over \$14 million. This brings the total reimbursements to \$21 million since the initiation of the Program. A total of sixteen project agreements were executed in FY 2007. This brings the total of project agreements to eighteen.

It is anticipated that an additional 20 agreements will be executed during FY 2008. During FY 2008, it is anticipated that a total of six jurisdictions will receive reimbursements amounting to approximately \$75 million.

- Work will be proceeding on a broad range of projects in the Arterial Street Life Cycle Program.

During the period FY 2008 through FY 2012, work will be proceeding on 62 different arterial street segments. Various stages of work will be conducted on these projects, including 62 with design activity, 59 with right-of-way acquisition, and 46 with construction work at some time during the five-year period.

- The total estimated future regional revenue disbursements for ALCP projects are in balance with projected revenues.

For the remainder of the Arterial Street Life Cycle Program, which covers the period FY 2008 through FY 2026, projected revenues are in balance with estimated future projects disbursements, with revenues exceeding costs by approximately eleven percent through FY 2026. Since the ALCP is based on the principle of project budget caps, with a fixed amount of regional funding allocated to individual projects (on an inflation adjusted basis), it is anticipated that the balance between estimated future disbursements and projected revenues can be maintained in the future.

- Significant construction and right-of-way cost increases may result in some arterial street projects being reduced in scope or delayed.

Agencies implementing ALCP projects are continuing to encounter cost increase issues, as a result of the major cost increases for the construction that have been experienced throughout the United States. Since the regional funding contribution to ALCP projects remains fixed (adjusted for inflation), the share of total costs that must be borne by local jurisdictions has increased from 31.8 percent in 2005 to 42.2 percent in 2007. This raises questions regarding the ability of implementing agencies to provide the matching share for all the projects contained in the ALCP.

- MAG staff has taken steps to help facilitate the processing of Federally funded ALCP projects.

Concerns have been raised regarding the potential effects of the Federal aid process on project implementation schedules. During FY 2007, MAG staff has worked closely with ADOT to improve this process and will do so on a continuing basis. In addition, MAG staff has conducted a series of workshops with local agencies aimed at enhancing local agency familiarity with Federal funding procedures, and has established a website to assist local agencies to

track the status of Federal aid projects and obtain detailed information on project processing procedures.

TRANSIT LIFE CYCLE PROGRAM

The Transit Life Cycle Program is maintained by the Regional Public Transportation Authority (RPTA) and implements transit projects in the MAG Regional Transportation Plan. The RPTA maintains responsibility for administering half-cent revenues deposited in the Public Transportation Fund for use on transit projects, including light rail transit (LRT) projects. Although RPTA maintains responsibility for the distribution of half-cent funds for light rail projects, the nonprofit corporation of Valley Metro Rail, Inc. was created to oversee the design, construction and operation of the light rail starter segment, as well as future corridor extensions to the system.

- New express and Supergrid bus routes were added to the system.

On July 23, 2007, two additional express routes and two Supergrid routes began service. Route 572, (Surprise/Scottsdale Express) began service between Bullard Ave. and the Scottsdale Airpark via Bell Rd. and Loop 101. Route 573 (North Glendale Express) began service between North Glendale and downtown Phoenix via Loop 101 and I-10. Both routes operate bi-directionally with both in-bound and outbound trips during the morning and afternoon peak travel periods. The two Supergrid routes included Route 156 (Chandler Boulevard), which was extended east to Williams Gateway Airport in Mesa, and Route 70, (Glendale/24th St.), which was extended west to Luke Air Force Base. Both Supergrid routes feature consistent levels of service across all served jurisdictions, which is made possible by funding from Proposition 400. These routes were in addition to Route 72 (Scottsdale/Rural Rd.), which was initiated in July 2006.

Rural connector service has also been initiated. One route, Route 685, operates between Gila Bend and West Phoenix and was initiated in FY 2006. The second route, Route 660, operates between Wickenburg and Glendale and was initiated in FY 2007.

- Work is continuing on schedule for the construction of the Light Rail Transit (LRT) Minimum Operating Segment (MOS).

This facility will extend from Spectrum Mall to West Mesa. Construction and system testing and start-up are scheduled to be completed in 2008. Service is scheduled to begin for the entire system in December 2008. Half-cent sales tax money from Proposition 400 will not be utilized to pay for major route construction of the MOS, but is allocated toward certain elements of the support infrastructure (regional park-and-rides, bridges, vehicles, and for the cost to relocate utilities).

- The LRT Northwest Extension will be implemented in two phases.

After considerable study, the City of Phoenix asked Valley Metro to break the construction of the Northwest Extension into two phases. The first phase would extend to 19th Ave./ Dunlap Ave. and be completed in FY 2012. The second phase would extend west on Dunlap Ave. then north on 25th Ave. to Mountain View Rd. and would be completed by FY 2017. This change was approved by the Valley Metro Board of Directors in April 2007 and incorporated into the MAG Regional Transportation Plan in July 2007.

- RPTA continued planning work for new Bus Rapid Transit (BRT) routes.

The Main Street Bus Rapid Transit (BRT) Corridor Study was completed in FY 2007. The study defined the operational and capital requirements of the BRT line that will operate in Mesa along Main St. and Power Rd. The route will extend from the end-of-line LRT station at Sycamore St. in west Mesa to the Superstition Springs Mall transit center in east Mesa. With the completion of this study, the focus has now moved to design and construction of capital improvements within the project corridor, and the procurement of the associated bus fleet. Start of service on the Main Street BRT will coincide with the start of service of the initial operating segment of the LRT in December, 2008.

In early FY 2008, RPTA will begin work on the Arizona Ave. Design Concept Report, as well as the Comprehensive Arterial BRT Study. The Arizona Ave. service will be the second BRT line implemented under the RTP. Service on this line is scheduled to begin in FY 2011. The Comprehensive Arterial BRT Study will define the operational parameters of the arterial BRT network. It will also define how the system will integrate with Supergrid, fixed route bus, and LRT service to maximize the operational efficiencies of these transit networks.

- Valley Metro Rail Planning continued with necessary planning studies to implement future LRT extensions.

An I-10 West Corridor Study is underway to identify right-of-way opportunities for the placement of transit service within the I-10 corridor. Based on results of the study, a more detailed Alternatives Analysis will be initiated at a future date. In addition, an LRT Configuration Study is evaluating the operational characteristics and needs of the full 57.7 mile LRT system identified in the Regional Transportation Plan (RTP). An associated effort, the Glendale Extension Study, will assess options for the Glendale LRT extension identified in the RTP. The alignment options being evaluated include service from I-10 to the stadium complex north of Bethany Home Rd., service to downtown Glendale, or service to the ASU west campus on Thunderbird Rd.

A Main Street Alternatives Analysis was initiated in FY 2006 and will be completed in FY 2008. This study will define the alignment and technology utilized for the high capacity transit extension identified in the RTP that will extend from the current end-of-line LRT station at Sycamore St. to the vicinity of Mesa Dr.

- Estimated future costs for the Transit Life Cycle Program are in balance with projected revenues.

For the remainder of the Transit Life Cycle Program, which covers the period FY 2008 through FY 2026, projected revenues are in balance with future projects costs, with revenues exceeding costs by approximately \$27 million through FY 2026.

- Transit service and capital cost increases will represent an ongoing challenge for the Transit Life Cycle programming process.

The cost of a number of key elements in the Transit Life Cycle Program has increased between the 2006 Annual Report and the 2007 Annual Report. The net total of these cost changes amounts to \$826 million. Given recent trends of escalating wages and fuel prices, pressure will increase to balance operations costs with available revenues. Similarly, recent increases for right-of-way and construction materials will continue to drive up costs for transit capital facilities, as they have in the freeway and arterial programs. Costs for the Transit Life Cycle Program will need to be evaluated on a continuing basis as the program is implemented, and program adjustments made as warranted to maintain the cost/revenue balance.

- The outlook for Federal discretionary funding for light rail extensions will require continuous monitoring.

As noted in previous Annual Reports, a large part of the future funding for the LRT system extensions is assumed to be from awards by the US Department of Transportation through the discretionary "New Starts Program". This funding is over-and-above the Federal funding contained in the 20-mile starter system Full Funding Grant Agreement. The timing and amounts of light rail transit new start monies coming to the MAG region will be subject to a highly competitive process at the federal level. The prospects for awards from this program will require careful monitoring.

PERFORMANCE MONITORING PROGRAM

The MAG Transportation System Performance Monitoring and Assessment Program has been established to provide a framework for reporting performance

at the system and project levels, and serve as a repository of historical, simulated and observed data for the transportation system in the MAG Region.

- The Regional Public Transportation Authority has established a specific set of performance measures to monitor and evaluate bus and rail systems in the region.

The RPTA has conducted a Service Efficiency and Effectiveness Study (SEES). The SEES framework proposed performance targets, which establish a baseline of performance expectation for Fixed Route bus (systemwide); Fixed Route bus at the route level; Paratransit; and Light Rail Transit (LRT). These performance measures and performance targets are being incorporated into an annual Transit Performance Report, beginning in June 2007.

- MAG will initiate a consultant study in FY 2008 to further refine and focus the performance monitoring approach for the regional roadway network.

The FY 2008 MAG Planning Work Program includes a study to further refine and focus the performance monitoring approach for the regional roadway network. As part of this effort, the program will consolidate the data collection efforts related to system performance and develop an archive of historic and current performance data sets that can be used for future evaluation and analysis. It is anticipated that a group of measures will be consistently reported as the implementation of the RTP moves forward. Based on the findings of this study and input from the Transit Performance Report, it is anticipated that MAG will annually produce a Transportation System Monitoring and Performance Report.

CHAPTER ONE

INTRODUCTION

Proposition 400 was passed by the voters of Maricopa County on November 2, 2004, authorizing a 20-year extension of a half-cent sales tax for transportation projects in Maricopa County. The extension was initiated on January 1, 2006 and will be effective through December 31, 2025. The half-cent tax was originally approved by the voters in 1985 through Proposition 300.

Arizona Revised Statute (ARS) 28-6354 requires that the Maricopa Association of Governments (MAG) annually issue a report on the status of projects funded through Proposition 400. MAG produced the first *Annual Report on the Status of the Implementation of Proposition 400* in 2005 and will produce an updated report yearly during the life of the tax. The annual reporting process addresses project construction status, project financing, changes to the MAG Regional Transportation Plan (RTP), and criteria used to develop priorities. In addition, information is provided on the overall transportation planning, programming and financing process.

The Annual Report addresses project status and tabulates expenditures through the fiscal year ending June 30th. In addition, the overall program outlook through FY 2026 for each transportation mode is reviewed, with an emphasis on the balance between projected costs and forecasted revenues. All projects for the major transportation modes (freeways/highways, arterial streets, public transit), as defined in the RTP, are monitored, whether they specifically receive half-cent funding or not. This ensures that progress on the entire RTP is monitored and trends for all revenue sources are tracked. Any amendments to the RTP are also identified as part of the annual reporting process. A database of RTP projects by mode is maintained to track costs, expenditures and accomplishments on a continuing basis.

The following 2007 Annual Report covers progress through the fiscal year ending June 30, 2007, and reviews the program outlook through June 30, 2026.

CHAPTER TWO

PROPOSITION 400 LEGISLATION

Proposition 400 was enabled by House Bill 2292 and House Bill 2456, which were signed by the Governor of Arizona on May 14, 2003 and on February 5, 2004, respectively. These two pieces of legislation were enacted to guide the process leading up to the Proposition 400 election on November 2, 2004 and establish the features of the half-cent tax sales extension. Key elements of House Bills 2292 and 2456 are described below.

2.1 HOUSE BILL 2292

Arizona House Bill 2292, which was passed during the Spring 2003 session of the Arizona Legislature, recognized MAG's establishment of a Transportation Policy Committee (TPC). The TPC, which was tasked with the development of the Regional Transportation Plan (RTP), is a public/private partnership and consists of 23 members. Seventeen seats are from the membership of MAG and six are members who represent region-wide business interests. The MAG members include one representative each from the Citizens Transportation Oversight Committee, the ADOT State Transportation Board, the County Board of Supervisors and the Native American Indian Communities in the County, as well as 13 representatives from a geographic cross-section of MAG cities and towns. The bill required the TPC to develop the RTP in cooperation with the Regional Public Transportation Authority (RPTA) and ADOT, and in consultation with the County Board of Supervisors, Native American Indian Communities, and cities and towns in the County.

The legislation identified the consultation process to be followed by the TPC in developing the RTP, and established a formal procedure for reviewing the Draft Plan. This included reviews at the alternatives stage and final draft stage of the planning process. As part of this process, the TPC was required to vote on, and provide written responses to, individual agency comments on the Draft Plan. After this extensive review and consultation process, the TPC was required to recommend a Plan to the MAG Regional Council for final approval.

Arizona House Bill 2292 also set forth the factors to be considered during the development of the RTP, such as the impact of growth on transportation systems and the use of a performance-based planning approach. It identified key features required in the final Plan, including a twenty-year planning horizon, allocation of funds between highways and transit, and priorities for expenditures. This legislation also established the process for authorizing the election to extend the existing half-cent county transportation excise tax. This existing tax was originally approved by Maricopa County voters under Proposition 300 in October 1985 and expires on December 31, 2005.

In addition, House Bill 2292 contained the requirement that MAG issue an annual report on the status of projects funded through the half-cent sales tax for transportation. This includes a public hearing within thirty days after the report is issued. Specific items to be addressed in the annual report cover the status of projects, changes to the RTP, changes to corridor and corridor segment priorities, project financing and project options, and criteria used to establish priorities.

2.2 HOUSE BILL 2456

House Bill 2456 was passed by the Arizona Legislature and signed by the Governor of Arizona in February 2004. This legislation authorized the election to extend the half-cent sales tax for transportation, known as Proposition 400, which was placed on the November 2, 2004 ballot by the Maricopa County Board of Supervisors. In addition to calling the election, this legislation included a number of requirements regarding the nature of the tax extension and its administration. Several of the key provisions are reviewed below.

2.2.1 Revenue Distribution

House Bill 2456 addresses the allocation of revenues from the collection of sales tax monies from January 1, 2006, to December 31, 2025, among the eligible transportation modes. In accordance with the legislation, the net revenues collected are to be distributed as follows:

- 56.2 percent to the regional area road fund for freeways and other routes in the State Highway System, including capital expense and maintenance.
- 10.5 percent to the regional area road fund for major arterial street and intersection improvements, including capital expense and implementation studies.
- 33.3 percent to the public transportation fund for capital construction, maintenance and operation of public transportation classifications, and capital costs and utility relocation costs associated with a light rail public transit system.

2.2.2 Revenue Firewalls

The legislation creates three “firewalls”, which prohibit the transfer of half-cent funding allocations from one transportation mode to another. These firewall divisions correspond to the categories established for the distribution of revenues and include:

- Freeways and highways (including sub-accounts for capital and maintenance).

- Arterial streets.
- Public transportation (with sub-accounts for capital, maintenance and operations, and light rail).
- Half-cent revenues cannot be moved among transportation modes (freeway/highway, arterial and transit).

2.2.3 Five-Year Performance Audit

As specified in House Bill 2456, beginning in 2010 and every fifth year thereafter, the Auditor General shall contract with a nationally recognized independent auditor with expertise in evaluating multimodal transportation systems and in regional transportation planning, to conduct a performance audit of the Regional Transportation Plan and all projects scheduled for funding during the next five years. The audit will make recommendations regarding whether further implementation of a project or transportation system is warranted, warranted with modification, or not warranted.

2.2.4 Major Amendment Process

House Bill 2456 recognized that the Regional Transportation Plan may be updated to introduce new transportation projects or to modify the existing plan. To ensure that the amendment process receives broad exposure and careful consideration, the concept of a major amendment was established. A major amendment of the Regional Transportation Plan means:

- The addition or deletion of a freeway, a route on the State Highway System, or a Fixed Guideway Transit System.
- The addition or deletion of a portion of a freeway; route on the State Highway System; or a Fixed Guideway Transit System that either exceeds one mile in length, or exceeds an estimated cost of forty million dollars as provided in the Regional Transportation Plan.
- The modification of a transportation project in a manner that eliminates a connection between freeways or fixed guideway facilities.

A major amendment is required if:

- An audit finding recommends that a project or system in the Regional Transportation Plan is not warranted, or requires a modification that is a major amendment.

- The MAG Transportation Policy Committee (TPC) recommends to the Regional Planning Agency a modification of the Regional Transportation Plan that is a major amendment.

The consideration and approval of a major amendment must adhere to a specific and rigorous consultation and review process set forth in the legislation. A major amendment requires that alternatives in the same modal category, which will relieve congestion and improve mobility in the same general corridor, are to be addressed. The TPC may recommend that funds be moved among projects within a mode, but half-cent revenues cannot be moved among transportation modes (freeway/highway, arterial and transit).

2.2.5 Life Cycle Programs

The legislation required that the agencies implementing the regional freeway, arterial, and transit programs are to adopt a budget process ensuring that the estimated cost of the program of improvements does not exceed the total amount of revenues available. These “life cycle programs” are the management tools used by the implementing agencies to ensure that transportation program costs and revenues are in balance, and that project schedules can be met. Responsibilities for maintaining these programs are as follows:

- Freeway/Highway Life Cycle Program: Arizona Department of Transportation.
- Arterial Life Cycle Program: Maricopa Association of Governments.
- Transit Life Cycle Program: Regional Public Transportation Authority.

The life cycle programs develop a schedule of projects through the life of the half-cent sales tax, monitor progress on project implementation, and balance annual and total program costs with estimated revenues. The MAG Annual Report draws heavily on life cycle program data and other life-cycle progress documentation in order to assemble the Annual Report.

2.2.6 Regional Transportation Plan: Enhancements and Material Changes

House Bill 2456 requires that any change in the Regional Transportation Plan and the projects funded that affect the MAG Transportation Improvement Program, including priorities, be approved by the MAG Regional Council. Requests for changes to projects funded in the Regional Transportation Plan that would materially increase costs are also required to be submitted to the MAG Regional Council for approval. If a local authority requests an enhancement to a project funded in the Regional Transportation Plan, the local authority is required to pay all costs associated with the enhancement.

CHAPTER THREE

REGIONAL ROLES AND RESPONSIBILITIES

The responsibility for implementing and monitoring projects and programs funded through Proposition 400 is shared by several regional and State entities. These organizations include:

- Maricopa Association of Governments.
- Transportation Policy Committee.
- Arizona Department of Transportation.
- State Transportation Board.
- Regional Public Transportation Authority.
- Valley Metro Rail.
- Citizens Transportation Oversight Committee.

A brief description of each agency and committee, and their role in implementing freeway/highway, arterial street and transit programs is provided below. It should be noted that local governments also design and construct projects covered in the regional arterial street program, and manage and operate elements of the bus transit system. These agencies are not discussed here.

3.1 MARICOPA ASSOCIATION OF GOVERNMENTS

The Maricopa Association of Governments (MAG), formed in 1967, is a regional planning agency and serves as the designated Metropolitan Planning Organization (MPO) for Maricopa County, including the Phoenix urbanized area. MAG members include the region's 25 incorporated cities and towns, Maricopa County, the Gila River Indian Community, the Fort McDowell Indian Community, the Salt River Pima-Maricopa Indian Community, the Citizens Transportation Oversight Committee, and the Arizona Department of Transportation.

MAG is responsible for the coordination of the following regional planning activities:

- Multi-modal Transportation Planning.
- Air Quality.

- Wastewater.
- Solid Waste.
- Human Services.
- Socioeconomic Projections.

MAG strives to develop plans that are comprehensive and that are consistent and compatible with one another. For example, the Regional Transportation Plan must be in conformance with the air quality plans for the metropolitan area. MAG is responsible for the air quality conformity analysis that shows whether the transportation plan complies with the provisions of air quality plans and other air quality standards. MAG is also responsible for the development of the Arterial Street Life Cycle Program. Individual projects in this program are constructed by the cities, towns and Maricopa County.

The MAG Regional Council is the decision-making body of MAG. The Regional Council consists of elected officials from each member agency. The Chairman of Citizens Transportation Oversight Committee (COTC) and the Maricopa County representatives from the State Transportation Board also sit on the Regional Council, but only vote on transportation-related issues. Many policy and technical committees provide analysis and information to the MAG Regional Council.

The MAG Regional Council is the ultimate approving body for the MAG Regional Transportation Plan and MAG Transportation Improvement Program. Any change in the Regional Transportation Plan or the projects funded that affect the Transportation Improvement Program, including priorities, must be approved by the MAG Regional Council.

3.2 TRANSPORTATION POLICY COMMITTEE

The MAG Transportation Policy Committee (TPC), which met for the first time in September 2002, was initially tasked with the responsibility of developing the Regional Transportation Plan (RTP) and recommending the plan for adoption by the MAG Regional Council. The TPC recommended a Plan in September 2003 and it was adopted unanimously by the MAG Regional Council on November 25, 2003. In addition to developing the RTP, the TPC has continuing responsibilities to advise the Regional Council on transportation issues, including, but not limited to recommendations regarding: the MAG Transportation Improvement Program; the Life Cycle Programs; and requested material changes and amendments to the RTP.

The TPC is comprised of 23 members and is a public/private partnership. Of the total membership, six are members representing business interests and 17 are

from the membership of MAG. The MAG members include 13 representatives from a geographic cross-section of MAG cities and towns, as well as one representative each from the Citizens Transportation Oversight Committee, the ADOT State Transportation Board, the County Board of Supervisors and the Native American Indian Communities in the County. The business representatives are from businesses with region-wide interest, including one representing transit interests and a representative from the freight industry. Three of the business representatives are appointed by the Speaker of the Arizona House of Representatives and the other three are appointed by the President of the Arizona State Senate.

3.3 ARIZONA DEPARTMENT OF TRANSPORTATION

The primary role of the Arizona Department of Transportation (ADOT) is to provide a transportation system that meets the needs of the citizens of Arizona. The transportation system includes the State Highway System, which is designed to provide safe and efficient highway travel around the State. The Governor of Arizona appoints the Director of ADOT. The MAG Regional Freeway/Highway Program is part of the State Highway System, and is the responsibility of ADOT. However, ADOT is not responsible for highways, streets, or roads that are not part of the State Highway System, which are owned and maintained by counties, or cities and towns in Arizona.

ADOT is responsible for the overall management of the Regional Freeway/Highway Program. This includes the design, engineering, right-of-way acquisition, and construction and maintenance activities. ADOT develops and maintains the Freeway/Highway Life Cycle Program, making projections of available revenues and developing financing strategies to fund projects.

ADOT also has a role for the arterial streets component of the MAG Regional Transportation Plan. Although MAG is responsible for the development of the Arterial Street Life Cycle Program, in accordance with ARS 28-6303.D.2, ADOT maintains the arterial street fund and issues bonds on behalf of the MAG Arterial Street Program.

3.4 STATE TRANSPORTATION BOARD

The State Transportation Board has statutory authority over the State Highway System. The State Transportation Board also sets priorities for the State Highway System (except the MAG Regional Freeway/Highway Program), establishes a five-year construction program for individual airport and highway projects, awards construction contracts, issues bonds and sets policy. The Board consists of seven members appointed by the Governor representing six geographic regions of the State. Two members are appointed from Maricopa County. Each member serves a six-year term.

Each year, the Board approves the ADOT Five-Year Highway Construction Program for statewide projects and the Life Cycle Program for the MAG Freeway/Highway System. The Life Cycle Program incorporates the priorities set by the MAG Regional Council. ADOT and MAG cooperatively develop the program for the MAG region. The State Transportation Board cannot approve projects within the MAG region that are not consistent with the MAG Regional Transportation Plan and the MAG Transportation Improvement Program. This limitation provides for the participation of local governments in project selection and to ensure conformity with air quality standards.

The State Transportation Board adopts policies that affect the MAG Regional Freeway/Highway Program. The Board has the authority to issue bonds supported by both the Regional Area Road Fund and the Highway User Revenue Fund and issue other forms of debt. Issuance of these bonds allows for significant acceleration of the MAG Regional Freeway/Highway Program than what would be possible on a pay-as-you-go basis.

3.5 REGIONAL PUBLIC TRANSPORTATION AUTHORITY/VALLEY METRO

The Regional Public Transportation Authority (RPTA)/Valley Metro is a political subdivision of the State of Arizona, and is overseen by a board consisting of an elected official from each member jurisdiction. Membership is open to all municipalities in Maricopa County and to the County government. Currently, the 14 participating communities are Avondale, Chandler, El Mirage, Gilbert, Glendale, Goodyear, Mesa, Peoria, Phoenix, Scottsdale, Surprise, Tempe, Queen Creek, and Maricopa County. In 1993, the RPTA Board adopted Valley Metro as the identity for the regional transit system. The RPTA Board cannot approve projects and programs within the MAG region that are not consistent with the MAG Regional Transportation Plan and the MAG Transportation Improvement Program.

The primary goal of RPTA/Valley Metro is to ensure that a viable public transportation system is provided for regional mobility, and to ease the traffic congestion and improve air quality. The RPTA is responsible for transit public information, the management and operation of regional bus and dial-a-ride services, the Regional Ridesharing program, a regional vanpool program and elements of the countywide Trip Reduction program and Clean Air Campaign. The RPTA is also responsible for maintaining the Transit Life Cycle Program.

In November of 2004, the passage of Proposition 400 increased the amount of funding for public transit from the former amount of approximately two percent of total half-cent sales tax revenues (\$5 million annually inflated), to a figure of over 33 percent, which will begin on January 1, 2006. Over the 20-year life of the half-cent sales tax as approved by Proposition 400, it is anticipated that approximately \$5.0 billion will be raised for public transit projects. These monies will be deposited in the Public Transportation Fund (PTF), which was created as

part of the Proposition 400 legislation. The RPTA is charged with the responsibility of administering monies in the PTF for use on transit projects, including light rail transit projects, identified in the MAG Regional Transportation Plan. The RPTA Board must separately account for monies allocated to: 1) light rail transit, 2) capital costs for other transit, and 3) operation and maintenance costs for other transit.

3.6 VALLEY METRO RAIL

Valley Metro Rail is a non-profit, public corporation overseeing the design, construction, and operation of the light rail transit starter segment, as well as extensions to the project. The Valley Metro Rail Board of Directors is composed of the mayors of each of the participating cities. The five cities currently participating are Phoenix, Tempe, Mesa, Glendale and Chandler.

The Valley Metro Rail Board of Directors establishes procedures for the administration and oversight of the design, construction and operation of light rail, as well as receives and disburses funds and grants from Federal, State, local and other funding sources. The Valley Metro Rail board has the authority to enter into contracts for light rail design and construction, hire or contract for staff for the Light Rail Project, and undertake extensions to the system. The Valley Metro Rail Board cannot approve projects and programs within the MAG region that are not consistent with the MAG Regional Transportation Plan and the MAG Transportation Improvement Program

3.7 CITIZENS TRANSPORTATION OVERSIGHT COMMITTEE

ARS 28-6356 provides for the establishment of a Citizens Transportation Oversight Committee (CTOC) in a county that has a transportation sales tax such as Maricopa County. CTOC consists of seven persons - one member appointed from each of the five supervisory districts in Maricopa County. The Governor appoints an at-large member and the Chair of the committee. Members serve three-year terms. ADOT provides a special assistant to provide staff support to CTOC and to assist in coordination among CTOC, ADOT, MAG, RPTA and local jurisdictions.

The CTOC plays a number of important roles in the regional transportation process. It reviews and advises MAG, RPTA and the State Transportation Board on matters relating to the Regional Transportation Plan, the Transportation Improvement Program, the ADOT 5-year Construction Program and the life cycle management programs. This includes making recommendations on any proposed major amendment of the RTP, on criteria for establishing priorities, and on the five-year performance audit of the RTP. The CTOC is charged with annually contracting for a financial compliance audit of expenditures from the Regional Area Road Fund and the Public Transportation Fund, as well as setting

parameters for periodic performance audits of the administration of those funds (life cycle programs).

The CTOC also holds public hearings and issues reports as appropriate, receives written complaints from citizens regarding adverse impacts of transportation projects funded in the RTP, receives complaints from citizens relating to regional planning agency responsibilities, and makes recommendations regarding transportation projects and public transportation systems funded in the Regional Transportation Plan.

CHAPTER FOUR

REGIONAL TRANSPORTATION PLAN

The MAG Regional Transportation Plan (RTP) provides the blueprint for the implementation of Proposition 400. By Arizona State law, the revenues from the half-cent sales tax for transportation must be used on projects and programs identified in the RTP adopted by MAG. The RTP identifies specific projects and revenue allocations by transportation mode, addressing freeways and other routes on the State Highway System, major arterial streets and intersection improvements, and public transportation systems. An overview of the RTP is provided below, including plan elements, priority criteria, and changes to the RTP during FY 2007.

4.1 PLAN OVERVIEW

The MAG Regional Transportation Plan (RTP) is a comprehensive, performance based, multi-modal and coordinated regional plan, covering all major modes of transportation, including freeways/highways, streets, public mass transit, airports, bicycles and pedestrian facilities, goods movement and special needs transportation. In addition, key transportation related activities are addressed, such as transportation demand management, system management, safety and air quality conformity analysis.

4.1.1 Plan Development Process

The Regional Transportation Plan was developed through a comprehensive, performance-based process, consistent with State legislation. This process followed a specific methodology and evaluated the Plan relative to a range of performance measures. Through the application of computer modeling techniques, this process took into account the effects of population growth on travel patterns to identify future demand for transportation facilities. The steps in the process were: 1) goals and objectives, 2) needs assessment, 3) evaluation methodologies, 4) scenario evaluation, 5) scenario refinement, and 6) phasing and funding.

The transportation planning process also includes broad-based public input, which has been received as the result of an extensive public involvement process that included an aggressive public outreach effort. Public involvement meetings and events are held to accommodate citizens throughout the MAG Region. Additional input is also received through the MAG Web Site. In addition, MAG is committed to ensuring that communities of concern as defined and included in the Title VI Act of 1964, Executive Order 12898 addressing environmental justice, and other Federal directives are specifically considered during the transportation planning and programming process.

As required by the Clean Air Act, air quality conformity analyses are conducted on the RTP and the associated Transportation Improvement Program (TIP). Analyses are conducted on carbon monoxide, volatile organic compounds, and particulate matter (PM-10). These conformity analyses have demonstrated that the RTP and TIP are in conformance with regional air quality plans and will not contribute to air quality violations.

4.1.2 Freeway/Highway Element

The RTP calls for new freeway corridors, as well as improvements to existing freeways and highways. Operation and maintenance of the freeway/highway system are also addressed. All projects are on the State Highway System.

New Freeway/Highway Corridors: New corridors in the RTP add approximately 490 lane miles to the network and include: Loop 202/South Mountain Freeway, Loop 303 Freeway, State Route 801/I-10 Reliever Freeway, and State Route 802/Williams Gateway Freeway.

Freeway/Highway Widening and Other Improvements: These improvements include an additional 530 lane-miles of general-purpose lanes and 300 lane-miles of HOV lanes, covering essentially the entire existing freeway system. Improvements to US 60/Grand Avenue, State Route 85 and other State Highways are also funded. In addition to new travel lanes, additional interchanges with arterial streets on existing freeways are included, as well as improvements at freeway-to-freeway interchanges to provide direct connections between HOV lanes.

Freeway/Highway Maintenance, Operations, Mitigation and System-wide Programs: The RTP provides funding for maintenance of the freeway system, directed at litter pickup, landscaping, and noise mitigation. System-wide programs, such as freeway operations management, are also identified.

Freeway/Highway Priorities: The RTP includes the ADOT Freeway/Highway Life Cycle Program, which is a 20-year schedule of projects that implements the freeway/highway priorities identified in the RTP (see Chapter Six).

4.1.3 Arterial Street Element

The RTP includes a component for major arterial streets in the MAG Region. While MAG is responsible for developing the RTP, local jurisdictions are primarily responsible for design, right-of-way acquisition, construction and maintenance of arterial facilities as identified in the RTP.

New Arterial Facilities, Widening and Intersection Improvements: The RTP provides regional funding for widening existing streets, improving intersections, and constructing new arterial segments. As growth extends into new areas,

widening and extension of the arterial street network will be needed in order to keep up with growing traffic volumes. Congestion on the arterial street network is often caused by inadequate intersection capacity. The RTP calls for a number of intersection improvements, which enhance traffic flow and reduce congestion.

Intelligent Transportation System (ITS): The RTP allocates funding to assist in the implementation of projects identified in the regional ITS Plan. These projects smooth traffic flow and help the transportation system to operate more efficiently.

Arterial Street Priorities: The RTP includes the MAG Arterial Life Cycle Program, which is a 20-year listing of street projects that have been identified in the RTP for regional funding (see Chapter Seven).

4.1.4 Transit Element

The RTP calls for a range of transit facilities and services throughout the region. A regional bus network is included to ensure that reliable service is available on a continuing basis. In addition, light rail corridors are identified to provide a high-capacity backbone for the transit network. Other transit services are included to provide a full range of options, such as paratransit and rural transit service.

Regional Bus: Regional bus services include both arterial grid and express type services that are designed to provide regional connections. Regional bus service consists of three categories of service: Supergrid routes, which provide local fixed route service on the arterial street grid system; Arterial Bus Rapid Transit (BRT) Routes, which operate as express overlays on streets served by local fixed route service; and Freeway BRT Routes, which use freeways to connect remote park-and-ride lots with major activity centers. Funding for both capital and operating needs is identified in the RTP.

Light Rail Transit: The RTP includes a 57.7-mile Light Rail Transit (LRT) system, which incorporates the 20-mile minimum-operating segment (MOS) as designated in the Central Phoenix/East Valley Major Investment Study (MIS); a five-mile Northwest extension; a five-mile extension to downtown Glendale; an 11-mile extension along I-10 west to 79th Avenue; a 12-mile extension to Paradise Valley Mall; a two-mile extension south of the MOS on Rural Road to Southern Avenue; and a 2.7-mile extension from the east terminus of the MOS to Mesa Drive. The technology on the latter segment has not been determined. Funding for LRT capital needs, only, is identified in the RTP. The RTP also provides for the continued investigation of commuter rail implementation strategies for the region.

Other Transit Services: Other transit services provided in the RTP include rural/non-fixed route transit, commuter vanpools, and paratransit transportation.

Transit Priorities: The RTP includes the RPTA Transit Life Cycle Program, which is a 20-year schedule of bus and light rail projects that implements the transit priorities identified in the RTP (see Chapter Eight).

4.1.5 Plan Funding

The half-cent sales tax for transportation is the major funding source for the MAG RTP. In addition, there are other funding sources from State and Federal agencies. These revenue sources, and the half-cent tax, have been termed regional revenues in the RTP. In addition to regional revenues, local governments provide certain funding allocations that support the implementation of the RTP. The regional revenue sources are discussed in detail in Chapter Five.

4.2 PRIORITY CRITERIA

Arizona Revised Statute 28-6354 B. directs MAG to develop criteria that establish the priority of corridors, corridor segments, and other transportation projects. These criteria include public and private funding participation; the consideration of social and community impacts; the establishment of a complete transportation system for the region; the construction of projects to serve regional transportation needs; the construction of segments to provide connectivity on the regional system; and other relevant criteria for regional transportation. The discussion below describes how these kinds of criteria have been applied in the MAG regional transportation planning process, both for the development and the implementation of the Regional Transportation Plan (RTP).

4.2.1 Extent of Local Public and Private Funding Participation

A higher level of local public and private funding participation in the RTP benefits the region by leveraging regional revenues and helping ensure local government commitment to the success of the regional program. The extent of local public and private funding participation is addressed in a number of ways in the MAG transportation planning process.

Project Matching Requirements: In developing funding allocations among the various RTP components and project types, local matching requirements have been established. The local matching requirements in the RTP are:

- 30 percent for major street projects, including ITS elements.
- 30 percent for bicycle and pedestrian projects.
- For air quality and transit projects involving Federal funds, minimum Federal match requirements were assumed. Depending on the specific project funding mix, this match may be provided from regional revenue sources.

Private Funding Participation: As part of the policies and procedures developed for the Arterial Street Life Cycle Program, private funding participation is recognized as applicable local match for half-cent funds for street and intersections projects. This policy helps free local monies that may then be applied to additional transportation improvements.

Local Government Incentives: In the Arterial Street Life Cycle Program, incentives to make efficient use of regional funds have been established by ensuring that project savings by local governments may be applied to new projects in the jurisdiction that achieved those savings.

4.2.2 Social and Community Impacts

Regional transportation improvements can have both beneficial and negative social and community impacts. It is important to conduct a thorough assessment of these impacts, to ensure that they are taken into account in the decision-making process. The MAG planning effort assesses social and community impacts at each key stage of the transportation planning and programming process. In addition, it should be noted that similar efforts are carried out by the agencies implementing specific transportation improvement projects.

Public Participation and Community Outreach: An aggressive citizen participation and outreach program is conducted to obtain public views on the potential community and social impacts of transportation improvements. In particular, input is sought regarding the possible impacts of specific transportation alternatives on the community's social values and physical structure.

Social Impact Assessment: The social impact of transportation options is evaluated as part of the Title VI/Environmental Justice assessment. In this assessment, potential transportation impacts are evaluated for key communities of concern, including minority populations, low-income populations, aged populations, mobility disability populations, and female head of household populations. In addition, community goals are taken into account by basing future travel demand estimates, on local land use plans.

Corridor and Community Impact Assessment: Corridor-level analyses are conducted, which assess the possible social and community impacts of alternative facility alignments based on neighborhood factors such as noise, air quality and land use. Community impacts of transportation facilities are further analyzed by assessing air quality effects through the emissions analysis of plan alternatives, as well as conducting a Federally required air quality conformity analysis of the RTP. In addition, the process for annually updating the Regional Transportation Improvement Program includes project air quality scores, which reflect the potential community impacts of the projects.

4.2.3 Establishment of a Complete Transportation System for the Region

The RTP calls for major investments in all elements of the regional transportation system over the next several decades. It is critical that these expenditures result in a complete and integrated transportation network for the region. The MAG planning process responds directly to this need by conducting transportation planning at the system level, giving priority to segments that can lead to a complete transportation system as quickly as possible, and maintaining a life cycle programming process for all the major modes.

System Level Planning Approach: The regional planning effort is conducted at the system level, taking into account all transportation modes in all parts of the MAG geographic area. This systems level approach is applied in identifying and analyzing alternatives, as well as specifying the final Regional Transportation Plan. In this way, the complete transportation needs of the region, as a whole, are identified and addressed in the planning process.

Project Development Process and Project Readiness: The implementation of regional transportation projects requires a complex development process. This process involves extensive corridor assessments, environmental studies, and engineering concept analyses. This is followed by right-of-way acquisition and final design work, before actual construction may begin. For a variety of reasons, certain projects may progress through this process more rapidly than others. By moving forward, where possible, on those projects with the highest level of readiness for construction, important transportation improvements can be delivered as quickly as possible.

Progress on Multiple Projects: Major needs for transportation improvements exist throughout the MAG area. The scheduling of projects is aimed at proceeding with improvements to the transportation network throughout the planning period in all areas of the region. This will lead toward a complete and functioning regional transportation system that benefits all parts of the MAG area.

Revenues, Expenditures and Life Cycle Programming: Cash flow patterns from revenue sources limit the amount of work that can be accomplished within a given period of time. Project expenditures need to be scheduled to accommodate these cash flows. Life cycle programs have been established that take these conditions into account and implement the projects in the RTP for the major transportation modes: freeways/highways, arterial streets, and transit. The life cycle programs provide a budget process that ensures that the estimated cost of the program of improvements does not exceed the total amount of revenues available. This ensures that a complete transportation system for the region will be developed within available revenues.

As part of the life cycle programming process, consideration is given to bonding a portion of cash flows to implement projects that provide critical connections earlier than might otherwise be possible. This has to be weighed against the reduction in total revenues available for constructing projects, which results from interest costs.

4.2.4 Construction of Projects to Serve Regional Transportation Needs

The resources to implement the RTP are drawn from regional revenue sources and should address regional transportation needs. Transportation projects that serve broad regional needs should have a higher priority than those that primarily only serve a local area. At the same time, the nature of regional transportation needs varies across the MAG area and the same type of transportation solution does not apply everywhere in the region. Enhancing the arterial network may represent the most pressing regional need in one part of the region, whereas adding new freeway corridors may be the key need in another; and expanding transit capacity may represent the best approach in yet another area. The process to develop the RTP recognized that this was the nature of regional transportation needs in the MAG area. As a result, the RTP is structured to respond to different types of needs in different parts of the MAG Region.

Although the modal emphasis of the transportation improvements identified in the RTP varies from area to area, the effects of these improvements can be assessed using common measures of system performance and regional mobility. The measures that were utilized for this purpose are described below. These criteria were applied in the development of the RTP to evaluate alternatives and establish implementation priorities. They can also be applied in the future to evaluate potential adjustments to the priority of corridors, corridor segments, and other transportation projects and services.

Facility/Service Performance Measures: Facility performance measures focus on the amount of travel on specific facilities, the usage of transportation services, the degree of congestion, and other indicators of the level of service as provided:

- Accident rate per million miles of passenger travel.
- Travel time between selected origins and destinations.
- Peak period delay by facility type and geographic location.
- Peak hour speed by facility type and geographic location.
- Number of major intersections at level of service “E” or worse.
- Miles of freeways with level of service “E” or worse during peak period.

- Average Daily Traffic on freeways/highways and arterials.
- Total transit ridership by route and transit mode.
- Cost effectiveness: trips served per dollar invested.

Mobility Measures: Mobility measures focus on the availability of transportation facilities and services, as well as the range of service options as provided:

- Percentage of persons within 30 minutes travel time of employment by mode.
- Jobs and housing within one-quarter mile distance of transit service.
- Percentage of workforce that can reach their workplace by transit within one hour with no more than one transfer.
- Per Capita Vehicle Miles of Travel (VMT) by facility type and mode.
- Households within one-quarter mile of transit.
- Transit share of travel (by transit sub-mode).
- Households within five miles of park-and-ride lots or major transit centers

4.2.5 Construction of Segments that Provide Connectivity with other Elements of the Regional Transportation System

The phasing of the development of the transportation network should be done in a logical sequence, so that maximum possible system continuity, connectivity and efficiency are maintained.

Appropriately located transportation facilities around the region enhance the general mobility throughout the region. To the extent possible, facility construction and transportation service should be sequenced to result in a continuous and coherent network and to avoid gaps and isolated segments, bottlenecks and dead-end routes. Segments that allow for the connection of existing portions of the transportation system should be given a higher priority than segments that do not provide connectivity.

4.2.6 Other relevant criteria developed by the regional planning agency

As part of the RTP, a series of objectives for the regional transportation network were identified. Two key objectives were to achieve broad public support for the needed investments, and to develop a regionally balanced plan that provides geographic equity in the distribution of investments. Specific criteria related to these objectives are:

- Transportation decisions that result in effective and efficient use of public resources and strong public support.
- Geographic distribution of transportation investments.
- Inclusion of committed corridors.

4.3 REGIONAL TRANSPORTATION PLAN CHANGES AND OUTLOOK

The RTP is a long range plan for transportation improvements in the region, covering a period of over two decades. During a program of this length, inevitably, new information will be obtained and changing conditions will be faced as the implementation effort proceeds. As a result, the RTP and the MAG Transportation Improvement Program (TIP) must necessarily be updated periodically to reflect factors such as changes in costs, project schedules, and the outlook for future revenues.

4.3.1 System-Level Activities

SAFETEA - LU: On July 25, 2007, the MAG Regional Council approved the MAG Regional Transportation Plan - 2007 Update and the MAG FY 2008-2012 Transportation Improvement Program. The 2007 RTP Update was structured to comply with the regional transportation planning requirements of the U.S. Safe, Accountable, Flexible, Efficient, Transportation Equity Act - A legacy for Users (SAFETEA-LU). These requirements must be met for plans adopted or amended after July 1, 2007. The 2007 RTP Update addresses several new topics to respond to SAFETEA-LU, including consultation on environmental mitigation and resource conservation, transportation security, and an updated public participation process. In addition, it includes revised revenue estimates, and updated life cycle programs for freeways/highways, arterial streets, and transit.

Life Cycle Programs: Through approval of the RTP and TIP, changes to the schedule and cost estimate for certain projects were also addressed. Schedule changes were in reaction to the length of time required to conduct preliminary engineering and environmental studies, prepare detailed facility designs, resolve issues regarding right-of-way acquisition, and complete coordination efforts with other agencies. For certain changes to bus services, service initiation dates have been adjusted to achieve a better match with construction of capital facilities, as well as maintain operational balance. Changes in cost estimates reflect cost increases in right-of-way, construction materials, fuel and equipment, labor, construction bids, and design considerations. In addition, in certain cases projects have been accelerated as the result of new funding and financing opportunities. These changes are described in detail in the chapters on the Freeway/Highway Life Cycle Program, Arterial Street Life Cycle Program, and Transit Life Cycle Program.

Air Quality Conformity Analysis: The 1990 Clean Air Act Amendments require that transportation plans and programs be in conformance with applicable air quality plans. To comply with this requirement, a technical air quality analysis was performed on the 2007 RTP Update and 2008-2012 TIP and demonstrated that they meet the air quality conformity requirements of applicable State and Federal air quality implementation plans. This analysis has been transmitted to the U.S. Department of Transportation for their concurrence on the finding of conformity.

4.3.2 Corridor-Level and Sub-Area Activities

State Route 153: During FY 2007, a major amendment to the RTP was proposed to delete State Route (SR) 153/Sky Harbor Expressway from the RTP, and shift the available funding to improvements on SR 143/Hohokam Expressway. This proposal resulted from recent analyses that indicate that the original concept for SR 153 as a connector to I-10 at 40th Street would no longer be effective. On July 25, 2007, the MAG Regional Council approved the proposed amendment, after completion of a thirty-day review period and agency consultation as set forth in Arizona Revised Statute (A.R.S.) 28-6353. This approval is contingent upon air quality conformity analysis of the amendment, which will occur later in 2007.

Northwest Extension - Light Rail Transit (LRT) System: As part of the 2007 Update of the RTP, the LRT Northwest Extension will be implemented in two phases instead of a single project. The first phase from will be from 19th Ave./Bethany Home Road to Dunlap Avenue (completion in 2012), and the second phase will be from Dunlap Avenue to 25th Avenue/Mountain View Road (completion 2017). These changes were implemented to maintain flexibility relative to other future extensions of the LRT system extensions and provide for the more efficient use of Federal CMAQ funds.

Transportation Framework Studies: During FY 2007, work continued on area transportation studies initiated during FY 2006. These studies include the Interstate 10/Hassayampa Valley Roadway Framework Study, covering western Maricopa County; the Interstates 8 and 10/Hidden Valley Roadway Framework Study, covering southwest Maricopa/western Pinal County; and the Commuter Rail Strategic Plan, covering the MAG planning area. The findings of these studies, which are anticipated in FY 2008, will be a resource for possible adjustment and expansion of the Plan, as part of future updates of the RTP.

In addition, during FY 2007 work was initiated on "Building a Quality Arizona: Statewide Intrastate Mobility Reconnaissance Study for the state of Arizona". MAG is managing this study as a partner with ADOT, as well as the Councils of Governments and Metropolitan Planning Organizations covering all of Arizona. This study is in response to statewide transportation needs that continue to grow,

as Arizona realizes continuing development and socioeconomic opportunity due to its favorable climate and market conditions. It is anticipated that the study will be a multi-year process, with the initial the effort aimed at developing a set of planning tools for assessing immediate transportation needs and for establishing a long-term transportation vision for the State.

CHAPTER FIVE

HALF-CENT SALES TAX FOR TRANSPORTATION AND OTHER REGIONAL REVENUES

The half-cent sales tax for transportation approved through Proposition 400 is the major funding source for the MAG Regional Transportation Plan (RTP), providing over half the revenues for the Plan. In addition to the half-cent sales tax, there are a number of other RTP funding sources, which are primarily from State and Federal agencies. These revenue sources and the half-cent tax have been termed regional revenues in the RTP. The specific regional revenue sources are:

- Half-cent Sales Tax.
- Arizona Department of Transportation (ADOT) Funds.
- MAG Area Federal Highway Funds.
- MAG Area Federal Transit Funds.

In addition to regional revenues, local governments provide funding that supports implementation of the RTP. These resources provide matching monies for capital projects in the Arterial Street Program and Light Rail Transit Program; subsidize certain transit operating costs; and, in the form of transit farebox monies, contribute significant funding for transit operations. An additional block of funding from State sources, the Statewide Transportation Acceleration Needs (STAN) Account, is also be applied to projects in the RTP, and may be available on a periodic basis.

It should also be noted that revenue projections are expressed in “Year of Expenditure” (YOE) dollars, which reflect the actual number of dollars collected/expended in a given year. Therefore, there is no correction or discounting for inflation. The effect of inflation is accounted for separately through an allowance for inflation that is applied when comparing project costs and revenues, which is included in the modal chapters. In these chapters, costs reflect currently available, real dollars estimates as of 2007, but may not have been specifically factored, in every case, to a 2007 base year.

5.1 HALF-CENT SALES TAX (*Maricopa County Transportation Excise Tax*)

On November 2, 2004, the voters of Maricopa County passed Proposition 400, which authorized the continuation of the existing half-cent sales tax for transportation in the region (also known as the *Maricopa County Transportation*

Excise Tax). This action provides a 20-year extension of the half-cent sales tax through calendar year 2025 and went into affect on January 1, 2006.

The revenues collected from the half-cent sales tax extension are deposited into the Regional Area Road Fund (RARF), and allocated between freeway/highway and arterial street projects; and into the Public Transportation Fund (PTF) for public transit programs and projects. These monies must be applied to projects and programs consistent with the MAG RTP. Table 5-1 displays the actual and projected Proposition 400 half-cent sales tax revenues for the period FY 2006-2026. As specified in ARS 42-6105.E, 56.2 percent of all sales tax collections are distributed to freeways and highways (RARF); 10.5 percent will be distributed to arterial street improvements (RARF); and 33.3 percent of all collections will be distributed to transit (PTF). The use of PTF monies must be separately accounted for based on allocations to: (1) light rail transit, (2) capital costs for other transit, and (3) operation and maintenance costs for other transit.

As displayed in Table 5-1, actual receipts from the Proposition 400 half-cent sales tax totaled \$154 million during FY 2006 and \$391 million for FY 2007. (The FY 2006 amount reflects the initiation of the tax on January 1, 2006 and the normal lag in receipt of revenues by the fund.) The receipts in FY 2007 from the Proposition 400 tax are 6.7 percent higher than the full year receipts from the half-cent tax in FY 2006. (During the first half of FY 2006, the half-cent tax was being implemented under Proposition 300.) The growth in receipts on a monthly basis between FY 2006 and 2007 slowed from 10.9 percent in July 2006 to 1.0 percent in June 2007.

Future half-cent revenues for the period FY 2008 through FY 2026 are forecasted to total \$14.4 billion. This amount is 5.1 percent higher than the forecast for the same period presented in the 2006 Annual Report. Of the \$14.4 billion total included in the current forecast, \$8.1 billion will be allocated to freeway/highway projects; \$1.5 billion to arterial street improvements; and \$4.8 billion to transit projects and programs. ADOT will update the half-cent forecasts in the latter part of calendar 2007, taking into account recent slowing in revenue growth as appropriate.

5.2 ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT) FUNDS

ADOT funding sources include the Arizona State Highway User Revenue Fund (HURF) monies allocated to ADOT to support the State Highway System, ADOT Federal Aid Highway Funds, and other miscellaneous sources.

5.2.1 ADOT Funding Overview

ADOT relies on funding from two primary sources: the Highway User Revenue Fund (HURF) and Federal transportation funds. The HURF is comprised of funds from the gasoline and use fuel taxes, a portion of the vehicle license tax, registration fees and other miscellaneous sources. Of the total funding,

TABLE 5-1
MARICOPA COUNTY TRANSPORTATION EXCISE TAX: FY 2006-2026
 (Year of Expenditure Dollars in Millions)

Fiscal Year	Regional Area Road Fund (RARF)		Public Transportation Fund (PTF) (33.3%)	Total
	Freeways (56.2%)	Arterial Streets (10.5%)		
Actual (2)				
2006 (1)	86.3	16.1	51.1	153.6
2007	219.7	41.1	130.2	391.0
Subtotal	306.1	57.2	181.4	544.6
Forecasted				
2008	235.3	44.0	139.4	418.7
2009	249.9	46.7	148.1	444.6
2010	266.2	49.7	157.7	473.6
2011	284.0	53.1	168.3	505.4
2012	303.1	56.6	179.6	539.3
2013	323.9	60.5	191.9	576.3
2014	345.5	64.5	204.7	614.7
2015	368.1	68.8	218.1	655.0
2016	392.4	73.3	232.5	698.2
2017	418.9	78.3	248.2	745.4
2018	445.9	83.3	264.2	793.5
2019	475.5	88.8	281.7	846.0
2020	507.0	94.7	300.4	902.2
2021	539.9	100.9	319.9	960.6
2022	574.4	107.3	340.4	1,022.1
2023	611.9	114.3	362.6	1,088.8
2024	651.8	121.8	386.2	1,159.7
2025	694.0	129.7	411.2	1,234.8
2026 (2)	431.1	80.5	255.4	767.1
Subtotal	8,118.7	1,516.8	4,810.5	14,446.0
Total				
Totals	8,424.7	1,574.0	4,991.9	14,990.6

(1) Represents Proposition 400 tax revenues, which began on January 1, 2006.

(2) Fiscal Year totals reflect the lag in actual receipt of revenues by the fund.

(3) Reflects end of Proposition 400 half-cent sales tax on December 31, 2025.

approximately 40 percent comes from the gasoline tax and another 15 percent comes from the sale of diesel fuel. The portion of the Vehicle License Tax (VLT) that flows into the HURF accounts for about 25 percent of the total HURF funds.

According to the Arizona constitution, HURF funds can only be used on highways and streets, therefore, HURF funds cannot be used for transit purposes.

ADOT, Arizona counties and cities and towns, and the Department of Public Safety (DPS) receive an allocation from HURF. Of the funds remaining after the allocation for DPS, ADOT receives 50.5 percent, 19 percent is allocated to counties, and 27.5 percent is allocated to Arizona cities and towns. The remaining three percent is allocated to cities with populations over 300,000. For the purposes of revenue forecasting, total HURF funds are projected based on forecasted population and economic growth, assuming that there would no change in tax rates. Total forecasted HURF funds are then distributed to ADOT and the other entities based on the current statutory formula and policy.

From the ADOT HURF allocation, State statute provides that 12.6 percent of the HURF funds flowing to ADOT are earmarked for the MAG Region, and the region comprising the Pima Association of Governments (PAG), which includes metropolitan Tucson, Arizona. In addition, the State Transportation Board has established a policy that another 2.6 percent of ADOT HURF funds would be allocated to the two regions. These funds are divided into 75 percent for the MAG Region and 25 percent for the PAG Region. These funds are referred to as “15 Percent Funds”.

After the deduction of the 15 Percent Funds, ADOT must pay for operations and maintenance and debt service on outstanding bonds. This includes funds for the Motor Vehicle Division, administration, highway maintenance and additional funding for DPS. The remaining HURF funds are then combined with Federal highway funds to provide the basis for the ADOT Highway Construction Program. This block of funds is often referred to as “ADOT Discretionary Funds”.

5.2.2 ADOT Funding in the MAG Area

Table 5-2 summarizes ADOT funds applicable to projects in the MAG Regional Transportation Plan. As displayed in Table 5-2, actual receipts from ADOT Funds through FY 2007 totaled \$402 million, and forecasted revenues for the period FY 2008 through FY 2026 total \$7.8 billion.

15 Percent Funding: The MAG area receives annual funding from the Arizona Department of Transportation (ADOT) in the form of 15 Percent Funds, which are allocated from the Highway User Revenue Fund (HURF). This source represents about one-third of the total ADOT funding in the Freeway/Highway Life Cycle Program. These funds are spent for improvements on limited access facilities on the State Highway System.

MAG Share of ADOT Discretionary Funds: A 37 percent share of ADOT Discretionary Funds is targeted to the MAG Region. Arizona Revised Statute 28-

TABLE 5-2
ADOT FUNDING IN MAG AREA: FY 2006-2026
 (Year of Expenditure Dollars in Millions)

Fiscal Year	15% Funds	ADOT Discretionary	Total Funding
Actual			
2006	72.8	106.9	179.7
2007	79.5	142.3	221.8
Subtotal	152.3	249.2	401.5
Forecasted			
2008	82.9	322.6	405.5
2009	87.2	266.1	353.3
2010	91.5	165.7	257.2
2011	96.0	185.0	281.0
2012	101.0	203.7	304.7
2013	106.2	211.8	318.0
2014	111.3	220.3	331.6
2015	116.7	229.1	345.8
2016	122.9	238.3	361.2
2017	129.3	247.8	377.1
2018	135.9	257.7	393.6
2019	143.0	268.0	411.0
2020	149.8	278.7	428.5
2021	157.6	289.9	447.5
2022	165.2	301.5	466.7
2023	173.1	313.5	486.6
2024	182.0	326.1	508.1
2025	191.3	339.1	530.4
2026	201.0	567.9	768.9
Subtotal	2,543.9	5,232.8	7,776.7
Forecasted			
Totals	2,696.2	5,482.0	8,178.2

304 C. 1 states that the percentage of ADOT discretionary monies allocated to the MAG region in the Regional Transportation Plan shall not increase or decrease unless the State Transportation Board, in cooperation with the regional planning agency, agrees to change the percentage of the discretionary monies.

5.3 MAG AREA FEDERAL TRANSPORTATION FUNDS

In addition to the half-cent sales tax revenues and ADOT funding, Federal transportation funding directed to the MAG region is available for use in implementing projects in the MAG Regional Transportation Plan. These sources are summarized in Table 5-3, which displays actual and forecasted receipts. As

TABLE 5-3
MAG FEDERAL TRANSPORTATION FUNDS: FY 2006-2026
 (Year of Expenditure Dollars in Millions)

Year	Transit			MAG STP			MAG CMAQ						Grand Total
	5307	5309	Total	Fwy/Hwy	Arterial	Total	Fwy/Hwy	Arterial	Transit	Bk/Ped	AQ	Total	
Actual													
2006	11.0	5.7	16.7	34.1	3.2	37.3	0.0	0.0	1.3	0.0	0.0	1.3	55.3
2007	14.1	11.0	25.1	34.1	13.5	47.6	0.0	0.0	0.0	0.0	0.0	0.0	72.7
Subtotal	25.1	16.7	41.8	68.2	16.7	84.9	0.0	0.0	1.3	0.0	0.0	1.3	128.0
Forecasted													
2008	25.5	19.2	44.7	34.1	13.2	47.3	8.4	5.9	15.7	7.5	6.4	43.9	135.8
2009	27.4	20.1	47.5	34.1	13.5	47.6	8.4	5.9	15.9	7.5	6.5	44.2	139.4
2010	11.6	7.1	18.8	34.1	16.0	50.1	8.7	6.1	16.4	7.8	6.7	45.7	114.6
2011	43.6	66.3	110.0	34.1	17.8	51.9	9.0	6.3	17.0	8.1	6.9	47.3	209.2
2012	46.6	95.2	141.8	34.1	19.6	53.7	9.4	6.6	17.6	8.3	7.2	49.1	244.6
2013	60.7	98.3	159.1	34.1	21.3	55.4	9.7	6.8	18.2	8.6	7.4	50.7	265.2
2014	64.7	101.6	166.3	34.1	23.1	57.2	10.0	7.0	18.9	8.9	7.7	52.5	276.0
2015	69.0	104.9	173.9	34.1	24.9	59.0	10.4	7.3	19.5	9.2	7.9	54.3	287.2
2016	73.5	108.4	181.8	12.7	48.1	60.8	10.7	7.5	20.2	9.6	8.2	56.2	298.8
2017	78.3	111.9	190.2		62.9	62.9	11.1	7.8	20.9	9.9	8.5	58.2	311.3
2018	83.4	115.6	199.0		65.1	65.1	11.5	8.1	21.6	10.2	8.8	60.2	324.3
2019	88.8	94.1	183.0		67.4	67.4	11.9	8.4	22.4	10.6	9.1	62.4	312.7
2020	94.6	13.7	108.3		69.8	69.8	12.3	8.6	23.2	11.0	9.4	64.5	242.6
2021	100.7	34.2	134.9		72.2	72.2	12.8	9.0	24.0	11.4	9.8	67.0	274.1
2022	107.2	131.5	238.8		74.7	74.7	13.2	9.3	24.8	11.8	10.1	69.2	382.7
2023	128.9	135.9	264.8		77.3	77.3	13.7	9.6	25.7	12.2	10.4	71.6	413.7
2024	137.2	176.5	313.7		80.0	80.0	14.1	9.9	26.6	12.6	10.8	74.0	467.7
2025	145.9	66.7	212.7		82.9	82.9	14.6	10.3	27.5	13.0	11.2	76.6	372.1
2026	154.8	69.1	224.0		85.8	85.8	15.2	10.6	28.5	13.5	11.6	79.4	389.1
Subtotal	1,542.5	1,570.6	3,113.1	285.5	935.6	1,221.1	215.1	151.0	404.6	191.7	164.6	1,127.0	5,461.2
Total													
Totals	1,567.6	1,587.2	3,154.9	353.7	952.3	1,306.0	215.1	151.0	405.9	191.7	164.6	1,128.3	5,589.1

displayed in Table 5-3, actual receipts from Federal sources totaled \$55 million in FY 2006 and \$73 million in FY 2007. The forecasted revenues for the period FY 2008 through FY 2026 total \$5.5 billion. This forecast is unchanged from the figure provided in the 2006 Annual Report.

5.3.1 Federal Transit (5307) Funds

These Federal transit formula grants are available to large urban areas to fund bus purchases and other transit capital projects. Purchases made under this program must include a 20 percent local match. This funding source is expected to generate \$1.5 billion for transit development from FY 2008 through FY 2026.

5.3.2 Federal Transit (5309) Funds Federal

Transit 5309 funds are available through discretionary grants from the Federal Transit Administration (FTA), and applications are on a competitive basis. They include grants for bus transit development and “new starts” of Light Rail Transit (LRT) and other high capacity systems. Bus transit development requires a 20 percent local match, while new starts are expected to require a 50 percent local match. These funds are granted at the discretion of the FTA, following a very thorough evaluation process. Over the planning horizon, it is estimated that \$1.6 billion in 5309 funds for bus and rail transit projects will be made available to the MAG Region from the FTA, during FY 2008 through FY 2026. The total does not include the \$587 million in 5309 funds for the 20-mile light rail starter segment, which has already been committed to the region.

5.3.3 Federal Highway (MAG STP) Funds

MAG Surface Transportation Funds (STP) are the most flexible Federal transportation funds and may be used for highways, transit or streets. During the period from FY 2008 through FY 2026, it is estimated that \$936 million will be available from STP funds. In addition to this amount, approximately \$34 million per year has been allocated through FY 2015 to retire debt related to the completion of the Proposition 300 program.

5.3.4 Federal Highway (MAG CMAQ) Funds

MAG Congestion Mitigation and Air Quality (CMAQ) funds are available for projects that improve air quality in areas that do not meet clean air standards (“non-attainment” areas). Projects may include a wide variety of highway, transit and alternate mode projects that contribute to improved air quality. While they are allocated to the State, Arizona’s funds have been dedicated entirely to the MAG Region, due to the high congestion levels and major air quality issues in the region. MAG CMAQ funds are projected to generate \$1.1 billion from FY 2008 through FY 2026.

5.4 STATEWIDE TRANSPORTATION ACCELERATION NEEDS (STAN) ACCOUNT

As part of the budget process in the Spring 2006 Arizona Legislative Session, the Legislature passed, and the Governor signed, HB 2865, which included the creation of the Statewide Transportation Acceleration Needs (STAN) Account. The STAN monies may only be used for: (1) material and labor, (2) acquisition of rights-of-way for highway needs, (3) design and other engineering services, and (4) other directly related costs approved by the State Transportation Board for projects on the State Highway System. MAG's share of the \$307 million in STAN funding identified is \$193 million, which includes interest earnings of approximately \$9 million. On December 13, 2006, the MAG Regional Council approved a set of projects to be funded from the Statewide Transportation Acceleration Needs (STAN) Account (see Chapter 6).

As part of the FY 2008 State budget, the Arizona State Legislature transferred \$62 million from the State Highway Fund to the State Transportation Acceleration Needs (STAN) account. In House Bill 2793, the Legislature established a subaccount for the reimbursement of interest expenses incurred by or on behalf of a local jurisdiction for the acceleration of transportation projects on the State Highway System. The bill allocated \$10 million from the \$31 million in funding given to the MAG region for this purpose.

The law requires that, for the project to be eligible for reimbursement of the interest cost, an agreement needs to be in place with at least one other city or county, the Arizona Department of Transportation, and the regional planning agency. On September 6, 2007, the MAG Regional Council took action to allocate funding through the STAN subaccount for interest reimbursement (see Chapter 6).

5.5 REGIONAL REVENUES SUMMARY

Actual and forecasted regional revenue sources for the MAG RTP between FY 2006 and FY 2026 are summarized in Table 5-4. Actual receipts from all regional revenue sources through FY 2007 totaled \$1.1 billion. Future regional revenues are projected to total \$27.9 billion for the period FY 2008 through FY 2026. Total revenues for the period FY 2006 through FY 2026 amount to \$29.0 billion, which is 3.5 percent greater than the estimate in the 2006 Annual Report for the same period .

In addition to the funding sources listed in Table 5-4, bonding and other debt financing assumptions, as well as allowances for inflation, are applied in each modal life cycle program. These amounts are listed in the respective modal chapters (see Chapters Six, Seven and Eight). The allowance for inflation was obtained by applying discount factors corresponding to an annual three percent inflation rate to the forecasted future revenues after the deduction of debt service

and other expenses. Bonding assumptions will be subject to a variety of future factors, including the financial markets and the program cash flow requirements of each modal program.

TABLE 5-4
REGIONAL REVENUES SUMMARY
 (Year of Expenditure Dollars in Millions)

Sources	FY 2006 - 2007 Actual	FY 2008 - 2026 Forecast	Total
Proposition 400: Half Cent Sales Tax Extension	544.6	14,446.0	14,990.6
ADOT Funds	401.5	7,776.7	8,178.2
Statewide Transportation Acceleration Needs (STAN)	--	193.5	193.5
Federal Transit (5307 Funds)	25.1	1,542.5	1,567.6
Federal Transit (5309 Funds)	16.7	1,570.6	1,587.3
Federal Highway (MAG STP)	84.9	1,221.1	1,306.0
Federal Highway (MAG CMAQ)	1.3	1,127.0	1,128.3
Total	1,074.1	27,877.4	28,951.5

CHAPTER SIX

FREEWAY/HIGHWAY LIFE CYCLE PROGRAM

The Freeway/Highway Life Cycle Program extends through FY 2026 and is maintained by the Arizona Department of Transportation (ADOT) to implement freeway/highway projects identified in the MAG Regional Transportation Plan (RTP). The program utilizes funding from the Proposition 400 half-cent sales tax extension, as well as funding from State and Federal revenue sources.

6.1 STATUS OF FREEWAY/HIGHWAY PROJECTS

The Freeway/Highway Life Cycle Program includes both new freeway corridors to serve growth in the region and improvements to the existing system to address current and future congestion. In addition, effective operation and maintenance of the existing and future system are addressed. Figure 6-1, as well as appendix Tables A-1 through A-7, provide information on the locations and costs associated with Freeway/Highway Life Cycle projects. The projects depicted in Figure 6-1 are cross-referenced with the data in the tables by the code associated with each project.

6.1.1 New Corridors

SR 153 (Sky Harbor Expressway)

- The Sky Harbor Expressway is an existing facility generally along a 44th St. alignment between Washington Boulevard and University Dr., completed as part of the Proposition 300 Freeway Program. The final phase of this project had been planned as an extension to Superior Ave. at 40th St., providing a connection to the I-10/40th St. interchange.
- Recent analyses indicated that the original concept for SR 153 as a connector to I-10 at 40th St. would no longer be effective. As a result, a major amendment to the RTP was proposed to delete State Route (SR) 153/Sky Harbor Expressway from the RTP, and shift the available funding to improvements on SR 143/Hohokam Expressway. On July 25, 2007, the MAG Regional Council approved the proposed amendment, after completion of a thirty-day review period and agency consultation as set forth in Arizona Revised Statute (A.R.S.) 28-6353. This approval is contingent upon air quality conformity analysis of the amendment.

Loop 202 (South Mountain Freeway):

- The South Mountain Freeway is planned as a loop facility south of the

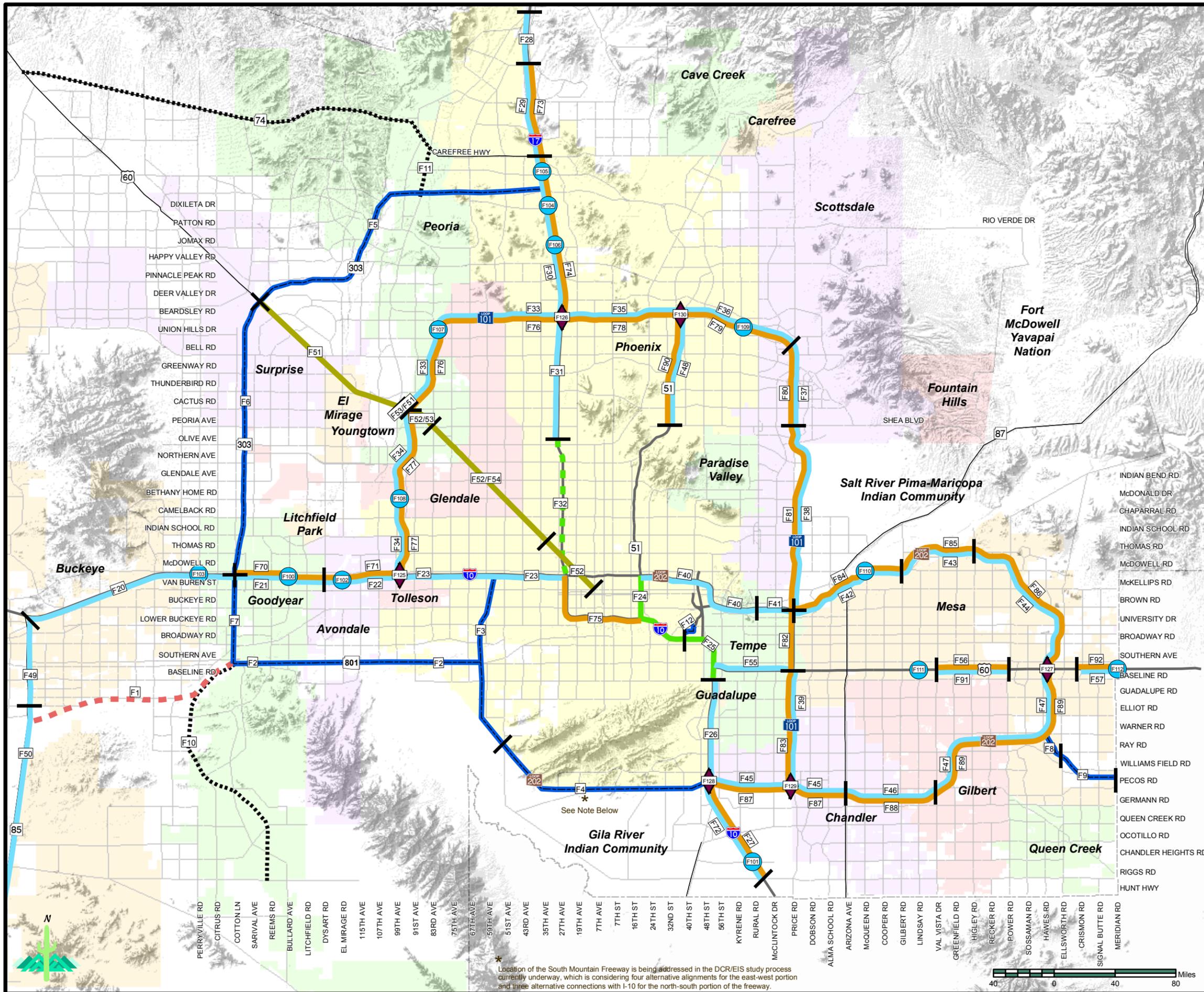
Figure 6-1



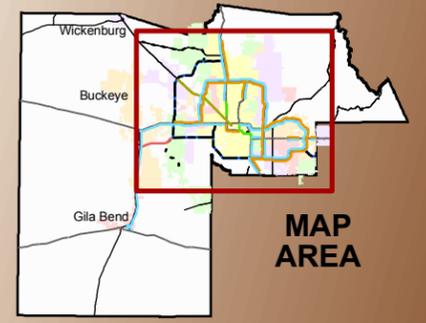
MAG 2007 Annual Report on Proposition 400

Freeways/Highways

- New Traffic Interchange
- New High Occupancy Vehicle Ramp Connection
- New Freeway/Highway Construction
- New General Purpose Lanes
- New High Occupancy Vehicle Lanes
- Grand Avenue Corridor Improvements
- Corridor Capacity Improvements
- Long Term Capacity Improvements
- Interim Corridor Development
- Right of Way Preservation
- Existing Freeway
- Project Segment Separators
- Highways
- Other Roads
- County Boundary



Alignments for new freeway, highway, arterial, and light rail/high capacity transit facilities will be determined following the completion of appropriate design and environmental studies.



* Location of the South Mountain Freeway is being addressed in the DCR/EIS study process currently underway, which is considering four alternative alignments for the east-west portion and three alternative connections with I-10 for the north-south portion of the freeway.



central area of the region, connecting the western terminus of the Santan Freeway with I-10 in the West Valley. The RTP programs funding through FY 2015 for construction of a six-lane freeway between I-10 (west) and I-10 (east).

- A Design Concept Report (DCR) and an Environmental Impact Statement (EIS) are currently progressing on the South Mountain Freeway corridor. A US Department of Transportation "Record-of-Decision" on the recommended alternative for the corridor is expected by the end of calendar year 2008.
- \$730 million has been programmed from FY 2008 through FY 2012 to cover design, right-of-way, and construction for the South Mountain Freeway.
- Preliminary information from ongoing engineering studies on the South Mountain Freeway indicate that the total cost of the facility may exceed the total future funding currently allocated to this project (\$1.1 billion) by as much as \$600 million.

Loop 303 (Estrella Freeway):

- Loop 303 is planned to extend west from I-17 at Lone Mountain Rd., swinging southwest to Grand Ave., running south in the vicinity of Cotton Lane to I-10, and then terminating at MC 85 (Buckeye Rd.). The RTP identifies funding through FY 2015 for construction of a six-lane freeway between I-10 and I-17. The segment between I-10 and MC 85 is targeted for construction by the end of FY 2020.
- An interim facility has been constructed between Grand Ave. and Happy Valley Rd. by Maricopa County, and full freeway right-of-way has also been acquired along most of this segment.
- DCRs and Environment Assessments (EAs) on the segments between I-10 and Grand Ave. (US 60) and between Happy Valley Rd. and I-17 are scheduled for completion by late calendar year 2007.
- Preliminary engineering and environmental analysis for the segment between I-10 and Buckeye Rd. are anticipated to continue through FY 2008.
- By making use of the STAN funding approved by the Legislature in FY 2006, a total of \$20 million has been programmed in FY 2008 to advance the construction of a partial interchange at Bell Rd. from 2011/15 to 2008; and advance the construction of bridge structures at Cactus Rd. and Waddell Rd. from 2011/15 to 2008.
- A total of \$978 million has been programmed from FY 2008 through FY 2012 for design, right-of-way, and construction between I-17 and I-10.

- Preliminary information from ongoing engineering studies on Loop 303 indicate that the total cost of the facility may exceed the total future funding currently allocated to this project (\$1.7 billion) by as much as \$1.1 billion.

SR 801 (I-10 Reliever):

- The I-10 Reliever (SR 801) is planned as an east-west facility south of I-10 connecting the South Mountain Freeway (Loop 202) and SR 85. In the RTP, the route is funded for construction as a six-lane freeway between Loop 202 and Loop 303; and as a two-lane roadway, with right-of-way preservation for a freeway facility, between Loop 303 and SR 85. Construction of the facility is targeted for the period 2021 through 2026.
- Preliminary engineering and environmental analysis for the segment between Loop 202 and Loop 303 are expected to continue through FY 2009. Final engineering and environmental analysis for the segment between Loop 303 and SR 85 are due in December 2008.
- \$19 million has been programmed from FY 2008 through FY 2012 for early right-of-way protection. The amounts programmed for right-of-way will increase in later years prior to construction.
- Preliminary information from ongoing engineering studies on SR 801 indicate that the total cost of the facility may exceed the total future funding currently allocated to this project (\$723 million) by as much as \$700 million.

SR 802 (Williams Gateway Freeway):

- The Williams Gateway Freeway is planned as a six-lane facility extending from Loop 202 south to the Williams Gateway Airport, and east to the Pinal County line. In the RTP, final construction of the facility is targeted to occur by the end of FY 2020.
- In FY 2006, a preferred location for this facility within Maricopa County was adopted by MAG. Preliminary engineering and environmental analysis by ADOT for the entire corridor (including the Pinal County portion) are expected to continue through FY 2009.
- \$2 million per year from FY 2008 through FY 2012 has been programmed for early right-of-way protection. The amounts programmed for right-of-way increase in later years prior to construction. In addition, a block of \$20.3 million was programmed for FY 2007 from the Statewide Transportation Acceleration Needs (STAN) account for right-of-way protection.

Other Right-of-Way Protection on SR 74 and Loop 303 (Buckeye Rd. to Riggs Rd.):

- \$1 million per year has been programmed during the period from FY 2008 through FY 2012 for right-of-way protection on SR 74. This level is maintained and enhanced in future years, in an effort to meet potentially growing right-of-way protection requirements in this area.
- Funding for right-of-way is also identified for Loop 303 (MC 85 to Riggs Rd.) in later years. The precise alignment for Loop 303 south of MC 85 has not yet been defined.

6.1.2 Widen Existing Facilities: General Purpose Lanes and HOV Lanes

I-10:

- The RTP includes the addition of general purpose lanes along essentially the entire length of I-10, between State Route 85 on the west and Riggs Rd. on the east (no additional lanes are planned between I-17 and SR 51). HOV lanes will also be added along several segments to provide continuous HOV service on I-10, between Loop 303 on the west and Riggs Rd. on the east. Improvements are generally scheduled earlier in the central area of the region, from FY 2008 through FY 2015, and extend to other areas of the region through FY 2023.
- A Design Concept Report (DCR) and Environmental Impact Statement (EIS) are proceeding on local/express lanes that would ease congestion between State Route 51 and Baseline Rd. A total of \$534 million has been programmed from FY 2008 through FY 2012 for design, right-of-way and construction work on this project.
- Preliminary information from ongoing engineering studies on the I-10 local/express lanes indicate that the total cost of the ultimate facility concept may exceed the total future funding currently allocated to this project (\$534 million) by as much as \$700 million.
- A total of \$141 million has been programmed from FY 2008 through FY 2009 to complete the widening between Loop 101 and Sarival Rd. Final design work is underway on this segment. The segment had been previously programmed for final construction in FY 2014 but has been accelerated through GANS and HELP loans to FY 2008, with interest expense being shared between the regional program and a group of Southwest Valley cities.
- A total of \$47 million has been programmed in FY 2008 and FY 2009 for the design and construction of general purpose lanes between Sarival Rd. and

Verrado Way. This project was advanced from 2023 to 2009 by making use of the STAN funding approved by the Legislature in FY 2006.

- Preliminary analysis for general purpose lanes on the segment between I-17 and Loop 101 (Agua Fria) is expected to continue through FY 2008. More detailed studies will proceed pending the resolution of the South Mountain Freeway alignment and the location of future Light Rail Transit facilities in the corridor. A total of \$72 million has been programmed during FY 2009 through FY 2010 for design and construction on this segment.
- \$67 million has been programmed from FY 2009 through FY 2010 for the design and construction of both general purpose and HOV lanes between Loop 202 (Santan Freeway) and Riggs Rd. Preliminary engineering and environmental studies were reinitiated in FY 2007 and will continue through FY 2008.

I-17:

- The RTP includes construction of additional general purpose lanes on I-17 between McDowell Rd. on the south and New River Rd. on the north. HOV lanes are also being added to fill gaps, and to extend the HOV system along I-17 from I-10 (in the area of Sky Harbor), to Anthem Way. Improvements are programmed through FY 2024.
- Final design work has been completed for the segment between Loop 101 and the Carefree Highway, and the project will go to bid in FY 2008. A total of \$207 million has been programmed in FY 2008 for construction of both general purpose and HOV lanes on this segment.
- By making use of the STAN funding approved by the Legislature in FY 2006, a total of \$31 million has been programmed in FY 2009 to advance the construction of general purpose lanes between Carefree Highway and Anthem Way from 2024 to 2009.

SR 51 (Piestewa Freeway):

- The RTP includes construction of additional general purpose and HOV lanes on SR 51 between Shea Boulevard and Loop 101. The HOV improvements are programmed in FY 2007, with funding for the general purpose lanes identified in FY 2023.
- This project includes HOV ramps at the system interchange between SR 51 and Loop 101. A total of \$61 million was been programmed in FY 2007 for construction. A contract for this project was awarded in FY 2007, and it is currently under construction.

- Preliminary engineering and environmental analysis for the addition of general purpose lanes on SR 51 will begin after in FY 2020.

US 60 (Grand Ave.):

- The RTP identifies a series of improvement projects along various segments of Grand Ave. between Loop 303 and McDowell Rd., including the addition of general purpose lanes, grade separations and other improvements. The implementation of these projects will span the planning period through FY 2026.
- Preliminary engineering and environmental analysis for the addition of general purpose lanes between Loop 303 and Loop 101 were completed in FY 2007. Final design work will occur during FY 2008. A total of \$47 million has been programmed from FY 2008 through FY 2009 for design and construction on this segment. The widening of the segment between 99th Ave. and 83rd Ave. will be under construction during FY 2008.
- Preliminary engineering and environmental analysis for corridor improvement projects between Loop 101 and McDowell Rd. will begin in FY 2008. A total of \$30 million has been programmed in FY 2009 and FY 2010 for design and construction on this segment.
- Feasibility studies and preliminary engineering analysis for the grade separation projects identified for Grand Ave. between Loop 303 and McDowell Rd. will begin in FY 2008.

US 60 (Superstition Freeway):

- The RTP includes widening projects along several segments of the Superstition Freeway, providing a combination of additional general purpose and HOV lanes. These projects will increase general purpose lane capacity along certain segments and provide continuous HOV lane service between I-10 and Loop 202 by FY 2007, and to Meridian Rd. by FY 2020.
- Construction on the addition of both general purpose and HOV lanes from Gilbert Rd. to Power Rd. was completed in FY 2007, and was opened in June 2007.
- The final DCR for the addition of general purpose lanes between I-10 and Loop 101 was completed in July 2007. A total of \$21 million has been programmed in FY 2008 for design and construction on this segment.
- Preliminary engineering and environmental analysis for the addition of general purpose lanes and HOV lanes between Crismon Rd. and Meridan Rd. will begin in FY 2014/2015.

SR 85:

- The RTP calls for widening SR 85 to a four-lane, divided roadway between I-10 and I-8.
- Construction work on widening SR 85 to a four-lane, divided roadway between I-10 and Gila Bend is currently underway. A total of \$138 million has been programmed during FY 2008 through FY 2010 to complete the widening to Gila Bend. During FY 2007 projects between MC 85 and Southern Ave., and between MP 139.01 and MP 141.71 were advertised for bids

SR 87:

- During FY 2007, a project for improvements between Forest Boundary and New Four Peaks Rd. was advertised for bids.

US 93 (Wickenburg Bypass):

- An interim bypass of the downtown Wickenburg area is being implemented to provide congestion relief until the final US 93 bypass can be funded and constructed.
- \$32 million has been programmed for construction in FY 2007 and the project is currently under construction.

Loop 101:

- The RTP calls for constructing additional general purpose lanes and HOV lanes along most of the length of Loop 101 (the Agua Fria, Pima, and Price Freeways) by the end of FY 2026. Only additional general HOV lanes are planned between the Red Mountain Freeway and Baseline Rd. The early focus of the improvements is to provide additional HOV lanes, with general purpose lanes scheduled after FY 2011.
- Final design work on the addition of HOV lanes between Princess Dr. and Loop 202 (Red Mountain Fwy.) was completed in FY 2007. A total of \$71 million has been programmed in FY 2007 for construction, which is expected to begin in late 2007. Construction of HOV lanes from Tatum Boulevard to Princess Dr. has been advanced from 2011 to 2008 using STAN funds.
- Preliminary engineering and environmental analysis for the addition of HOV lanes between Loop 202 (Red Mountain) and Loop 202 (Santan Freeway) has been completed and final design work on this segment is nearing

completion. A total of \$58 million has been programmed in FY 2008 for construction. Construction of the segment from Baseline Rd. to Loop 202 (Santan Freeway) was accelerated from 2010 to 2008 using STAN funding.

- Preliminary engineering and environmental analysis for the addition of general purpose and HOV lanes on the remainder of the Pima and Price Freeways, and on the Agua Fria Freeway will begin after FY 2021.

Loop 202:

- The RTP identifies the construction of additional general purpose and HOV lanes along essentially the entire length of Loop 202 (Red Mountain and Santan Freeways) by the end of FY 2026. The segment from SR 51 to Loop 101 already has HOV lanes. Also, this does not include the portion of Loop 202 covered by the South Mountain Freeway, which will be constructed as a new corridor. Generally, the construction of HOV lanes has been scheduled before the addition of general purpose lanes, with the major portion of new general purpose lanes scheduled after FY 2021.
- The segment of Loop 202 from State Route 51 to Loop 101 is the first stretch of Loop 202 scheduled for additional general purpose lanes. A total of \$193 million has been programmed from FY 2008 through FY 2011 for design and construction on this segment. This represents an increase of approximately \$90 million in the amount programmed for this segment, compared to the estimate in the 2006 Annual Report. Preliminary engineering and environmental analysis for this segment were completed in FY 2007 and design work will start in FY 2008.
- Preliminary engineering and environmental analysis is nearing completion for HOV lanes between Loop 101 and Gilbert Rd. \$32 million has been programmed in FY 2008 and 2009 for design and construction.
- Preliminary engineering and environmental analysis for the addition of general purpose and HOV lanes on the remainder of the Red Mountain and Santan Freeways will begin after FY 2011.

6.1.3 New Interchanges and New HOV Ramps on Existing Facilities

New Interchanges at Arterial Streets:

- The RTP identifies a total of thirteen new traffic interchanges (TIs) to be constructed on existing freeways at arterial street crossings. These projects are located along most of the major segments of the regional freeway system, including I-10, I-17, Loop 101, Loop 202, and US 60 (Superstition Freeway). The implementation of these new interchanges is phased over the entire planning period through FY 2026.

- Preliminary engineering and environmental analysis for a number of the new interchanges programmed for construction during the next five years has been initiated. During FY 2007, projects were advertised for bids covering improvements at TIs at: Higley Rd./US 60; 43rdAve./51st Ave.; and Carefree Highway/I-17; and for new interchanges at Jomax Rd.-Dixileta Dr./I-17; 64th St./Loop 101; and Bullard Ave./I-10.
- \$61 million has been programmed from FY 2008 through FY 2012 for design and/or construction of new interchanges including the following locations:
 - Beardsley Rd.-Union Hills/101L
 - Desert Creek/I-10 (Private Funds)
 - Dove Valley Rd./I-17
 - Lindsay Rd./US 60
 - Meridian Rd./US 60

New HOV Ramps at Existing Freeway-to-Freeway Interchanges:

- The RTP identifies a total of six locations at freeway-to-freeway interchanges on existing freeways where HOV ramps will be constructed to provide a direct connection through the interchange. These projects are located at major connections among components of the Regional Freeway System, including I-10, I-17, Loop 101, Loop 202, US 60 (Superstition Freeway) and SR 51. Implementation of these new interchanges is phased over the entire planning period through FY 2026.
- Construction of new HOV ramps at the SR 51/101L freeway-to-freeway interchange, which was programmed in FY 2007 as part of the addition of HOV lanes on SR 51, is currently under construction as part of that project.

6.1.4 Maintenance, Operations and Mitigation Programs

Freeway Management System:

- The RTP identifies a block of funding, covering the planning period through FY 2026, for a freeway management system (FMS) in the MAG area. This includes projects to enhance FMS on existing facilities, as well as to expand the system to new corridors. FMS covers items such as ramp metering, changeable message signs, and other measures to facilitate traffic flow.
- \$35 million has been programmed from FY 2008 through FY 2012 for the design and implementation of FMS projects on I-17, SR 51, Loop 101 and Loop 202, as well as system-wide preservation and rehabilitation of FMS.

Maintenance:

- The RTP includes a block of funding, covering the planning period through FY 2026, for maintenance of the regional freeway system in the MAG area. This funding will be dedicated only to litter pick-up, landscaping maintenance and landscaping restoration.
- ADOT already has initiated an increased level of landscaping, litter pick up and sweeping maintenance on existing valley freeways and will expand this effort as RTP projects are constructed. Total maintenance expenditures for FY 07 were approximately \$9.3 million.
- \$61 million has been programmed from FY 2008 through FY 2012 for system-wide litter pick-up and landscape maintenance.

Noise Mitigation:

- The RTP identifies a block of funding, covering the planning period through FY 2026, for noise mitigation projects on the freeway system in the MAG area. This funding will be used for mitigation projects such as rubberized asphalt overlays and noise walls.
- A system-wide total of \$19 million has been programmed from FY 2008 through FY 2012 for rubberized asphalt and other noise mitigation projects.

6.1.5 System-wide Preliminary Engineering, Advance Right-of-Way Acquisition, Property Management/Plans and Titles, and Risk Management

- The overall highway development process involves a number of steps that are necessary to prepare projects for eventual construction. Key elements that fall in this area include: (1) Preliminary Engineering - preparation of preliminary plans defining facility design concepts, right-of-way requirements and environmental factors; (2) Advance Right-of-Way Acquisition - acquisition of right-of-way to respond to development pressures in a corridor; (3) Property Management/Plans and Titles - procedures to acquire property and manage it until needed for construction; and (4) Risk Management - programs to minimize risk of litigation.
- \$177 million has been programmed from FY 2008 through FY 2012 for system-wide preliminary engineering, advance right-of-way acquisition, property management/plans and titles, risk management and other system-wide programs.

6.1.6 Proposition 300 - Regional Freeway Program

- The Proposition 300 - Regional Freeway Program is in its final stages, and it is anticipated that the last freeway segment in this program will be completed by Fall 2008. Although sales tax collections for Proposition 300 ended on December 31, 2005, work utilizing State and Federal funding sources will continue through Fall 2008 to complete the last segment of the program. In addition, certain debt service requirements and other financial obligations for the program continue through FY 2026. These obligations have been taken fully into account in the planning process for the new Freeway/Highway Life Cycle Program, so that there are no conflicting demands on revenues.
- During FY 2007, freeway construction on the Red Mountain Freeway (Loop 202) was completed on the north half of the system interchange with US 60 and on the segment between Southern Ave. and University Dr. These projects were opened to traffic in June 2007. The segment between University Dr. and Power Rd. was also under construction in FY 2007. It is anticipated that this project, which represents the final segment in the Proposition 300 - Regional Freeway Program, will be open to traffic by Fall 2008.

6.2 FREEWAY/HIGHWAY PROGRAM CHANGES

Arizona Revised Statute 28-6353 requires that MAG approve any change in the RTP, and projects funded in the RTP, that affect the agency's transportation improvement program, including priorities. In addition, requests for changes to transportation projects funded in the RTP that would materially increase costs must be submitted to MAG for approval.

6.2.1 FY 2007 Material Cost Increases

Generally, material cost increases that affect projects programmed in the current fiscal year are approved individually prior to the projects going to bid. According to the MAG Material Cost Change Policy, a material cost change is defined as: "An increase in the cost of a project that is more than five (5) percent of the adopted budget, but not less than \$500,000, or any increase greater than \$2.5 million." During FY 2007, the MAG Regional Council approved cost increases requested by ADOT totaling \$204 million for the freeway/highway projects shown in Table 6-1, which were programmed for FY 2007. It was determined that the cost increases could be accommodated within available cash flow.

**TABLE 6-1
FY 2007 FREEWAY/HIGHWAY MATERIAL COST INCREASES**

Route	Project	Budget (000)		
		From	To	Increase
17	Jomax/Dixileta T.I. - Construction	\$40,000	\$47,300	\$7,300
17	101L to SR 74 - Right of Way	\$7,800	\$66,300	\$58,500
17	101L to SR 74 - Construction *	\$182,000	\$207,000	\$25,000
17	SR 74 T.I. - Construction	\$17,000	\$24,000	\$7,000
60	99th Ave. to 83rd Ave. - Construction	\$6,500	\$10,000	\$3,500
60	Val Vista Dr. to Power Rd. - Landscape	\$5,100	\$5,810	\$710
85	MP 139.01 to MP 141.71 - Construction	\$17,300	\$26,100	\$8,800
85	MC 85 to Southern Ave. - Construction	\$8,500	\$13,800	\$5,300
85	Southern Ave. to I-10 - Construction	\$11,200	\$29,600	\$18,400
87	Forest Bndry. to Four Peaks - Construction	\$18,000	\$21,500	\$3,500
93	Wickenburg Bypass - Construction	\$29,000	\$32,300	\$3,300
101	64th St. T.I. - Construction	\$23,000	\$26,000	\$3,000
202	US 60 T.I. - Landscape	\$7,600	\$8,126	\$526
303	Happy Valley Rd. to I-17, Interim - Right of Way*	\$26,000	\$76,300	\$50,300
303	I-17 T.I. - Construction	\$30,000	\$34,000	\$4,000
303	Happy Valley Rd. to I-17 - Design	\$14,000	\$19,282	\$5,282
			TOTAL:	\$204,418

* Budget figures include project elements programmed for FY 2008.

6.2.2 Project Advancements

On December 13, 2006, the MAG Regional Council approved a set of projects to be funded from the Statewide Transportation Acceleration Needs (STAN) Account (see Chapter 5). All the requirements for STAN funding are being met in that the projects are in MAG Regional Transportation Plan, they are limited to eligible cost items, and the STAN funding is not supplanting any other funding.

Specific projects advanced include: (1) I-10 (Verrado Way to Sarival Ave.) - General Purpose lanes: Advanced from 2023 to 2009; (2) I-17 (Anthem Wy. to Carefree Hwy. - General Purpose Lanes: Advanced from 2024 to 2009; (3) Loop 101/Pima Fwy. (Tatum Blvd. to Princess Dr.) - HOV Lanes: Advanced from 2011 to 2008; (4) Loop 101/Price Fwy. (Baseline Rd. to 202/Santan Fwy.) - HOV Lanes: Advanced from 2010 to 2008; (5) Loop 303 (Bell Rd. T.I.) - Partial Interchange: Advanced from 2011/15 to 2008; (6) Loop 303 (Cactus Rd. and Waddell Rd.) - Bridge Structures: Advanced from 2011/15 to 2008; and (7) SR 802/Williams Gateway Fwy. (202/Santan Fwy. to Meridian Rd.) - Major Right-of-Way Protection: Advanced from 2016/20 to 2007.

On September 6, 2007, the MAG Regional Council approved providing 70 percent (\$7 million) of the funding available through the STAN subaccount for interest reimbursement to participating West Valley cities for their share of the interest cost for the acceleration of widening projects on I-10 between Loop 303 and Loop 101. Thirty percent (\$3 million) was allocated to cover a portion of the regional share of interest costs for the acceleration of the projects. These widening projects were approved for acceleration previously by the MAG Regional Council on April 26, 2006.

6.2.3 FY 2008-2026 Program Changes

For projects programmed in later years, cost increases and schedule changes are addressed through approval of the Transportation Improvement Program and Regional Transportation Plan at the beginning of the program period. As an indicator of these changes, Table 6-2 identifies significant cost and schedule changes for projects in the FY 2008 - 2026 program. These changes are based on the total cost of projects as estimated in the 2006 Annual Report versus the total cost as estimated in the 2007 Annual Report. The net total of these project cost changes amounts to \$740 million. It should be noted that these changes may not fully reflect the results of ongoing design concept and environmental studies.

6.2.4 Other Program Changes

State Route 153: As noted in Chapter 4, a major amendment to delete State Route (SR) 153/Sky Harbor Expressway from the RTP was approved by the MAG Regional Council approved on July 25, 2007. This approval is contingent upon air quality conformity analysis of the amendment, which will occur later in 2007. Subsequently, the Freeway/Highway Life Cycle Program will be adjusted to reflect this change.

6.3 FREEWAY/HIGHWAY PROGRAM EXPENDITURES, ESTIMATED FUTURE COSTS, AND FISCAL STATUS

6.3.1 Program Expenditures and Estimated Future Costs

Table 6-3 provides a summary of past expenditures, estimated future costs and total costs by major program category for the Freeway/Highway Life Cycle Program. Detailed data on costs at the project level is included in Tables A-1 through A-7 in the appendix. In the Life Cycle Program, costs reflect currently available, real dollars estimates as of 2007, but may not have been specifically factored, in every case, to a 2007 base year. As indicated in Table 6-3, expenditures through FY 2007 equal \$285 million (YOE \$'s) and estimated future costs covering the period FY 2008-2026 amount to \$10.3 billion (2007 \$'s).

TABLE 6-2
FY 2008-2026 SIGNIFICANT FREEWAY/HIGHWAY PROJECT
COST AND SCHEDULE CHANGES

Route	Project	FY Programmed for Final Construction		Estimated Total Costs			Comments
		From	To	From	To	Change	
10	SR 51 to 40th Street	2011	2012	--	--	--	
10	40th Street to Baseline Road	2011	2012	--	--	--	
10	SR 85 to Loop 303	2023	2009	106.0	129.2	23.2	STAN project.
10	Loop 202/Santan to Riggs Road	2009	2010	44.3	67.3	23.0	
10	Desert Creek Road T.I.	--	2009	0.0	20.4	20.4	Project added in FY 2007; privately funded.
10	SR 347 T.I.	--	2008	0.0	0.3	0.3	Project added in FY 2007.
17	Peoria Rd./Cactus Rd. & Greenway Rd./Thunderbird Rd. (Drainage Improvements)	2007	2009	--	--	--	
17	Anthem Way to Carefree Highway	2023	2009	--	--	--	General purpose lanes (STAN).
17	Carefree Highway to Loop 101	2007	2008	202.1	305.6	103.5	Also noted in Table 6-1.
60 G	Loop 303 to Loop 101 (Widen)	--	--	89.1	101.7	12.6	
60 G	99th Avenue to 83rd Avenue	2007	2008	6.5	10.0	3.5	
60 S	I-10 to Loop 101 (Widen: GP)	2010	2008	8.7	21.1	12.4	
74	Passing Lanes	--	--	4.0	5.6	1.6	
85	I-10 to I-8	--	--	160.7	193.5	32.8	
87	MP 211.8 - MP 213.0	--	2008	0.0	2.4	2.4	Project added in FY 2007.
87	New Four Peaks Road to Dos S So. Ranch Road	--	2010	0.0	25.3	25.3	Project added in FY 2007.
88	Fish Creek Hill (Imrpv.)	2007	2008	--	--	--	
101 AF	Thunderbird Road T.I.	--	2008	0.0	3.0	3.0	Project added in FY 2007.
101 AF	Skunk Crk. To Union Hills Drive	--	2007	0.0	4.2	4.2	Project added in FY 2007.
101 AF	I-10 to I-17 (Traffic Flow Improvements)	--	2007	0.0	11.2	11.2	Project added in FY 2007.
101 PI	SR 51 (Tatum) to Princess Drive	2011	2008	28.0	32.6	4.6	STAN project.
101 PR	Loop 202/Red Mountain to Baseline Road	--	--	19.0	24.0	5.0	
101 PR	Baseline Road to Loop 202/Santan	2010	2008	32.5	38.5	6.0	STAN project.
153	Superior Ave. to University Dr.	2008	2009	--	--	--	Segment to be deleted.
202 RM	I-10/SR 51 to Rural Road (EB)	2009	2011	64.8	115.0	50.2	
202 RM	Rural Road to Loop 101 (EB&WB)	2012	2014	37.2	78.0	40.8	
202 SM	I-10 (West) to 51st Avenue	--	--	491.3	507.0	15.7	
303	I-17 to US 60 (Grand Avenue)	--	--	647.0	837.6	190.6	Also noted in Table 6-1.
303	US 60 (Grand Avenue) to I-10	--	--	552.0	675.0	123.0	
802	Loop 202 to Ellsworth Road	--	--	156.2	177.3	21.1	
802	Ellsowrth Road to Meridian Road	--	--	174.8	178.0	3.2	
Total						739.6	

TABLE 6-3
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM
SUMMARY OF EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Category	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008 -2026 (2007 Dollars)	Total Cost: FY 2006-2026 (2007 and YOE Dollars)
	Design	Right-of-Way	Construction	Total		
New Corridors	8.1	0.2	0.0	8.3	4,083.6	4,091.9
Widen Existing Facilities: Add General Purpose Lanes	12.5	43.6	90.4	146.5	3,994.6	4,141.1
Widen Existing Facilities; Add HOV Lanes	9.0	0.0	1.2	10.2	723.5	733.7
New Interchanges on Existing Facilities: Freeway/Arterial	9.3	5.2	21.5	36.0	230.5	266.5
New HOV Ramps on Existing Facilities: Freeway/Freeway	0.0	0.0	0.0	0.0	172.8	172.8
Maintenance, Operations, Mitigation and Systemwide Programs	36.0	1.3	23.9	61.2	962.1	1,023.3
Other Projects	0.3	0.0	22.5	22.8	114.2	137.0
Total	75.2	50.3	159.5	285.0	10,281.3	10,566.3

6.3.2 Future Fiscal Status

Table 6-4 summarizes the future funding sources and uses for the Freeway/Highway Life Cycle Program between FY 2008 and FY 2026. Sources for the Life Cycle Program between FY 2008 through FY 2026 include the Proposition 400 half-cent sales tax extension (\$8.1 billion); ADOT funds (\$7.8 billion); Federal Highway funds (\$501 million); bond and loan proceeds (\$4.4 billion); and other income (\$105 million). Expenses totaling \$7.0 billion are deducted from these sources, including an RTP implementation allowance required in legislation that is provided to MAG and RPTA (\$206 million) and estimated future debt service and repayment of other financing (\$6.8 billion). In addition, an allowance for inflation of \$3.6 billion is deducted (discount factors were 6.0% for 2008 and 3.0% for subsequent years). Including a beginning balance of \$310 million, this yields a net total of \$10.7 billion (2007 \$'s) for use on freeway and highway projects through FY 2026.

Table 6-4 also lists the estimated future uses identified in the Life Cycle Program for the period covering FY 2008 through FY 2026, which total \$10.5 billion. As shown, Life Cycle Program costs are in balance with the projected future funds available, with available funds exceeding costs by \$237 million. As the

engineering process proceeds, project costs will be subject to revision, and adjustments in the Life Cycle Program may be required to ensure that project costs do not exceed expected revenues for the period through FY 2026.

TABLE 6-4
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM
FUTURE SOURCES AND USES OF FUNDS: FY 2008-2026
(2007 and Year of Expenditure Dollars in Millions)

SOURCES OF FUNDS	
Source	Projected Future Funding: FY 2008-2026 (YOE Dollars)
Proposition 400: One-Half Cent Sales Tax Extension	8,118.7
ADOT Funds	7,776.7
MAG CMAQ and STP (Federal Highway)	500.6
Statewide Transportation Acceleration Needs (STAN)	193.5
Other Income	104.8
Bond and Loan Proceeds	4,366.2
Plus Beginning Balance	310.1
Less Debt Service and Other Expenses	(6,988.8)
Less Inflation Allowance	(3,643.9)
Total (2007 \$'s)	10,737.9
USES OF FUNDS	
Category	Estimated Future Costs: FY 2008-2026 (2007 Dollars)
New Corridors	4,083.6
Widen Existing Facilities: Add General Purpose Lanes	3,994.6
Widen Existing Facilities: Add HOV Lanes	723.5
New Interchanges on Existing Facilities: Freeway/Arterial	230.5
New HOV Ramps on Existing Facilities: Freeway/Freeway	172.8
Maintenance, Operations, Mitigation and Systemwide Programs	962.1
Other Projects	114.2
Subtotal Proposition 400 Program	10,281.3
Proposition 300 Project Completion	220.0
Total (2007 \$'s)	10,501.3

6.4 FREEWAY/HIGHWAY PROGRAM OUTLOOK

The estimated future costs for the Freeway/Highway Life Cycle Program are in balance with projected revenues, with revenues exceeding costs by

approximately \$237 million through FY 2026. However, trends toward increasing project costs, which were reported in both the 2005 and 2006 Annual Reports, continue to be an issue.

During the past several years, major cost increases for the construction of roads, buildings and other capital facilities have been experienced in Arizona, and throughout the United States as well. While the rate of these increases has recently moderated somewhat, unit costs for right-of-way, construction materials, and project bids remain greatly in excess of what they were just a few years ago. The expectation for the cost of commodities used in construction of highways, roads, and streets, along with most major public and private projects, is for increases from this new relative cost base.

For projects in FY 2007 of the Life Cycle Program, alone, cost increases totaled \$204 million; and costs covering FY 2008 through FY 2026 in the Program increased by \$740 million. To date, it has been possible to accommodate these cost increases, and estimated future costs are currently within projected revenues for the Freeway/Highway Life Cycle Program. However, additional major cost increases are expected in the future, as scoping, design concepts, and environmental assessments are completed.

Preliminary information from ongoing studies on the Loop 202 (South Mountain Freeway), Loop 303, SR 801 (I-10 Reliever) and the I-10 (Local/Express Lanes) indicate that the total cost of these projects could be in the range of \$3.1 billion more than the funding currently allocated to them in the Life Cycle Program. In addition to cost increases, the time required to complete environmental and design studies on the South Mountain Freeway and the I-10 Local/Express Lanes has been greater than originally anticipated. These factors will have a substantial impact on the ability to deliver the Freeway/Highway Life Cycle Program within the originally anticipated schedule. This will require a review and possible adjustment of the Program in the near future.

A continuing challenge in the life cycle process will be to maintain cost-revenue balance, through effective financing and cash flow management, value engineering of projects, and Plan and Program adjustments as may be necessary. In this connection, it will be essential to prepare corridor phasing plans and project designs that are in scale with available funding. For example, at the time the RTP was originally developed, a total of \$500 million was identified for the I-10 local/express lane project and was considered to represent a project budget cap. Preliminary costs estimates for this project are now in the range of \$1.3 billion. As this project and others are developed, phasing strategies will be a critical aspect of the design process, so that key project elements can be implemented within available funding.

In addition to the Proposition 400 Life Cycle Program, the ongoing Proposition 300 - Regional Freeway Program is nearing its final stages. It is anticipated that

construction work on the remaining projects in this program will be completed by Fall 2008. Funding requirements for this final construction have been taken fully into account in the Proposition 400 Freeway/Highway Life Cycle Program, so that there are no conflicting demands on available revenues between FY 2008-2026.

CHAPTER SEVEN

ARTERIAL STREET LIFE CYCLE PROGRAM

The Arterial Street Life Cycle Program extends through FY 2026 and is maintained by the Maricopa Association of Governments (MAG) to implement arterial street projects in the MAG Regional Transportation Plan (RTP). The Program meets the requirements of State legislation calling on MAG to conduct a budget process to ensure that the estimated cost of programmed arterial street improvements does not exceed the total amount of revenues available for these improvements.

The Arterial Street Life Cycle Program provides MAG with a management tool to administer regional funding for arterial street improvements. The Program receives major funding from both the Proposition 400 half-cent sales tax extension and Federal highway programs. Although MAG is charged with the responsibility of administering the overall program, the actual construction of projects is accomplished by local government agencies that provide funding to match regional level revenues.

Figure 7-1, as well as appendix Tables B-1 and B-2, provides information on the locations and costs associated with Arterial Street Life Cycle projects. The projects depicted in Figure 7-1 are cross-referenced with the data in the tables by the code associated with each project.

7.1 STATUS OF ARTERIAL STREET PROJECTS

The Arterial Street Life Cycle Program provides regional funding for widening existing streets, improving intersections, and constructing new arterial segments. The implementation of projects in the regional arterial Intelligent Transportation System (ITS) Plan is also included.

It should be noted that the funding for construction of arterial improvements is spread throughout the period covered by the Life Cycle Program. However, to respond to local priorities and development issues, in certain cases local governments are planning to construct projects sooner in the program period than originally scheduled in the RTP. In these cases, the implementing agency will be reimbursed according to the original arterial street program schedule identified in the Regional Transportation Plan adopted in November 2003, even though the construction takes place earlier. For those cases in which a project is deferred, no reimbursement occurs until work is completed.

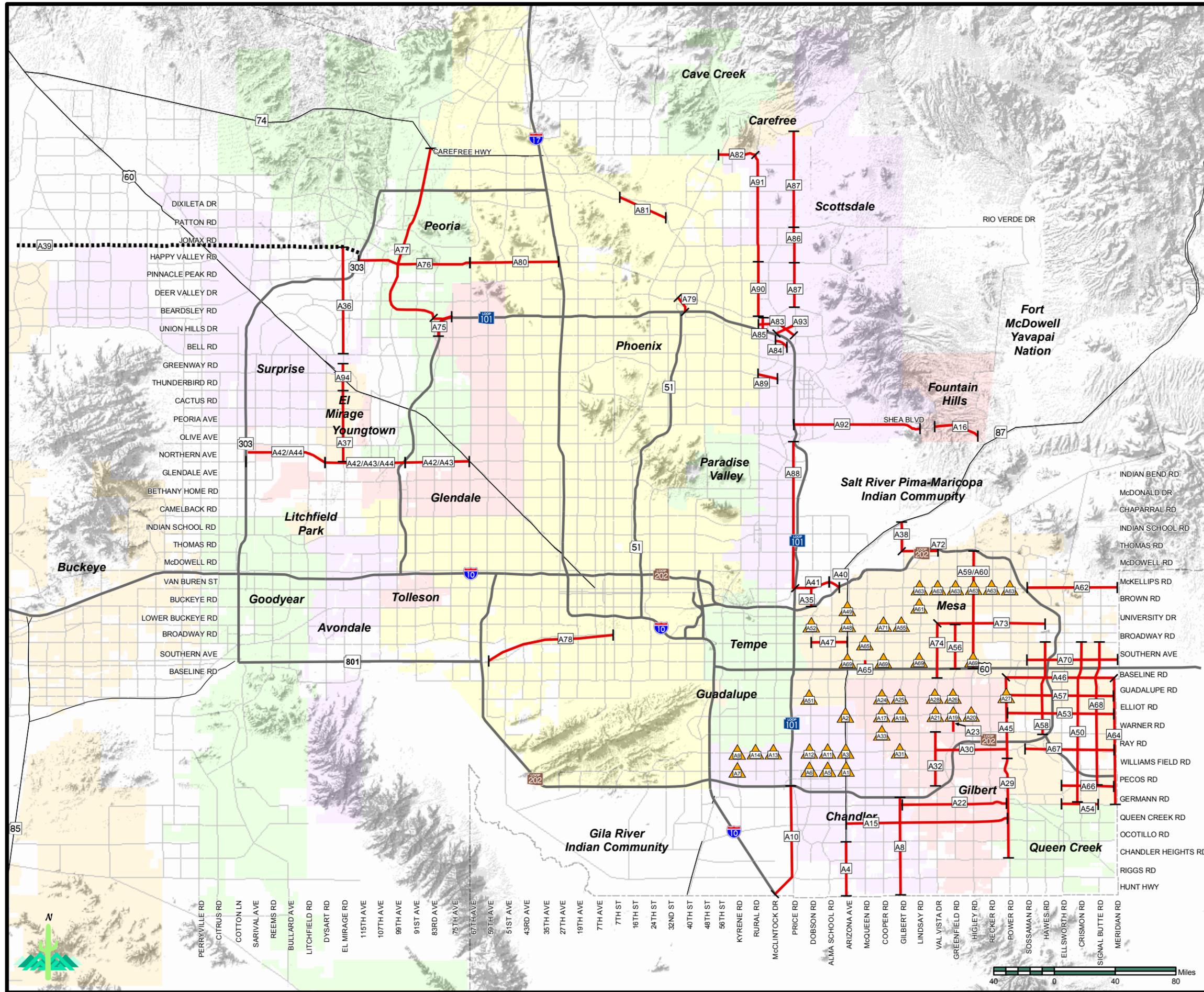
Figure 7-1



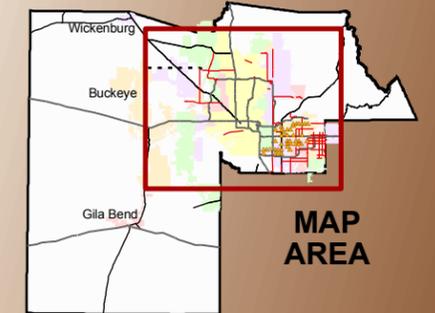
MAG 2007 Annual Report on Proposition 400

New/Improved Arterials

- New/Improved Arterials
- Improved Intersections
- Right of Way Preservation
- Freeways
- Project Segment Separators
- Highways
- Other Roads
- County Boundary



Alignments for new freeway, highway, arterial, and light rail/high capacity transit facilities will be determined following the completion of appropriate design and environmental studies.



While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

The following sections provide an overview of the status of the projects in the Arterial Street Life Cycle Program. In these discussions, the emphasis is placed on reviewing work anticipated during the next five years (FY 2008 through 2012).

7.1.1 Arterial Capacity/Intersection Improvements

A total of 94 arterial capacity/intersection improvement projects are identified in the RTP and included in the Arterial Street Life Cycle Program. As the engineering process proceeds, the specific type of improvements are being defined, and detailed designs are being prepared. These improvements may include: (1) widening of existing arterial streets (some of these projects will focus on intersection improvements); (2) major upgrading of facilities, such as the development of a parkway along Northern Avenue in the West Valley; (3) construction of new facilities on new alignments, such as the Rio Salado Parkway in southwest Phoenix; and (4) improvements at individual intersections.

During the period FY 2008 through FY 2012, work will be proceeding on a number of arterial streets. Various stages of work will be conducted on these projects and all segments will not necessarily be completed during this period. Arterial street segments that will undergo work (design, right-of-way acquisition or construction) are listed in Table 7-1, which includes projects that have been advanced by local governments from later stages of the program. Information on project status is included in appendix Table B-1. Among the projects in Table 7-1, 62 will be under design, 59 will have right-of-way acquisition, and 46 will undergo construction at some time during the five-year period.

7.1.2 Intelligent Transportation Systems (ITS)

The RTP allocates funding to assist in the implementation of projects identified in the Regional ITS Plan. These projects smooth traffic flow and help the transportation system to operate more efficiently (see appendix Table B-2). It is estimated that a total of \$27 million (2007 \$'s) in reimbursements from regional funds for will be made for ITS projects during FY 2008 through FY 2012.

The focus of the arterial ITS program is to assist MAG member agencies to develop their arterial traffic management systems to better address needs. The process for identifying and recommending arterial ITS projects for funding will continue to be overseen by the MAG ITS Committee. In the past the ITS committee has utilized an objective project rating system, that is linked to the region's ITS Strategic Plan and Regional ITS Architecture, to provide guidance in prioritizing projects.

7.2 ARTERIAL STREET PROGRAM CHANGES

During FY 2007, a number of scheduling changes were made to the Arterial Life Cycle program to respond to various project factors encountered by the

**TABLE 7-1
ARTERIAL STREET PROJECTS UNDERWAY FY 2008 - 2012**

Project	Project
Arizona Ave: Ocotillo to Hunt Hwy	Lindsay/Brown
Avenida Rio Salado: 7th St to SR-202L	McKellips Rd: Bridge over Salt River
Beardsley Connection :SR-101L to Beardsley Rd at 83rd Ave.	McKellips Rd: Gilbert Rd to Power Rd
Black Mountain Boulevard	McKellips Rd: SR-101L to SRP-MIC/Alma School Rd
Broadway Rd: Dobson Rd to Country Club Dr	Mesa Dr: Southen to US 60 & Mesa at Broadway
Chandler Blvd/Alma School	Northern Pkwy: Grand Ave to SR-303L
Chandler Blvd/Dobson	Pecos Rd: Ellsworth Rd to Meridian Rd
Country Club/Brown	Pima Rd: McKellips to Via Linda
Country Club/University	Pima Rd: Thmpsn. Peak Pkwy. to Happy Val. & Dynmt to Cave Cr.
Dobson Rd: Bridge over Salt River	Power Rd: Baseline Rd to Galveston
Dobson/Guadalupe	Power Rd: Galveston to Chandler Heights
Dobson/University	Queen Creek Rd: Arizona Ave to Higley Rd
El Mirage Rd: Bell Rd to Jomax Rd	Ray Rd: Sossaman Rd to Meridian Rd
El Mirage Rd: Thunderbird Rd to Bell	Ray Rd: Val Vista Rd to Power Rd
Elliot/Cooper	Ray/Alma School
Elliot/Greenfield	Ray/Dobson
Elliot/Val Vista	Ray/Gilbert
Germann Rd: Gilbert to Power Rd	Ray/McClintock
Gilbert Rd: Bridge over Salt River	Ray/Rural
Gilbert Rd: SR-202L to Hunt Hwy	Scottsdale Rd: Thompson Peak Pkwy to Happy Valley Rd
Gilbert/University	Shea Blvd: Palisades Blvd to Saguaro Blvd
Greenfield Rd: University Rd to Baseline Rd	Shea Blvd: SR-101L to SR-87
Greenfield Rd: Elliot Rd to Ray Rd	Sonoran Blvd: Central to 32nd St
Guadalupe Rd: Power Rd to Meridian Rd	Southern Ave: Country Club Dr to Recker Rd
Guadalupe/Gilbert	SR-101L North Frontage Roads: Pima/Princess Dr to Scottsdale Rd
Guadalupe/Power	SR-101L South Frontage Roads: Hayden to Pima
Guadalupe/Val Vista	Stapley/University
Happy Valley Rd: L303 to 67th Avenue	Thomas Rd: Gilbert Rd to Val Vista Dr
Happy Valley Rd:67th Avenue to 35th Avenue	Val Vista Dr: University Dr to Baseline Rd
Kyrene Rd/Ray Rd	Warner/Cooper
Lake Pleasant Parkway: Beardsley Rd to SR-74	Warner/Greenfield

implementing agencies. These changes are listed in appendix Table B-3 in the Appendix. Consistent with MAG Arterial Life Cycle Policies, none of these changes affect project reimbursement amounts. Some of the more significant scope changes are listed below.

- McKellips Rd. (Gilbert Rd. to Power Rd.): Scope change from road improvement to six intersection improvement projects. Two intersections will be done at the same time.
- Mesa Dr. (Southern Ave. to US 60): Scope change from one contiguous two-mile road improvement (Broadway Rd. to US 60) to a road improvement on

Mesa Dr. (Southern Ave. to US 60) and an intersection improvement project at Mesa Dr. and Broadway Rd.

- Southern Ave. (Country Club Dr. to Recker Rd.): Scope change from one contiguous six-mile road improvement project to four intersection improvement projects with resurfacing.

Appendix Table B-3 also lists the projects in the ALCP that have been completed. These projects include intersection improvements at Arizona Ave./Chandler Blvd., Arizona Ave./Elliot Rd., and Arizona Ave./Ray Rd. In addition, street widening projects were completed along Happy Valley Rd. between I-17 and 35th Avenue, and along Val Vista Rd between Warner Rd. and Pecos Rd.

7.3 ARTERIAL STREET PROGRAM DISBURSEMENTS AND FISCAL STATUS

7.3.1 Program Disbursements

The Arterial Street Program is based on the principle of project budget caps. Under this approach, the regional funding allocated to a specific project is fixed (on an inflation adjusted basis) in the Regional Transportation Plan. This amount must be matched by the implementing agency with, at a minimum, a 30 percent contribution to the project costs. Any projects costs above this amount are the responsibility of the implementing agency. Under this funding scheme, program administration focuses on tracking actual project expenditures and determining the corresponding regional share. Therefore, data monitoring will primarily be directed at regional funding disbursements and total project expenditures.

The ALCP Policies and Procedures explain the three required documents for each ALCP project: Project Overview, Project Agreement, and Project Reimbursement Requests. The Project Overview describes the general design features of the project, estimated costs, implementation schedules and relationships among participating agencies. The Project Overview reports provide the basis for preparation of project agreements, which must be executed before agencies may receive any reimbursements from the program.

The Project Agreement is signed by the lead agency of the project and MAG. This agreement is developed with the lead agencies and MAG, and determines the responsibilities of the two parties. The Project Agreement is initiated by MAG once a Project Overview is submitted.

Project Reimbursement Requests can be submitted by jurisdictions once a Project Agreement has been executed. The Project Reimbursement Request requires an invoice, progress report, and request for payment that is signed by the lead agency and MAG, which is then submitted to the Arizona Department of Transportation for the lead agency to receive reimbursement.

Table 7-2 provides a summary of past and estimated future regional funding disbursements, and total project expenditures, by major program category for the Arterial Street Life Cycle Program. Detailed data showing regional funding disbursements and estimated total expenditures at the project level is included in appendix Tables B-1 and B-2. Future regional funding disbursements have been factored to represent 2007 dollars. Local match elements of total future expenditures reflect currently available, real dollars estimates as of 2007, but may not have been specifically factored, in every case, to a 2007 base year.

**TABLE 7-2
ARTERIAL STREET LIFE CYCLE PROGRAM
SUMMARY OF EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)**

Category	Regional Funding Disbursements			Total Expenditures		
	Disburse. through FY 2007 (YOE Dollars)	Estimated Future Disburse.: FY 2008-2026 (2007 Dollars)	Total Disburse.: FY 2006-2026 (2007 and YOE Dollars)	Expenditures through FY 2007 (YOE Dollars)	Estimated Future Expenditures: FY 2008-2026 (2007 Dollars)	Total Expenditures: FY 2006-2026 (2007 and YOE Dollars)
Capacity / Intersection Improvements	21.2	1,616.2	1,633.9	56.3	2,772.0	2,828.3
Intelligent Transportation Systems		57.8	57.8		82.5	82.5
Total	21.2	1,674.0	1,691.7	56.3	2,854.5	2,910.8

As indicated in Table 7-2, a total of \$21 million (YOE \$'s) has been disbursed through FY 2006 for projects in the Arterial Street Life Cycle Program, and it is estimated that \$1.7 billion (2007 \$'s) will be disbursed during the remainder of the program (FY 2008 through FY 2026).

Total expenditures on projects, which include local government expenditures, amount to \$56 million through FY 2007. It is estimated that total expenditures for the remainder of the program (FY 2008 through FY 2026) will amount to \$2.9 billion. It should be noted that future project disbursement amounts have been adjusted for inflation based on the Consumer Price Index, as adopted in the MAG Arterial Life Cycle Program Policies.

7.3.2 Future Fiscal Status

Table 7-3 summarizes the future funding sources and uses that apply to the Arterial Street Life Cycle Program for FY 2008 through FY 2026. Sources for the

Life Cycle Program include the Proposition 400 half-cent sales tax extension (\$1.5 billion); Federal Highway Congestion Mitigation and Air Quality (CMAQ) funds (\$151 million); Federal Highway Surface Transportation Program (STP) funds (\$936 million); and bond proceeds (\$382 million).

**TABLE 7-3
ARTERIAL STREET LIFE CYCLE PROGRAM
FUTURE SOURCES AND USES OF FUNDS: FY 2008-2026
(2007 and Year of Expenditure Dollars in Millions)**

SOURCES OF FUNDS	
Source	Projected Future Regional Funding FY 2008-2026 (YOE Dollars)
Proposition 400: One-Half Cent Sales Tax Extension	1,516.8
Federal Highway / MAG CMAQ	151.0
Federal Highway / MAG STP	935.6
Other Income	-
Bond and Loan Proceeds	381.5
Plus Beginning Balance	55.6
Less Debt Service	(498.2)
Less Inflation Allowance	(678.8)
Total (2007 \$'s)	1,863.5
USES OF FUNDS	
Category	Estimated Future Regional Disbursements: FY 2008-2026 (2007 Dollars)
Capacity / Intersection Improvements	1,616.3
Intelligent Transportation Systems	57.8
Total (2007 \$'s)	1,674.1

(Note that the bonding program is still being adjusted with the objective of lowering the overall level of bonding for the Arterial Street Program.) Expenses totaling \$498 million are deducted from the funding sources, representing estimated future debt service and repayment of other financing. In addition an allowance for inflation of \$679 million has been deducted (a discount factor of 3.0% was used for all years). Including a beginning balance of \$56 million, this yields a net total of \$1.9 billion (2007 \$'s) for use on arterial street projects through FY 2026.

Table 7-3 also lists the estimated future regional funding disbursements identified in the Life Cycle Program for the period FY 2008 through FY 2026. As shown, Life Cycle Program disbursements are in balance with the projected future funds available, with funding in excess of disbursements by about eleven percent.

7.4 ARTERIAL STREET PROGRAM OUTLOOK

The Arterial Street Life Cycle Program (ALCP) is based on the principle of project budget caps, with a fixed amount of regional funding allocated to individual projects (on an inflation adjusted basis). The total estimated future regional revenue disbursements for ALCP projects are in balance with projected revenues, and it is anticipated that this balance can be maintained in the future.

On December 13, 2006, MAG adopted changes to the Arterial Life Cycle Program Policies and Procedures to facilitate smooth administration of the Arterial Street Program. Issues addressed included invoicing procedures, progress report content, and project agreement requirements. In addition, on June 27, 2007 the FY08 ALCP project listing was adopted to reflect updated information regarding project development status. This version of the ALCP is reflected in the 2007 Annual Report.

During FY 2007, project overview reports were prepared by the lead agencies for eighteen of the projects in the ALCP. This brings the total of project overview reports to twenty-five. These reports describe the general design features of the project, estimated costs, implementation schedules and relationships among participating agencies. The project overview reports provide the basis for preparation of project agreements, which must be executed before agencies may receive any reimbursements from the program. A total of sixteen project agreements have been executed through FY 2007. This brings the total of project agreements reports to eighteen. It is anticipated that an additional 20 agreements will be executed during FY 2008. Three jurisdictions received reimbursement for project work during FY 2007 totaling over \$14 million. During FY 2008, it is anticipated that a total of six jurisdictions will receive reimbursements amounting to approximately \$75 million.

Agencies implementing ALCP projects are continuing to encounter cost increase issues, as a result of the major cost increases for the construction that have been experienced throughout the United States. Since the regional funding contribution to ALCP projects remains fixed (adjusted for inflation), the share of total costs that must be borne by local jurisdictions has increased from 31.8 percent in 2005 to 42.2 percent in 2007. This raises questions regarding the ability of implementing agencies to provide the matching share for all the projects contained in the ALCP.

Another project implementation issue, which has been identified in the past, is the mandatory environmental review process for projects receiving federal funds. Concerns have been raised regarding the potential effects of this complex process on project implementation schedules. During FY 2007, MAG staff has worked closely with ADOT to improve this process and will do so on a continuing basis. In addition, MAG staff has conducted a series of workshops with local agencies aimed at enhancing local agency familiarity with Federal funding procedures, and has established a website to assist local agencies to track the status of Federal aid projects and obtain detailed information on project processing procedures.

CHAPTER EIGHT

TRANSIT LIFE CYCLE PROGRAM

The Transit Life Cycle Program is maintained by the Regional Public Transportation Authority (RPTA) and implements transit projects in the MAG Regional Transportation Plan (RTP). The Program meets the requirements of state legislation calling on the RPTA to conduct a budget process that ensures the estimated cost of the Regional Public Transportation System does not exceed the total amount of revenues expected to be available. This includes expenses such as bus purchases and operating costs, passenger facilities, maintenance facilities, park-and-ride lot construction, light rail construction and other transit projects.

The Transit Life Cycle Program will receive major funding from the Proposition 400 half-cent sales tax extension, as well as federal transit funds and local sources. The half-cent sales tax extension started on January 1, 2006 and revenues from the tax were available beginning in March 2006. The RPTA maintains responsibility for administering half-cent revenues deposited in the Public Transportation Fund (ARS 48-5103) for use on transit projects, including light rail transit (LRT) projects as identified in the MAG RTP. The RPTA Board must separately account for monies allocated to light rail transit, capital costs, and operation and maintenance costs for other transit modes.

Although the RPTA maintains responsibility for the distribution of half-cent funds for light rail projects, Valley Metro Rail, Inc., a public nonprofit corporation, was created to form a partnership among the cities of Phoenix, Tempe, Mesa and Glendale to implement the LRT system. Valley Metro Rail Inc. is responsible for overseeing the design, construction and operation of the light rail starter segment, as well as future corridor extensions to the system. It should be noted that the RPTA often uses the term “*Valley Metro*” for the agency, having adopted the name in 1993 as the marketing identity for the regional transit system.

8.1 STATUS OF BUS PROJECTS

The Transit Life Cycle Program includes funding for operations, vehicle fleet and new capital facility improvements to the regional bus network. This includes Freeway Bus Rapid Transit (BRT)/Express, Arterial BRT, Supergrid, and other bus service. The following sections provide an overview of the status of the bus operations and capital projects in the Transit Life Cycle Program. In these discussions, the emphasis is placed on reviewing ongoing activities, as well as service additions anticipated during the next five years (FY 2008 through FY 2012).

8.1.1 Bus Operations: Bus Rapid Transit (BRT)/Express

Regional BRT/Express transit services are comprised of Arterial BRT and Freeway BRT/Express routes. Arterial BRT routes are intended to operate as overlays on corridors served by local fixed route service, but provide higher speed services by operating with limited stops and with other enhancements, such as bus only lanes, queue-jumpers or signal priority systems. The proposed Arterial BRT routes as identified in the RTP are intended to operate during peak and off-peak periods. In addition to Arterial BRT routes, the RTP also includes Freeway routes, which use existing and proposed high occupancy vehicle (HOV) facilities to connect park-and-ride lots with major activity centers, including core downtown areas. Freeway routes provide suburb-to-suburb and suburb to central city connections using the regional freeway system and intermediate stops. Figure 8-1 and Table C-1 provide information on the locations and costs associated with BRT/Express Transit Services. The routes depicted in Figure 8-1 are cross-referenced with the data in Table C-1 by the code associated with each route. Table 8-1 lists route termini as an aid in interpreting Figure 8-1.

Collectively, the Regional BRT/Express transit services account for a total of \$262 million (2007 and YOE \$'s) in regional funding for operating costs for the period FY 2006 through FY 2026 (see Table 8-4). This total represents approximately four percent of the total regional funding budget allocated for transit. There are a total of 31 BRT/Express routes identified for funding during the RTP planning period from FY 2006 through 2026. No routes were implemented during FY 2007. However, during the next five years, FY 2008 through FY 2012, 11 routes are planned for implementation. These routes will generally operate in the peak direction at 30-minute intervals, during the three-hour morning and afternoon commute periods.

Routes Implemented During FY 2007

None

Note: On July 23, 2007, two additional express routes began service. Route 572, (Surprise/Scottsdale Express) began service between Bullard Ave. and the Scottsdale Airpark via Bell Rd. and Loop 101. Route 573 (North Glendale Express) began service between North Glendale and downtown Phoenix via Loop 101 and I-10.

Routes Planned for Implementation During FY 2008 through FY 2012

- North Glendale Express (T16); Service start: FY 2008.
- North Loop 101 Connector/Surprise to Scottsdale Airpark (T18); Service start: FY 2008.
- East Loop 101 Connector (T12); Service start: FY 2009.

Figure 8-1



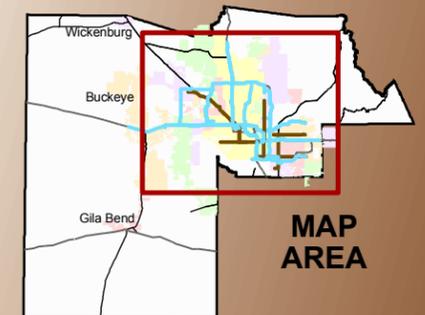
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Bus Rapid Transit (BRT)

- Light Rail Transit Minimum Operating Segment
- Arterial BRT Routes
- Freeway BRT Routes
- Freeways
- Highways
- Other Roads
- County Boundary

Routes are conceptual and subject to change. Contact Valley Metro to obtain current status. Ongoing operational planning includes an extensive public outreach component.

Alignments for new freeway, highway, arterial, and light rail/high capacity transit facilities will be determined following the completion of appropriate design and environmental studies.



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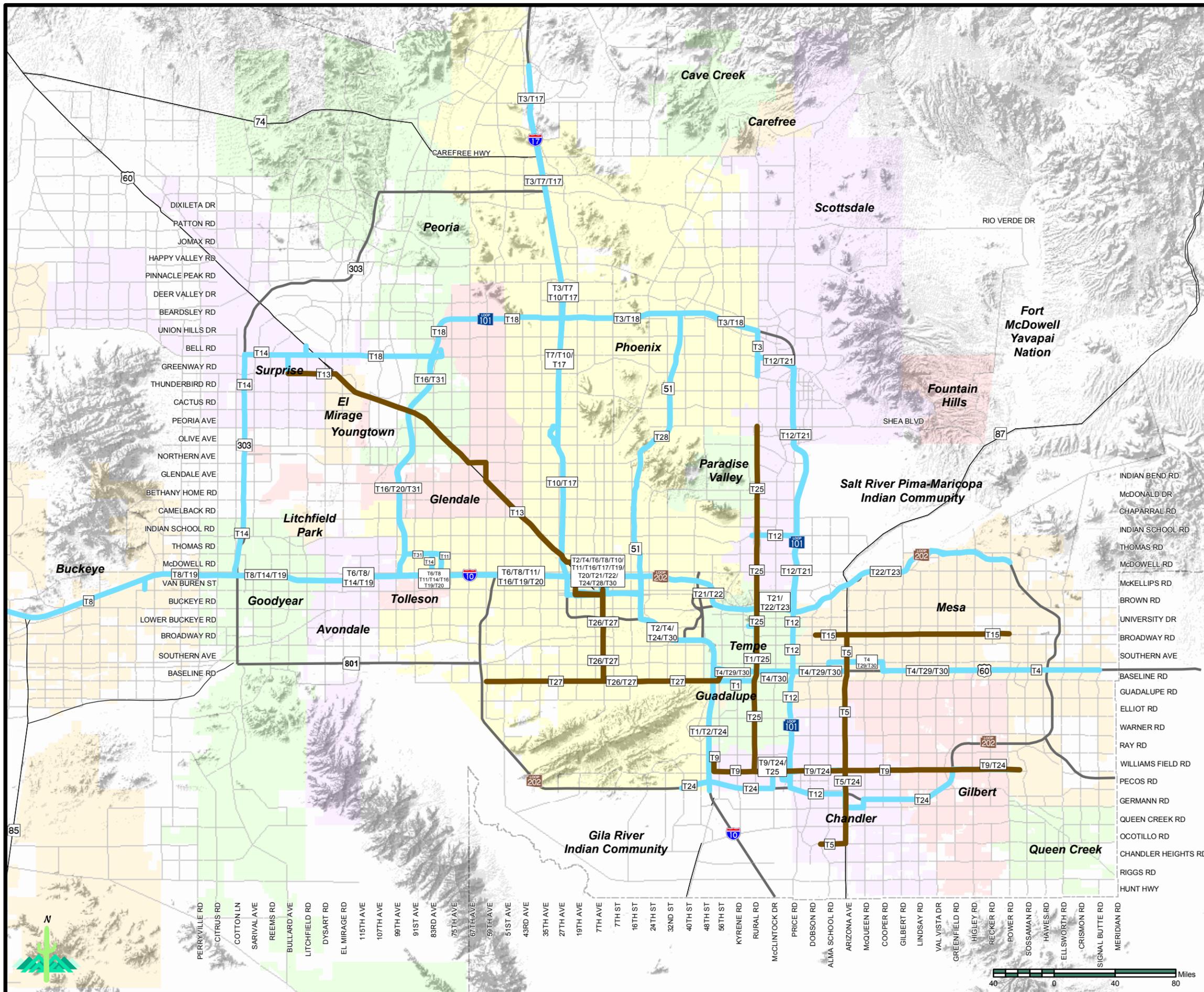


TABLE 8-1 BUS RAPID TRANSIT/EXPRESS ROUTE TERMINI

Note: Route termini are listed as an aid in interpreting maps. Final routing subject to operational planning.

T1	<u>Ahwatukee Connector</u> South terminus: 40 th Street park & ride lot in Ahwatukee. North terminus: College Avenue Transit Center.	T10	<u>Deer Valley Express (I-17 RAPID)</u> North terminus: Happy Valley Road park & ride lot. South terminus: State Capitol.	T22	<u>Red Mountain Express</u> East terminus: Future Park & ride lot near Power Road and Loop 202. West terminus: State Capitol.
T2	<u>Ahwatukee Express</u> South terminus: 40 th Street park & ride lot in Ahwatukee. North terminus: State Capitol.	T11	<u>Desert Sky Express (I-10 West RAPID)</u> West terminus: Desert Sky Transit Center. East terminus: State Capitol.	T23	<u>Red Mountain Fwy Connector</u> East terminus: Future Park & ride lot near Power Road and Loop 202. West terminus: College Avenue Transit Center.
T3	<u>Anthem Express</u> North terminus: Future park & ride lot at Anthem Master Planned Development. South terminus: Scottsdale Airpark.	T12	<u>East Loop 101 Connector</u> North terminus: Scottsdale Airpark. South terminus: Future Park & Ride near Germann Road & McQueen Road.	T24	<u>San Tan Express</u> East terminus: Williams Gateway/ASU East Campus. West terminus: State Capitol.
T4	<u>Apache Junction Express</u> East terminus: Future park & ride lot near Signal Butte Road and US60. West terminus: State Capitol.	T13	<u>Grand Avenue Limited</u> East terminus: Phoenix Central Station. West terminus: Surprise park & ride lot at Bullard Avenue.	T25	<u>Scottsdale/Rural Arterial BRT</u> North terminus: Scottsdale Road and Shea Blvd. South terminus: Chandler Mall Transit Center.
T5	<u>Arizona Avenue Arterial Bus Rapid Transit</u> South Terminus: Future Snediger Transit Center near Alma School Road and Ocotillo Road. North terminus: Sycamore & Main St LRT Station.	T14	<u>Loop 303 Express</u> North terminus: Arrowhead Towne Center. South terminus: Desert Sky Mall Transit Center.	T26	<u>South Central Avenue</u> North terminus: State Capitol. South terminus: South Mountain Community College campus.
T6	<u>Avondale Express</u> West terminus: Dysart Road park & ride lot in vicinity of Interstate 10. East terminus: State Capitol.	T15	<u>Main Street Arterial BRT</u> East terminus: Broadway and Power Road. West terminus: Light rail station at Sycamore Street.	T27	<u>South Central Avenue Arterial BRT (A Pattern)</u> North terminus: Phoenix Central Station. South terminus: Arizona Mills Transit Center.
T7	<u>Black Canyon Freeway Connector</u> North terminus: Park & ride lot at future regional shopping center at Carefree Highway and I-17. South terminus: Metro Center Transit Center.	T16	<u>North Glendale Express</u> North terminus: Interim Arrowhead Towne Center. South terminus: State Capitol.	T28	<u>SR 51 Express (SR51 RAPID)</u> North terminus: Desert Ridge park & ride lot. South terminus: State Capitol.
T8	<u>Buckeye Express</u> West terminus: Future park & ride lot located north of I-10 and approximately three miles west of the Sun Valley Parkway T1. East terminus: State Capitol.	T17	<u>North I-17 Express</u> North terminus: Future park & ride lot at Anthem Master Planned Development. South terminus: State Capitol.	T29	<u>Superstition Fwy Connector</u> East terminus: Superstition Springs Center. West terminus: Arizona Mills Transit Center.
T9	<u>Chandler Boulevard Arterial Bus Rapid Transit</u>	T18	<u>North Loop 101 Connector (Surprise to Scottsdale)</u> East terminus: Loop 101 and Scottsdale Road. West terminus: Surprise park & ride lot at Bullard Avenue.	T30	<u>Superstition Springs Express</u> East terminus: Superstition Springs Center. West terminus: State Capitol.
		T19	<u>Papago Fwy Connector (to Buckeye)</u> West terminus: Future East Buckeye park & ride lot in the vicinity of Verado Way and Van Buren Street. East terminus: State Capitol.	T31	<u>West Loop 101 Connector (to North Glendale P&R)</u> North terminus: Arrowhead Towne Center. South terminus: Desert Sky Transit Center.
		T20	<u>Peoria Express</u> North terminus: Peoria park & ride lot (south of Peoria Avenue, near Loop 101). South terminus: State Capitol.		
		T21	<u>Pima Express</u>		

- Main Street Arterial BRT (T15); Service start: FY 2009.
- Papago Freeway Connector (T19); Service start: FY 2009.
- Red Mountain Express (T22); Service start: FY 2009.
- West Loop 101 Connector (T31); Service start: FY 2009.
- Desert Sky Express (T11); Service start: FY 2010.
- Arizona Avenue Arterial BRT (T5); Service start: FY 2011.
- Apache Junction Express (T4); Service start: FY 2011.
- Superstition Freeway Connector (T29); Service start: FY 2012.

8.1.2 Bus Operations: Supergrid

Regional Grid bus routes, which are also commonly referred to as “Supergrid Routes,” include bus routes that are situated along major roads on the regional arterial grid network. The supergrid addresses the need for a consistent level of service across all served jurisdictions. Regional funding of bus operations along the arterial grid network ensures a degree of consistency in service levels across jurisdictions, which may not otherwise be possible due to varying funding limitations at the local level. Regional funding has been allocated for bus operations on the regional grid throughout the RTP planning period. It should be noted that regionally funded bus routes will be phased in over the 20 year program to allow for the acquisition of transit fleet and the construction of supporting infrastructure (i.e. operations and maintenance facilities, passenger facilities, road improvements, etc.) Figure 8-2 and Table C-2 provide information on the locations and costs associated with the regional bus grid. The routes depicted in Figure 8-2 are cross-referenced with the data in Table C-2 by the code associated with each route. Table 8-2 lists route termini as an aid in interpreting Figure 8-2.

Regional Grid bus operations account for a total of \$1,030 million (2007 and YOE \$’s) in regional funding for the period FY 2006 through FY 2026 (see Table 8-4). This represents approximately 16 percent of the total regional funding budget allocated for transit. There are a total of 34 Regional Grid routes identified for funding during the RTP planning period from FY 2006 through 2026. One supergrid route was implemented during FY 2007. During the next five years, FY 2008 through FY 2012, 10 routes are planned for implementation. In most cases these routes will operate in the peak direction at 15-minute intervals during the two-hour morning and afternoon commute periods, and at 30-minute intervals during the rest of the service day. In addition, 30-minute service on Saturday and Sunday would be provided.

Figure 8-2



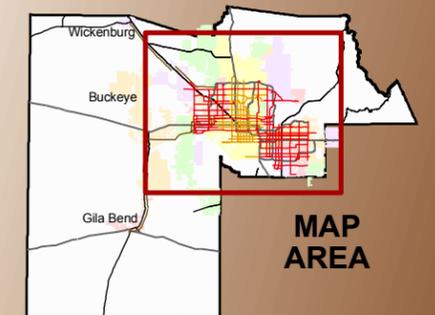
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Super Grid Bus System

- Regional Grid Routes
- Grid Routes Funded by City of Phoenix
- New Rural Routes
- Freeways
- Highways
- Other Roads
- County Boundary

Routes are conceptual and subject to change. Contact Valley Metro to obtain current status. Ongoing operational planning includes an extensive public outreach component.

Alignments for new freeway, highway, arterial, and light rail/high capacity transit facilities will be determined following the completion of appropriate design and environmental studies.



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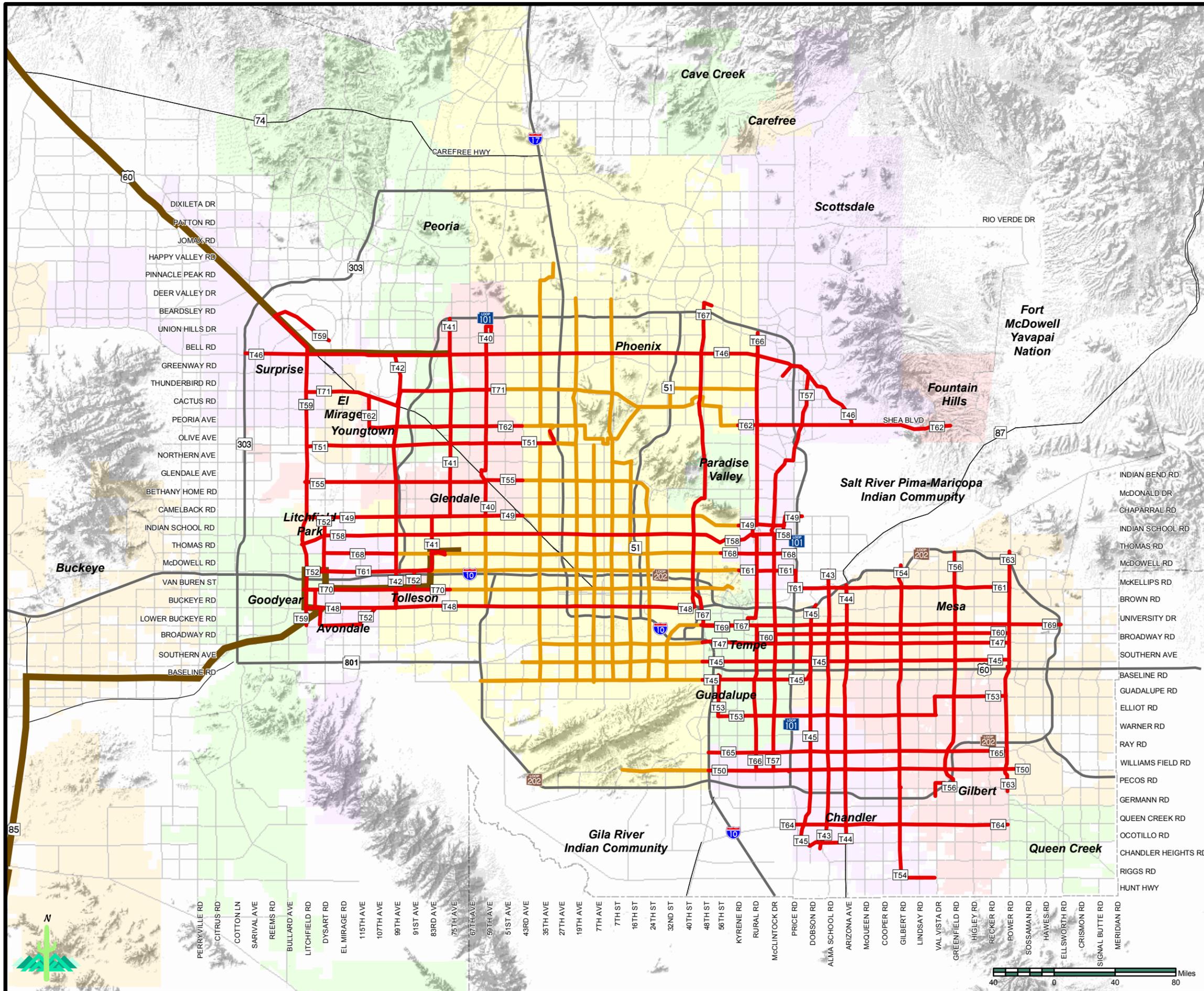


TABLE 8-2 REGIONAL GRID BUS ROUTE TERMINI

Note: Route termini are listed as an aid in interpreting maps. Final routing subject to operational planning.

<p><u>T40</u> <u>59th Avenue</u></p> <p>South terminus: Buckeye Road. North terminus: Midwestern University campus.</p>	<p><u>T47</u> <u>Broadway Road</u></p> <p>West terminus: Manzanita Speedway near 35th Avenue. East terminus: Superstition Springs Center.</p>	<p><u>T60</u> <u>Main Street</u></p> <p>West terminus: College Avenue Transit Center. East terminus: Superstition Springs Center.</p>
<p><u>T41</u> <u>83rd Avenue/75th Avenue</u></p> <p>South terminus: Desert Sky Mall Transit Center. North terminus: Arrowhead Towne Center.</p>	<p><u>T48</u> <u>Buckeye Road</u></p> <p>West terminus: Litchfield Road. East terminus: LRT station at 44th Street and Washington Street.</p>	<p><u>T61</u> <u>McDowell Road/McKellips Road</u></p> <p>West terminus: Litchfield Road. East terminus: Power Road and future Loop 202 park & ride lot.</p>
<p><u>T42</u> <u>99th Avenue</u></p> <p>South terminus: Buckeye Road. North terminus: Bell Road.</p>	<p><u>T49</u> <u>Camelback Road</u></p> <p>West terminus: Litchfield Road. East terminus: Scottsdale Community College.</p>	<p><u>T62</u> <u>Peoria Avenue/Shea Boulevard</u></p> <p>West terminus: Thunderbird Boulevard. at 103rd Avenue. East terminus: Fountain Hills Boulevard.</p>
<p><u>T43</u> <u>Alma School Road</u></p> <p>South terminus: Future Snediger Transit Center near Alma School Road and Ocotillo Road. North terminus: McDowell Rd and Alma School Road.</p>	<p><u>T50</u> <u>Chandler Boulevard</u></p> <p>West terminus: Desert Foothills Parkway. East terminus: Williams Gateway Airport/ASU East Campus.</p>	<p><u>T63</u> <u>Power Road</u></p> <p>South terminus: Rittenhouse Road. North terminus: Power Road at planned park & ride lot to Loop 202.</p>
<p><u>T44</u> <u>Arizona Avenue/Country Club Drive</u></p> <p>South terminus: Future Snediger Transit Center near Alma School Road and Ocotillo Road. North terminus: McKellips Road and Center Street.</p>	<p><u>T51</u> <u>Dunlap Avenue /Olive Avenue</u></p> <p>West terminus: Litchfield Road. East terminus: Metrocenter Transit Center.</p>	<p><u>T64</u> <u>Queen Creek Road</u></p> <p>West terminus: Price Road. East terminus: Power Road.</p>
<p><u>T45</u> <u>Baseline Road</u></p> <p>West terminus: 59th Avenue. East terminus: Dobson Rd.</p> <p><u>Southern Avenue</u></p> <p>West terminus: 43rd Avenue. East terminus: Superstition Springs Center.</p> <p><u>Dobson Road</u></p> <p>North terminus: Mesa Riverview near Dobson Road and Loop 202. South terminus: Future Snediger Transit Center near Alma School Road and Ocotillo Road.</p>	<p><u>T52</u> <u>Dysart Road</u></p> <p>East terminus: Desert Sky Transit Center. West terminus: Camelback Road and Litchfield Road.</p>	<p><u>T65</u> <u>Ray Road</u></p> <p>West terminus: Interstate 10. East terminus: Williams Gateway Airport/ASU East Campus.</p>
<p><u>T46</u> <u>Bell Road</u></p> <p>West terminus: Loop 303. East terminus: Shea Boulevard and Frank Lloyd Wright.</p>	<p><u>T53</u> <u>Elliot Road</u></p> <p>West terminus: Arizona Mills Transit Center. East terminus: Superstition Springs Center.</p>	<p><u>T66</u> <u>Scottsdale Road/Rural Road</u></p> <p>North terminus: Loop 101. South terminus: Chandler Fashion Mall Transit Center.</p>
	<p><u>T54</u> <u>Gilbert Road</u></p> <p>South terminus: Riggs Road and Val Vista Drive. North terminus: McDowell Road.</p>	<p><u>T67</u> <u>Tatum Boulevard/44th Street</u></p> <p>South terminus: College Avenue Transit Center. North terminus: Desert Ridge Market Place.</p>
	<p><u>T55</u> <u>Glendale Avenue</u></p> <p>West terminus: Litchfield Road. East terminus: State Route 51.</p>	<p><u>T68</u> <u>Thomas Road</u></p> <p>West terminus: Estrella Mountain Community College. East terminus: Pima Road.</p>
	<p><u>T56</u> <u>Greenfield Road</u></p> <p>South terminus: Val Vista Drive and Willis Road. North terminus: Thomas Road.</p>	<p><u>T69</u> <u>University Drive (to Ellsworth Road)</u></p> <p>West terminus: South Mountain Community College. East terminus: Ellsworth Road.</p>
	<p><u>T57</u> <u>Hayden Road/McClintock Drive</u></p> <p>North terminus: Hayden Road and Raintree Drive. South terminus: Chandler Fashion Mall Transit Center.</p>	<p><u>T70</u> <u>Van Buren Street</u></p> <p>West terminus: Litchfield Road. East terminus: Phoenix Zoo.</p>
	<p><u>T58</u> <u>Indian School Rd</u></p> <p>West terminus: Litchfield Road. East terminus: Granite Reef Road and Camelback Road.</p>	<p><u>T71</u> <u>Waddell Road/Thunderbird Road</u></p> <p>West terminus: Litchfield Road. East terminus: Scottsdale Airport.</p>
	<p><u>T59</u> <u>Litchfield Road</u></p>	

Routes Implemented During FY 2007

- Scottsdale/Rural (T66).

Note: On July 23, 2007, two additional Supergrid routes began service. The two Supergrid routes included Route 156 (Chandler Boulevard), which was extended east to Williams Gateway Airport in Mesa, and Route 70, (Glendale/24th St.), which was extended west to Luke Air Force Base.

Routes Planned for Implementation During FY 2008 through FY 2012

- Glendale/24th St. (T55); Service start: FY 2008.
- Chandler Boulevard (T50); Service start: FY 2008.
- Main Street (T60); Service start: FY 2009.
- Dobson Road (T45); Service start: FY 2009.
- Southern Avenue (T45); Service start: FY 2009.
- Gilbert Road (T54); Service start: FY 2010.
- Power Road (T63); Service start: FY 2010
- Baseline Road (T45); Service start: FY 2011.
- Arizona Avenue/Country Club (T44); Service start: FY 2012.
- University Drive (T69); Service start: FY 2012

8.1.3 Bus Operations: Other

In addition to the BRT/Express and Regional Grid services, other bus services account for a total of \$894 million (2007 and YOE \$'s) in regional funding for operating costs for the period FY 2006 through FY 2026 (see Table 8-4). These services include rural/flexible routes, commuter vanpools, paratransit services, safety and security, operating contingencies, supplemental funding for existing service, regional passenger support services, and RPTA planning and administration costs. Table C-3 provides information on the costs associated with these services. During the next five years (FY 2008 through FY 2012), it is anticipated that \$155.4 million (2007 \$'s) will be expended on these services. The services are described briefly below:

Rural/flexible Routes - This service type addresses the need to provide connections between the urban and rural communities of the county. Rural routes provide connections between remote communities and urban transit nodes and address a range of trip needs including work, shopping, education, and access to various community services. Funding has been identified for two rural transit routes. One route operates between Gila Bend and West Phoenix and was initiated in FY 2006. The second route operates between Wickenburg and Glendale and was initiated in FY 2007.

Commuter Vanpools - The Commuter Vanpool Program operates as a personalized express service for commuters, and is managed by Valley Metro/RPTA through its complementary rideshare program. Commuter vanpools allow groups of commuters throughout the region to self-organize and obtain a vehicle from Valley Metro/RPTA to operate a carpool service. Vanpools can be very effective at serving suburban employment centers such as office parks and office campuses. Vanpooling is one of the Transportation Demand Management strategies many employers have implemented as a Trip Reduction Program measure. Through sponsorship and funding of a vanpool program, Valley Metro/RPTA aspires to maintain rider fares at a level that is attractive to the commuter and available to all employers and commuter groups in Maricopa County. Operating costs are fully recovered through fare revenues and are not subsidized.

ADA Paratransit Services - ADA paratransit services address the needs of disabled riders who cannot utilize fixed route bus service due to physical or cognitive disability. Paratransit service is demand-response and provides curbside pick-ups and drop-offs. This service is required by the Americans with Disabilities Act (ADA) for all ADA-certified patrons for all areas within three-quarter miles of a fixed route.

Safety and Security - Funds are set aside to improve the safety and security of passengers and transit assets, including rolling stock and facilities. Specific expenditures will be programmed each year based on need and may include such items as closed circuit television at facilities, cameras on buses, and other needed infrastructure improvements.

Contingencies - Funds are set aside for operating and capital contingencies. This amount is equal to five percent of the budget for operations and five percent of the budget for purchased capital (e.g. fleet) and 20 percent of constructed capital (e.g. park and rides). Any contingencies not spent revert back to the general fund to be re-programmed for other projects.

RPTA Planning and Administration - RPTA receives an allocation from the Regional Area Road Fund (RARF) for planning and administration. This pays for the overhead and administration costs and any regional or general planning costs that are not attributable to specific RTP projects.

Existing Local and Express Service - A small portion of the funding included in the “Bus Operations: Other” category supplements the operation cost of certain local and express services that were funded by RPTA prior to the passage of Proposition 400. These services continue to be funded by RPTA. This element amounts to approximately 1.5 percent of the total regional funding budget allocated for transit.

Regional Passenger Support Services - This category of the transit program includes services that support regional operations such as customer service, the transit information call center, marketing activities, public outreach and travel training.

8.1.4 Bus Capital: Facilities

Associated with the expansion of transit service will be the need for additional maintenance and passenger facilities. The identification of specific locations and timing of construction for these facilities will occur as the result of ongoing capital planning efforts. These efforts will include the identification and evaluation of potential sites for transit passenger and maintenance facilities. This process will guide the selection of sites, and will be done in cooperation with the host communities, which will include public outreach efforts to identify and address the concerns of affected neighborhoods, institutions, and commercial users.

The numerous capital projects affiliated with regional bus operations account for a total of \$505 million (2007 and YOE \$'s) during FY 2006 through 2026 (see Table 8-4). There is \$38 million (2007 and YOE \$'s) for contingency included in this amount. Table C-4 provides more detailed information on the costs associated with bus capital facilities. This infrastructure calls for the completion of 13 park-and-ride lots; 6 transit centers (4 bus-bay); 4 transit centers (6 bus-bay); 3 transit centers (for major activity centers); 4 new bus maintenance facilities and 2 facility upgrades; two dial-a-ride/rural bus maintenance facilities; a vanpool maintenance facility; the purchase of BRT right-of-way and associated improvements and maintenance; 1,200 bus stop pullouts/improvements at various locations, and the implementation of ITS/VMS in 2,154 vehicles.

As of 2006, pre-design, design, and planning is underway on a number of park-and-ride facilities. Other maintenance and passenger facilities are to be implemented over the next several years. It is anticipated that a total of \$186 million (2007 \$'s) in regional funding will be expended during the next five years (FY 2008 through FY 2012) on bus capital facilities. The park and ride projects under development during this period will include the Peoria/Grand Park and Ride, the Glendale Park and Ride, and the Scottsdale/Loop 101 Park and Ride. Other capital projects that will be under development during this period include three transit centers, two operations and maintenance facilities, and improvements to approximately 270 bus stops.

8.1.5 Bus Capital: Fleet

Over the planning horizon associated with Proposition 400, fleet purchases account for a total of \$1.1 billion (2007 and YOE \$'s) during FY 2006 to FY 2026 (see Table 8-4). There is \$51 million (2007 and YOE \$'s) contingency included. Table C-5 provides more detailed information on bus fleet capital costs. This includes the purchase of 2,136 buses for fixed route networks; 39 buses for rural routes; 1,227 Dial-a-Ride (DAR) vans for paratransit purposes; and 1,498 vanpool vans. It is anticipated that a total of \$333 million (2007 \$'s) in regional funding will be expended during the period FY 2008 through FY 2012 on vehicle purchases. These purchases will include 549 fixed route buses, 61 express/BRT buses, 10 rural transit buses, 324 paratransit vehicles, and 335 commuter vans. These reflect both replacement and expansion vehicles.

8.2 STATUS OF LIGHT RAIL TRANSIT PROJECTS

The Transit Life Cycle Program includes an extensive Light Rail Transit (LRT) component for the MAG Region. This covers support infrastructure for the LRT system, as well as future extensions of light rail corridors that are planned throughout the region. The construction of the 20-mile Minimum Operating Segment that was developed through the Central Phoenix/East Valley Major Investment Study (MIS) is not a part of the Transit Life Cycle Program, except for some funding for support infrastructure. Figure 8-3, as well as Tables C-6 and C-7, provide information on the locations and costs of light rail throughout the metropolitan area. Light Rail Transit projects account for a total of \$3.0 billion (2007 and YOE \$'s) in the Transit Life Cycle Program (see Table 8-4), which is approximately 44 percent of the total regional funding dedicated to transit. Of this amount, approximately \$2.6 billion (2007 and YOE \$'s) applies toward construction of route extensions, whereas the remaining \$413 million (2007 and YOE \$'s) applies to support infrastructure affiliated with the LRT system. None of the regional funding for LRT is allocated to operating costs.

8.2.1 Minimum Operating Segment

Although the construction of the Minimum Operating Segment (MOS) is not a part of the Transit Life Cycle Program, background information on this project is provided here to provide an overview of the entire LRT system planned for the region. The conceptualization of a light rail starter segment began with the completion of the Central Phoenix/East Valley Major Investment Study (MIS) in 1998. The purpose of the Central Phoenix/East Valley MIS was to identify transportation improvements designed to reduce existing and future traffic congestion, improve mobility options, and provide transportation alternatives in the corridor linking central Phoenix with the cities of Tempe and Mesa. The approved alignment for the Light Rail Transit (LRT) MOS starter segment extends from Bethany Home Road and 19th Avenue (formerly Chris-Town Mall,

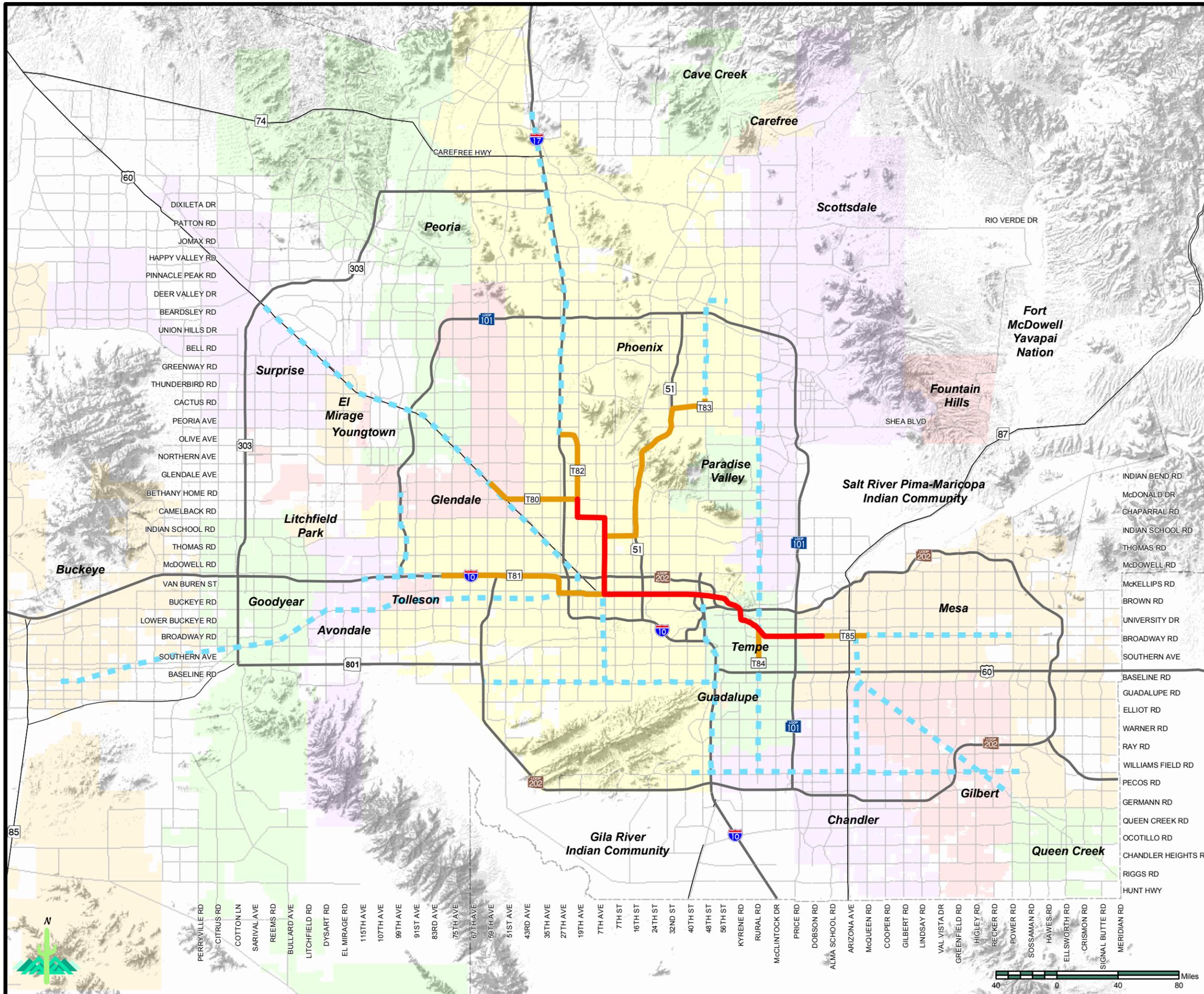
Figure 8-3



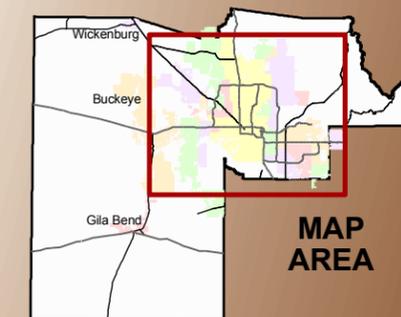
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Light Rail Transit (LRT)/
High Capacity Transit

- Light Rail Transit Minimum Operating Segment
- Light Rail/High Capacity Corridor Extensions
- Eligible High Capacity Corridors
- Freeways
- Highways
- Other Roads
- County Boundary



Alignments for new freeway, highway, arterial, and light rail/high capacity transit facilities will be determined following the completion of appropriate design and environmental studies.



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and recently renamed the Spectrum Mall) into downtown Phoenix; from downtown Phoenix to downtown Tempe and Arizona State University; and continuing to the intersection of Main Street and Sycamore in Mesa. The MOS will be completed by December 2008 and service will be initiated through a single opening of the entire system at that time.

The MOS will operate primarily at-grade on city streets. The LRT system will have two tracks, with light rail vehicles running in trains from one to three cars. The trains will run in both directions approximately 18 to 21 hours per day, seven days per week. The trains will initially operate every 10 minutes during peak hours and approximately every twenty minutes during off-peak hours.

Important elements of the light rail plan include provisions for park-and-ride lots at the end of rail lines and signal priority strategies to improve speed. A total of 27 station locations have been identified on the MOS alignment, with 21 scheduled for completion by opening day and six scheduled for development by 2010. Stations are generally located about a mile apart, but closer (1/2 mile apart) in urban centers. Shuttle buses and an improved fixed route network also play an important role in the light rail system. Half-cent sales tax money from Proposition 400 will not be utilized to pay for route construction of the MOS, but is rather allocated toward certain elements of the support infrastructure (regional park-and-rides, bridges, maintenance facility, vehicles, and for the cost to relocate utilities).

8.2.2 Light Rail Transit: Support Infrastructure

Completion of support infrastructure affiliated with the LRT system accounts for a total of \$413 (2007 and YOE \$'s) in the Transit Life Cycle Program. Of this amount, \$186 million (2007 and YOE \$'s) applies toward infrastructure along the LRT MOS (to be expended by 2010); \$72 million (2007 and YOE \$'s) applies toward infrastructure needs on the Northwest Link, from 19th Avenue/Bethany Home to the Rose Mofford Sports Complex (to be expended by 2010); \$32 million (2007 and YOE \$'s) applies toward infrastructure needs on the Glendale Link from 19th Avenue/Bethany Home to Downtown Glendale (to be expended by 2020); and \$122 million (2007 and YOE \$'s) applies to other LRT improvements throughout the system (to be expended by 2026).

8.2.3 Light Rail Transit: Route Extensions

The Transit Life Cycle Program includes regional funding for the completion of six additional LRT segments on the system. These include a five-mile Northwest Extension, which in FY 2007 was split into two phases; a five-mile extension to downtown Glendale; an 11-mile extension along I-10 west to 79th Avenue; a 12-mile extension to Paradise Valley Mall; a two-mile extension south of the MOS on Rural Road to Southern Avenue; and a 2.7-mile extension from the east terminus

of the MOS to Mesa Drive. In total, the extensions account for a total of 37.7 miles of the 57.7-mile system. Development of the route extensions account for a total of \$2.6 billion (2007 and YOE \$'s) during FY 2006 through FY 2026 (see Table 8-4).

It should be noted that local sources will provide a significant share of the funding for the extension to downtown Glendale and the Northwest Extension. For these segments, regional funding in the form of Federal 5309 funds will provide approximately half of the funding, with local sources providing the remaining half. Other than the funding for support infrastructure identified previously, it is not anticipated that half-cent funds will be applied to these segments. The status of development work on the route extensions is discussed below.

Design Criteria and Standards Study

This study will develop, update and refine Valley Metro Rail design criteria, standards, specifications, and CADD standards to reflect lessons learned from the Central Phoenix/East Valley LRT Project and to fully incorporate (or reference) all applicable local standards and requirements. The updated standards will be provided to all future LRT design consultants, to assure all standards are met, and to minimize future design efforts and costs.

LRT System and Configuration Study

The study will address three related areas: the I-10 West Corridor, the future configuration of the completed 57-mile light rail system, and address broad corridor issues in some specific corridors where resolution needs to address either multiple options, engineering challenges or technology issues.

Northwest Extension

The Northwest Extension Corridor Study is currently in the draft environmental impact phase (DEIS). In FY 2007 the extension was split into two phases. For Phase 1, preliminary engineering and the final environmental impact (FEIS) phase will likely occur in 2006-2007, with Final Design of the project following in 2007-2008, and right-of-way acquisition occurring in 2008-2010. Construction of the extension is currently projected to begin in 2010. Construction is expected to be complete for Phase 1 in FY 2012. Phase 2 is scheduled to be complete in FY 2017.

8.3 TRANSIT PROGRAM CHANGES

During FY 2007, Transit Life Cycle Program changes were made to respond to changing conditions and new information. These changes affected certain bus service initiation dates and completion schedules for LRT extensions. In addition, the cost estimates for a number of program components were affected.

Key program changes are listed below, while appendix Tables C-1 through C-7 provide a full listing of project characteristics.

8.3.1 Schedule Changes

Bus Route Service Start Dates: The service start date for certain bus routes was adjusted to ensure that service level are coordinated with the initiation of LRT service and consistent with the development of capital facilities such as transit centers and bus maintenance facilities.

Supergrid Advancements:

- Dobson Rd.: FY 2011 to FY 09.
- Greenfield Rd.: FY 2024 to FY 2022.
- Power Rd.: FY 2025 to FY 2010.
- Southern Ave.: FY 2011 to FY 2009.

Supergird Delays:

- 59th Ave.: FY 2015 to FY 2020.
- Arizona Ave./Country Club Dr.: FY 2010 to FY 2012.
- Buckeye Rd.: FY 2020 to FY 2021.
- Tatum Blvd./44th St.: FY 2016 to FY 2020.
- Van Buren St.: FY 2016 to FY 2020.

Express/BRT Delays:

- Buckeye Express: FY 2011 to FY 2015.

LRT Northwest Extension: As noted in Chapter 4, the LRT Northwest Extension will be implemented in two phases instead of a single project. The first phase from will be from 19th Ave./Bethany Home Road to Dunlap Avenue (completion in 2012), and the second phase will be from Dunlap Avenue to 25th Avenue/Mountain View Road (completion 2017).

8.3.2 Cost Changes

Table 8-3 summarizes cost changes for key elements in the FY 2008 - 2026 Transit Life Cycle Program. These changes are based on the total cost of the program elements as estimated in the 2006 Annual Report versus the total cost as estimated in the 2007 Annual Report. The net total of these cost changes amounts to \$826 million.

TABLE 8-3
FY 2008 - 2026 TRANSIT LIFE CYCLE PROGRAM COST CHANGES
(2006, 2007 and Year of Expenditure Dollars in Millions)

Category	2006 Annual Report Total Costs: FY 2006 - 2026 (2007 and YOE Dollars)	2007 Annual Report Total Costs: FY 2006 - 2026 (2007 and YOE Dollars)	Change in Total Costs: 2006 vs. 2007
Bus Operations: BRT/Express	142.1	262.1	120.0
Bus Operations: Regional Grid	935.3	1,030.4	95.1
Bus Operations: Other	437.1	894.1	457.0
Bus Capital Projects: Facilities	477.4	504.7	27.3
Bus Capital Projects: Fleet	1,017.4	1,145.0	127.6
Bus Capital Projects: Contingency *	75.1	N.A.	(75.1)
Light Rail Transit: Support Infrastructure	413.7	412.5	(1.2)
Light Rail Transit Capital: Route Extensions	2,507.5	2,582.7	75.2
Total	6,005.6	6,831.5	825.9

* Included in bus facilities and bus fleet categories in 2007 Annual Report.

8.4 TRANSIT PROGRAM EXPENDITURES, ESTIMATED FUTURE COSTS, AND FISCAL STATUS

8.4.1 Program Expenditures and Estimated Future Costs

Table 8-4 provides a summary of past expenditures, estimated future costs and total costs by major program category for the Transit Life Cycle Program. Detailed data on costs at the project level is included in Tables C-1 through C-7 in the appendix. It is important to note that, as a part of the expenditures for light rail, A.R.S. 48-5107 requires that all costs for relocation of utility facilities incurred after July 1, 2003 as a direct result of the construction and operation of a light rail project be reimbursed to the utility by the light rail project. All expenditures in FY 2006 and most for FY 2007 for light rail are related to reimbursements for utility relocation.

As indicated in Table 8-4 the total estimated cost for the Transit Life Cycle Program for the period FY 2006 through FY 2026 is \$6.8 billion (2007 and YOE \$'s). Expenditures through FY 2007 total \$223 million (YOE \$'s), while estimated future costs total \$6.6 billion (2007 \$'s). The estimated future costs represent a 12 percent increase over the figure of \$5.9 billion (2006 \$'s) provided in the 2006 Annual Report.

A complete and thorough review of the Transit Life Cycle Program was completed by HDR|S.R. Beard and Associates during FY 2007. The review was conducted to ensure that all of the assumptions were realistic and valid. As a result of the review, many of the assumptions were changed, including the price of acquiring new fleet and increased contingency for constructed capital facilities. Most of the increase in costs from FY 2006 is due to the change in assumptions. A copy of the TLCP Review can be obtained from RPTA on request.

TABLE 8-4
TRANSIT LIFE CYCLE PROGRAM
SUMMARY OF EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Category	Expenditures: through FY 2007 (Year of Expenditure Dollars)			Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Costs: FY 2006 - 2026 (2007 and YOE Dollars)
	Operations	Capital Investments	Total		
Bus Operations: BRT/Express	0.0	--	0.0	262.1	262.1
Bus Operations: Regional Grid	6.0	--	6.0	1,024.4	1,030.4
Bus Operations: Other	53.1	--	53.1	841.0	894.1
Bus Capital Projects: Facilities	--	38.6	38.6	466.1	504.7
Bus Capital Projects: Fleet	--	60.2	60.2	1,084.8	1,145.0
Light Rail Transit: Support Infrastructure	--	59.8	59.8	352.7	412.5
Light Rail Transit Capital: Route Extensions		4.9	4.9	2,577.8	2,582.7
Total	59.1	163.4	222.6	6,608.9	6,831.5

8.4.2 Future Fiscal Status

Table 8-5 summarizes the future funding sources and uses that apply to the Transit Life Cycle Program for the period FY 2008 through FY 2026. Funding sources available for this period are estimated to total \$6.6 billion (2007 \$'s). These sources include the Proposition 400 half-cent sales tax extension (\$4.8 billion); Regional Area Road Fund transfer (\$102 million); Federal Transit/5307 funds (\$1.5 billion); Federal Transit/5309 funds (\$1.6 billion); Federal Highway/CMAQ funds (\$405 million); other income from local sources (\$572 million); bond and loan proceeds (\$341 million); and bus farebox revenues (\$517 million). Expenses totaling \$475 million are deducted from these sources, covering estimated future debt service. In addition, an allowance for inflation of \$2.8 billion is deducted (assumes an average inflation rate of 3% for bus

operating and capital costs and 5% for rail capital costs over the remaining life of the program; revenues are discounted at a rate of 3%).

**TABLE 8-5
TRANSIT LIFE CYCLE PROGRAM
FUTURE SOURCES AND USES OF FUNDS: FY 2008-2026
(2007 and Year of Expenditure Dollars in Millions)**

SOURCES OF FUNDS	
Category	Projected Future Funding: FY 2008-2026 (YOE Dollars)
Proposition 400: One-Half Cent Sales Tax Extension	4,810.5
Regional Area Road Fund	101.8
Federal Transit / 5307 Funds	1,542.5
Federal Transit / 5309 Funds	1,570.6
Federal Highway/ MAG CMAQ	404.6
Other Income	572.3
Bond and Loan Proceeds	341.7
Bus Farebox Revenues	517.3
Plus Beginning Balance	58.8
Less Debt Service	(475.2)
Less Inflation Allowance	(2,809.0)
Total (2007 \$'s)	6,635.9
USES OF FUNDS	
Category	Estimated Future Costs: FY 2008-2026 (2007 Dollars)
Bus Operations: BRT/Express	262.1
Bus Operations: Regional Grid	1,024.4
Bus Operations: Other	841.0
Bus Capital Projects: Facilities	466.1
Bus Capital Projects: Fleet	1,084.8
Light Rail Transit: Support Infrastructure	352.7
Light Rail Transit Capital: Route Extensions	2,577.8
Total (2007 \$'s)	6,608.9

Including a beginning balance of \$59 million, this yields a net total of \$6.6 billion (2007 \$'s) for use transit projects and programs through FY 2026. Table 8-5 also lists the estimated future uses identified in the Life Cycle Program for the period covering FY 2008 through FY 2026. These projects and programs also total \$6.6 billion (2007 \$'s).

8.5 TRANSIT PROGRAM OUTLOOK

The primary goal of the Transit Life Cycle Program is to ensure the development and implementation of all transit projects, as identified in the MAG RTP, by the end of FY 2026. Estimated future revenues for the Program exceed estimated future costs by about \$27 million. This difference represents less than one-half of one-percent of the total future funding estimated to be available over the planning period. Given the uncertainties in both the cost and revenue estimates, this difference is not significant in the context of a 20-year program. However, it highlights the future fiscal challenges facing the Transit Life Cycle Program, and the potential need for future adjustments to ensure that project costs do not exceed expected revenues for the period through FY 2026. This is particularly the case, in view of the \$826 million increase in total system costs since the 2006 Annual Report.

Given recent trends of escalating wages and fuel prices, pressure will increase to balance operations costs with available revenues. Similarly, recent increases for right-of-way and construction materials will continue to drive up costs for transit capital facilities. Costs for the Transit Life Cycle Program will continue to be evaluated as the program is implemented, and program adjustments will be made as warranted to maintain the cost/revenue balance.

Another continuing issue will be Federal funding for light rail extensions. As noted in previous Annual Reports, a large part of the funding for the LRT system extensions is assumed to be from awards by the US Department of Transportation through the discretionary "New Starts Program". This funding is over-and-above the Federal funding contained in the 20-mile starter system Grant Agreement. The timing and amounts of light rail transit new start monies coming to the MAG region will be subject to a highly competitive process at the federal level. The prospects for awards from this program will require careful monitoring.

CHAPTER NINE

TRANSPORTATION SYSTEM PERFORMANCE

Proposition 400 legislation set forth the factors to be considered during the development of the MAG Regional Transportation Plan (RTP), such as the impact of growth on transportation systems and the use of a performance-based planning approach. Consistent with State legislation, the development of the MAG Regional Transportation Plan (RTP) included a performance-based planning and programming process. This process established goals, objectives and performance measures for developing various options and evaluating potential scenarios to be included in the Plan. MAG, continuing to place emphasis on performance-based planning, has established an ongoing Transportation System Performance Monitoring and Assessment Program. Since the implementation of the RTP is in its early stages, the material presented in this chapter represents the beginning phase of the monitoring and assessment program, and will be extended and enhanced in the future as the program is refined.

9.1 PERFORMANCE MONITORING AND ASSESSMENT CONCEPTS

The transportation system performance monitoring and assessment process includes: (1) tracking of the performance of the transportation system on an ongoing basis, and (2) forecasting how the system is likely to perform in the future. The tracking element emphasizes collection of data and development of comparative statistics that reveal trends in system performance over time. The forecasting element focuses on the use of travel demand computer models to project travel conditions and draw conclusions regarding future performance of the transportation system.

9.1.1 Monitoring Current Conditions

The optimum combination of accuracy and detail for performance measurement is based on real time, observed data sources. This data provides the information to assess the operating characteristics of the current transportation system and establish an historical record that tracks performance trends over time. The specific parameters observed vary by the transportation mode under consideration, and must take into consideration the practicality and expense of collecting data on a continuing basis. The latter factor is particularly important if a historical record is to be established that allows effective analysis of performance trends.

For roadway systems, typical data collected to assess current performance includes: vehicle counts at a sample of locations; vehicle densities along various roadway segments; speeds and point-to-point travel times; intersection queue

lengths and delays; and number and types of accidents. For transit systems, common data items cover: boardings and farebox revenues by route; on-board passenger loadings at various points in the system; operating costs; and service reliability.

9.1.2 Forecasting Future Performance

The second key aspect of performance monitoring and assessment is the analysis of future conditions on the transportation system. An understanding of potential future performance status provides valuable input into the decision-making process for prioritizing expansions or other improvements to the system. Forecasts of travel on the roadway and transit system are developed through the use of computer simulations of the future transportation network. These simulations are based on assumptions regarding potential future improvements to the system, as well as projections of future population levels. The use of computer simulations allows the testing of various network options to determine how future system performance is affected by alternative investment strategies. The models have the capability to produce simulated data for all the same factors that are collected as part of the monitoring process, as well as additional data that would be impractical or too costly to collect.

Transportation network simulation models are also used to assess the impact of improvements compared to “no-build” conditions. This capability is especially important in a high growth area such as the MAG region. Under high growth conditions, the performance of the transportation system may decline even though improvements are made, due to increased travel demand brought on by the growth in housing units and population. However, conditions may have been much worse, if improvements had not been made. Network simulation models provide the capability to analyze conditions with and without improvements, allowing an assessment of project performance relative to a “no-build” option.

9.2 ROADWAY SYSTEM PERFORMANCE

A broad range of monitoring data on the performance of the roadway system in the MAG area has been collected over the years. These data collection efforts have addressed a variety of performance factors and have enabled historical comparisons to be made. In addition, the MAG Travel Demand Model has been applied routinely to assess future performance of the roadway network.

9.2.1 Roadway Monitoring Data

Currently traffic data is available for the MAG Region from various recently completed studies and surveys. These include: the 2006 Regional Freeway Bottleneck Study, the 2006 Freeway Level of Service Study, the Phoenix External Travel Survey, the Freeway Travel Conditions and Trends Study, and the 2003 Travel Time and Speed Study. During the 2006-2007 Fiscal Year, a

number of additional studies are being conducted, including: the 2006 Weekday Traffic Volume Study and Database, the ADOT Freeway Management System (FMS) Detector Accuracy Evaluation, the 2006 Travel Time and Speed Survey, and the Internal Truck Travel Survey.

In the MAG region, ADOT's Freeway Monitoring System (FMS) is operational on the majority of the urbanized area freeway system, collecting volume and speed data per lane. Preferred maintenance status has been assigned to 58 loop detectors that collect five, fifteen, sixty minute and 24 hr. interval data. In addition, MAG has been conducting Travel Time and Speed Studies since 1976; the most recent study, completed in 2003, collected valuable data for 1,800 miles of roadways including freeway and arterial facilities.

Table 9-1. summarizes travel time data between Central Business District (CBD) locations within the MAG area comparing data between the 1986, 1993 and the 2003 Studies. Data collected reflects travel occurring in the arterial and freeway systems. It is important to note that the regional freeway system was expanded significantly between the years 1986 and 1993, and subsequently between 1993 and 2003; therefore some origin and destination pairs exhibit a shorter travel time in earlier years.

9.2.2 Roadway Performance Forecasts

In order to analyze future congestion, it is necessary to make use of simulations of the regional transportation network. The MAG travel demand model, which is a state-of-the-art computer travel demand model, was utilized for this purpose. For the analysis presented in this chapter, three network scenarios were modeled to assess potential future conditions on the transportation system in the region.

Modeling Scenarios:

- 2006 Base Year Scenario - For this scenario the highway, arterial and transit network reflects the current year 2006 network. The benefit of using this network as a base is that it reflects conditions before any of the RTP projects are implemented, thus establishing a reference point for comparative analysis. The socio-economic data that generates the travel demand for this scenario is based on the Socioeconomic Projections accepted by the MAG Regional Council in June of 2003.
- 2028 RTP Plan Scenario - The network used for this model run includes all the projects in the RTP Plan and utilizes MAG's socioeconomic projections for the year 2028.

**TABLE 9-1
PLACE TO PLACE (CBD to CBD) PM TRAVEL TIME MATRIX
(TRAVEL TIME IN MINUTES)**

FROM	TO																							
	Phoenix			Tempe			Scottsdale			Glendale			Peoria			Gilbert			Chandler			Mesa		
	1986	1993	2003	1986	1993	2003	1986	1993	2003	1986	1993	2003	1986	1993	2003	1986	1993	2003	1986	1993	2003	1986	1993	2003
Phoenix	-	-	-	21.8	19.6	20.2	30.2	26.8	22.2	19.6	22.0	26.3	27.3	29.5	33.7	29.1	33.8	37.7	31.5	32.8	38	39.2	27.2	29.5
Tempe	19.6	16.1	15.4	-	-	-	18.2	18.4	17.8	37.4	31.4	36.9	45.1	37.7	43.5	21.4	25.0	23.7	23.9	25.5	24.1	17.4	12.7	16.7
Scottsdale	26.2	27	19.4	17.1	16.8	17.4	-	-	-	39.8	40.7	40.9	47.5	47.5	47.5	34.0	37.9	29.9	36.4	38.3	30.2	28.4	24.4	21.8
Glendale	23.8	21.3	20.5	36.4	31.2	31.5	35.4	38.3	33.5	-	-	-	7.7	7.5	10.6	47.7	47.1	48.9	50.1	46.0	49.3	44.0	40.5	40.7
Peoria	31.9	27.9	25.8	44.5	37.8	36.8	46.5	46.0	38.8	8.1	9.0	11.5	-	-	-	55.8	53.7	54.2	58.2	52.6	54.6	52.1	47.1	46
Gilbert	36.7	32	27.3	22.5	25.9	20.2	40.2	38.6	26.7	49.9	48.1	48.8	57.6	54.4	54.6	-	-	-	10.7	9.9	11.7	15.4	16.1	14.1
Chandler	39.5	30.4	29.1	25.3	24.6	21.9	43.0	37.3	28.4	52.7	46.4	50.5	60.4	52.7	56.4	9.3	9.9	13.8	-	-	-	17.8	13.4	19.8
Mesa	40.1	27.3	20	20.4	11.5	12.2	46.5	23.9	18.2	46.2	43.4	41.5	53.9	49.7	48.1	15.4	17.6	15.2	18.2	16.5	18.7	-	0.0	-

- 2028 No-Build Scenario - The purpose of this scenario is to quantify the performance of the system without including the RTP major investments and assess the impact on levels of service. This scenario uses the same socioeconomic data for 2028 as that used for the RTP scenario, but does not include the regionally funded freeway and arterial system improvements identified in the RTP.

Roadway Performance Measures: To illustrate the relationship between the various indicators of future roadway system performance, data has been grouped into three categories: Supply Measures, Demand Measures and Level of Service Measures. These measures have been selected as representative indicators of the overall performance of the transportation system and are presented in a comparative fashion among three modeling scenarios: the 2006 Base Year, the 2028 RTP and the 2028 No-Build. All data is for the Maricopa County portion of the MAG transportation modeling area. Table 9-2 provides a comparison of key system level parameters and performance measures for the three scenarios that were modeled.

- Supply Measures - Two measures of the supply of roadway capacity in the region are included in Table 2: freeway lanes miles and number of arterial intersections. The value for freeway capacity miles is the result of multiplying the number of lane miles by the daily capacity factor per lane for freeways (28,000). Although not strictly a capacity measure, the number of arterial intersections is provided to represent the overall scale of the arterial system, and to provide a basis of comparison for the number of congested intersections. As shown in Table 9-2, there is an increase of approximately 59 percent in freeway capacity between the 2006 Base Year and the 2028 RTP, while the number of arterial intersections increases by about 22 percent. For the No Build scenario, freeway capacity increases only slightly (six percent) and the increase in arterial intersections is comparable to the RTP scenario.
- Demand Measures - The demand measure identified in Table 9-2 is vehicle miles of travel (VMT) for arterials and freeways on an average weekday. These facility types were selected, since they carry the vast majority of travel in the roadway network. However, there is some additional VMT carried by local and collector streets, which is not reflected in the figures in Table 9-2. Compared to the 2006 Base Year, VMT on freeways and arterials in the 2028 RTP system is projected to increase 82 percent and 78 percent, respectively. For the No Build scenario, the VMT increases are 33 percent and 104 percent, respectively, reflecting the increased burden of traffic that arterials must carry due to lack of freeway improvements. In comparison to these figures, total population in the MAG area is projected to increase by 60 percent between 2006 and 2028.

TABLE 9-2
MODELING SCENARIO PERFORMANCE MEASURES
(Maricopa County Portion of MAG Modeling Area)

Measures	Scenario		
	2006 Base Year	2028 RTP	2028 No Build
Population	3,715,520	5,940,130	5,940,130
Supply Measures			
Fwy. Lane Miles	1,802	2,862	1,913
Fwy. Capacity Miles	50,456,000	80,136,000	53,564,000
Arterial Intersections	12,210	14,752	14,752
Demand Measures			
Fwy. Vehicle Miles of Travel	31,473,238	57,160,809	41,896,855
Arterial Vehicle Miles of Travel	42,947,174	76,222,790	87,490,596
Level of Service Measures			
Congested Fwy. Lane Miles	598	1,398	1,217
% Congested Fwy. Lane Miles	33.2	48.8	63.6
Congested Fwy. VMT	15,251,379	35,656,244	32,941,187
% Congested Fwy. VMT	48.5	62.4	78.6
Congested Arterial Intersections	100	244	429
% Congest. Art. Int.	0.8	1.7	2.9
Vehicle Hours of Delay	581,046	1,410,398	2,023,538
Veh. Hrs.Delay per 1000 VMT	7.8	10.6	15.6

- Level of Service (LOS) Measures - A number of LOS measures are included in Table 9-2 for the three modeled scenarios, including congestion on freeways, congested arterial intersections, and vehicle hours of delay. As noted previously, congested freeway segments are those with LOS E-F, congested intersections are those at LOS E-F, and delay represents amount of extra travel time due to congestion.

A review of Table 9-2 indicates that, while the number of lane miles of congested freeways more than doubles between the 2006 Base Year and the 2028 RTP, the portion of total lane miles that are congested increases by only 47 percent. Under the No Build scenario, the percentage of congested lane miles increases by 92 percent. The number of congested intersections and vehicle hours of delay reveal a similar effect. The percent of congested intersections doubles between the 2006 Base Year and the 2028 RTP, but more than triples under the No Build scenario. The delay (per 1000 VMT) increases by 36 percent between the 2006 Base Year and the 2028 RTP, but experiences an increase of over 100 percent under the No Build scenario. Clearly, the freeway capacity added in the RTP helps significantly to mitigate the effects of a growing population.

9.3 TRANSIT SYSTEM PERFORMANCE

One of the key components of the transit performance monitoring effort is the Transit Performance Report (TPR). The TPR is prepared and updated annually by Valley Metro/Regional Public Transportation Authority (RPTA). This report is developed using input from, and is reviewed by, member agencies and the RPTA Board. The TPR serves as an important information source for the MAG regional transportation planning process.

9.3.1 Service Efficiency and Effectiveness Study

In 2006 RPTA hired a consultant to conduct a Service Efficiency and Effectiveness Study (SEES). One task of this study was to develop a series of performance measures. This SEES developed initial performance targets that will allow comparison between performance expectations and actual performance. These performance measures and performance targets are being incorporated into the TPR. In future years these targets will be reviewed, refined and indexed to inflation as appropriate.

The SEES framework proposed performance targets, which establish a baseline of performance expectation for Fixed Route bus (systemwide); Fixed Route bus at the route level; Paratransit; and Light Rail Transit (LRT). One of the key goals of the performance targets is to ensure consistent service levels throughout the region.

9.3.2 Performance Targets and 2006 Results

The specific performance measures and targets developed during the Service Efficiency and Effectiveness Study are listed in Tables 9-3 through 9-5. It is important to note that SEES targets for LRT are preliminary, since there is very little data available on which to base the targets until the system has gone through some testing and begins revenue service. Data on individual bus route performance is listed in Appendix Tables C-8 and C-9.

Tables 9-3 through 9-5 also include actual operating results, where available, from the July 1, 2005-June 30, 2006 Transit Performance Report. Performance results for fiscal year 2007 are expected to be available early in calendar year 2008. The 2006 TPR is a transition between the previous Performance Management Analysis System format and the new TPR, and is based on the findings from the SEES and the data available at that time. The modes covered by future TPRs will include fixed route, paratransit, and light rail. Bus service categories will include local routes, super grid (major arterial routes), Express/Bus Rapid Transit, Circulators, and rural connector routes and shuttles.

**TABLE 9-3
FIXED ROUTE BUS PERFORMANCE MEASURES (SYSTEM-WIDE)**

Measure	Target	2006 Results
Cost Efficiency/Effectiveness		
Farebox Recovery Ratio	25%	24.6%
Operating Cost per Boarding	\$2.32	\$2.32
Subsidy (Net Operating Cost per Boarding)	\$1.75	\$1.75
Cost Per Revenue Mile	\$4.96	\$4.96
Average Fare	\$0.67	\$0.57
Service Effectiveness		
Annual Increase in Total Boardings	3%	
Annual Increase in Average Boardings (Weekday, Sat., Sun.)	3%, 3%, 3%	5%, 10%, 6%
Boardings per Revenue Mile	2.1	2.14
Safety Incidents per 100,000 Vehicle Miles	1.2	--
Security Incidents per "x" Boardings	0	--
Complaints per "x" Boardings	28	--
On-time Performance	90%	--
Miles between Mechanical Failures	23,400	--
Customer Satisfaction	89%	--

**TABLE 9-4
PARATRANSIT PERFORMANCE MEASURES**

Measure	Target	2006 Results
Cost Efficiency/Effectiveness		
Farebox Recovery Ratio	5%	4.9%
Operating Cost per Boarding	\$28.55	\$28.55
Subsidy (Net Operating Cost per Boarding)	\$27.16	\$27.16
Cost Per Revenue Hour	\$50.30	\$50.30
Average Fare	TBD	\$1.39
Service Effectiveness		
Annual Increase in Total Boardings	3%	3.1%
Annual Increase in Average Boardings (Weekday, Sat., Sun.)	3%, 3%, 3%	--
Boardings per Revenue Hour	1.76	1.76
Percent No-Shows	5%	--
On-time Performance	90%	90%
Miles between Mechanical Failures	TBD	--
Customer Satisfaction	90%	--

**TABLE 9-5
LIGHT RAIL TRANSIT (LRT) PERFORMANCE MEASURES**

Measure	Target	2006 Results
Cost Efficiency/Effectiveness		
Farebox Recovery Ratio	25%	--
Operating Cost per Boarding	\$2.64	--
Subsidy (Net Operating Cost per Boarding)	\$198.00	--
Cost Per Revenue Mile	\$26.26	--
Average Fare	\$0.67	--
Service Effectiveness		
Annual Total Boardings	10,655,000	--
Boardings Average Weekday	26,090	--
Boardings Average Saturday	N/A	--
Boardings Average Sunday/Holiday	N/A	--
Boardings per Vehicle Revenue Mile	3.94	--
Boardings per Revenue Mile	8.04	--
Safety Incidents per 100,000 Vehicle Miles	N/A	--
Security Incidents per "x" Boardings	N/A	--
Complaints per "x" Boardings	28	--
On-time Performance	95%	--
Miles between Mechanical Failures	25,000	--
Customer Satisfaction	89%	--

9.4 PERFORMANCE MONITORING PROGRAM OUTLOOK

The MAG Transportation System Performance Monitoring and Assessment Program has been established to provide a framework for reporting performance at the system and project levels, and serve as a repository of historical, simulated and observed data for the transportation system in the MAG Region. As part of this effort, the program will consolidate the data collection efforts related to system performance and develop an archive of historic and current performance data sets that can be used for future evaluation and analysis. The overall goal of the program is to communicate measures related to mobility and accessibility in the MAG Region, and to provide the public with a better idea of how transportation systems perform. In order to establish a consistent framework, it is anticipated that a group of measures will be consistently reported as the implementation of the RTP moves forward.

The Regional Public Transportation Authority has established a specific set of performance measures to monitor and evaluate bus and rail systems in the region. In addition, beginning in June 2007 the RTPA will issue an annual

Transit Performance Report. For roadway systems in the region, a broad range data on potential performance measures has been collected and state-of-the-art modeling capabilities are in place. In order to enhance these initial efforts, MAG will initiate a consultant study in FY 2008 to further refine and focus the performance monitoring approach for the regional roadway network. Based on the findings of this study and input from the Transit Performance Report, it is anticipated that MAG will annually produce a Transportation System Monitoring and Performance Report.

Appendix A

Freeway/Highway Life Cycle Program

TABLE A-1
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - NEW CORRIDORS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Cost: FY 2006-2026 (2007 and YOY Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
SR 801 (I-10 Reliever)										
F1	SR 85 to Loop 303	0.0	0.0	0.0	0.0	81.0	81.0	2025	11.0	
F2	Loop 303 to Loop 202	0.0	0.0	0.0	0.0	723.0	723.0	2025	13.0	
	Subtotal	0.0	0.0	0.0	0.0	804.0	804.0		24.0	
Loop 202 (South Mountain Freeway)										
F3	I-10 (West) to 51st Avenue	0.3	0.0	0.0	0.3	506.7	507.0	2011	10.0	
F4	51st Avenue to Loop 202/I-10	0.1	0.0	0.0	0.1	578.2	578.3	2015	12.0	
	Subtotal	0.4	0.0	0.0	0.4	1,084.9	1,085.3		22.0	
Loop 303 (Estrella Freeway)										
F5	I-17 to US 60 (Grand Avenue)	4.9	0.0	0.0	4.9	832.7	837.6	2015	18.0	
F6	US 60 (Grand Avenue) to I-10	2.8	0.2	0.0	3.0	672.0	675.0	2013	15.0	
F7	I-10 to I-10R/MC 85	0.0	0.0	0.0	0.0	220.0	220.0	2019	5.0	
	Subtotal	7.7	0.2	0.0	7.9	1,724.7	1,732.6		38.0	
SR 802 (Williams Gateway Freeway)										
F8	Loop 202 to Ellsworth Road	0.0	0.0	0.0	0.0	177.3	177.3	2016	2.0	
F9	Ellsworth Road to Meridian Road	0.0	0.0	0.0	0.0	178.0	178.0	2020	3.0	
	Subtotal	0.0	0.0	0.0	0.0	355.3	355.3		5.0	
Right-of-Way										
F10	Right-of-Way Protection for Loop 303 (Extension south of MC 85 to Riggs Road)	0.0	0.0	0.0	0.0	50.0	50.0	2025	---	
F11	Right-of-Way Protection for SR 74 (US 60 to Loop 303)	0.0	0.0	0.0	0.0	48.0	48.0	2025	---	
	Subtotal	0.0	0.0	0.0	0.0	98.0	98.0			
Sky Harbor Expressway										
F12	Superior Ave. to University Dr.	0.0	0.0	0.0	0.0	16.7	16.7	2009	2.0	Included in program in 2006.
	Subtotal	0.0	0.0	0.0	0.0	16.7	16.7			

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Cost: FY 2006-2026 (2007 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
	Subtotal: Projects not in FY 2008- 2026 program	0.0	0.0	0.0	0.0	0.0	0.0	--	--	
	Subtotal: Projects programmed in FY 2008- 2026	8.1	0.2	0.0	8.3	4,083.6	4,091.9	--	--	
	TOTAL	8.1	0.2	0.0	8.3	4,083.6	4,091.9	--	--	

TABLE A-2
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - WIDEN EXISTING FACILITIES: GENERAL PURPOSE LANES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
I-10										
F20	SR 85 to Loop 303	0.0	0.0	0.0	0.0	129.2	129.2	2009/2023	12.0	Includes advancement of segment between Loop 303 and Verrado to FY 2009.
F21	Loop 303 to Dysart Road	0.4	0.0	0.0	0.4	92.6	93.0	2009	5.0	Includes project F70; local advancement.
F22	Dysart Road to Loop 101	0.3	0.0	0.0	0.3	53.5	53.8	2008	6.0	Includes project F71; local advancement.
F23	Loop 101 to I-17	0.0	0.0	0.0	0.0	71.7	71.7	2010	7.0	
F24	SR 51 to 40th Street	0.0	0.0	0.0	0.0	140.0	140.0	2012	3.0	
F25	40th Street to Baseline Road	0.0	0.3	0.0	0.3	394.0	394.3	2012	6.0	
F26	Baseline Road to Loop 202/Santan	0.0	0.0	0.0	0.0	50.6	50.6	2014	6.0	
F27	Loop 202/Santan Freeway to Riggs Rd.	0.0	0.0	0.0	0.0	67.3	67.3	2010	6.0	Includes project F72.
	Subtotal	0.7	0.3	0.0	1.0	998.9	999.9			
I-17										
F28	New River Road to Anthem Way	0.0	0.0	0.0	0.0	26.0	26.0	2024	3.0	
F29	Anthem Way to Carefree Highway	0.3	0.0	0.0	0.3	71.7	72.0	2009/2023	5.0	
F30	Carefree Highway to Loop 101	10.6	29.3	0.0	39.9	265.7	305.6	2008	9.0	Includes project F74.
F31	Loop 101 to Arizona Canal	0.0	0.0	0.0	0.0	50.6	50.6	2013	6.0	
F32	Arizona Canal to McDowell Road	0.0	0.0	0.0	0.0	960.0	960.0	2020	7.0	
	Subtotal	10.9	29.3	0.0	40.2	1,374.0	1,414.2			
Loop 101 (Aqua Fria Freeway)										
F33	US 60/Grand Avenue to I-17	0.0	0.0	0.0	0.0	102.0	102.0	2024	12.0	
F34	I-10 to US 60/Grand Avenue	0.0	0.0	0.0	0.0	85.0	85.0	2022	10.0	
	Subtotal	0.0	0.0	0.0	0.0	187.0	187.0			
Loop 101 (Pima Freeway)										
F35	I-17 to SR 51	0.0	0.0	0.0	0.0	59.0	59.0	2024	7.0	
F36	SR 51 to Shea Blvd.	0.0	0.0	0.0	0.0	85.0	85.0	2022	10.0	Includes project F37.
F37	Princess Drive to Shea Boulevard	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F36.
F38	Shea Boulevard to Loop 202 (Red Mt.)	0.0	0.0	0.0	0.0	90.7	90.7	2014	11.0	
	Subtotal	0.0	0.0	0.0	0.0	234.7	234.7			

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
Loop 101 (Price Freeway)										
F39	Baseline Road to Loop 202/Santan	0.0	0.0	0.0	0.0	51.0	51.0	2023	6.0	
	Subtotal	0.0	0.0	0.0	0.0	51.0	51.0			
Loop 202 (Red Mountain Freeway)										
F40	I-10/SR 51 to Rural Rd. (EB)	0.0	0.0	0.1	0.1	114.9	115.0	2011	7.0	
F41	Rural Road to Loop 101 (EB & WB)	0.0	0.0	0.0	0.0	78.0	78.0	2009	2.0	
F42	Loop 101 to Gilbert Road	0.0	0.0	0.0	0.0	48.5	48.5	2014	6.0	
F43	Gilbert Road to Higley Road	0.0	0.0	0.0	0.0	42.0	42.0	2024	5.0	
F44	Higley Road to US 60/Superstition	0.0	0.0	0.0	0.0	85.0	85.0	2025	10.0	
	Subtotal	0.0	0.0	0.1	0.1	368.4	368.5			
Loop 202 (Santan Freeway)										
F45	I-10 to Dobson R.	0.0	0.0	0.0	0.0	43.0	43.0	2023	5.0	
F46	Dobson Rd. to Val Vista Road	0.0	0.0	0.0	0.0	59.0	59.0	2024	7.0	
F47	Val Vista Road to US 60	0.0	0.0	0.0	0.0	93.0	93.0	2025	11.0	
	Subtotal	0.0	0.0	0.0	0.0	195.0	195.0			
SR 51 (Piestewa Freeway)										
F48	Loop 101/Pima to Shea Boulevard	0.0	0.0	0.0	0.0	51.0	51.0	2023	6.0	
	Subtotal	0.0	0.0	0.0	0.0	51.0	51.0			
SR 85										
F49	I-10 to I-8	0.0	0.0	2.1	2.1	191.4	193.5	2010	32.5	Includes project F50.
F50	Hazen Road to I-8	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F49.
	Subtotal	0.0	0.0	2.1	2.1	191.4	193.5		32.5	
US 60 (Grand Avenue)										
F51	Loop 303 to Loop 101	0.5	0.0	0.0	0.5	101.2	101.7	2015	10.0	
F52	Loop 101 to Van Buren Street	0.0	0.0	0.0	0.0	149.6	149.6	2025	11.0	
F53	99th Ave. to 83rd Ave.	0.4	0.0	0.0	0.4	9.6	10.0	2008	2.0	
F54	71st Ave. to Grand Canal Bridge	0.0	0.0	3.6	3.6	0.0	3.6	2006	6.5	Not in FY 2008-2026 program.
	Subtotal	0.9	0.0	3.6	4.5	260.4	264.9			

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
US 60 (Superstition Freeway)										
F55	I-10 to Loop 101	0.0	0.0	0.0	0.0	21.1	21.1	2008	5.0	
F56	Gilbert Road to Power Road	0.0	0.0	84.6	84.6	2.1	86.7	2006	6.0	Not in FY 2008-2026 program; includes project F91. Completed in June 2007.
F57	Crismon Road to Meridian Road	0.0	0.0	0.0	0.0	31.0	31.0	2017	2.0	Includes project F92.
Subtotal		0.0	0.0	84.6	84.6	54.2	138.8			
US 93 (Wickenburg Bypass)										
F58	Wickenburg Bypass	0.0	14.0	0.0	14.0	28.6	42.6	2007	1.7	Not in FY 2008-2026 program.
Subtotal		0.0	14.0	0.0	14.0	28.6	42.6		1.7	
Subtotal: Projects not in FY 2008-2026 program		0.0	14.0	88.2	102.2	30.7	132.9	--	--	
Subtotal: Projects programmed in FY 2008- 2026		12.5	29.6	2.2	44.3	3,963.9	4,008.2	--	--	
TOTAL		12.5	43.6	90.4	146.5	3,994.6	4,141.1	--	--	

TABLE A-3
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - WIDEN EXISTING FACILITIES: HIGH OCCUPANCY VEHICLE LANES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
I-10										
F70	Loop 303 to Dysart Road	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F21.
F71	Dysart Road to Loop 101	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F22.
F72	Loop 202/Santan to Riggs Road	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F27.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
I-17										
F73	Anthem Way to Carefree Highway	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F29.
F74	Carefree Highway to Loop 101	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F30.
F75	I-10 (West) to I-10 (East)	0.0	0.0	0.0	0.0	77.0	77.0	2017	7.0	
	Subtotal	0.0	0.0	0.0	0.0	77.0	77.0		7.0	
Loop 101 (Aqua Fria Freeway)										
F76	US 60/Grand Avenue to I-17	0.0	0.0	0.0	0.0	64.0	64.0	2022	12.0	
F77	I-10 to US 60/Grand Avenue	0.0	0.0	0.0	0.0	53.0	53.0	2017	10.0	
	Subtotal	0.0	0.0	0.0	0.0	117.0	117.0		22.0	
Loop 101 (Pima Freeway)										
F78	I-17 to SR 51 (Tatum)	0.0	0.0	0.0	0.0	35.5	35.5	2013	7.0	
F79	SR 51 (Tatum) to Princess Drive	0.7	0.0	0.0	0.7	31.9	32.6	2008	6.0	
F80	Princess Drive to Loop 202 (Red Mt.)	4.2	0.0	0.0	4.2	71.5	75.7	2007	4.0	Includes project F81; Not in FY 2008-2026 program.
F81	Shea Boulevard to Loop 202	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F80.
	Subtotal	4.9	0.0	0.0	4.9	138.9	143.8		17.0	
Loop 101 (Price Freeway)										
F82	Loop 202/Red Mountain to Baseline	0.3	0.0	0.0	0.3	23.7	24.0	2008	4.0	
F83	Baseline to Loop 202/Santan	0.4	0.0	0.0	0.4	38.1	38.5	2008	6.0	
	Subtotal	0.7	0.0	0.0	0.7	61.8	62.5		10.0	
Loop 202 (Red Mountain Freeway)										
F84	Loop 101 to Gilbert Road	0.0	0.0	0.0	0.0	31.5	31.5	2009	6.0	
F85	Gilbert Road to Higley Road	0.0	0.0	0.0	0.0	27.0	27.0	2019	5.0	

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
F86	Higley Road to US 60/Superstition	0.0	0.0	0.0	0.0	52.0	52.0	2022	10.0	
	Subtotal	0.0	0.0	0.0	0.0	110.5	110.5		21.0	
Loop 202 (Santan Freeway)										
F87	I-10 to Dobson Road	0.0	0.0	0.0	0.0	46.0	46.0	2013	5.0	Includes project F128.
F88	Dobson Road to Val Vista Road	0.0	0.0	0.0	0.0	57.0	57.0	2015	7.0	
F89	Val Vista Road to US 60 (Superstition)	0.0	0.0	0.0	0.0	55.0	55.0	2022	11.0	
	Subtotal	0.0	0.0	0.0	0.0	158.0	158.0		23.0	
SR 51										
F90	Loop 101/Pima to Shea Boulevard	3.4	0.0	1.2	4.6	60.3	64.9	2007	6.0	Includes project F130; Not in FY 2008-2026 program.
	Subtotal	3.4	0.0	1.2	4.6	60.3	64.9		6.0	
US 60 (Superstition Freeway)										
F91	Gilbert Road to Power Road	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F56.
F92	Crismon Road to Meridian Road	0.0	0.0	0.0	0.0	--	--	--	--	Combined with project F57.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
	Subtotal: Projects not in FY 2008- 2026 program	4.2	0.0	0.0	4.2	71.5	75.7	--	--	
	Subtotal: Projects programmed in FY 2008- 2026	4.8	0.0	1.2	6.0	652.0	658.0	--	--	
	TOTAL	9.0	0.0	1.2	10.2	723.5	733.7	--	--	

TABLE A-4
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - NEW ARTERIAL INTERCHANGES ON EXISTING FACILITIES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. for Final Construc- tion	Other Project Information
		Design	Right-of-Way	Construction	Total				
I-10									
F100	Bullard Road	1.1	4.1	0.8	6.0	9.0	15.0	2007	Not in FY 2008-2026 program.
F101	Chandler Heights	0.0	0.0	0.0	0.0	13.8	13.8	2022	
F102	El Mirage	0.0	0.0	0.0	0.0	17.3	17.3	2023	
F103	Perryville Road	0.0	0.0	0.0	0.0	8.7	8.7	2013	
	Desert Creek Road	0.0	0.0	0.0	0.0	20.4	20.4	2009	Included in program in 2007; Privately funded.
	Subtotal	1.1	4.1	0.8	6.0	69.2	75.2		
I-17									
F104	Dixleta Drive/Jomax Road	2.8	0.0	1.7	4.5	51.3	55.8	2007	Includes project F106; Not in FY 2008-2026 program.
F105	Dove Valley Road	0.2	0.0	0.0	0.2	18.2	18.4	2008	Local advancement.
F106	Jomax Road	0.0	0.0	0.0	0.0	--	--	--	Combined with project F104.
	Subtotal	3.0	0.0	1.7	4.7	69.5	74.2		
Loop 101 (Aqua Fria Freeway)									
F107	Beardsley Road/Union Hills Drive	0.0	0.0	0.0	0.0	18.7	18.7	2012	
F108	Bethany Home Road	1.5	0.0	6.2	7.7	7.5	15.2	2006	Not in FY 2008-2026 program.
	Subtotal	1.5	0.0	6.2	7.7	26.2	33.9		
Loop 101 (Pima Freeway)									
F109	64th Street	2.1	1.1	0.0	3.2	26.8	30.0	2007	Not in FY 2008-2026 program.
	Subtotal	2.1	1.1	0.0	3.2	26.8	30.0		
Loop 202 (Red Mountain Freeway)									
F110	Mesa Drive (Ramps Only)	0.0	0.0	0.0	0.0	4.6	4.6	2025	
	Subtotal	0.0	0.0	0.0	0.0	4.6	4.6		

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. for Final Construction	Other Project Information
		Design	Right-of-Way	Construction	Total				
US 60 (Superstition Freeway)									
F111	Lindsay Road (Half Interchange)	0.0	0.0	0.0	0.0	4.6	4.6	2012	
F112	Meridian Road (Half Interchange)	0.0	0.0	0.0	0.0	4.6	4.6	2013	
	Subtotal	0.0	0.0	0.0	0.0	9.2	9.2		
Other Arterial Interchange Improvements									
	Deer Valley Road at I-17	0.0	0.0	0.0	0.0	--	--	--	Project deleted in 2006.
	Higley Road at US 60	0.0	0.0	3.9	3.9	0.9	4.8	2006	Not in FY 2008-2026 program.
	Ray Road at I-10	0.0	0.0	6.7	6.7	0.0	6.7	2006	Not in FY 2008-2026 program.
	Carefree Highway at I-17	1.3	0.0	0.5	1.8	23.7	25.5	2007	Not in FY 2008-2026 program.
	43rd Avenue at I-10	0.3	0.0	1.7	2.0	0.4	2.4	2007	Includes 51st Avenue; Not in FY 2008-2026 program.
	51st Avenue at I-10	0.0	0.0	0.0	0.0	--	--	--	Combined with 43rd Avenue.
	Subtotal	1.6	0.0	12.8	14.4	25.0	39.4		
	Subtotal: Projects not in FY 2008- 2026 program	9.1	5.2	21.5	35.8	119.6	155.4	--	
	Subtotal: Projects programmed in FY 2008- 2026	0.2	0.0	0.0	0.2	110.9	111.1	--	
	TOTAL	9.3	5.2	21.5	36.0	230.5	266.5	--	

TABLE A-5
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - NEW HOV RAMPS AT FREEWAY-TO-FREEWAY INTERCHANGES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Prgm. Final Construc- tion	Other Project Information
		Design	Right-of-Way	Construction	Total				
Loop 101									
F125	I-10	0.0	0.0	0.0	0.0	60.0	60.0	2025	
F126	I-17	0.0	0.0	0.0	0.0	72.0	72.0	2024	
	Subtotal	0.0	0.0	0.0	0.0	132.0	132.0		
Loop 202									
F127	Red Mountain and US 60 (Superstition)	0.0	0.0	0.0	0.0	20.4	20.4	2025	
F128	Santan and I-10	0.0	0.0	0.0	0.0	--	--	--	Combined with project F87.
F129	Santan and Loop 101 / Price	0.0	0.0	0.0	0.0	20.4	20.4	2017	
	Subtotal	0.0	0.0	0.0	0.0	40.8	40.8		
SR 51									
F130	Loop 101 / Pima	0.0	0.0	0.0	0.0	--	--	--	Combined with project F90.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0		
	Subtotal: Projects not in FY 2008-2026 program	0.0	0.0	0.0	0.0	0.0	0.0	--	
	Subtotal: Projects programmed in FY 2008- 2026	0.0	0.0	0.0	0.0	172.8	172.8	--	
	TOTAL	0.0	0.0	0.0	0.0	172.8	172.8	--	

TABLE A-6
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - OPERATIONS, MAINTENANCE AND SYSTEMWIDE PROGRAMS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Facilities	Expenditures through FY 2007 (Year of Expenditure Dollars)			Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Programmed for Implementation	Other Project Information
	Operating	Capital	Total				
Freeway Management System							
Freeway Management System	0.0	0.1	0.1	179.9	180.0	2008-2026	
Subtotal	0.0	0.1	0.1	179.9	180.0		
Maintenance							
Maintenance (Landscaping, including restoration and litter pick-up)	11.4	0.0	11.4	267.6	279.0	2008-2026	
Subtotal	11.4	0.0	11.4	267.6	279.0		
Noise Mitigation							
Noise Mitigation	0.1	23.8	23.9	35.3	59.2	2008-2026	
Subtotal	0.1	23.8	23.9	35.3	59.2		
Systemwide							
Right-of-Way Administration, Advanced R/W Acquisition	0.9	0.4	1.3	135.7	137.0	2008-2026	
Preliminary Engineering, Fwy. Serv. Patrol, and Risk Management	24.5	0.0	24.5	343.6	368.1	2008-2026	
Subtotal	25.4	0.4	25.8	479.3	505.1		
Subtotal: Projects not in FY 2008-2026 program	0.0	0.0	0.0	0.0	0.0	--	
Subtotal: Projects programmed in FY 2008-2026	36.9	24.3	61.2	962.1	1,023.3	--	
TOTAL	36.9	24.3	61.2	962.1	1,023.3	--	

TABLE A-7
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - OTHER PROJECTS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Facilities	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOY Dollars)	FY Programmed for Implementation	Other Project Information
	Design	Right-of-Way	Construction	Total				
I-10								
SR 347 Interchange	0.0	0.0	0.0	0.0	0.3	0.3	2008	Included in program in 2007.
Subtotal	0.0	0.0	0.0	0.0	0.3	0.3		
I-17								
Greenway Rd./Thunderbird Rd. (Drainage Improvements)	0.0	0.0	0.0	0.0	--	--	--	Combined with Peoria Avenue.
Peoria Ave./Cactus Rd. (Drainage Improvements)	0.0	0.0	0.0	0.0	17.0	17.0	2009	Includeds Greenway/Thunderbird.
Bethany Home Rd. - Northern Ave., Alhambra District (Construction)	0.0	0.0	0.0	0.0	2.3	2.3	2010	
16th Street - Buckeye Rd.	0.0	0.0	4.6	4.6	0.0	4.6	2006	Not in FY 2008-2026 program.
Buckeye Rd./Northbound On-Ramp (Construction)		0.0	0.0	0.0	--	--	--	Project deleted.
Cactus Rd. (T.I. Improvements)	0.0	0.0	6.7	6.7	0.2	6.9	2006	Not in FY 2008-2026 program.
Subtotal	0.0	0.0	11.3	11.3	19.5	30.8		
US 60								
Val Vista to Power (landscape)	0.0	0.0	0.0	0.0	5.8	5.8	2007	Included in program in 2006; Not in FY 2008-2026 program.
Subtotal	0.0	0.0	0.0	0.0	5.8	5.8		
SR 74								
Passing Lanes	0.0	0.0	0.0	0.0	5.6	5.6	2010	Included in program in 2006.
Subtotal	0.0	0.0	0.0	0.0	5.6	5.6		
SR 87								
Forest Boundary - New Four Peaks (Construction)	0.0	0.0	0.0	0.0	21.9	21.9	2007	Not in FY 2008-2026 program.
MP 211.8 - MP 213.0	0.0	0.0	0.0	0.0	2.4	2.4	2008	Included in program in 2007.
New Four Peaks Road - Dos S South Ranch Road	0.0	0.0	0.0	0.0	25.3	25.3	2010	Included in program in 2007.
Subtotal	0.0	0.0	0.0	0.0	49.6	49.6		

Facilities	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Programmed for Implementation	Other Project Information
	Design	Right-of-Way	Construction	Total				
SR 88								
Apache Trail (District Force Account)	0.0	0.0	0.2	0.2	0.0	0.2	2006	Not in FY 2008-2026 program.
Fish Creek Hill	0.1	0.0	0.0	0.1	1.4	1.5	2008	
Subtotal	0.1	0.0	0.2	0.3	1.4	1.7		
Loop 101 (Agua Fria)								
I-10 - MC 85 (99th Avenue)	0.0	0.0	0.0	0.0	4.0	4.0	2010	
Northern Ave. to 31st Ave. (Landscape)	0.2	0.0	0.0	0.2	1.1	1.3	2007	Included in program in 2006; Not in FY 2008-2026 program.
Thunderbird Road T.I.	0.0	0.0	0.0	0.0	3.0	3.0	2008	Included in program in 2007.
Skunk Crk. To Union Hills	0.0	0.0	2.4	2.4	1.8	4.2	2007	Included in program in 2007; Not in FY 2008-2026 program.
I-10 to I-17 (Traffic Flow Imprv.)	0.0	0.0	8.4	8.4	2.8	11.2	2007	Included in program in 2007; Not in FY 2008-2026 program.
Subtotal	0.2	0.0	10.8	11.0	12.7	23.7		
Loop 101 (Price)								
Balboa Dr., Multi-Use Path (Local)	0.0	0.0	0.0	0.0	2.0	2.0	2012	
Subtotal	0.0	0.0	0.0	0.0	2.0	2.0		
Loop 202 (Santan)								
Lindsey Rd. to Gilbert Rd., Multi-Use Path	0.0	0.0	0.0	0.0	0.5	0.5	2008	
Subtotal	0.0	0.0	0.0	0.0	0.5	0.5		
Systemwide								
Ramp Meters, T.I. Improvements, Park & Ride Lots (Various Locations)	0.0	0.0	0.2	0.2	22.6	22.8	2008-2012	
Subtotal	0.0	0.0	0.2	0.2	22.6	22.8		
Subtotal: Projects not in FY 2008-2026 program	0.2	0.0	22.3	22.5	39.4	61.9	--	
Subtotal: Projects programmed in FY 2008- 2026	0.1	0.0	0.2	0.3	74.8	75.1	--	
TOTAL	0.3	0.0	22.5	22.8	114.2	137.0	--	

Facilities	Expenditures through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Estimated Cost (2007 and YOE Dollars)	FY Programmed for Implementation	Other Project Information
	Design	Right-of-Way	Construction	Total				

SUMMARY TOTALS								
Subtotal: Projects not in FY 2008-2026 program	13.5	19.2	132.0	164.7	261.2	425.9	--	
Subtotal: Projects programmed in FY 2008- 2026	61.7	31.1	27.5	120.3	10,020.1	10,140.4	--	
TOTAL	75.2	50.3	159.5	285.0	10,281.3	10,566.3	--	

Appendix B

Arterial Street Life Cycle Program

TABLE B-1
ARTERIAL STREET LIFE CYCLE PROGRAM
REGIONAL FUNDING REIMBURSEMENTS AND TOTAL EXPENDITURES: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs: FY 2008-2026 (2007 Dollars)	Total Reimburs: FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
Chandler										
A1	Arizona Ave./Chandler Blvd. - Intersection Improvement		3.58	3.58	7.38		7.38	2006		Project is complete and reimbursement will be in FY 2014.
A2	Arizona Ave./Elliot Rd. - Intersection Improvement		3.58	3.58		5.12	5.12	2006		Project is complete and reimbursement will be in FY 2022.
A3	Arizona Ave./Ray Rd. - Intersection Improvement	3.46	0.00	3.46	5.19	1.39	6.59	2007		Project Reimbursement is complete.
A4	Arizona Ave.: Ocotillo Rd. to Hunt Hwy. - Capacity Improvements		5.89	5.89		16.44	16.44	2013	3.0	
A5	Chandler Blvd./Alma School Rd. - Intersection Improvement		3.58	3.58		8.23	8.23	2010		
A6	Chandler Blvd./Dobson Rd. - Intersection Improvement	0.02	3.57	3.58	0.43	7.26	7.69	2008		
A7	Chandler Blvd./Kyrene Rd. - Intersection Improvement		3.58	3.58		5.12	5.12	2015		
A8	Gilbert Rd.: Loop 202 (Santan) to Hunt Hwy. - Capacity Improvements		19.88	19.88		47.65	47.65	2011	5.3	
	Germann to Queen Creek Rd.		6.53	6.53		11.66	11.66	2008	1.3	Project has been advanced to FY 2008 and reimbursement will be in FY 2021.
	Queen Creek Rd. to Chandler Heights Rd.		7.66	7.66		18.00	18.00	2011	2.0	Project has been advanced to FY 2011 and reimbursement will be in FY 2021.
	Chandler Heights Rd. to Hunt Hwy.		5.69	5.69		18.00	18.00	2011	2.0	Project has been advanced to FY 2011 and reimbursement will be in FY 2021.
A9	Kyrene Rd./Ray Rd. - Intersection Improvement		3.58	3.58		9.18	9.18	2014		Project has been advanced to FY 2014 and reimbursement will be in FY 2024.
A10	Price Rd. (Ext.): Loop 202 (Santan) to I-10 - New Roadway		53.16	53.16		76.00	76.00	2020	6.0	
A11	Ray Rd./Alma School Rd. - Intersection Improvement		3.58	3.58		10.34	10.34	2009		
A12	Ray Rd./Dobson Rd. - Intersection Improvement		3.58	3.58		8.90	8.90	2012		

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs: FY 2008-2026 (2007 Dollars)	Total Reimburs: FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
A13	Ray Rd./McClintock Dr. - Intersection Improvement		3.58	3.58		8.57	8.57	2011		Project has been partially advanced with Design and ROW in FY09 -FY10 and reimbursement will be in FY 2011.
A14	Ray Rd./Rural Rd. - Intersection Improvement		3.58	3.58		6.98	6.98	2013		
Chandler/Gilbert										
A15	Queen Creek Rd.: Arizona Ave. to Higley. - Capacity Improvements		35.94	35.94		74.85	74.85	2011	9.0	
	Queen Creek Rd: Arizona Ave. to McQueen Rd.		4.16	4.16		11.59	11.59	2008	1.0	Project has been advanced to FY 2007 and reimbursement will be in FY 2012.
	Queen Creek Rd.: McQueen Rd. to Lindsay Rd.		11.54	11.54		25.96	25.96	2010	3.0	Project has been advanced to FY 2010 and reimbursement will be in FY 2012-13.
	Queen Creek Rd.: Lindsay Rd. to Val Vista		4.78	4.78		6.67	6.67	2011	1.0	
	Queen Creek Rd.: Val Vista to Greenfield		6.18	6.18		13.56	13.56	2011	1.0	
	Queen Creek Rd.: Greenfield to Higley		9.24	9.24		17.08	17.08	2011	1.0	
Fountain Hills										
A16	Shea Blvd.: Palisades Blvd. to Saguaro Blvd. - Capacity Improvements		5.78	5.78		8.25	8.25	2010	3.0	
Gilbert										
A17	Elliot Rd./Cooper Rd. - Intersection Improvement		3.93	3.93		6.58	6.58	2013		Elliot/Cooper has been exchanged with Greenfield: Elliot to Ray Rd. Elliot has moved from Phase 2 to Phase 4. Greenfield has moved from Phase 4 to Phase 2.
A18	Elliot Rd./Gilbert Rd. - Intersection Improvement		3.58	3.58		9.06	9.06	2018		
A19	Elliot Rd./Greenfield Rd. - Intersection Improvement		3.58	3.58		6.34	6.34	2013		Project has been advanced to FY2013 and reimbursement will be in FY2024.
A20	Elliot Rd./Higley Rd. - Intersection Improvement		3.58	3.58		5.12	5.12	2018		Project has been advanced to FY2018 and reimbursement will be in FY2023.
A21	Elliot Rd./ Val Vista Dr. - Intersection Improvement		3.58	3.58		6.68	6.68	2013		Project has been advanced to FY2013 and reimbursement will be in FY2023.

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs: FY 2008-2026 (2007 Dollars)	Total Reimburs: FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
A22	Germann Rd.: Gilbert Rd. to Power Rd. - Capacity Improvements		21.03	21.03		30.20	30.20	2011	6.0	Germann: Gilbert to Power has been exchanged with Power: Galveston to Chandler Heights. Germann has moved from Phase 1 to Phase 4. Power has moved from Phase 4 to Phase 1.
	Germann Rd.: Gilbert Rd. to Val Vista		6.31	6.31		9.10	9.10	2011		
	Germann Rd.: Val Vista to Higley		14.72	14.72		21.10	21.10	2011		
A23	Greenfield Rd.: Elliot Rd. to Warner Rd. - Capacity Improvements		3.58	3.58		8.15	8.15	2013	1.0	Greenfield: Elliot to Ray Rd has been exchanged with Elliot/Cooper. Elliot has moved from Phase 2 to Phase 4. Greenfield has moved from Phase 4 to Phase 2.
A24	Guadalupe Rd./Cooper Rd. - Intersection Improvement		3.58	3.58		6.67	6.67	2023		Three projects have been exchanged. Originally, Guadalupe/Power was scheduled in Phase 4, Guadalupe/Cooper was exchanged into Phase 2, and Guadalupe/Gilbert was scheduled in Phase 1. Now, Guadalupe/Power is in Phase 1, Guadalupe/Cooper is in Phase 4, and Guadalupe/Gilbert is in Phase 2.
A25	Guadalupe Rd./Gilbert Rd. - Intersection Improvement		3.58	3.58		5.02	5.02	2013		Three projects have been exchanged. Originally, Guadalupe/Power was scheduled in Phase 4, Guadalupe/Cooper was exchanged into Phase 2, and Guadalupe/Gilbert was scheduled in Phase 1. Now, Guadalupe/Power is in Phase 1, Guadalupe/Cooper is in Phase 4, and Guadalupe/Gilbert is in Phase 2.
A26	Guadalupe Rd./Greenfield Rd. - Intersection Improvement		3.58	3.58		4.90	4.90	2023		This Project has Project savings of \$.038
A27	Guadalupe Rd./Power Rd. - Intersection Improvement		3.58	3.58		14.48	14.48	2010		Three projects have been exchanged. Originally, Guadalupe/Power was scheduled in Phase 4, Guadalupe/Cooper was exchanged into Phase 2, and Guadalupe/Gilbert was scheduled in Phase 1. Now, Guadalupe/Power is in Phase 1, Guadalupe/Cooper is in Phase 4, and Guadalupe/Gilbert is in Phase 2.

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs: FY 2008-2026 (2007 Dollars)	Total Reimburs: FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
A28	Guadalupe Rd./ Val Vista Dr. - Intersection Improvement		3.58	3.58		5.40	5.40	2012		Project is advanced to FY2012 and will be reimbursed by FY2019
A29	Power Rd.: Galveston. to Chandler Heights Rd. - Capacity Improvements		19.65	19.65		32.31	32.31	2024	5.0	Power: Galveston to Chandler Heights has been exchanged with Germann: Gilbert to Power. Germann has moved from Phase 1 to Phase 4. Power has moved from Phase 4 to Phase 1.
	Power Rd at Pecos, Intersection Improvement		5.14	5.14		7.34	7.34	2008		
	Power: Galveston to Pecos		14.51	14.51		19.32	19.32	2013		
	Power: Pecos to Chandler Heights		0.00	0.00		5.65	5.65	2024		
A30	Ray Rd.: Val Vista Dr. to Power Rd. - Capacity Improvements		15.83	15.83		21.20	21.20	2013	4.0	Project is advanced to FY2013 and will be reimbursed by FY2025.
A31	Ray Rd./Gilbert Rd. - Intersection Improvement		3.58	3.58		5.21	5.21	2013		Project is advanced to FY2013 and will be reimbursed by FY2018.
A32	Val Vista Rd: Warner Rd. to Pecos Rd. - Capacity Improvements	3.46	6.93	10.40	15.27		15.27	2006	3.0	Project is complete. Project has been advanced to FY 2006 and partial reimbursement exchange in FY07 & 08 with the Elliot/Cooper and Guadalupe/Cooper Projects.
A33	Warner Rd./Cooper Rd. - Intersection Improvement		3.58	3.58		6.41	6.41	2008		
A34	Warner Rd./Greenfield Rd. - Intersection Improvement		3.58	3.58		5.71	5.71	2014		
Maricopa County										
A35	Dobson Rd.: Salt River Bridge - New Bridge		17.68	17.68		35.74	35.74	2011	1.0	
A36	El Mirage Rd.: Bell Rd. to Jomax Rd. - Capacity Improvements		18.61	18.61		37.25	37.25	2016	6.0	
	El Mirage Rd: Bell to Beardsley		15.66	15.66		20.14	20.14	2011	2.0	
	El Mirage Rd: Beardsley to L303		2.95	2.95		12.11	12.11	2012	2.0	
	El Mirage Rd: L303 to Jomax		0.00	0.00		5.00	5.00	2016	2.0	
A37	El Mirage Rd.: Northern Ave to Thunderbird. - Capacity Improvements		15.95	15.95		22.90	22.90	2018	4.0	
A38	Gilbert Rd.: Salt River Bridge - New Bridge		13.29	13.29		36.02	36.02	2012	1.0	

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs. FY 2008-2026 (2007 Dollars)	Total Reimburs. FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
A39	Jomax Rd.: Loop 303 to Sun Valley Pkwy. - Right-of-Way Protection		19.65	19.65		28.10	28.10	2018	17.0	
A40	McKellips Rd.: Salt River Bridge - New Bridge		13.29	13.29		28.44	28.44	2011	1.0	
A41	McKellips Rd.: Loop 101 to Mesa City Limit - Capacity Improvements		37.44	37.44		16.55	16.55	2011	2.0	The RTP funds available are \$37.443 million. There is a cost savings of \$29.268 million.
A42	Northern Ave.: Grand Ave. to Loop 303 - Capacity Improvements		57.78	57.78		82.97	82.97	2011	12.0	
A43	Northern Ave. (Phase B): Grand Ave. to Dysart Rd. - Capacity Improvements		80.90	80.90		135.00	135.00	2020	8.0	
A44	Northern Ave. (Phase C1): Loop 101 to Loop 303 - Capacity Improvements		82.40	82.40		311.00	311.00	2025	8.0	
Mesa/Maricopa County										
A45	Power Rd.: Baseline Rd. to Galveston Rd. - Capacity Improvements		17.22	17.22		28.03	28.03	2013	5.0	This project has been advanced to FY07 & 08 and the reimbursement is exchanged with the Southern: Country Club to Recker Rd. Project.
	Power Rd: Baseline Rd. to East Maricopa Floodway (EMF)		9.74	9.74		13.92	13.92	2009	1.0	
	Power Rd: East Maricopa Floodway (EMF) to Galveston Rd.		7.49	7.49		14.11	14.11	2008	2.5	
Mesa										
A46	Baseline Rd.: Power Rd. to Meridian Rd. - Capacity Improvements		16.99	16.99		24.30	24.30	2019	6.0	
	Baseline Rd.: Power Rd. to Ellsworth Rd.		8.31	8.31		12.00	12.00	2016	3.0	Project has been advanced to FY 2016 and reimbursement will be in FY 2022.
	Baseline Rd.: Ellsworth Rd. to Meridian Rd.		8.68	8.68		12.30	12.30	2019	3.0	Project has been advanced to FY 2019 and reimbursement will be in FY 2022.
A47	Broadway Rd.: Dobson Rd. to Country Club Dr. - Capacity Improvements		7.05	7.05		16.56	16.56	2010	2.0	
A48	Country Club Dr./University Dr. - Intersection Improvement		2.66	2.66		5.21	5.21	2009		Project has been advanced from to FY 2009 and reimbursement will be in FY 2017.

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs: FY 2008-2026 (2007 Dollars)	Total Reimburs: FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
A49	Country Club Dr./Brown Rd. - Intersection Improvement		2.66	2.66		3.80	3.80	2012		Project has been advanced to FY 2012 and reimbursement will be in FY 2021.
A50	Crismon Rd.: Broadway Rd. to Germann Rd. - Capacity Improvements		34.90	34.90		49.86	49.86	2020	9.0	
	Crismon Rd: Broadway Rd. to Guadalupe Rd.		11.89	11.89		16.99	16.99	2016	3.0	Project has been advanced to FY 2016 and reimbursement will be in FY 2024.
	Crimson Rd.: Guadalupe Rd. to Ray Rd.		11.54	11.54		16.49	16.49	2018	3.0	Project has been advanced to FY 2018 and reimbursement will be in FY 2026.
	Crimson Rd.: Ray Rd. to Germann Rd.		11.47	11.47		16.38	16.38	2020	3.0	Project has been advanced to FY 2020 and reimbursement will be in FY 2026.
A51	Dobson Rd./Guadalupe Rd. - Intersection Improvement		2.66	2.66		4.56	4.56	2009		
A52	Dobson Rd./University Dr. - Intersection Improvement		2.66	2.66		5.54	5.54	2011		Project has been advanced to FY 2011 and reimbursement will be in FY 2020.
A53	Elliot Rd.: Power Rd. to Meridian Rd. - Capacity Improvements		17.22	17.22		24.60	24.60	2025	6.0	
	Elliot Rd.: Power Rd. to Ellsworth Rd.		8.54	8.54		12.20	12.20	2023	3.0	
	Elliot Rd.: Ellsworth Rd. to Meridian Rd.		8.68	8.68		12.40	12.40	2025	3.0	
A54	Germann Rd.: Ellsworth Rd. to Signal Butte Rd. - Capacity Improvements		11.90	11.90		17.00	17.00	2021	2.0	
A55	Gilbert Rd./University Dr. - Intersection Improvements		2.66	2.66		17.00	17.00	2008		Project has been advanced to FY 2008 and reimbursement will be in FY 2021.
A56	Greenfield Rd.: University Dr. to Baseline Rd. - Capacity Improvements		10.29	10.29		27.53	27.53	2013	3.0	
	Greenfield Rd.: Baseline Rd. to Southern Ave.		4.99	4.99		6.53	6.53	2008	1.0	
	Greenfield Rd.: Southern Ave. to University Rd.		5.30	5.30		21.00	21.00	2013	2.0	
A57	Guadalupe Rd.: Power Rd. to Meridian Rd. - Capacity Improvements		21.96	21.96		53.23	53.23	2015	6.0	
	Guadalupe Rd.: Power Rd. to Hawes Rd.		7.47	7.47		16.96	16.96	2013	2.0	
	Guadalupe Rd.: Hawes Rd. to Crimson Rd.		7.47	7.47		20.27	20.27	2013	2.0	

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs. FY 2008-2026 (2007 Dollars)	Total Reimburs. FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
	Guadalupe Rd. : Crimson Rd. to Meridian Rd.		7.01	7.01		16.00	16.00	2015	2.0	
A58	Hawes Rd.; Broadway Rd. to Ray Rd. - Capacity Improvements		19.76	19.76		27.40	27.40	2024	6.0	
	Hawes Rd.: Broadway Rd. to Baseline Rd.		6.81	6.81		9.40	9.40	2022	2.0	
	Hawes Rd. :Baseline Rd. to Elliot Rd.		6.61	6.61		9.13	9.13	2024	2.0	
	Hawes Rd.: Elliot Rd. to Santan Fwy.		4.10	4.10		5.67	5.67	2024	1.0	
	Hawes Rd.: Santan Fwy. to Ray Rd.		2.25	2.25		3.21	3.21	2010	1.0	Project has been advanced to FY 2010 and reimbursement will be in FY 2021.
A59	Higley Rd.: US 60 to 202L (Red Mountain) - Capacity Improvements		15.95	15.95		22.78	22.78	2020	6.0	
	Higley Rd.: Loop 202 to Brown Rd.		7.97	7.97		11.39	11.39	2019	3.0	
	Higley Rd.: Brown Rd. to US60		7.97	7.97		11.39	11.39	2020	3.5	
A60	Higley Rd.: US 60 to Loop 202 (Red Mt.) - Construct 3 grade separations		26.46	26.46		37.81	37.81	2017		
A61	Lindsay Rd./Brown Rd. - Intersection Improvements		2.66	2.66		3.80	3.80	2012		Project has been advanced to FY 2012 and reimbursement will be in FY 2024.
A62	McKellips Rd.: East of Sossaman Rd. to Meridian Rd. - Capacity Improvements		18.95	18.95		27.08	27.08	2025	5.0	
	McKellips Rd: East of Sossaman Rd. to Crismon Rd.		11.43	11.43		16.32	16.32	2023	3.0	
	McKellips Rd: Crismon Rd. to Meridian Rd.		7.53	7.53		10.75	10.75	2025	2.0	
A63	McKellips Rd.: Gilbert Rd. to Power Rd. - Intersection Improvement		20.69	20.69		30.17	30.17	2016		The project has been rescoped into intersection projects.
	McKellips/Lindsay Intersection Improvement		6.06	6.06		8.67	8.67	2010		
	McKellips/Greenfield & McKellips/Higley & McKellips/Va Vista Intersection Improvements		8.33	8.33		12.00	12.00	2013		
	McKellips/Recker & McKellips/Power Intersection Improvements		6.30	6.30		9.50	9.50	2016		Part of project has been deferred to FY 2013 and reimbursement will follow to FY 2013.

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs. FY 2008-2026 (2007 Dollars)	Total Reimburs. FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
A64	Meridian Rd.: Baseline Rd. to Germann Rd. - Capacity Improvements		27.85	27.85		39.79	39.79	2019	7.0	
	Meridian Rd.: Baseline Rd. to Ray Rd.		16.02	16.02		22.88	22.88	2017	4.0	
	Meridian Rd.: Ray Rd. to Germann Rd.		11.83	11.83		16.90	16.90	2019	3.0	
A65	Mesa Dr.: Broadway Rd. to US 60 - Capacity Improvements		8.90	8.90		28.96	28.96	2012	1.0	This project was segmented into an intersection improvement and a one mile capacity improvement.
	Mesa Dr: US 60 to Southern		8.08	8.08		17.37	17.37	2010		
	Mesa/Broadway Intersection Improvement		0.82	0.82		11.58	11.58	2012		
A66	Pecos Rd.: Ellsworth Rd. to Meridian Rd.		12.02	12.02		18.37	18.37	2014	3.0	Project has been deferred to FY 2014 and reimbursement will follow to FY 2014.
A67	Ray Rd.: Sossaman Rd. to Meridian Rd. - Capacity Improvements		23.92	23.92		27.76	27.76	2025	5.0	The project has a cost savings of \$6.297.
	Ray Rd: Sossaman Rd. to Ellsworth Rd.		3.63	3.63		7.76	7.76	2010	2.3	Project has been advanced to FY 2010 and reimbursement will be in FY 2022.
	Ray Rd: Ellsworth Rd. to Meridian Rd.		13.98	13.98		20.00	20.00	2025	2.8	
A68	Signal Butte Rd.: Broadway Rd. to Pecos Rd. - Capacity Improvements		31.43	31.43		44.90	44.90	2024	8.0	
	Signal Butte Rd.: Broadway Rd. to Elliot Rd.		16.02	16.02		22.88	22.88	2022	4.0	
	Signal Butte Rd.: Elliot Rd. to Pecos Rd.		15.42	15.42		22.02	22.02	2024	4.0	
A69	Southern Ave.: Country Club Dr. to Recker Rd. - Intersection Improvements		29.24	29.24		41.88	41.88	2013	8.0	The project has been rescoped into intersection projects.
	Southern/Country Club Intersection Improvement		4.64	4.64		6.62	6.62	2011	2.0	
	Southern/Stapley Intersection Improvements		12.16	12.16		17.40	17.40	2011	2.0	
	Southern/Lindsay Intersection Improvements		4.56	4.56		6.60	6.60	2011	2.0	
	Southern/Higley Intersection Improvement		7.88	7.88		11.26	11.26	2013	2.0	
A70	Southern Ave.: Sossaman Rd. to Meridian Rd. - Capacity Improvements		17.22	17.22		24.60	24.60	2024	5.0	

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs: FY 2008-2026 (2007 Dollars)	Total Reimburs: FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
	Southern Ave: Sossaman Rd to Crismon		10.41	10.41		14.87	14.87	2022	3.0	
	Southern Ave: Crismon to Meridian		6.81	6.81		9.72	9.72	2024	2.0	
A71	Stapley Dr./University Dr. - Intersection Improvement		2.66	2.66		5.54	5.54	2012		Project has been advanced to FY 2012 and reimbursement will be in FY 2025.
A72	Thomas Rd: Gilbert Rd. to Val Vista Dr. - Capacity Improvements		5.32	5.32		7.67	7.67	2009	2.0	
A73	University Dr: Val Vista Dr. to Hawes Rd. - Capacity Improvements		20.69	20.69		29.55	29.55	2023	6.0	
	University Dr.: Val Vista Dr. to Higley Rd.		10.41	10.41		14.87	14.87	2021	3.0	
	University Dr.: Higley Rd. to Hawes Rd.		10.27	10.27		14.68	14.68	2023	4.0	
A74	Val Vista Dr.: University Dr. to Baseline Rd. - Capacity Improvements		10.52	10.52		16.10	16.10	2014	3.0	
	Val Vista Dr.: Baseline Rd. to Southern Ave.		5.31	5.31		8.66	8.66	2012	1.0	Project has been advanced to FY 2012 and reimbursement will be in FY 2020.
	Val Vista Dr.: Southern Ave. to University Dr.		5.21	5.21		7.44	7.44	2014	2.0	Project has been advanced to FY 2014 and reimbursement will be in FY 2020.
Peoria										
A75	Beardsley Connection: Loop 101 to Beardsley Rd. at 83rd Ave./ Lake Pleasant Pkwy. - New Roadway		22.07	22.07		43.99	43.99	2009	3.0	The Project has been exchanged with Lake Pleasant Parkway Project and reimbursement will be in FY 2011 & FY12.
A76	Happy Valley Rd.: Loop 303 to 67th Ave. - Capacity Improvements		19.65	19.65		35.06	35.06	2022	5.0	
	Happy Valley Rd.: Lake Pleasant Pkwy to Terramar - 0 to 2 Lanes		6.55	6.55		15.46	15.46	2008	2.1	Project has been advanced to FY 2008 and reimbursement will be in FY 2024.
	Happy Valley Rd.: Lake Pleasant Pkwy. to 67th Avenue - 6 lanes		12.92	12.92		19.60	19.60	2022	2.1	
A77	Lake Pleasant Pkwy.: Beardsley Rd./83rd Ave. to SR 74 - Capacity Improvements	14.29	38.14	52.43	28.05	67.83	95.88	2014	9.0	
	Lake Pleasant Pkwy: Dynamite Blvd to SR-74		23.16	23.16		35.11	35.11	2014	4.0	
	Lake Pleasant Pkwy.: Union Hills Dr. to Dynamite Rd.	14.29	8.04	22.33	28.05	20.04	48.09	2006	5.0	Project has been advanced to FY 2006 & 07 and partial reimbursement exchange in FY06 & 07 with the Beardsley Road Project.
	Lake Pleasant Pkwy: Union Hills Dr. to Dynamite Rd.		6.93	6.93		12.68	12.68	2012		

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs. FY 2008-2026 (2007 Dollars)	Total Reimburs. FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
	Phoenix									
A78	Avenida Rio Salado: 7th St. to SR 202L (South Mountain Fwy.) - New Roadway		42.41	42.41		80.45	80.45	2014	7.0	
A79	Black Mt. Pkwy.: SR 51 to Black Mountain Pkwy. - New Roadway		21.38	21.38		30.70	30.70	2013	1.0	
A80	Happy Valley Rd.: 67th Ave. to I-17 - Capacity Improvements		15.72	15.72		23.37	23.37	2012	4.0	
	Happy Valley Rd.: I-17 to 35th Avenue		5.44	5.44		7.78	7.78	2005		Project is complete and reimbursement will be in FY 2022.
	Happy Valley Rd.: 35th Avenue to 43rd Avenue		4.05	4.05		5.78	5.78	2011		Project has been advanced to FY 2011 and reimbursement will be in FY 2022.
	Happy Valley Rd.: 43rd Avenue to 55th Avenue		3.53	3.53		5.05	5.05	2011		Project has been advanced to FY 2011 and reimbursement will be in FY 2023.
	Happy Valley Rd.: 55th Avenue to 67th Avenue		2.70	2.70		4.76	4.76	2012		Project has been advanced to FY 2012 and reimbursement will be in FY 2023.
A81	Sonoran Parkway: Central Ave. to 32nd St. - New Roadway		30.97	30.97		67.41	67.41	2013	4.0	
	Scottsdale									
A82	Carefree Hwy.: Cave Creek Rd. to Scottsdale Rd. - Capacity Improvements		8.90	8.90		12.71	12.71	2016	2.0	
A83	Loop 101 North Frontage Road: Pima Rd./Princess Dr. to Scottsdale Rd. - New Roadway		22.07	22.07		17.78	17.78	2009	2.0	The RTP funds available are \$22.073 million. There is a cost savings of \$9.645 million.
	Loop 101 North Frontage Rd.: Hayden Rd. to Scottsdale Rd.		6.71	6.71		9.56	9.56	2008	1.0	
	Loop 101 North Frontage Rd.: Pima Rd./ Princess Dr. to Hayden Rd.		5.67	5.67		8.22	8.22	2009	1.0	
A84	Loop 101 South Frontage Road: Hayden Rd. to Pima Rd. - New Roadway		13.17	13.17		14.88	14.88	2010	1.0	The RTP funds available are \$13.174 million. There is a cost savings of \$2.762 million.
A85	Miller Rd.: Princess Dr. to Center St. (101L underpass) - New Roadway		13.29	13.29		19.00	19.00	2020	0.5	
A86	Pima Rd.: Happy Valley Rd. to Dynamite Blvd. - Capacity Improvements		22.54	22.54		38.53	38.53	2018	2.0	
A87	Pima Rd.: Thompson Peak Parkway to Happy Valley Rd. and Dynamite Rd. to Cave Creek Rd. - Capacity Improvements		79.05	79.05		87.61	87.61	2015	7.8	There are \$18.639 in Project Savings.

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs. FY 2008-2026 (2007 Dollars)	Total Reimburs. FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
	Pima Rd: Thompson Peak Parkway to Pinnacle Peak		14.77	14.77		21.50	21.50	2008	1.5	
	Pima Rd/Happy Valley Intersection Improvement		0.00	0.00		1.55	1.55	2007		
	Pima Rd: Pinnacle Peak to Happy Valley Rd		6.70	6.70		9.60	9.60	2013	1.0	
	Pima Rd: Dynamite Blvd to Stagecoach Rd		33.30	33.30		47.57	47.57	2014	5.0	
	CAREFREE; Pima Rd: Stagecoach Rd to Cave Creek		5.17	5.17		7.38	7.38	2015	0.3	
A88	Pima Rd.: McKellips Rd. to Via Linda - Capacity Improvements		29.12	29.12		44.71	44.71	2011	8.0	
A89	Scottsdale Airport: Runway Tunnel		66.68	66.68		105.00	105.00	2016	1.0	
A90	Scottsdale Rd.: Thompson Peak Pkwy. to Happy Valley Rd. - Capacity Improvements		12.71	12.71		33.28	33.28	2015	3.0	
	Scottsdale Rd.: Thompson Peak Pkwy. to Pinnacle Peak		11.00	11.00		15.72	15.72	2010	2.0	
	Scottsdale Rd.: Pinnacle Peak to Happy Valley		1.71	1.71		17.56	17.56	2015	1.0	
A91	Scottsdale Rd.: Happy Valley Rd. to Carefree Hwy. - Capacity Improvements		27.04	27.04		45.78	45.78	2019	6.0	
A92	Shea Blvd: Loop 101 to Scottsdale City Limits - Capacity/Intersection Improvements		22.07	22.07		31.53	31.53	2008		
	Shea Blvd at 90th St		3.05	3.05		4.36	4.36	2006		Project has been advanced to FY 2006 and reimbursement will be in Phase 4.
	Shea Blvd at 92nd St		3.05	3.05		4.36	4.36	2006		Project has been advanced to FY 2006 and reimbursement will be in Phase 4.
	Shea Blvd at 96nd St		3.05	3.05		4.36	4.36	2006		Project has been advanced to FY 2006 and reimbursement will be in Phase 4.
	Shea Blvd at Via Linda St		3.05	3.05		4.36	4.36	2006		Project has been advanced to FY 2006 and reimbursement will be in Phase 4.
	Shea Blvd at 124th St		3.05	3.05		4.36	4.36	2006		Project has been advanced to FY 2006 and reimbursement will be in Phase 4.
	Shea Blvd at 134th St		3.05	3.05		4.36	4.36	2007		Project has been advanced to FY 2007 and reimbursement will be in Phase 4.
	Shea Blvd - SR-101L to 96th St, ITS Improvements		3.77	3.77		5.39	5.39	2008		Project has been advanced to FY 2008 and reimbursement will be in Phase 4.
A93	Union Hills Rd.: Hayden Rd. to Pima Rd. - Capacity Improvements		12.94	12.94		24.14	24.14	2022	1.0	

Map Code	Facility	Regional Funding Reimbursements			Total Expenditures			Year Prgm. for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Reimburs. through FY 2007 (YOE Dollars)	Estimated Future Reimburs: FY 2008-2026 (2007 Dollars)	Total Reimburs: FY 2006-2026 (2007 and YOE Dollars)	Expend. through FY 2007 (YOE Dollars)	Estimated Future Expend. FY 2008-2026 (2007 Dollars)	Total Expend. FY 2006-2026 (2007 and YOE Dollars)			
	MAG/Multi-Agency									
A94	El Mirage Rd.: Thunderbird Rd. to Bell		20.34	20.34		29.20	29.20	2015	2.0	
	TOTALS	21.24	1,616.25	1,633.90	56.31	2,771.98	2,828.29			

TABLE B-2
ARTERIAL STREET LIFE CYCLE PROGRAM - INTELLIGENT TRANSPORTATION SYSTEMS
REGIONAL FUNDING DISBURSEMENTS AND TOTAL EXPENDITURES: FY2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Facility	Regional Funding Disbursements			Total Expenditures			Year Programmed for Final Construction	Other Project Information
	Disburse. through FY 2006 (YOE Dollars)	Estimated Future Disburse.: FY 2007-2026 (2007 Dollars)	Total Disburse.: FY 2006-2026 (2007 and YOE Dollars)	Expenditures through FY 2006 (YOE Dollars)	Estimated Future Expenditures: FY 2007-2026 (2007 Dollars)	Total Expenditures: FY 2006-2026 (2007 and YOE Dollars)		
Systemwide ITS		57.8	57.8		82.5	82.5	2008-2018	
TOTAL		57.8			82.5			

**TABLE B-3
ARTERIAL STREET LIFE CYCLE PROGRAM CHANGES: FY 2008-2026**

Advancements	
Projects	Description
Dobson Bridge	Advanced from FY15 to FY08-11
Elliot at Greenfield	Advanced from FY21-FY23 to FY11-FY13
Elliot at Higley	Advanced from FY21-FY23 to FY6-FY18
Elliot at Val Vista	Advanced from FY21-FY23 to FY11-FY13
Gilbert Bridge	Advanced from FY15 to FY08-12
Guadalupe at Power	Advanced from FY21-FY23 to FY11-FY13
Guadalupe at Val Vista	Advanced from FY16-FY18 to FY10-FY12
Kyrene at Ray	Advanced from FY13-FY15 to FY12-FY14. Advanced the reimbursement from FY25 to FY21
McKellips Bridge	Advanced from FY15 to FY08-11
McKellips Rd: SR-101L to SRP-MIC/Alma School	Advanced from FY15 to FY08-12
Power: Galveston to Pecos	Advanced from FY11-FY13 to FY09-FY11
Ray at Gilbert	Advanced from FY16-FY18 to FY11-FY13
Ray Rd: Val Vista Rd to Power Rd	Advanced from FY23-FY25 to FY11-FY13
Ray: Sossaman to Ellsworth	Moved ROW from FY11 to FY09 and moved Construction from FY12 to FY10
Deferments	
Projects	Description
Arizona Avenue: Ocotillo to Hunt Hwy	Moved construction from FY12 to FY13. Still in original RTP phase.
Broadway Rd: Dobson Rd to Country Club Dr	Moved pre-design and design from FY07 to FY08, moved ROW from FY08 to FY09, moved construction from FY09 to FY10
Chandler at Kyrene	Moved design from FY12 to FY13, moved ROW from FY13 to FY14, and moved construction from FY14 to FY15. Still in original RTP phase.
Country Club/University: Intersection Improvements	Moved pre-design from FY06 to FY07 and design from FY07 to FY08.
Dobson/Guadalupe: Intersection Improvements	Moved pre-design from FY06 to FY08 and design from FY07 to FY08.
Gilbert/University: Intersection Improvements	Moved design from FY05 to FY07, moved ROW from FY06 to FY07, and construction from FY07 to FY08
Greenfield Rd: Southern to University Rd	Moved project from FY07-FY10 to FY10-FY13.
Greenfield Rd: Baseline Rd to Southern	Moved design from FY06 to FY08 and ROW from FY07 to FY08.
Guadalupe at Gilbert	Moved project from FY08-FY10 to FY11-FY13
Guadalupe: Power to Hawes	Moved project from FY09-FY11 to FY11-FY13
Happy Valley: 35th Ave to 43rd Ave	Moved design from FY07 to FY08, moved ROW from FY08 to FY10, and moved construction from FY09 to FY11. The project is still being advanced from Phase IV.
Happy Valley: 43rd Ave to 55th Ave	Moved design from FY07 to FY09, moved ROW from FY08 to FY10, and moved construction from FY09 to FY11. The project is still being advanced from Phase IV.
Happy Valley: 55th Ave to 67th Ave	Moved design from FY08 to FY10, and moved construction from FY09 to FY12. The project is still being advanced from Phase IV.
McKellips Intersection Projects	Deferred reimbursement from FY07 to FY08
Northern Parkway	Project has been deferred from FY07-FY10 to FY08-FY11

Pima Rd: McKellips to Via Linda	Moved design from FY08 to FY09, and moved construction from FY10 to FY10/11.
Pima Rd: Pinnacle Peak to Happy Valley Rd	Moved design from FY05 to FY11, moved ROW from FY06 to FY12, and moved construction from FY07 to FY13. The project is now in it's original Phase.
Power Rd: Baseline Rd to Galveston	Moved pre-design from FY06 to FY08 and design from FY07 to FY08.
Power Rd: Baseline to EMF	Moved construction from FY07 to FY08-FY09 and moved reimbursement for Design and ROW from FY07 to FY08
Power Rd: EMF to Galveston	Moved Design Reimbursement from FY07 to FY08, moved ROW from FY07 to FY08, moved Construction from FY08 to FY09
Queen Creek: Arizona to McQueen	Moved construction from FY07 to FY08
Ray/Alma School	Moved design from FY07 to FY08
Scottsdale: Thompson Peak Pkwy to Pinnacle Peak	Moved pre-design from FY06 to FY07.
Southern Intersection Projects	Deferred reimbursement from FY07 to FY08
SR-101L North Frontage Road: Pima/Princess to Scottsdale	Moved project from FY07-FY08 to FY08-FY09 (Design stays in FY07)
SR-101L South Frontage Roads: Hayden to Pima	Moved design from FY07 to FY08.
Stapley at University	Moved project from FY09-FY11 to FY10-FY12
Thomas Rd: Gilbert Rd to Val Vista Dr	Moved Design Reimbursement from FY07 to FY08
Thomas Rd: Gilbert Rd to Val Vista Dr	Moved design from FY07 to FY08
Warner at Cooper	Moved design and ROW from FY07 to FY08.
Segment	
Projects	Description
El Mirage Rd: Bell to Jomax	Segmented into: Bell to Beardsley, Beardsley to L303, and L303 to Jomax
Happy Valley Rd: Lake Pleasant Pkwy to 67th Avenue	Redefined segments A and B.
Pima: Thompson Peak Pkwy to Happy Valley & Dynamite to Cave Creek	Redefined segments B, C, D & E.
Power Rd: Galveston to Chandler Heights	Segmented a new intersection project: Power at Pecos
Queen Creek: Lindsay to Power	Segmented into: Lindsay to Val Vista, Val Vista to Greenfield, and Greenfield to Higley
Exchange	
Projects	Description
Elliot/Cooper & Greenfield: Elliot to Ray	Elliot/Cooper has been exchanged with Greenfield: Elliot to Ray Rd. Elliot has moved from Phase 2 to Phase 4. Greenfield has moved from Phase 4 to Phase 2.
Germann: Gilbert to Power & Power: Galveston to Chandler Heights	Germann: Gilbert to Power has been exchanged with Power: Galveston to Chandler Heights. Germann has moved from Phase 1 to Phase 4. Power has moved from Phase 4 to Phase 1.
Guadalupe/Power, Guadalupe/Cooper, Guadalupe/Gilbert	Each intersection improvement has a reimbursement of \$3.464 (2006\$). Three projects have been exchanged. Originally, Guadalupe/Power was scheduled in Phase 4, Guadalupe/Cooper was exchanged into Phase 2, and Guadalupe/Gilbert was scheduled in Phase 1. Now, Guadalupe/Power is in Phase 1, Guadalupe/Cooper is in Phase 4, and Guadalupe/Gilbert is in Phase 2.

Scope Change	
Projects	Description
Greenfield: Elliot to Ray	The project has been extended another mile to Ray. The original project is Greenfield: Elliot to Warner, and is now Greenfield: Elliot to Ray.
Lake Pleasant Parkway	Due to road improvement cost increases, the project is rescoped as Phase 1, 2L2 with key intersection improvements. The ultimate concept is still 3L3, but this project will be 2L2.
McKellips Rd: Gilbert Rd to Power Rd	Scope change from road improvement to 6 intersection improvement projects. Two intersections will be done at the same time. This scope change was approved in a FY07 ALCP amendment.
Mesa Dr: Southern to US 60 & Mesa at Broadway Intersection Improvement	Scope change from one contiguous 2 mile road improvement (Mesa Dr: Broadway Rd to US 60) to a road improvement on Mesa Dr: Southern to US 60 and an intersection improvement project at Mesa and Broadway. This scope change was approved in a FY07 ALCP amendment.
Queen Creek: Arizona Avenue to Higley	The project has been shortened by 2 miles, originally from AZ Ave. to Power Rd, because the 2 miles between Higley and Power were completed in 2001.
Southern Ave: Country Club Dr to Recker Rd	Scope change from one contiguous 6 mile road improvement project to 7 intersection improvement project with resurfacing the 6 miles. This scope change was approved in a FY07 ALCP amendment. This scope change was approved in a FY07 ALCP amendment.
Add/Change Work Phases	
Projects	Description
Country Club/University: Intersection Improvements	Moved reimbursement project savings funds to known construction costs in project
Greenfield Rd: University Rd to Baseline Rd	Moved reimbursement to different work phases per project costs
Country Club/University: Intersection Improvements	Moved reimbursement project savings funds to known design costs in project
Sonoran Boulevard	Added a Phase 1 to Right of Way in 2008.
Miscellaneous	
Projects	Description
Arizona Ave at Elliot	Moved reimbursement from FY22 to FY21
Baseline: Power to Meridian	Moved reimbursement from FY25 to FY22
Black Mountain Boulevard	Changed it's name from Black Mountain Parkway to Black Mountain Boulevard
Chandler at Dobson	Moved right of way reimbursement from FY07 to FY08
Crimson: Broadway to Germann	Moved reimbursement from FY26 to FY25
El Mirage: Thunderbird to Bell	Adjusted reimbursement amounts and reimbursement schedule
Gilbert: SR202L-Hunt Hwy	Moved reimbursement from FY22 & FY23 to FY21
Happy Valley: 67th Avenue to I-17	Moved reimbursement from FY23-FY24 to FY22-FY23
Kyrene at Ray	Moved reimbursement from FY25 to FY24
Queen Creek: McQueen to Lindsay	Realigned the regional reimbursement.
Ray at Alma School	Moved design reimbursement from FY07 to FY08
Ray at McClintock	Deleted the NE Corner improvement segment
Sonoran Boulevard	Changed it's name from Sonoran Parkway to Sonoran Blvd.

SR-101L Frontage Rd: Hayden Rd to Scottsdale Rd	Moved right of way reimbursement from FY07 to FY08
SR-101L Frontage Rd: Pima Rd/ Princess Dr to Hayden Rd	Moved pre-design reimbursement from FY07 to FY08
Project Completions	
Projects	Description
Arizona Ave/Chandler Blvd	Completed
Arizona Ave/Elliot	Completed
Arizona Ave/Ray Rd	Completed
Happy Valley: I-17 to 35th Avenue	Completed
Val Vista Rd: Warner Rd to Pecos Rd	Completed

Appendix C
Transit Life Cycle Program

TABLE C-1
TRANSIT LIFE CYCLE PROGRAM - BUS OPERATIONS: BUS RAPID TRANSIT/EXPRESS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006 to FY 2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Route	Expenditures: through FY 2007: (YOE Dollars)	Estimated Future Costs: FY2008 - 2026 (2007 Dollars)	Total Costs: (2007 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T1	Ahwatukee Connector	0.00	1.6	1.6	2017	
T2	Ahwatukee Express	0.00	19.1	19.1	2008	
T3	Anthem Express	0.00	3.7	3.7	2018	
T4	Apache Junction Express	0.00	5.5	5.5	2011	
T5	Arizona Avenue Arterial BRT	0.00	11.1	11.1	2011	
T6	Avondale Express	0.00	2.8	2.8	2020	
T7	Black Canyon Freeway Corridor	0.00	4.0	4.0	2016	
T8	Buckeye Express	0.00	3.5	3.5	2015	
T9	Chandler Boulevard Arterial BRT	0.00	3.2	3.2	2024	
T10	Deer Valley Express	0.00	28.5	28.5	2010	
T11	Desert Sky Express	0.00	10.9	10.9	2008	
T12	East Loop 101 Connector	0.00	7.4	7.4	2009	
T13	Grand Avenue Limited	0.00	11.9	11.9	2013	
T14	Loop 303 Express	0.00	1.5	1.5	2023	
T15	Main Street Arterial BRT	0.00	23.3	23.3	2009	
T16	North Glendale Express (Route 573)	0.00	10.1	10.1	2008	Service initiated July 2007.
T17	North I-17 Express	0.00	2.2	2.2	2022	
T18	North Loop 101 Connector (Route 572)	0.00	8.1	8.1	2008	Service initiated July 2007.
T19	Papago Fwy Connector	0.00	7.2	7.2	2009	
T20	Peoria Express	0.00	5.1	5.1	2014	
T21	Pima Express	0.00	5.4	5.4	2013	
T22	Red Mountain Express	0.00	5.5	5.5	2009	
T23	Red Mountain Fwy Connector	0.00	3.3	3.3	2019	
T24	Santan Express	0.00	10.9	10.9	2018	
T25	Scottsdale/Rural Arterial BRT	0.00	19.7	19.7	2014	
T26	South Central Avenue	0.00	7.4	7.4	2015	
T27	South Central Avenue Arterial BRT	0.00	7.1	7.1	2016	

Map Code	Route	Expenditures: through FY 2007: (YOE Dollars)	Estimated Future Costs: FY2008 - 2026 (2007 Dollars)	Total Costs: (2007 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T28	SR 51 Express	0.00	16.0	16.0	2022	
T29	Superstition Fwy Connector	0.00	1.8	1.8	2012	
T30	Superstition Springs Express	0.00	6.8	6.8	2019	
T31	West Loop 101 Connector	0.00	7.6	7.6	2009	
	TOTAL	0.0	262.1	262.1		

TABLE C-2
TRANSIT LIFE CYCLE PROGRAM - BUS OPERATIONS: REGIONAL GRID
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006 to FY 2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Route	Expenditures: through FY 2007: (YOE Dollars)	Estimated Future Costs: FY 2008 - 2026 (2007 Dollars)	Total Costs: (2007 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T40	59th Avenue	0.00	9.1	9.1	2020	
T41	83rd Avenue/75th Avenue	0.00	8.3	8.3	2023	
T42	99th Avenue	0.00	11.4	11.4	2021	
T43	Alma School Rd.	0.00	33.4	33.4	2014	
T44	Arizona Avenue/Country Club	0.00	31.4	31.4	2012	
T45	Baseline Rd	0.00	17.4	17.4	2011	
	Dobson Rd	0.00	38.5	38.5	2009	
	Southern Ave	0.00	52.2	52.2	2009	
T46	Bell Road	0.00	43.7	43.7	2019	
T47	Broadway	0.00	36.2	36.2	2013	
T48	Buckeye Road	0.00	16.6	16.6	2021	
T49	Camelback Road	0.00	26.7	26.7	2013	
T50	Chandler Blvd. (Route 156)	0.00	68.3	68.3	2008	Service initiated July 2007.
T51	Dunlap/Olive Avenue	0.00	11.6	11.6	2021	
T52	Dysart Road	0.00	15.7	15.7	2015	
T53	Elliot Road	0.00	41.3	41.3	2013	
T54	Gilbert Road	0.00	40.0	40.0	2010	
T55	Glendale Avenue (Route 70)	0.00	46.6	46.6	2008	Service initiated July 2007.
T56	Greenfield Road	0.00	8.6	8.6	2022	
T57	Hayden/McClintock	0.00	48.5	48.5	2015	
T58	Indian School Road	0.00	10.1	10.1	2020	
T59	Litchfield Road	0.00	6.9	6.9	2024	
T60	Main Street	0.00	41.7	41.7	2009	
T61	McDowell/McKellips	0.00	45.1	45.1	2014	
T62	Peoria Ave./Shea	0.00	50.2	50.2	2015	
T63	Power Road	0.00	26.6	26.6	2010	
T64	Queen Creek Road	0.00	11.3	11.3	2019	
T65	Ray Road	0.00	24.0	24.0	2016	
T66	Scottsdale/Rural (Route 72)	6.04	112.2	118.3	2007	Service initiated July 2006.

Map Code	Route	Expenditures: through FY 2007: (YOE Dollars)	Estimated Future Costs: FY 2008 - 2026 (2007 Dollars)	Total Costs: (2007 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T67	Tatum / 44th Street	0.00	6.9	6.9	2020	
T68	Thomas Road	0.00	7.9	7.9	2020	
T69	University Drive	0.00	46.2	46.2	2012	
T70	Van Buren	0.00	7.0	7.0	2020	
T71	Waddell/Thunderbird	0.00	23.1	23.1	2020	
	TOTAL	6.04	1,024.4	1,030.4		

TABLE C-3
TRANSIT LIFE CYCLE PROGRAM - BUS OPERATIONS: OTHERS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006 to FY 2026
(2007 and Year of Expenditure Dollars in Millions)

Category	Expenditures: through FY 2007: (YOE Dollars)	Estimated Future Costs: FY 2008 - 2026 (2007 Dollars)	Total Costs: (2007 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
ADA Paratransit	8.2	237.9	246.1	2006	
Regional Passenger Support Services	9.5	128.9	138.4	2006	
Existing Local Service	8.7	33.7	42.4	2006	
Existing Express Service	9.4	52.7	62.1	2006	
Rural/Non-Fixed Route Service	0.7	13.9	14.6	2006	Gila Bend service started FY 2006; Wickenburg service started FY 2007.
Vanpool Service	7.7	134.5	142.2	2006	
Safety and Security Costs	0.7	68.5	69.2	2006	
Operating Contingency	0.0	68.5	68.5	2006	
RPTA Planning and Administration	8.1	102.5	110.6	2006	Primarily funded through RPTA's allocation from Regional Area Road Fund
TOTAL	53.1	841.0	894.1		

TABLE C-4
TRANSIT LIFE CYCLE PROGRAM - BUS CAPITAL: FACILITIES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006 to FY 2026
(2007 and Year of Expenditure Dollars in Millions)

Category	Expenditures: through FY 2007 (YOE Dollars)	Estimated Future Costs: FY 2008- 2026 (2006 Dollars)	Total Costs: (2007 and YOE Dollars)	Total Number of Units to be Constructed/ Installed through FY 2026	Number of Units Constructed/ Installed through FY 2007	Other Project Information
Arterial BRT Right-of-Way and Improvements	0.0	92.5	92.5	60	0	
Bus Stop Pullouts/Improvements	0.0	30.1	30.1	1200	30	
Dial-a-Ride and Rural Bus Maintenance Facilities	0.0	18.7	18.7	3	0	
Intelligent Transportation Systems (ITS) / Vehicle Management Systems (VMS)	0.6	35.2	35.8	2154	0	Each new bus and certain van units will receive VMS/GPS equipment. Number of vehicles increased from FY 2006 to match route service levels.
Park & Ride Lots	0.0	66.2	66.2	13	0	
Standard Bus Maintenance Facilities*	38.0	170.5	208.5	6	0	2 facilities will be complete in FY 2008
Transit Centers (4 Bay)	0.0	13.0	13.0	6	0	
Transit Centers (6 Bay)	0.0	12.4	12.4	4	0	
Transit Centers (Major Activity Centers)	0.0	22.3	22.3	3	0	
Vanpool Vehicle Maintenance Facilities	0.0	5.3	5.3	1	0	
TOTAL	38.6	466.1	504.7			

* Includes four new operations/maintenance facilities and one rehab facility.

TABLE C-5
TRANSIT LIFE CYCLE PROGRAM - BUS CAPITAL: FLEET
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006 to FY 2026
(2007 and Year of Expenditure Dollars in Millions)

Category	Expenditures: through FY 2007 (YOE Dollars)	Estimated Future Costs: FY 2008 - 2026 (2006 Dollars)	Total Costs: (2007 and YOE Dollars)	Total Number of Units to be Acquired through FY 2026	Number of Units Acquired through FY 2007	Other Project Information
Paratransit	5.0	95.8	100.8	1227	65	Number of vehicles adjusted from FY 2006 to match route service levels.
Fixed Route	50.4	947.5	997.9	2136	150	Number of vehicles adjusted from FY 2006 to match route service levels.
Rural Route	0.4	2.5	2.9	39	6	Number of vehicles adjusted from FY 2006 to match route service levels.
Vanpool	4.5	39.0	43.5	1498	183	Number of vehicles adjusted from FY 2006 to match route service levels.
TOTAL	60.2	1,084.8	1,145.0			

TABLE C-6
TRANSIT LIFE CYCLE PROGRAM - LIGHT RAIL TRANSIT: SUPPORT INFRASTRUCTURE
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2006 and Year of Expenditure Dollars in Millions)

Facility	Expenditures: through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008- 2026 (2007 Dollars)	Total Costs: (2007 and YOE Dollars)	Year Programmed for Final Construction	Project Length (Centerline Miles)	Other Project Information
	Design	Right-of-Way	Construction	Total					
Glendale Link: 19th Ave./Bethany Home to Downtown Glendale	0.0	0.0	0.0	0.0	31.8	31.8	2017	5	
Northwest Link Phase 1: 19th Ave./Bethany Home to 19th Ave./Dunlop	0.0	0.0	0.0	0.0	58.0	58.0	2012	3.2	Northwest Link was split into two phases in FY 2007
Northwest Link Phase 2: 19th Ave./Dunlop to Rose Mofford Sports Complex	0.0	0.0	0.0	0.0	14.3	14.3	2017	1.8	
Minimum Operating System: 19th Ave./Bethany Home to Main St./Sycamore	0.0	0.0	17.5	17.5	169.4	186.8	2011	20	Segment will open in FY 2009, but reimbursements will continue through FY 2011
Systemwide - Infrastructure Improvements	0.0	0.0	42.3	42.3	79.3	121.6	2026	57.5	
TOTAL	0.0	0.0	59.8	59.8	352.7	412.5			

TABLE C-7
TRANSIT LIFE CYCLE PROGRAM - LIGHT RAIL TRANSIT: ROUTE EXTENSIONS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2007 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures: through FY 2007 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2008-2026 (2007 Dollars)	Total Costs: (2007 and YOE Dollars)	Year Programmed for Final Construction	Project Length (Center-line Miles)	Other Project Information
		Design	Right-of-Way	Construction	Total					
T80	Glendale Link: 19th Ave./Bethany Home to Downtown Glendale	0.0	0.0	0.0	0.0	344.3	344.3	2017	5.0	
T81	I-10 West Link: Washington Ave./Central Ave. to 79th Ave.	0.0	0.0	0.0	0.0	757.7	757.7	2020	11.0	
T82	Northwest Link Phase 1: 19th Ave/Bethany Home to 19th Ave/Dunlop	4.9	0.0	0.0	4.9	215.5	220.4	2012	3.2	Northwest Link was split into two phases in FY 2007
	Northwest Link Phase 2: 19th Ave./Dunlop to Rose Mofford Sports Complex	0.0	0.0	0.0	0.0	124.0	124.0	2017	1.8	
T83	Northeast Phoenix Link: Indian School Rd./Central Ave. to Paradise Valley Mall	0.0	0.0	0.0	0.0	826.6	826.6	2025	12.0	
T84	Tempe South Link: Main St./ Rural Rd. to Southern Ave.	0.0	0.0	0.0	0.0	137.2	137.2	2015	2.0	
T85	West Mesa Link: Main St./Sycamore to Main St./Mesa Dr. *	0.0	0.0	0.0	0.0	172.6	172.6	2015	2.7	
	TOTAL	4.9	0.0	0.0	4.9	2,577.8	2,582.7			

* Technology to be determined.

TABLE C-8
TRANSIT LIFE CYCLE PROGRAM - BUS RAPID TRANSIT/EXPRESS
ROUTE CHARACTERISTICS AND USAGE SUMMARY: FY 2006 to FY 2026

Map Code	Route	Service Start (Fiscal Year)	Route Length (Miles)	Annual Bus-Miles of Service	Total Boardings: through FY 2007 (Thousands)	Farebox Revenues: through FY 2007 (YOE Dollars)	Annual Average Boardings: through FY 2007 (Thousands)	Annual Average Farebox Revenues: through FY 2007 (YOE Dollars)	Other Project Information
T1	Ahwatukee Connector	2017	14.7	30,010					
T2	Ahwatukee Express	2008	20.8	146,420					
T3	Anthem Express	2018	30.4	77,390					
T4	Apache Junction Express	2011	37.4	76,350					
T5	Arizona Avenue Arterial BRT	2011	15.0	152,870					
T6	Avondale Express	2020	19.0	77,570					
T7	Black Canyon Freeway Corridor	2016	16.6	67,700					
T8	Buckeye Express (to West Buckeye P&R)	2015	43.7	66,910					
T9	Chandler Boulevard Arterial BRT	2024	18.5	226,620					
T10	Desert Sky Express	2010	22.6	172,810					
T11	Deer Valley Express	2008	13.6	83,460					
T12	East Loop 101 Connector	2009	44.6	90,930					
T13	Grand Avenue Limited	2013	25.9	158,430					
T14	Loop 303 Express	2023	38.1	77,780					
T15	Main Street Arterial BRT	2009	10.7	284,300					
T16	North Glendale Express	2008	29.6	120,590					
T17	North I-17 Express	2022	34.4	87,620					
T18	North Loop 101 Connector Surprise to Scottsdale P&R)	2008	31.6	96,620					
T19	Papago Fwy Connector (to West Buckeye P&R)	2009	30.0	61,280					
T20	Peoria Express (to Peoria P&R)	2014	24.1	73,640					
T21	Pima Express (To Airpark P&R)	2013	35.4	72,190					
T22	Red Mountain Express	2009	32.8	66,960					
T23	Red Mountain Fwy Connector	2019	19.2	78,510					

Map Code	Route	Service Start (Fiscal Year)	Route Length (Miles)	Annual Bus-Miles of Service	Total Boardings: through FY 2007 (Thousands)	Farebox Revenues: through FY 2007 (YOE Dollars)	Annual Average Boardings: through FY 2007 (Thousands)	Annual Average Farebox Revenues: through FY 2007 (YOE Dollars)	Other Project Information
T24	Santan Express	2018	44.9	228,910					
T25	Scottsdale/Rural Arterial BRT	2014	23.1	282,770					
T26	South Central Avenue	2015	9.4	114,800					
T27	South Central Avenue Arterial BRT	2016	23.7	120,900					
T28	SR 51 Express	2022	22.3	116,840					
T29	Superstition Fwy Connector	2012	17.5	26,830					
T30	Superstition Springs Express	2019	31.9	162,540					
T31	West Loop 101 Connector (to North Glendale P&R)	2009	31.4	95,930					
	TOTAL		812.8	3,596,480	0.0	0	0	0	

**TABLE C-9
TRANSIT LIFE CYCLE PROGRAM - REGIONAL GRID
ROUTE CHARACTERISTICS AND USAGE SUMMARY: FY 2006 to FY 2026**

Map Code	Route	Service Start (Fiscal Year)	Route Length (Miles)	Annual Bus-Miles of Service	Total Boardings: through FY 2007 (Thousands)	Farebox Revenues: through FY 2007 (YOE Dollars)	Annual Average Boardings: through FY 2007 (Thousands)	Annual Average Farebox Revenues: through FY 2007 (YOE Dollars)	Other Project Information
T40	59th Avenue	2020	16.2	394,240					
T41	83rd Avenue/75th Avenue	2023	21.4	542,440					
T42	99th Avenue	2021	16.5	401,300					
T43	Alma School Rd.	2014	19.1	523,450					
T44	Arizona Avenue/Country Club	2012	16.3	462,380					
T45	Baseline Road	2011	19.6	586,090					
	Dobson Road	2009	15.7	470,800					
	Southern Avenue	2009	28.1	969,020					
T46	Bell Road (via 303)	2019	38.1	1,138,460					
T47	Broadway	2013	27.8	776,250					
T48	Buckeye Road (Litchfield Road to Central Ave.)	2021	22.7	586,460					
T49	Camelback Road	2013	28.5	851,220					
T50	Chandler Blvd.	2008	32.7	929,450					
T51	Dunlap/Olive Avenue	2021	14.3	411,720					
T52	Dysart Road	2015	21.0	311,900					
T53	Elliot Road	2013	21.9	600,020					
T54	Gilbert Road	2010	20.9	519,070					
T55	Glendale Avenue	2008	32.7	977,160					
T56	Greenfield Road	2022	15.2	369,300					
T57	Hayden/McClintock	2015	29.7	826,990					
T58	Indian School Road	2020	30.4	879,050					
T59	Litchfield Road	2024	21.5	523,780					
T60	Main Street	2009	17.3	509,730					
T61	McDowell/McKellips	2014	41.8	1,250,210					
T62	Peoria Ave./Shea	2015	43.0	1,506,060					
T63	Power Road	2010	14.2	345,160					

Map Code	Route	Service Start (Fiscal Year)	Route Length (Miles)	Annual Bus-Miles of Service	Total Boardings: through FY 2007 (Thousands)	Farebox Revenues: through FY 2007 (YOE Dollars)	Annual Average Boardings: through FY 2007 (Thousands)	Annual Average Farebox Revenues: through FY 2007 (YOE Dollars)	Other Project Information
T64	Queen Creek Road (Pecos P&R to Power Road)	2019	12.0	293,410					
T65	Ray Road	2016	18.4	447,870					
T66	Scottsdale/Rural	2007	28.9	1,231,460	1,499.6	484,000	1,499.6	484,000	
T67	Tatum / 44th Street	2020	22.8	682,180					
T68	Thomas Road	2020	26.7	770,530					
T69	University Drive (to Ellsworth Road)	2012	27.8	802,220					
T70	Van Buren	2020	23.4	711,460					
T71	Waddell/Thunderbird	2020	27.9	692,370					
	TOTAL		814.0	23,293,210	1,500	484,000	1500	484,000	