



2010 ANNUAL REPORT



ON THE STATUS OF THE IMPLEMENTATION OF PROPOSITION 400



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Maricopa Association of Governments

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PROPOSITION 400**

September 2010

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SUMMARY OF FINDINGS AND ISSUES

The *Draft 2009 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 2010 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 “Regional Transportation Plan - 2010 Update” was approved.

On July 28, 2010, the MAG Regional Council approved the “MAG Regional Transportation Plan - 2010 Update,” as the result of a multi-year effort to update the Plan. The modal life cycle programs were reviewed and adjusted to reestablish a balance between program costs and reasonably available revenues expected over the period covered by the RTP. In order to achieve balanced programs, a number of projects in each of the modal elements were shifted beyond Fiscal Year (FY) 2026, which is the end of the life cycle program period. However, these projects remain in the RTP, which was updated and extended through FY 2031 to comply with federal planning regulations.

The 2010 Update included a number of illustrative corridors/projects. These are projects that could potentially be included in the plan, if additional resources beyond the reasonably available financial resources identified in the plan were available. There is no requirement to select any project from an illustrative list of projects at some future date, when funding might become available. In addition, no priorities are stated or implied by inclusion of a project as an illustrative corridor.

- The Interstates 8 and 10 - Hidden Valley Transportation Framework Study was accepted.

On September 30, 2009, the MAG Regional Council accepted the findings of the Interstate 10/Hassayampa Valley Transportation Framework Study. It was recognized that study recommendations were not specifically funded, and the action was to accept the study's findings as an illustrative element of the RTP.

- The Central Mesa Light Rail Transit Locally Preferred Alignment was approved.

On September 30, 2009, the MAG Regional Council approved a locally preferred alternative for the light rail alignment in the Central Mesa Corridor. The preferred alignment includes a light rail transit (LRT) extension on Main Street east to Mesa Drive, and future funding consideration of an LRT corridor extension to Gilbert Road as well as improved service frequency on the Main Street LINK Bus Rapid Transit.

- The MAG Regional Transit Framework Study was accepted.

On March 31, 2010, the MAG Regional Council accepted the Illustrative Transit Corridors map in the Regional Transit Framework Study for inclusion as unfunded regional transit illustrative corridors in the RTP. In addition, the future planning actions identified in the study were accepted for consideration through the MAG Unified Planning Work Program process.

- Commuter Rail Planning Studies were accepted.

On May 26, 2010, the MAG Regional Council accepted the Grand Avenue Commuter Rail Corridor Development Plan, the Yuma West Commuter Rail Corridor Development Plan, and the Commuter Rail System Study. Additionally, the Regional Council agreed to allow revisions of the corridor ranking included in the Commuter Rail System Study upon completion of updated regional socioeconomic forecasts or relevant rail passenger studies.

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 2010 receipts from the Proposition 400 half-cent sales tax were 8.9 percent lower than receipts in FY 2009.

The total receipts from the Proposition 400 half-cent sales tax have amounted to \$1.5 billion through FY 2010. The annual receipts from the tax have

steadily declined since FY 2007. The year-over-year declines for the three years from the end of FY 2007 to the end of FY 2010 have been, respectively, 3.1, 13.7 and 8.9 percent. The decline between FY 2007 and FY 2008 was the first year-over-year revenue decline in the history of the half-cent sales tax since its inception in 1985.

- Forecasts of Proposition 400 half-cent revenues for the period FY 2011 through FY 2026 are 6.2 percent lower, compared to the 2009 Annual Report estimate.

Future half-cent revenues for the period FY 2011 through FY 2026 are forecasted to total \$9.5 billion. This amount is \$634 million, or 6.2 percent, lower than the forecast for the same period presented in the 2009 Annual Report. The total revenues for the FY 2011-2026 period reflect ADOT's revised sales tax forecast in September 2009. This forecast estimated that revenues in FY 2011 would total \$322 million, an eight percent increase compared to the actual collections of \$298 million in FY 2010. Although annual increases in collections of this magnitude were not uncommon in the past, the updated forecasts to be prepared in the fall of 2010 may not maintain this level of increase in revenues.

- Forecasts of total ADOT funds dedicated to the MAG area for FY 2011 through FY 2026 are 8.8 percent lower than the 2009 Annual Report estimate.

The forecast for ADOT funds totals \$5.3 billion for FY 2011 through FY 2026, which is 8.8 percent lower than the 2009 Annual Report forecast. This funding source represents nearly one-half of the total funding for the Freeway/Highway Life Cycle Program.

- Forecasts of total MAG federal transportation funds for FY 2011 through FY 2026 are \$212 million lower than the 2009 Annual Report estimate.

The forecasted revenues for the period FY 2011 through FY 2026 total \$4.0 billion. This forecast is \$212 million, or 5.1 percent, lower than that in the 2009 Annual Report for the same period, with the decrease resulting from adjustments to the projections for federal transit funding.

- The nature and timing of future federal transportation funding programs is uncertain.

Federal funding for transportation has generally been reauthorized every six years. The latest reauthorization, the Safe, Accountable, Flexible, and Efficient Transportation Equity Act – A Legacy for Users (SAFETEA/LU), was signed into law in August 2005 and was scheduled to expire in September 2009. However, recognizing the critical role of transportation, Congress has

maintained funding by means of continuing resolutions and extensions of SAFETEA/LU. Concepts for future federal transportation legislation have been developed by a number of groups, but the timing of future congressional action on reauthorization is uncertain.

FREEWAY/HIGHWAY LIFE CYCLE PROGRAM

The Freeway/Highway Life Cycle Program (FLCP) 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.

- A number of major freeway/highway construction projects were completed, underway, or advertised for bids during FY 2010.

Completed

- I-10 (Sarival Ave. to Loop 101): Additional general purpose and new HOV lanes.
- I-17 (Anthem Way to Carefree Hwy.): Additional general purpose lanes.
- I-17 (SR 74 to Loop 101): Additional general purpose and new HOV lanes.
- I-17 (Dove Valley Rd.): New traffic interchange.
- US 60 (Loop 101 to I-10): Additional general purpose lanes.
- SR 85 (MP 130 to 137): Widen to four lanes.
- SR 93 (Wickenburg Bypass): New roadway.
- Loop 101 (Princess Dr. to Tatum Blvd.): New HOV lanes.
- Loop 101 (I-17 to SR 51): Freeway Management System.
- Loop 101 (Red Mt. Fwy. to Santan Fwy.): New HOV lanes.
- Loop 101 (Thunderbird Rd.): Interchange improvements.
- Loop 202 (SR 51 to Loop 101): Additional general purpose lanes.
- Loop 202/Red Mt. (Loop 101 to Gilbert Rd.): New HOV lanes.

Advertised for Bids or Under Construction

- I-10 (Sarival Ave. to Dysart Rd.): Additional general purpose lanes.
- I-10 (Verrado Way to Sarival Ave.): Additional general purpose lanes.
- I-10 (Indian School to I-10): S/B auxiliary lanes.
- I-10 (Avondale Blvd.): Interchange improvements.
- US 60 (Loop 303 to 99th Ave.): Widen to six lanes.
- US 60 (99th Ave. to 83rd Ave.): Widen to six lanes.
- SR 74 (MP 13-15 and MP 20-22.): Add passing lanes.
- SR 85 (I-10 to Southern Ave.): Widen to four lanes.

- SR 85 (B-8/Maricopa Rd.): Reconstruct intersection.
- SR 87 (New Four Peaks Rd. to Dos S Ranch Rd.): Climbing lane.
- Loop 101/99th Ave. (I-10 to Van Buren Rd.): Street improvements.
- Loop 101 (I-10 to Tatum Blvd.): New HOV lanes.
- Loop 101 (Beardsley/Union Hills): New traffic interchange.
- Loop 101 (Olive Rd.): Interchange improvements.
- Loop 101 (Chaparral Rd.): Interchange improvements.
- Loop 101 (Northern to Grand): S/B auxiliary lanes.
- Loop 101 (51st Ave. to 35th Ave.): E/B auxiliary lanes.
- Loop 202/Santan (Gilbert Rd. to I-10): New HOV lanes.
- Loop 303 (Cactus Rd., Waddell Rd., and Bell Rd.) T.I. structures.
- Loop 303 (Happy Valley Rd. to I-17): Interim four-lane divided roadway.

- Project cost reductions were experienced, resulting in a net “savings” of approximately \$37 million.

Due to the recession and resulting increased competition in the contracting industry, as well as the reevaluation of project designs, there were few material cost increases in FY 2010. In fact, many projects experienced significantly reduced costs, resulting in a net “savings” of approximately \$37 million.

- Two HOV lane projects were advanced.

On February 24, 2010, the MAG Regional Council advanced HOV lane projects on Loop 202 (Santan Freeway) and on Loop 101 (Agua Fria and Pima Freeways) to FY 2010. The action combined and advanced HOV segments originally identified for construction between FY 2013 to FY 2015 into two design-build projects.

- Costs and revenues in the Freeway/Highway Life Cycle Program were rebalanced.

The Freeway/Highway Life Cycle Program was reviewed and adjusted to reestablish a balance between program costs and revenues, with costs and revenues for the period FY 2011-2026 totaling approximately \$8.3 and \$8.4 billion, respectively. As part of this effort, project scopes were reevaluated and cost estimates reviewed, resulting in project cost reductions amounting to \$2.4 billion. Also, projects totaling approximately \$4.4 billion were shifted beyond FY 2026, which is the end of the life cycle program period.

- A number of projects were shifted beyond the horizon year (FY 2026) of the Freeway/Highway Life Cycle Program.

In its rebalanced configuration, the FLCP completes a number of major projects within the original FY 2026 horizon, including the South Mountain Freeway, Loop 303 between I-17 and I-10, the HOV lane system, and other improvements to the inner freeway network. However, construction of SR-801 and SR-802 (now renamed SR-30 and SR-24, respectively), as well as the addition of general purpose lanes on outer freeways, is shifted beyond FY 2026 into the period between FY 2027 and FY 2031.

Also, three projects that were originally identified as part of the FLCP have been moved beyond the current planning period of the RTP (FY 2011 - 2031). These projects were categorized as illustrative projects in the RTP and are: I-10/Local/Express Lanes (SR-51 to 32nd St.); HOV Ramps (I-10/Agua Fria Fwy./T.I.); and HOV Ramps (I-17/Pima Fwy./T.I.).

- An emphasis needs to be placed on developing accurate right-of-way budgets.

For many projects, particularly new freeway corridors, right-of-way costs represent a significant portion of the total cost of the facility. Recent changes in the real estate market have resulted in major reductions in property values. Detailed right-of-way cost estimates that accurately reflect up-to-date market values, and avoiding overstated right-of-way budgets, need to be prepared and continuously maintained.

- A proactive approach is needed in updating and maintaining construction cost estimates.

Construction costs are highly sensitive to rapidly changing market conditions. A proactive approach is needed to ensure that cost estimates on all projects are up to date, so that resources are effectively allocated in the life cycle program on a continuing basis. Updated costs need to be maintained for projects at all stages of the implementation process, ranging from projects to be advertised for bids in the near future to those may not be under construction for a decade or more in the future.

- MAG and ADOT will continue to closely monitor the cost and revenue picture for the Freeway Life Cycle Program and make program adjustments as may be appropriate.

On the cost side, construction bids have been more favorable lately. However, receipts from the half-cent sales tax have steadily declined since FY 2007. Future half-cent revenues for the period FY 2011 through FY 2026 were forecasted to be 6.2 percent lower than the forecast for the same period presented in the 2009 Annual Report. Updated forecasts to be prepared in the fall of 2010 may result in further reductions in projected future revenues.

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 significant funding from the Proposition 400 half-cent sales tax and federal highway programs, as well as a local match component. Although MAG is charged with the responsibility of administering the overall program, the actual construction of projects is accomplished by local government agencies. MAG distributes the regional share of the funding on a reimbursement basis.

- The Arterial Street Life Cycle Program was updated during FY 2010.

On July 28, 2010, the MAG Regional Council approved the FY 2011 update of the Arterial Life Cycle Program, to reflect updated information regarding project scheduling and development status.

- During FY 2010, \$62 million in reimbursements were distributed to local governments from the Arterial Street Life Cycle Program, and work is continuing for reimbursements in FY 2011.

Seven jurisdictions received reimbursements for project work during FY 2010 totaling more than \$62 million. This brings the total reimbursements to \$178 million since the initiation of the Program. A total of five project agreements were executed in FY 2010. This brings the total of project agreements executed to date to 39. It is anticipated that an additional 19 agreements will be executed during FY 2011. During FY 2011, it is also anticipated that a total of seven jurisdictions will receive reimbursements amounting to approximately \$98 million. Through FY 2010, 20 ALCP projects have been completed.

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

During the period FY 2011 through FY 2015, work will be proceeding on 87 different arterial street projects. Various stages of work will be conducted on these projects, including 61 with design activity, 52 with right-of-way acquisition, and 69 with construction work, at some time during the five-year period.

- Project implementing agencies have deferred \$38 million in federal and regional funding from FY 2010 to later years.

Lead agencies deferred \$38 million in federal and regional funding from FY 2010 to later years. Increased project costs, reduced local revenues, and other implementation issues have resulted in the deferral of arterial projects

by implementing agencies, due to the inability to provide matching funds, or other scheduling and resource issues.

- Approximately \$22 million in reimbursements were shifted beyond FY 2026 to achieve a balance between costs and revenues in the Arterial Street Life Cycle Program.

The total estimated future regional revenue reimbursements for ALCP projects are in balance with projected revenues. To achieve this balance, approximately \$22 million in programmed reimbursements were deferred to FY 2027, an unfunded year of the program. While these reimbursements fall beyond the ALCP, the affected projects remain funded in the MAG Regional Transportation Plan, which extends through FY 2028.

TRANSIT LIFE CYCLE PROGRAM

The Transit Life Cycle Program (TLCP) is maintained by the Regional Public Transportation Authority (RPTA) and implements transit projects identified in the MAG Regional Transportation Plan. The RPTA maintains responsibility for administering half-cent sales tax 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 planned for the system.

- One new supergrid bus route was implemented in FY 2010 and several additional routes will start service during the next five years.

The Gilbert Road supergrid route was implemented as Route 136 during FY 2010. Additional routes starting service during FY 2011 through FY 2015 include:

- Arizona Avenue Arterial BRT (T5); Service start: FY 2011.
 - Arizona Avenue/Country Club Drive (T44); Service start: FY 2012.
 - 59th Avenue (T40); Service start: FY 2014.
 - Baseline Road (T45); Service start: FY 2015.
 - Elliot Road (T53); Service start: FY 2013.
 - McDowell/McKellips Roads (T61); Service start: FY 2014.
 - Power Road (T63); Service start: FY 2011.
- During FY 2009 and FY 2010, a number of projects were shifted beyond the horizon year (FY 2026) of the Transit Life Cycle Program, as a result of reduced revenue forecasts.

There are 16 bus rapid transit (BRT)/Express routes identified for funding in the TLCP during the planning period from FY 2006 through 2026. Since the start of the program, a total of eleven routes have been implemented. Fifteen BRT/Express routes have been shifted beyond FY 2026 but remain in the Regional Transportation Plan.

There are a total of 24 Regional Grid routes identified for funding in the TLCP during the planning period from FY 2006 through 2026. Since the start of the program, seven routes have been implemented. Nine Regional Grid routes have been shifted beyond FY 2026 but remain in the Regional Transportation Plan.

In addition, some significant delays to construction for light rail transit (LRT)/High Capacity extensions have been programmed. The Northeast Phoenix corridor has been shifted entirely beyond the TLCP horizon year of FY 2026 for implementation. Some of the delays are due in part to the decrease in local funding for transit.

- A balanced Transit Life Cycle Program was achieved in FY 2009 and further refined in FY 2010

The estimated future costs for FY 2011 to 2026 are in balance with the projected future funds available. A balanced program was achieved in FY 2009 by delaying the implementation of numerous projects, and during FY 2010 the TLCP was refined further. Staff from the RPTA and its members worked throughout FY 2010 to re-prioritize projects. Project scopes, especially service levels for supergrid service, were also adjusted to allow for more routes to be funded. A significant shift from capital to operations expenditures resulted. Fewer buses in total and fewer bus facilities are now programmed within the TLCP.

- Adjustments to the Transit Life Cycle Program should be based on performance.

Reduced revenue collections and lower funding forecasts required adjustments to the TLCP. This included changes to bus route configurations and service levels, delays in bus service start dates, deletion of bus routes, and delays in constructing high capacity transit projects. To ensure that limited regional funding is applied to provide service as effectively as possible, adjustments should take into account route and system performance levels.

- Federal discretionary funding for transit continues to be an important issue.

A large part of the funding for the LRT system is awarded by the US Department of Transportation through the discretionary "New Starts

Program.” 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. Discretionary funding for the bus capital program is also highly competitive. The prospects for awards from federal programs will require careful monitoring. Future federal transportation funding legislation will also impact when and how Federal Transit Administration funding flows to the region.

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.

- During FY 2010, the Performance Measurement Report and data website portal were completed.

During FY 2010, the first MAG Performance Measures Report was published and an interactive transportation data portal on the MAG website was made operational, allowing the public to access up-to-date on the performance of various element of the transportation system in the region.

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 2010 Annual Report covers progress through the fiscal year ending June 30, 2010, and reviews the program outlook through June 30, 2026. During fiscal year 2010, the life cycle programming process continued to face declining revenue collections and reduced revenue forecasts. In response, costs and revenues in the life cycle programs were reviewed cooperatively by MAG, the Arizona Department of Transportation (ADOT), and the Regional Public Transportation Authority (RPTA).

Adjustments were made to the Freeway Life Cycle Program to achieve a balanced program and incorporated into the ADOT Five-Year Construction Program, which was approved by the ADOT Board in June 2010. Similarly, the Transit Life Cycle Program was evaluated and revised to produce a balanced program. The bus element of this program was approved by the RPTA Board in

January 2010, and the light rail transit/high capacity transit component was approved in April 2010. A balanced Arterial Life Cycle Program was adopted by the MAG Regional Council in June 2010.

In order to achieve balanced programs, certain projects in each of the modal elements were shifted beyond FY 2026, which is the end of the life cycle reporting period. However, these projects remained in the RTP, which was updated during FY 2010 and extended through FY 2031 to comply with Federal planning regulations.

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.

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. 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 2010.

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 is developed and updated through a comprehensive, performance-based process, consistent with State legislation. This process takes into account household trip-making characteristics and regional travel patterns, as well as the effects of population growth, to identify future demand for transportation facilities. The transportation planning process establishes goals and objectives, estimates future travel demand, identifies and evaluates facility options, and defines a planned, multi-modal transportation network. As part of the process, funding for the implementation of the plan is identified and a facility phasing program is prepared.

The transportation planning process also includes broad-based public input, which is received as the result of an extensive public involvement process that includes an extensive public outreach effort. Public involvement meetings and events are held to receive input from citizens throughout the MAG Region. Additional comments are 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 includes 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 takes into account the ADOT Freeway/Highway Life Cycle Program, which is a 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 also includes 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 takes into account the MAG Arterial Life Cycle Program, which is a listing of street projects that have been identified in the RTP for regional funding (see Chapter Seven).

4.1.4 Transit Element

The RTP includes 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/high capacity transit 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/High Capacity Transit: The RTP includes a 57.7-mile Light Rail Transit (LRT)/High Capacity Transit (HCT) system, which incorporates the 20-mile, LRT 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. Light rail transit has been selected as the technology on the northwest extension and the extension to Mesa Drive. The technology for the remaining segments has not yet 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 takes into account the RPTA Transit Life Cycle Program, which is a 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.

In the Freeway/Highway Life Cycle Program, MAG recognizes that local jurisdictions may want to accelerate highway projects by providing the local jurisdiction's financial resources to the program. Acceleration of specific highway projects benefits not only the affected local jurisdiction, but also the entire region. To facilitate local financing that allows the acceleration of freeway/highway construction in the region, MAG has adopted a Highway Acceleration Policy. This policy includes a provision that 50 percent of the interest expense incurred by the local jurisdiction will be paid by regional program revenues.

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.

Consultation on Resource and Environmental Factors: As part of the planning process for the update of the Regional Transportation Plan (RTP), MAG reaches out to Federal, State, Tribal, regional, and local agencies to consult on environmental and resource issues and concerns. This effort includes consultation regarding conservation plans and maps, inventories of natural or historic resources, and potential environmental mitigation activities. Specific topics of interest include: land use management, wildlife, natural resources, environmental protection, conservation, historic preservation, and potential environmental mitigation activities. The primary goal of this consultation effort is to make transportation planning decisions and prepare planning products that are sensitive to environmental mitigation and resource conservation considerations.

4.2.3 Establishment of a Complete Transportation System for the Region

The RTP includes 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

Regional Transportation Plan Update: On July 28, 2010, the MAG Regional Council approved the MAG Regional Transportation Plan - 2010 Update and the MAG FY 2011-2015 Transportation Improvement Program. The 2010 RTP Update was completed as the result of a multi-year effort to update the Plan.

Beginning in FY 2008, project cost estimates were thoroughly analyzed and updated, and revenue forecasts were revised to reflect changing economic conditions. During FY 2009 and early FY 2010, through a cooperative effort among MAG, the Arizona Department of Transportation (ADOT), and the Regional Public Transportation Authority (RPTA), the modal life cycle programs were reviewed and adjusted to reestablish a balance between program costs and reasonably available revenues expected over the period covered by the Plan. In order to achieve balanced programs, a number of projects in each of the modal elements were shifted beyond FY 2026, which is the end of the life cycle program period. However, these projects remained in the RTP, which was updated and extended through FY 2031 to comply with Federal planning regulations.

While most of the projects remained in the RTP, certain freeway/highway projects and bus routes that were originally identified during the 2003 planning process have been moved beyond the current planning period of the RTP (FY 2011 - 2031). These projects were categorized as illustrative projects in the RTP and are listed in the section on "Illustrative Corridors/Projects" (see 4.3.2).

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 2010 RTP Update and 2011-2015 TIP and demonstrated that they meet the air quality conformity requirements of applicable State and Federal air quality implementation plans. This analysis was transmitted to the U.S. Department of Transportation for their concurrence on the finding of conformity, and approved was received on August 25, 2010.

4.3.2 Corridor-Level, Sub-Area and Modal Activities

Interstates 8 and 10 - Hidden Valley Transportation Framework Study: On September 30, 2009, the MAG Regional Council accepted the findings of the Interstate 10 / Hassayampa Valley Transportation Framework Study. The study covers portions of both Maricopa and Pinal Counties, and is generally bounded by: Overfield Road on the east, I-8 on the south, 459th Avenue on the west, and the Gila River and/or the north boundary of the Gila River Indian Community on the north.

The action to accept the study included: (1) accept the findings of the Interstates 8 and 10 - Hidden Valley Transportation Framework Study as the surface and public transportation framework for the Hidden Valley area of the MAG region that is bounded by the Gila River on the north, SR-87 and Pinal County on the east, the Tohono O'Odham Indian Community and the Barry Goldwater Range

on the south, and 459th Avenue on the west; (2) adopt a two-mile traffic interchange spacing policy for new freeway facilities within the Hidden Valley area with appropriate planning for non-access crossings of the freeway facilities to facilitate local transportation movements; (3) accept the findings and implementation strategies as described in the study for inclusion as long-range unfunded illustrative corridors in the Regional Transportation Plan; (4) recommend the affected jurisdictions within the Hidden Valley study area incorporate this study's recommendations into future updates of their general plans; and (5) coordinate this acceptance with the tribal councils of the Gila River and Ak Chin Indian Communities.

As a framework study, it was recognized that most of the recommendations were not funded. Therefore, the Regional Council was requested to accept the study's findings versus adopting them.

Central Mesa Light Rail Transit Locally Preferred Alignment: On September 30, 2009, the MAG Regional Council approved a locally preferred alternative for the light rail alignment in the Central Mesa Corridor. The alignment resulted from the alternatives analysis on the technology and alignment to extend high capacity transit improvements in the Central Mesa Corridor. The preferred alignment includes a light rail transit (LRT) extension on Main Street east to an interim end-of-the-line east of Mesa Drive as Phase I. In addition, the action included a Phase II recommendation for future funding consideration, which included a future extension of the LRT corridor on Main Street to approximately Gilbert Road and to improve service frequency on the Main Street LINK Bus Rapid Transit to match the LRT.

MAG Regional Transit Framework Study: On March 31, 2010, the MAG Regional Council accepted the Illustrative Transit Corridors map in the Regional Transit Framework Study for inclusion as unfunded regional transit illustrative corridors in the RTP. In addition, the future planning actions identified in the study were accepted for consideration through the MAG Unified Planning Work Program process.

The MAG Regional Transit Framework Study provides a needs-based planning process for identifying and prioritizing regional transit improvements that will supplement the existing RTP through year 2030, with consideration for even longer range transportation needs through year 2050. The planning process included a technical approach to identify future travel demand and travel markets through an analysis of future growth patterns. Specific markets were identified through a technical evaluation of high-demand travel markets and an understanding of traveler behavior. It included the technical analyses of land use, socioeconomic conditions, existing and planned transit service, and infrastructure, along with the stated customer preference attributes, identified public transit needs, deficiencies, opportunities and constraints within the region.

Commuter Rail Planning Studies: On May 26, 2010, the MAG Regional Council accepted the Grand Avenue Commuter Rail Corridor Development Plan, Yuma West Commuter Rail Corridor Development Plan, and Commuter Rail System Study. Additionally, the Regional Council agreed to allow revisions of the corridor ranking included in the Commuter Rail System Study upon completion of updated regional socio-economic forecasts or relevant rail passenger studies. The System Study recommends that the Southeast Corridor from Central Phoenix to Queen Creek be implemented as the initial starter segment, followed by the Grand Avenue Corridor from Phoenix northwest to Whitmann.

The studies evaluated commuter rail options for the MAG region and identified priorities for implementing commuter rail service through an assessment of ridership potential, operating strategies, and associated capital and operating costs. The analysis included a review of existing documentation, ongoing public involvement, an inventory of the existing BNSF and UPRR rail lines, potential extension corridors, development of a conceptual commuter rail operating plan, identification of infrastructure improvements necessary for the implementation of commuter rail service, development of capital cost estimates, and the development of annual operating cost estimates for commuter rail service.

Illustrative Corridors/Projects: The MAG Regional Transportation Plan - 2010 Update, which was adopted on July 28, 2010, included a number of illustrative corridors/projects. These are projects that could potentially be included in the plan, if additional resources beyond the reasonably available financial resources identified in the plan were available. They are discussed in the metropolitan transportation plan for illustrative purposes only, and are not included in the financial plan or air quality conformity determination. There is no requirement to select any project from an illustrative list of projects in a metropolitan transportation plan at some future date, when funding might become available. In addition, no priorities are stated or implied by inclusion of a project as an illustrative corridor.

The illustrative corridors/projects included in the Regional Transportation Plan - 2010 Update are listed below.

- Interstate 10/Hassayampa Valley Transportation Framework Study: On February 27, 2008, the MAG Regional Council accepted the findings and implementation strategies as described in the study for inclusion as illustrative corridors in the Regional Transportation Plan.
- Interstates 8 and 10/ Hidden Valley Transportation Framework Study: On September 30, 2009, the MAG Regional Council accepted the findings and implementation strategies as described in the study for inclusion as illustrative corridors in the Regional Transportation Plan.
- New River Corridor: On November 25, 2003, the Regional Council

approved inclusion of a connection between Loop 303 and I-17 in the vicinity of New River Road as a corridor for further study.

- Sky Harbor Automated Train System: On April 22, 2009, the Regional Council approved inclusion of Stage Two of the Sky Harbor Automated Train System (Sky Train) as an illustrative project in the RTP.
- Central Mesa Light Rail Transit - Phase II: On September 30, 2009, the Regional Council approved a recommendation for extension of the Central Mesa Light Rail Transit (LRT) Corridor on Main Street to approximately Gilbert Road, and to improve service frequency on the Main Street LINK Bus Rapid Transit to match the LRT, as illustrative projects in the RTP.
- Regional Transit Framework Study: On March 31, 2010, the MAG Regional Council accepted the Illustrative Transit Corridors map for inclusion as unfunded regional transit illustrative corridors in the RTP, as well as the future planning actions identified in the study for consideration through the MAG Unified Planning Work Program process.
- Potential Improvements to the Existing Freeway/Highway System: Certain additional projects to improve the existing freeway/highway system have been identified as a result of various ADOT corridor and design concept studies. These illustrative projects are:
 - I-10 (SR-101L/Agua Fria to I-17) - Capacity improvements after completion of the I-10/SR-202L interchange and possible enhancements to the I-10 "Stack".
 - SR-85 (I-10 to I-8) - Upgrading SR-85 to a full freeway, including construction of a fully directional interchange at I-8.
 - 101L/Agua Fria (HOV Ramps at Maryland Overpass) - Construction of direct connection HOV ramps from 101L to the Maryland Overpass.
- Projects in Formerly 2003 Plan: Certain freeway/highway projects and bus routes that were originally identified during the 2003 planning process have been moved beyond the current planning period of the RTP (FY 2011 - 2031). These illustrative projects are:
 - SR-101L (Agua Fria Freeway) - Installation of direct HOV ramps at the system interchanges with I-17 and I-10.
 - I-10 (SR-51 to 32nd St.) - Extension of the local/express lane concept north from 32nd St. to the SR-51/SR-202L/I-10 interchange.
 - 101L/Agua Fria (HOV Ramps at Maryland Overpass) - Construction of direct connection HOV ramps from 101L to the Maryland Overpass.
 - Chandler Blvd. LINK - Arterial Bus Rapid Transit service extending from Phoenix/Mesa Gateway Airport and ASU East Campus to I-10 via Chandler Blvd.

Litchfield Rd. Super Grid Route - Regional Super Grid bus service extending from Lower Buckeye Rd./Goodyear Airport to 128th Ave. and R.H. Johnson Blvd. via Litchfield Rd.

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/High Capacity Transit Program; subsidize certain transit operating costs; and, in the form of transit farebox monies, contribute significant funding for transit operations.

A block of funding from State sources, the Statewide Transportation Acceleration Needs (STAN) Account, was available for a time but the remaining funds were swept in January 2009 by the Legislature to balance the FY 2009 State Budget. Resources from another, non-recurring source were made available in early 2009 in the form of infrastructure funding from the American Recovery and Reinvestment Act (ARRA).

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 2010, but may not have been specifically factored, in every case, to a 2010 base year. In addition, both actual and forecasted revenues have been updated from previous reports.

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 have totaled \$1.5 billion through FY 2010. These receipts have steadily declined since FY 2007. The year-over-year declines for the three years from the end of FY 2007 to the end of FY 2010 have been, respectively, 3.1, 13.7 and 8.9 percent. The decline between FY 2007 and FY 2008 was the first year-over-year revenue decline in the history of the half-cent sales tax since its inception in 1985.

Future half-cent revenues for the period FY 2011 through FY 2026 are forecasted to total \$9.5 billion. This amount is \$634 million, or 6.2 percent, lower than the forecast for the same period presented in the 2009 Annual Report. Of the \$9.5 billion total included in the current forecast, \$5.4 billion will be allocated to freeway/highway projects; \$1.0 billion to arterial street improvements; and \$3.2 billion to transit projects and programs.

The total revenues for the FY 2011-2026 period reflect ADOT's revised sales tax forecast posted on its website in September 2009. Forecasts for the half-cent sales tax released by ADOT in the fall of 2009 estimated that revenues in FY 2011 would total \$322 million, which would be an eight percent increase compared to the actual collections in FY 2010. Although annual increases in collections of this magnitude were not uncommon in the past, the updated forecasts to be prepared in the fall of 2010 may not maintain this level of increase in revenues.

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
2008	213.2	39.8	126.3	379.4
2009	184.0	34.4	109.0	327.4
2010 (3)	167.7	31.3	99.4	298.4
Subtotal	871.0	162.7	516.1	1,549.8
Forecasted				
2011	180.9	33.8	107.2	321.9
2012	195.0	36.4	115.6	347.0
2013	213.1	39.8	126.2	379.1
2014	244.5	45.7	144.9	435.0
2015	276.6	51.7	163.9	492.2
2016	294.5	55.0	174.5	524.1
2017	313.2	58.5	185.6	557.3
2018	334.3	62.5	198.1	594.8
2019	355.8	66.5	210.8	633.1
2020	377.2	70.5	223.5	671.1
2021	399.7	74.7	236.8	711.2
2022	426.8	79.7	252.9	759.4
2023	451.6	84.4	267.6	803.6
2024	478.8	89.4	283.7	851.9
2025	508.6	95.0	301.4	905.0
2026 (4)	314.7	58.8	186.4	559.9
Subtotal	5,365.2	1,002.4	3,179.0	9,546.6
Total				
Totals	6,236.2	1,165.1	3,695.1	11,096.4

(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) Estimated subject to change.

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

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, 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 2010 totaled \$1.2 billion, and forecasted revenues for the period FY 2011 through FY 2026 total \$5.3 billion. This forecast is 8.8 percent lower than that presented in the 2009 Annual Report for the same period.

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	110.9	183.7
2007	76.9	161.4	238.3
2008	76.9	248.0	324.9
2009	60.5	156.3	216.8
2010	70.9	165.6	236.5
Subtotal	358.0	842.2	1,200.2
Forecasted			
2011	61.8	286.8	348.6
2012	63.7	279.2	342.9
2013	66.0	190.8	256.8
2014	74.9	199.8	274.7
2015	79.8	196.9	276.7
2016	82.6	203.9	286.5
2017	85.9	210.0	295.9
2018	89.3	215.1	304.4
2019	92.9	225.4	318.3
2020	96.4	236.1	332.5
2021	99.9	247.3	347.2
2022	103.5	261.9	365.4
2023	107.3	270.9	378.2
2024	111.0	283.5	394.5
2025	114.9	296.5	411.4
2026	118.8	310.1	428.9
Subtotal	1,448.7	3,914.2	5,362.9
Total			
Totals	1,806.7	4,756.4	6,563.1

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 28-304 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 displayed in Table 5-3, actual receipts from Federal sources totaled \$575 million through FY 2010. The forecasted revenues for the period FY 2011 through FY 2026 total \$4.0 billion. This forecast is \$212 million, or 5.1 percent, lower than that in the 2009 Annual Report for the same period, with the decrease resulting from adjustments to the projections for Federal transit funding.

Federal funding for transportation has generally been reauthorized every six years. The latest reauthorization, the Safe, Accountable, Flexible, and Efficient Transportation Equity Act – A Legacy for Users (SAFETEA/LU), was signed into law in August 2005 and was scheduled to expire in September 2009. However, recognizing the critical role of transportation, congress has maintained funding by means of continuing resolutions and extensions of SAFETEA/LU. Concepts for future federal transportation legislation have been developed by a number of groups, but the timing of future congressional action on reauthorization is uncertain.

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 \$679 million for transit development from FY 2011 through FY 2026. This forecast is 30.5 percent lower than that presented in the 2009 Annual Report for the same period, due to an anticipated decline in bus purchases.

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 \$1.2 billion in 5309 funds for bus and rail transit projects will be made available to the MAG Region from the FTA, during FY 2011 through FY 2026. This forecast is

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	9.1	0.0	9.1	42.7	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	51.8
2007	33.8	4.0	37.8	50.7	0.0	50.7	0.0	0.0	0.0	0.0	0.0	0.0	88.5
2008	23.8	28.9	52.7	55.2	0.0	55.2	4.0	6.7	18.0	8.5	7.3	44.5	152.4
2009	25.5	17.6	43.0	34.1	19.1 (1)	53.3	3.7	6.5	17.5	8.3	7.1	43.1	139.4
2010	38.1	8.4	46.5	0.0	53.2 (2)	53.2	3.7	6.5	17.3	8.2	7.0	42.7	142.4
Subtotal	130.3	58.8	189.1	182.7	72.3	255.1	11.4	19.7	52.8	25.0	21.4	130.3	574.5
Forecasted													
2011	36.2	37.7	73.9	34.1	20.0	54.1	9.3	6.6	17.6	8.3	7.2	49.0	177.0
2012	36.7	42.0	78.7	34.1	20.8	54.9	9.5	6.7	17.8	8.5	7.3	49.8	183.4
2013	37.2	59.5	96.7	34.1	21.7	55.8	9.7	6.8	18.1	8.6	7.4	50.6	203.1
2014	37.8	50.5	88.3	34.1	22.6	56.7	9.8	6.9	18.4	8.7	7.5	51.3	196.3
2015	38.4	73.1	111.5	34.1	24.9	59.0	10.4	7.3	19.5	9.2	7.9	54.3	224.8
2016	39.0	74.4	113.4	12.7	48.1	60.8	10.7	7.5	20.2	9.6	8.2	56.2	230.4
2017	55.5	108.4	163.9		62.9	62.9	11.1	7.8	20.9	9.9	8.5	58.2	285.0
2018	20.9	76.1	97.0		65.1	65.1	11.5	8.1	21.6	10.2	8.8	60.2	222.3
2019	48.2	89.1	137.3		67.4	67.4	11.9	8.4	22.4	10.6	9.1	62.4	267.1
2020	41.7	141.8	183.5		69.8	69.8	12.3	8.6	23.2	11.0	9.4	64.5	317.8
2021	42.4	109.5	151.9		72.2	72.2	12.8	9.0	24.0	11.4	9.8	67.0	291.1
2022	50.2	83.0	133.2		74.7	74.7	13.2	9.3	24.8	11.8	10.1	69.2	277.1
2023	46.8	72.2	119.0		77.3	77.3	13.7	9.6	25.7	12.2	10.4	71.6	267.9
2024	55.4	81.6	137.0		80.0	80.0	14.1	9.9	26.6	12.6	10.8	74.0	291.0
2025	59.9	67.4	127.3		82.9	82.9	14.6	10.3	27.5	13.0	11.2	76.6	286.8
2026	33.1	56.3	89.4		85.8	85.8	15.2	10.6	28.5	13.5	11.6	79.4	254.6
Subtotal	679.4	1,222.6	1,902.0	183.2	896.2	1,079.4	189.8	133.4	356.8	169.1	145.2	994.3	3,975.7
Total													
Totals	809.7	1,281.4	2,091.1	365.9	968.5	1,334.5	201.2	153.1	409.6	194.1	166.6	1,124.6	4,550.2

(1) \$1.6 million of this amount was carried forward for future use.

(2) \$32.7 million of this amount was carried forward for future use.

7.7 percent higher than that presented in the 2009 Annual Report for the same period.

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 2011 through FY 2026, it is estimated that \$1.1 billion will be available from STP funds. Of 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, and the remainder is dedicated to the RTP arterial program. This funding level is unchanged from the 2009 Annual Report estimate.

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 area. MAG CMAQ funds are projected to generate \$1.0 billion from FY 2011 through FY 2026. This funding level is unchanged from the 2009 Annual Report estimate.

5.4 STATEWIDE TRANSPORTATION ACCELERATION NEEDS (STAN) ACCOUNT

During the spring 2006 legislative session, the Arizona Legislature provided \$307 million to accelerate highway projects statewide, of which \$184 million was allocated to the MAG region. On December 13, 2006, the MAG Regional Council approved a set of projects to be funded with these monies. In January 2009, any remaining STAN monies were used by the Legislature to help balance the FY 2009 State Budget. As a result, only \$131 million in STAN funding was applied to projects in the MAG area. Subsequently, in the spring of 2009, certain projects that would have been funded by STAN monies on I-10 and I-17 were re-accelerated, as a result of funding from the American Recovery and Reinvestment Act.

5.5 AMERICAN RECOVERY AND REINVESTMENT ACT

The American Recovery and Reinvestment Act (ARRA) was signed by President Obama on February 17, 2009 and contains a national highway infrastructure component that provides approximately \$350 million to the Arizona Department of Transportation (ADOT) for highway infrastructure improvements throughout

Arizona. The ADOT Board determined that approximately \$130 million of this amount would be spent on projects on the State Highway System in the MAG area. On February 25, 2009, the MAG Regional Council approved the projects to utilize these funds.

The ARRA also sub-allocated \$105 million in funding to local jurisdictions in the MAG area for road and street improvements. On March 25, 2009, the MAG Regional Council approved allocation of these funds to MAG jurisdictions on the basis of a minimum allocation of \$500,000, plus an allocation proportional to population. A total of \$12.5 million from this allocation was utilized to provide funding for projects in the Arterial Life Cycle Program (ALCP), freeing up monies that can be applied later in the ALCP for other projects

In addition, the ARRA directed approximately \$66 million in funding to the MAG area for transit projects. On March 25, 2009, the MAG Regional Council approved allocation of these funds to transit projects such as park-and-ride lots, maintenance facilities, transit centers, and bus stop improvements. Approximately \$40 million of this funding was utilized in the Transit Life Cycle Program.

5.6 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 2010 totaled \$3.6 billion. Future regional revenues are projected to total \$18.9 billion for the period FY 2011 through FY 2026. Total revenues for the period FY 2006 through FY 2026 amount to \$22.5 billion, which is 5.6 percent lower than the estimate in the 2009 Annual Report for this 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).

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

Sources	FY 2006 - 2010 Actual	FY 2011 - 2026 Forecast	Total
Proposition 400: Half Cent Sales Tax Extension	1,549.8	9,546.6	11,096.4
ADOT Funds	1,200.2	5,362.9	6,563.1
American Recovery and Reinvestment Act (Freeways) *	70.0	59.0	129.0
American Recovery and Reinvestment Act (Arterials) **	12.5	0.0	0.0
American Recovery and Reinvestment Act (Transit) ***	39.9	0.0	39.9
Statewide Transportation Acceleration Needs (STAN)	131.0	0.0	131.0
Federal Transit (5307 Funds)	130.3	679.4	809.7
Federal Transit (5309 Funds)	58.8	1,222.6	1,281.4
Federal Highway (MAG STP)	255.1	1,079.4	1,334.5
Federal Highway (MAG CMAQ)	130.3	994.3	1,124.6
Total	3,577.9	18,944.2	22,522.1

* Represents amount applied to FLCP projects only.

** Represents amount applied to ALCP projects only.

*** Represents amount applied to TLCP projects only; some funding may be carried forward.

CHAPTER SIX

FREEWAY/HIGHWAY LIFE CYCLE PROGRAM

The Freeway/Highway Life Cycle Program (FLCP) 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.

In the 2009 Annual Report, it was reported that the estimated costs and revenues for the FLCP were not balance. During FY 2010, the Regional Transportation Plan (RTP), which establishes priorities for the modal life cycle programs, underwent updating by MAG to reflect changing cost and revenue conditions. On July 28, 2010, the MAG Regional Council approved the MAG Regional Transportation Plan - 2010 Update and the MAG FY 2011-2015 Transportation Improvement Program. This update resulted in significant changes to the Freeway/Highway Life Cycle Program and the re-balancing of costs and revenues. These results were incorporated into the FLCP and included the 2010 Annual Report.

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. In the following discussion of project status, the following abbreviations are used:

- DCR: Design Concept Report
- EIS: Environmental Impact Statement
- EA: Environmental Assessment
- CE: Categorical Exclusion

6.1.1 New Corridors

SR 153 (Sky Harbor Expressway):

On July 25, 2007, the MAG Regional Council deleted SR 153/Sky Harbor Expressway from the RTP, and shifted the funding to improvements on SR

Figure 6-1



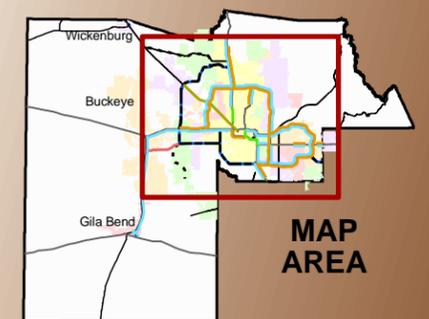
MAG 2010 Annual Report on Proposition 400

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

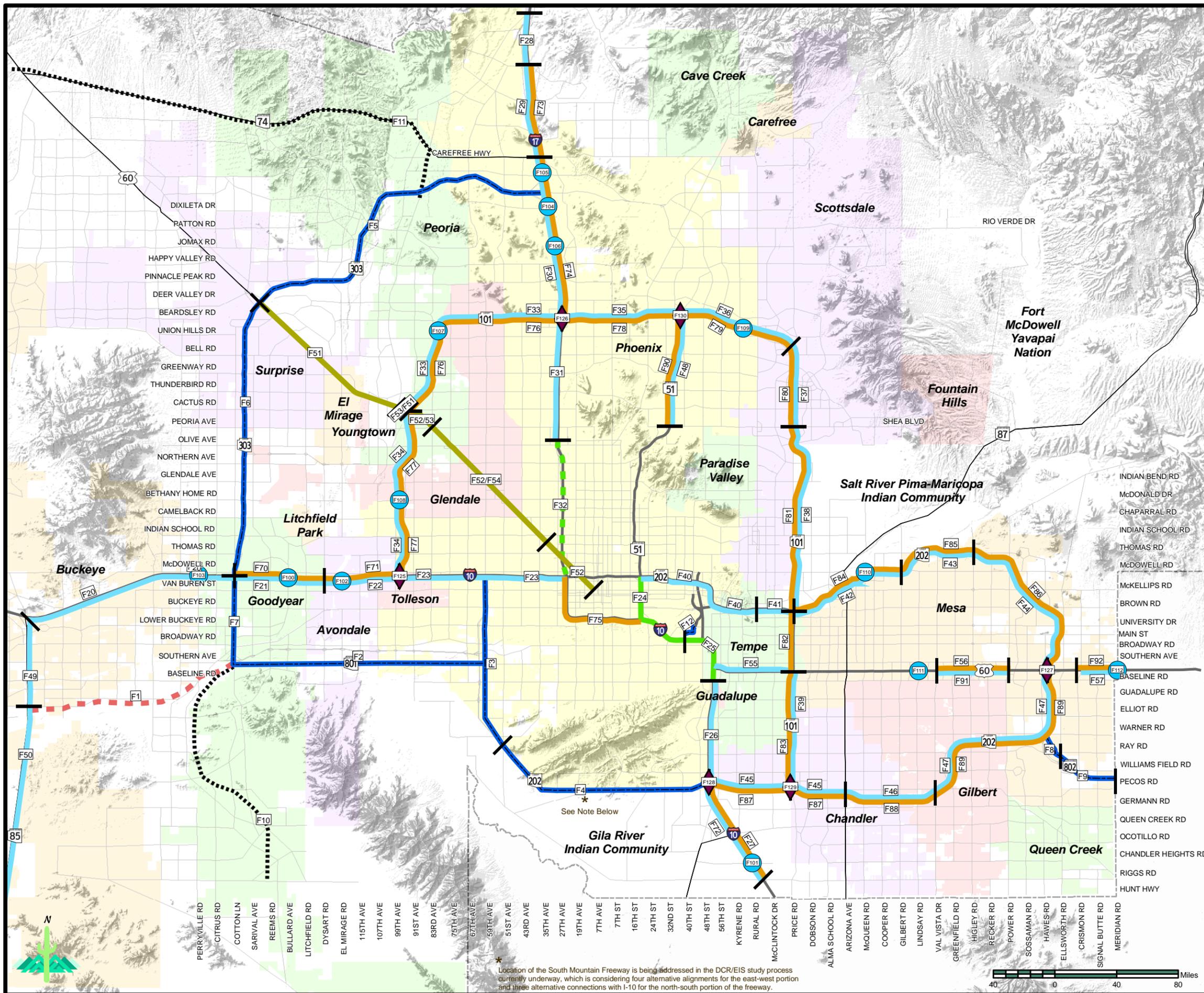
Alignments for new freeway, highway, arterial, and light rail/high capacity transit facilities will be determined following the completion of appropriate design and environmental studies.

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MAP AREA

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* 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.



143/Hohokam Expressway. This action was taken in accordance with the requirements of Arizona Revised Statute (A.R.S.) 28-6353 and met applicable Federal air quality conformity requirements. In October 2007, the State Transportation Board approved deleting SR 153 from the Arizona State Highway System and transferring the facility to the City of Phoenix.

Loop 202 (South Mountain Freeway):

- Overview - The South Mountain Freeway is planned as a freeway loop facility south of the central area of the region, connecting the western terminus of the Santan Freeway in the East Valley with I-10 at 59th Ave. in the West Valley. It is planned for three general purpose lanes and one HOV lane in each direction.
- DCR/EIS - A DCR/EIS is currently progressing for the South Mountain Freeway corridor. Completion and approval of a final EIS, as well as a U.S. Department of Transportation "Record-of-Decision" on the recommended alternative for the corridor, is anticipated sometime during calendar year 2012. A Draft EIS is under review by the FHWA. ADOT is preparing a proposal for possible location of a portion of the corridor alignment on the GRIC, which would be presented to the Community in the fall of 2010.
- 51st Ave. to I-10 - The portion of the roadway alignment that was on 55th Ave. has been shifted to fall on 59th Ave.
- Revised Cost Estimate - In the 2009 Annual Report, the estimated total cost for the South Mountain Freeway was increased to \$2.5 billion from the \$1.1 billion estimate shown in the 2008 Annual Report. In the 2010 Annual report, the estimate has been lowered to \$1.9 billion, as a result of value engineering and decreasing construction and right-of-way costs.

Loop 303 (Estrella Freeway):

- Overview - Loop 303 is planned as a six-lane freeway facility extending 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 to SR 810. Right-of-way preservation south to Riggs Rd. is also part of the plan.
- I-17 to Happy Valley Rd. - Construction is underway on an interim four-lane divided roadway. It is estimated that this project will be completed in spring 2011. Final construction is programmed for FY 2019-2021.
- Happy Valley Rd. to Grand Ave. - An interim four-lane divided roadway was completed between Grand Ave. and Happy Valley Rd. by Maricopa County in 2004, and full freeway right-of-way was also acquired along most of this segment. A DCR/CE was completed in April 2010, covering construction of a

full freeway facility in the corridor. Final construction is programmed for FY 2019-2021.

- Grand Ave. to I-10 - An interim two-lane roadway was constructed in the 1990's by ADOT. A DCR/EA on the segment for construction of a freeway facility has been completed, and a "Finding of No Significant Impact" issued.

Construction is underway on T.I.s at Bell Rd., Waddell Rd. and Cactus Rd. and is anticipated to be completed in early 2011. Construction on the system T.I. at I-10 is scheduled to start in mid-2011, as well as the segment from Peoria Ave. to Mountain View Blvd. The construction of the remaining segments between Grand Ave. and I-10 is programmed for FY 2012-2014.

- I-10 to SR 801 - A DCR/EA is scheduled for completion by December 2012, covering construction of full freeway facility in the corridor. Construction of this segment was shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.
- SR 801 to Riggs Rd. - A location DCR and environmental overview are underway for a freeway concept. Right-of-way protection for this segment was shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.
- Revised Cost Estimate - In the 2009 Annual Report, the estimated total cost for Loop 303 was increased to \$2.8 billion from the \$1.7 billion estimate shown in the 2008 Annual Report. In the 2010 Annual report, the estimate has been lowered to \$2.4 billion, as a result of value engineering and decreasing construction and right-of-way costs.

SR 801 (I-10 Reliever):

- Overview - The I-10 Reliever (SR 801) is planned as an east-west facility south of I-10 in the vicinity of Southern Ave. connecting the South Mountain Freeway (Loop 202) and SR 85. The route is identified as a six-lane freeway between Loop 202 and Loop 303; and as an arterial roadway, with right-of-way preservation for a future freeway facility, between Loop 303 and SR 85.

Construction of SR 801 has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.

- DCR/EA - DCR/EA's are underway on the segment between Loop 202 and Loop 303, as well as the segment between Loop 303 and SR 85, and are targeted for completion by December 2012.
- Revised Cost Estimate - In the 2009 Annual Report, the estimated total cost for SR 801 was increased to \$1.9 billion from the \$820 million estimate shown

in the 2008 Annual Report. In the 2010 Annual report, the estimate has been lowered to \$1.6 billion, as a result of value engineering and decreasing construction and right-of-way costs.

SR 802 (Williams Gateway Freeway):

- Overview - The Williams Gateway Freeway is planned as a six-lane freeway extending from Loop 202 south to the Williams Gateway Airport, and east to the Pinal County line at Meridian Rd.
- DCR/EA - A DCR/EA between Loop 202 and Meridian Rd. has been completed and is under review by the FHWA, with a public hearing scheduled for December 2010 and final approval by mid-2011.
- Loop 202 (Santan) to Ellsworth Rd. - Final design for an interim roadway is underway and construction has been programmed in FY 2016. Final construction of this segment has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.
- Ellsworth Rd. to Meridian Rd. - Final construction of this segment has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.
- Revised Cost Estimate - In the 2009 Annual Report, the estimated total cost for SR 802 was increased to \$546 million from the \$355 million estimate shown in the 2008 Annual Report. In the 2010 Annual report, the estimate has been lowered to \$484 million, as a result of value engineering and decreasing construction and right-of-way costs.

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

- SR 74 - Funding for right-of-way protection on SR 74 has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.
- Loop 303 (MC 85 to Riggs Rd.) - Funding for right-of-way protection has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.

6.1.2 Widen Existing Facilities: General Purpose Lanes and HOV Lanes

I-10:

- Overview - Additional general purpose lanes have been identified for construction 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.

- Verrado Way to Sarival Ave. - Construction of one general purpose lane in each direction between Sarival Ave. and Verrado Way was advertised for bids in March 2009 using ARRA funds. Construction is currently underway and is anticipated to be completed in spring 2011. Upon completion, this segment will have a total of three general purpose lanes in each direction.
- Sarival Ave. to Loop 101 (Agua Fria) - Construction work to add one HOV lane and one general purpose lane in each direction in the median of I-10 was completed in June 2010. The addition of one general purpose lane in each direction along the outside of the facility between Sarival Ave. and Dysart Rd. is scheduled for completion in winter 2011. Upon completion of the widening, this segment will have a total of four general purpose lanes and one HOV lane in each direction.
- Loop 101 (Agua Fria) to I-17 - A DCR/EA is underway on this segment addressing future needs for increased capacity. The approach taken will be contingent on the design and timing of the South Mountain Freeway, as well as the recommendations of the MAG Central Phoenix Framework Study. Construction is programmed in FY 2019.
- SR 51 to 32nd St. - Construction of local/express lanes along this segment has been shifted beyond FY 2026, and has been designated as an illustrative project falling beyond the FY 2031 planning horizon of the RTP.
- 32nd St. to Loop 202 (Santan) - A DCR/EIS for capacity improvements is scheduled for completion by the end of 2011. Local/express lanes will be constructed along the segment from 32nd St. to US 60. One additional general purpose lane in each direction will be added along the segment from US 60 to Loop 202 (Santan), resulting in four general purpose lanes and one HOV lane in each direction on this portion of I-10. Construction of improvements has been programmed for FY 2013-2015.
- Loop 202 (Santan) to Riggs Rd. - A project to construct one general purpose lane and one HOV lane in each direction between Loop 202 (Santan Freeway) and Riggs Rd. is programmed for FY 2015. Upon completion, this segment will have a total of three general purpose lanes and one HOV lane in each direction.

I-17:

- Overview - Construction of additional general purpose lanes has been identified for I-17 between I-10 (Split) 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 the entire stretch of I-17 from I-10 (Split) to Anthem Way.

- DCR/EIS - A DCR/EIS addressing capacity improvements along I-17 between Loop 101 and I-10 (Split) is underway, with study completion targeted for the end of 2012. This study is being coordinated with the MAG Central Phoenix Framework Study.
- New River Rd. to Anthem Way - Construction of one general purpose lane in each direction on this segment has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP. Upon completion, this segment will have a total of three general purpose lanes lane in each direction.
- Anthem Way to Carefree Highway - The addition of one general purpose lane in each direction was completed in May 2010 for a total of three general purpose lanes in each direction. A project to convert the pavement to concrete and add one HOV lane in each direction has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.
- Carefree Highway to Loop 101 (Aqua Fria) - Construction work was completed in May 2010 to add one general purpose lane and one HOV lane in each direction. With completion of this project, this segment has three general purpose lanes and one HOV lane in each direction. The interval between Pinnacle Peak Rd. and Loop 101 includes additional lanes for exiting/merging traffic to/from Loop 101.
- Loop 101 (Aqua Fria) to Arizona Canal - The construction of one additional general purpose lane in each direction is programmed for FY 2015, which will result in a total of four general purpose lanes and one HOV lane in each direction along this segment.
- Arizona Canal to I-10 (Split) - Capacity improvements generally resulting in a total of four general purpose lanes and one HOV lane in each direction along this segment are programmed for FY 2022-2025.

SR 51 (Piestewa Freeway):

- Overview - Construction of additional general purpose lanes and HOV lanes has been identified for the stretch of SR 51 between Shea Boulevard and Loop 101.
- Loop 101 to Shea Blvd. - The project to construct the HOV lanes, including ramps at the system interchange between SR 51 and Loop 101, has been completed and was opened to traffic in January 2009, resulting in a cross section of three general purpose lanes and one HOV lane in each direction.

The project to construct one additional general purpose lane in each direction has been shifted beyond FY 2026 but remains within the FY 2031 planning horizon of the RTP.

US 60 (Grand Ave.):

- Overview - A series of improvement projects have been identified for construction along various segments of Grand Ave. between Loop 303 and McDowell Rd., including the addition of general purpose lanes, grade separations and other improvements.
- Loop 303 to 99th Ave. - A project to widen Grand Ave. to six lanes between Loop 303 and 99th Ave. is underway and is anticipated to be completed by mid-2011. A feasibility study on potential grade separation projects on Grand Ave. between Loop 303 and Loop 101 was completed in January 2009 and funding for construction is programmed in FY 2016.
- 99th Ave. to 83rd Ave. - A project to widen Grand Ave. to six lanes between Loop 303 and 99th Ave. is underway and is anticipated to be completed by fall 2010.
- 83rd Ave. to McDowell Rd. - A DCR/CE for roadway improvement projects between Loop 101 and McDowell Rd. was completed in October 2008, and design work is underway. It is anticipated that a request for bids to construct these improvements will be advertised in December 2010. Funding for additional roadway improvements along this segment has been programmed in FY 2014. Potential grade separation projects identified for this segment have been shifted beyond FY 2026 but remain within the FY 2031 planning horizon of the RTP

US 60 (Superstition Freeway):

- Overview - Widening projects have been identified for construction 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 Meridian Rd.
- I-10 to Loop 101 - Construction of one additional general purpose lane in each direction was completed in May 2010, resulting in a cross-section of four general purpose lanes and one HOV lane in each direction along this segment.
- Gilbert Rd. to Power Rd. - Construction work on the addition of both general purpose and HOV lanes from Gilbert Rd. to Power Rd. was completed and was opened in June 2007. As a result, the entire segment of the Superstition

Freeway between Loop 101 and Loop 202 has five general purpose lanes and one HOV lane in each direction.

SR 74:

- Passing Lanes - Projects for the construction of passing lanes along mile-post segment 20-22, and mile-post segment 13-15, are underway and are anticipated to be completed by fall 2010 and summer 2011, respectively.

SR 85:

- Overview - Plans call for the widening of SR 85 to a four-lane, divided roadway between I-10 and I-8.
- I-10 to Southern Ave. - Construction is underway to provide four lanes between I-10 and Southern Ave. and is anticipated to be completed in fall 2010.
- Southern Ave. to MC 85 - Construction of frontage roads between Southern Ave. and MC 85 was completed in May 2008.
- Mile-post 130 to Mile-post 137 - Construction of a four-lane divided roadway between mile-post 130 and Mile-post 137 was completed in January 2010. Along with earlier widening projects, completion of these projects will provide a four-lane, divided roadway for the entire distance between I-10 and Gila Bend (B-8).
- SR 85/B-8/Maricopa Rd. Intersection - Bids have been requested for reconstruction of the intersection and work is anticipated to begin in early 2011.

SR 87:

- Overview - Since identification of the original concepts for corridors in the RTP, projects were added on SR 87 to refine roadway cross-section and provide for turning movements at a high volume recreational location.
- Mile-post 211.8 to Mile-post 213.0 - A project for erosion control and shoulder improvements along this segment has been combined with the project between New Four Peaks Rd. to Dos S Ranch Rd. (see below)
- Forest Boundary to New Four Peaks - A project for improvements between Forest Boundary and New Four Peaks Rd., including an interchange at Bush Hwy., was completed in late 2008.

- New Four Peaks Rd. to Dos S Ranch Rd. - Construction of a climbing lane and shoulder widening between New Four Peaks Rd. and Dos S Ranch Rd. is underway and anticipated to be completed in spring 2011. This project includes the improvements between MP 211.8 and MP 213.0.

US 93 (Wickenburg Bypass):

- A bypass of the downtown Wickenburg was completed September 2009.

Loop 101:

- Overview - Additional general purpose lanes and HOV lanes have been identified for construction along most of the length of Loop 101 (the Agua Fria, Pima, and Price Freeways). Only additional HOV lanes are planned between the Red Mountain Freeway and Baseline Rd.
- Van Buren Rd. to I-10 (99th Ave.) - A project to provide improvements along 99th Ave. between I-10 and Van Buren Rd. at the southern terminus of Loop 101/Agua Fria is underway and anticipated to be completed in spring 2011.
- I-10 to Tatum Blvd. - A project to construct one HOV lane in each direction from I-10 to Tatum Blvd. was advanced into FY 2010. This project combined three HOV segments originally identified for construction between FY 2013 to FY 2015 into a single design/build project. The selection process for the contractor is underway and construction is anticipated to begin in early 2011, with completion anticipated in mid-2012. Installation of freeway management system equipment on the Pima Freeway between I-17 and SR 51 was completed in January 2010.
- Tatum Blvd. to Princess Dr. - Construction of HOV lanes from Tatum Boulevard to Princess Dr. on the Pima Freeway was completed in August 2009.
- Princess Dr. to Loop 202 (Red Mountain Freeway) - The construction of HOV lanes on the Pima Freeway between Princess Dr. and Via De Ventura was completed in June 2009. HOV lanes between Via De Ventura and Loop 202 were completed in November 2008. In addition, a DCR/CE is underway for general purpose lanes on the Pima Freeway between Princess Dr. and Loop 202 and is anticipated to be completed in August 2010. Categorical Exclusion was granted by FHWA on the project in May 2010. Funding for construction between Shea Blvd. and Loop 202 is programmed in FY 2014.
- Loop 202 (Red Mountain Freeway) to Loop 202 (Santan Freeway) - On the Price Freeway, HOV lanes were completed between Loop 202/Red Mountain and Loop 202/Santan in October 2009.

Loop 202:

- Overview - Construction of additional general purpose and HOV lanes has been identified along essentially the entire length of Loop 202 (Red Mountain and Santan Freeways). The segment of the Red Mountain Freeway from SR 51 to Loop 101 had HOV lanes prior to Proposition 400.
- SR 51 to Loop 101 -. Construction of a project to widen the Red Mountain Freeway between State Route 51 and Loop 101 was completed through a design/build contract in July 2010. This project added one general purpose lane eastbound between SR 51 and Loop 101, and one general purpose lane westbound between Loop 101 and Scottsdale Rd.
- Loop 101 to Gilbert Rd (north). - Construction was completed on one HOV lane in each direction on the Red Mountain Freeway between 101 and Gilbert Rd. in July 2010. Also, \$56.4 million is programmed in FY 2015 for construction of one general purpose lane in each direction.
- Gilbert Rd. (south) to I-10 - A project to construct one HOV lane in each direction from Gilbert Rd. to I-10 on the Santan Freeway was advanced into FY 2010. This project combined two HOV segments originally identified for construction between FY 2013 to FY 2015 into a single design/build project. The project is underway and anticipated to be completed in fall 2011. This project includes construction of direct HOV ramp connections at the freeway-to-freeway interchanges with Loop 101 and I-10.
- Gilbert Rd. (North) to Gilbert Rd. (south) - A DCR/CE is underway for HOV lanes on the remainder of Loop 202 between Gilbert Rd. (north) and Gilbert Rd. (south) with study completion targeted for August 2010. Categorical Exclusion was granted by FHWA on the project in April 2010.

6.1.3 New Interchanges and New HOV Ramps on Existing Facilities

New Interchanges at Arterial Streets:

- Overview - The RTP identifies a total of thirteen new traffic interchanges (T.I.s) 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).
- Bullard Rd. - A new traffic interchange at I-10 was completed in FY 2008.
- Bethany Home Rd. - A new traffic interchange at Loop 101 (Agua Fria Freeway) was completed in FY 2008.

- Jomax Rd./Dilxileta Dr. - New traffic interchanges at I-17 were opened to traffic in September 2008.
- SR 74/Carefree Hwy. - The reconstruction of the T.I. at I-17 was completed and opened to traffic in October 2008.
- 64th St. - The construction of a new traffic interchange at Loop 101(Pima Freeway) was completed in October 2008.
- Dove Valley Rd. - A new traffic interchange at I-17 was completed in January 2010.
- Beardsley/Union Hills T.I. - The widening of the Union Hills traffic interchange bridge at Loop 101 was accelerated from FY 2012 to FY 2009, allowing the project to be constructed concurrently with a project for a Beardsley Rd. connector with Loop 101. Construction is underway and completion of the projects is anticipated in fall 2011.
- Perryville Rd. - A DCR/CE is underway for a new T.I. at I-10 and is expected to be complete in late 2011. Funding for construction is programmed in FY 2013.
- El Mirage Rd. - Funding for construction of a new T.I. at I-10 is programmed in FY 2023.
- Chandler Hts. Rd. - Funding for construction of a new T.I. at I-10 is programmed in FY 2022.
- Mesa Dr. - Funding for construction of ramps only at Loop 202 (Red Mountain Freeway) was moved beyond FY 2026 and is included in FY 2030 in the RTP.
- Lindsey Rd. - Funding for construction of ramps only (half interchange) at US 60 were move beyond FY 2026 are funded in FY 2027 in the RTP.
- Meridian Rd. - Funding for construction of a half interchange at US 60 is programmed in FY 2013.

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

- Overview - The RTP identifies a total of six locations at freeway-to-freeway interchanges on existing freeways where HOV ramps (DHOV 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.

- I-10/Loop 101 (Agua Fria Freeway) - DHOV ramps at this location were moved beyond the horizon year of the RTP and included in the Plan as illustrative projects.
- I-17/Loop 101 (Pima Freeway) - DHOV ramps at this location were moved beyond the horizon year of the RTP and included in the Plan as illustrative projects.
- SR 51/Loop 101 (Pima Freeway) - Construction of DHOV ramps at this location was programmed in FY 2007 as part of the addition of HOV lanes on SR 51 and completed in January 2009.
- US 60/Loop 202 (Red Mountain Freeway) - Construction of DHOV ramps at this location was moved beyond FY 2026 and is included in FY 2029 in the RTP.
- Loop 101 (Price Freeway)/Loop 202 (Santan Freeway) - Construction of DHOV ramps at this location was combined with the HOV project on Loop 202 between Gilbert Rd. and I-10, which is underway and anticipated to be completed in fall 2011.
- I-10/Loop 202 (Santan Freeway) - Construction of DHOV ramps at this location was combined with the HOV project on Loop 202 between Gilbert Rd. and I-10, which is underway and anticipated to be completed in fall 2011.

Other Interchange Improvements:

- SR 143 - A total of \$37 million has been programmed in FY 2009 and FY 2010 for the design and construction of improvements to the interchange between SR 143 and the Loop 202 access road to Sky Harbor Airport. The project was advertised for bids in July 2010 and is anticipated to be completed in early 2012.
- I-10 (West side airport access) - Construction of a project for improved access to the west entrance to Sky Harbor Airport from I-10 has been programmed for FY 2015.
- Other Interchanges - The Freeway Life Cycle Program also funds improvements at certain other existing traffic interchanges. Work has been completed at:

Higley Rd./US 60 (FY 2006)

Ray Rd./I-10 (FY 2008)

Carefree Hwy./I-17 (FY 2009)
SR 347/I-10 (FY 2008)
Thunderbird Rd./Loop 101 (FY 2010)

43rd Ave./I-10 (FY 2008)
Cactus Rd./I-17 (FY 2008)

Also, work is underway or has been advertised for bids at:

Olive Ave./Loop 101
Chaparral Rd./Loop 101

Avondale Blvd./I-10

6.1.4 Maintenance, Operations and Mitigation Programs

Freeway Management System:

- A block of funding for the freeway management system (FMS) has been identified for 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.
- Enhancement and operation of the freeway management system has proceeded since the start of the Proposition 400 program. Approximately \$44 million has been programmed for FY 2011- 2015 for activities in this system-wide program, including development of new projects and preservation and maintenance of existing equipment.

Maintenance:

- A block of regional funding for the freeway system in the MAG area has been dedicated to litter pick-up, landscaping maintenance and landscaping restoration. The remainder of maintenance functions are funded through ADOT state-level sources.
- The Proposition 400 program has allowed ADOT to provide a level of landscaping, litter pick up and sweeping maintenance on the freeway system that would not have been possible without this funding. Approximately \$61 million has been programmed for FY 2011- 2015 for activities related to this program.

Noise Mitigation:

- A block of funding has been identified for noise mitigation projects on the freeway system in the MAG area. This funding has been used for mitigation projects such as rubberized asphalt overlays and noise walls.
- Approximately \$52 million of this funding has been expended for rubberized asphalt on freeway facilities, and \$26 million has been allocated to noise

wall projects. A list of noise wall projects was developed for use of these funds and approved by the Regional Council in 2008. It is anticipated that a project to construct these walls will be advertised for bids in approximately October 2010.

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 of the development process 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.
- Approximately \$123 million has been programmed for FY 2011- 2015 for activities related to these system-wide activities.

6.1.6 Proposition 300 - Regional Freeway Program

- The Proposition 300/Regional Freeway Program was drawn to a close with the opening of the freeway segment between University Dr. and Power Rd. on the Red Mountain Freeway on July 21, 2008.
- Although sales tax collections for Proposition 300 ended on December 31, 2005, work utilizing State and Federal funding sources continued through FY 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 current Freeway/Highway Life Cycle Program, so that there are no conflicting demands on revenues.

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 2010 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.”

Due to the recession and resulting increased competition in the contracting industry, as well as the reevaluation of project designs, there were few material cost increases in FY 2010. In fact, many projects experienced significantly reduced costs as reflected in Table 6-1, resulting in a net “savings” of approximately \$37 million.

**TABLE 6-1
FY 2010 FREEWAY/HIGHWAY MATERIAL COST INCREASES**

Route	Project	Budget (000 \$'s)		
		From	To	Increase
I-10	101L to I-17 (Utility Relocation)	\$15,000	\$13,700	(\$1,300)
I-10	Avondale Blvd. (T.I.)	\$2,000	\$2,600	\$600
I-10	Verrado to Sarival (GP Lanes)	\$28,200	\$26,272	(\$1,928)
I-10	32nd St. to 202L (R/W)	\$50,000	\$45,000	(\$5,000)
I-17	101L to SR 74 (Landscaping)	\$5,000	\$11,000	\$6,000
US 60	99th Ave. to 83rd Ave. (GP Lanes)	\$11,200	\$7,647	(\$3,553)
SR 74	MP 20 to MP 22 (Passing Lanes)	\$3,900	\$2,325	(\$1,575)
US 60	303L to 99th Ave. (GP Lanes)	\$45,000	\$22,200	(\$22,800)
SR 85	I-10 to Southern (GP Lanes)	\$18,600	\$11,042	(\$7,558)
101	I-10 to Van Buren (99th Ave.)	\$2,500	\$3,603	\$1,103
101	I-10 to Tatum Blvd. (GP Lanes)	\$138,500	\$147,500	\$9,000
101	Union Hills/Beardsley (T.I.)	\$27,500	\$17,177	(\$10,323)
			TOTAL:	(\$37,334)

6.2.2 Project Advancements

On February 24, 2010, the MAG Regional Council approved a project to construct one HOV lane in each direction from Gilbert Rd. to I-10 on Loop 202 (Santan Freeway) to be programmed in FY 2010. This project combined two HOV segments originally identified for construction between FY 2013 to FY 2015 into a single design-build project. This project also includes construction of direct HOV ramp connections at the freeway-to-freeway interchanges with Loop 101 and I-10.

In addition, a second HOV project was approved at that time. The project will construct one HOV lane in each direction from I-10 to Tatum Blvd. on Loop 101 (Agua Fria and Pima Freeways) and was programmed for FY 2010. This project combined three HOV segments originally identified for construction between FY 2013 to FY 2015 into a single design/build project.

6.2.3 FY 2011-2026 Program Changes

During FY 2009 and early FY 2010, the modal life cycle programs were reviewed and adjusted to reestablish a balance between program costs and reasonably available revenues expected over the period covered by the RTP. As part of this effort, project scopes were reevaluated and cost estimates reviewed. The resulting project cost reductions are reflected in Table 6-2. These changes are based on the total project cost, as estimated in the 2009 Annual Report, versus the total cost as estimated in the 2010 Annual Report. The net total of these project cost changes amounts to a \$2.4 billion reduction.

In addition to adjusting individual project cost estimates, the entire Freeway Life Cycle Program schedule was reviewed and compared with expected future cash flows. In order to achieve cost/revenue balance, portions, or all, of a number of projects were shifted beyond FY 2026, which is the end of the life cycle program period. However, most of these projects remain in the RTP, which was updated and extended through FY 2031 to comply with Federal planning regulations. Table 6-3 has been prepared to highlight those projects that were shifted beyond the end date of the Freeway Life Cycle Program.

As Table 6-3 indicates, projects totaling approximately \$4.4 billion were shifted beyond FY 2026. While construction of these projects was moved beyond FY 2026, a portion of the related activities such as design, right-of-way protection, and interim construction remain in the program before FY 2026. Therefore, the effects of these shifts would total somewhat less than the full \$4.4 billion.

In its revised configuration, the FLCP completes a number of major projects within the original FY 2026 horizon, including the South Mountain Freeway, Loop 303 between I-17 and I-10, the HOV lane system, and other improvements to the inner freeway network. However, construction of SR 801 and SR 802, as well as the addition of general purpose lanes on outer freeways, are shifted beyond FY 2026 into the period between FY 2027 and FY 2031. Also, three projects that were originally identified as part of the FLCP have been moved beyond the current planning period of the RTP (FY 2011 - 2031). These projects were categorized as illustrative projects in the RTP and are: I-10/Local/Express Lanes (SR 51 to 32nd St.); HOV Ramps (I-10/Agua Fria Fwy./T.I.); and HOV Ramps (I-17/Pima Fwy./T.I.).

It should be noted that Tables 6-1, 6-2 and 6-3 are not comprehensive in their coverage of program changes and are not designed to provide a financial accounting reconciliation between totals reported in past and the current Annual Report. In addition, all compensating cost increases and decreases, as well as

TABLE 6-2
FY 2011-2026 SIGNIFICANT FREEWAY/HIGHWAY PROJECT
COST AND SCHEDULE CHANGES *
(2010 and Year of Expenditure Dollars in Millions)

Route	Project	FY Programmed for Final Construction		Estimated Total Costs			Comments
		From	To	From	To	Change	
10	SR 85 to Loop 303 (GP Lanes)	2025	2009/2027	83.6	74.1	(9.5)	
10	Loop 101 to I-17 (GP Lanes)	2015	2019	416.6	88.2	(328.4)	
10	32nd Street to Loop 202/Santan (Local/Expr. Lanes)	2014	2015	720.6	698.1	(22.5)	
10	Loop 202/Santan Freeway to Riggs Rd. (GP/HOV Lanes)	2015	2015	69.0	73.7	4.7	
10	Chandler Heights Blvd. (T.I.)	2022	2022	25.4	22.9	(2.5)	
10	El Mirage Road (T.I.)	2023	2023	22.5	20.3	(2.2)	
10	Perryville Road (T.I.)	2013	2013	23.4	21.1	(2.3)	
10	Sky Harbor West Access (T.I.)		2015		50.6	50.6	Added to Program in FY 2010.
10	SR 51 to 32nd Street (Local/Expr. Lanes)	2014	N/A	N/A	N/A	N/A	Illustrative project in RTP.
17	New River Road to Anthem Way (GP Lanes)	2024	2028	25.0	57.4	32.4	Final const. after FY 2026.
17	Anthem Way to Carefree Highway (GP/HOV Lanes)	2024	2009/2027	120.5	106.1	(14.4)	
17	Loop 101 to Arizona Canal (GP Lanes)	2015	2015	102.5	92.4	(10.1)	
17	Arizona Canal to McDowell Road (GP Lanes)	2020	2024	960.0	598.6	(361.4)	
17	I-10 (West) to I-10 (East) (GP/HOV Lanes)	2017	2025	77.0	400.0	323.0	
51	Loop 101/Pima to Shea Boulevard (GP Lanes)	2023	2027	81.7	60.2	(21.5)	Final const. after FY 2026.
60 G	Loop 303 to Loop 101 (GP Lanes)	2015	2016	111.1	92.9	(18.2)	
61 G	Loop 101 to Van Buren Street (GP Lanes)	2025	2030	154.6	141.6	(13.0)	Final const. after FY 2026.
60 S	Crismon Road to Meridian Road (GP/HOV Lanes)	2017	2017	30.2	28.4	(1.8)	
60 S	Lindsay Road (T.I. Half Interchange)	2012	2027	8.8	8.2	(0.6)	Final const. after FY 2026.
60 S	Meridian Road (T.I. Half Interchange)	2013	2013	8.8	12.5	3.7	
74	Right-of-Way Protection for SR 74 (US 60 to Loop 303)	2025	2025	49.0	44.8	(4.2)	R/W after FY 2026.
85	I-10 to I-8 (GP Lanes)	2011	2018	245.8	198.4	(47.4)	
101 AF	I-10 to US 60/Grand Avenue (GP Lanes)	2022	2027	136.0	116.4	(19.6)	Final const. after FY 2026.
101 AF	US 60/Grand Avenue to I-17 (GP Lanes)	2024	2029	161.8	150.4	(11.4)	Final const. after FY 2026.
101 AF	Agua Fria and I-10 (Sys. T.I. HOV Ramps)	2025	N/A	N/A	N/A	N/A	Illustrative project in RTP.
101 AF	Agua Fria and I-17 (Sys. T.I. HOV Ramps)	2024	N/A	N/A	N/A	N/A	Illustrative project in RTP.
101 PI	I-17 to SR 51 (GP Lanes)	2025	2024	88.0	73.5	(14.5)	
101 PI	Shea Boulevard to Loop 202 (Red Mt.) (GP Lanes)	2014	2014	106.7	97.4	(9.3)	
101 PR	Balboa Dr., Multi-Use Path (Local Project)	2012	2015	2.0	2.0	0.0	
202 RM	Loop 101 to Gilbert Road (GP Lanes)	2014	2015	69.8	60.3	(9.5)	
202 RM	Gilbert Road to Higley Road (GP Lanes)	2024	2028	57.8	51.9	(5.9)	Final const. after FY 2026.
202 RM	Higley Road to US 60/Superstition (GP Lanes)	2025	2029	136.0	108.3	(27.7)	Final const. after FY 2026.
202 RM	Mesa Drive (T.I. Ramps Only)	2025	2030	15.0	13.5	(1.5)	Final const. after FY 2026.
202 RM	Red Mountain and US 60 (Sys. T.I. HOV Ramps)	2025	2029	22.7	42.1	19.4	Final const. after FY 2026.
202 RM	Gilbert Road to Higley Road (HOV Lanes)	2019	2019	27.0	19.3	(7.7)	
202 RM	Higley Road to US 60/Superstition (HOV Lanes)	2022	2022	53.5	33.5	(20.0)	
202 SAN	I-10 to Dobson Rd. (GP Lanes)	2023	2027	57.8	50.3	(7.5)	Final const. after FY 2026.
203 SAN	Dobson Rd. to Val Vista Dr. (GP Lanes)	2024	2029	80.9	83.5	2.6	Final const. after FY 2026.
204 SAN	Val Vista Road to US 60 (GP Lanes)	2025	2030	128.9	104.0	(24.9)	Final const. after FY 2026.
202 SAN	Gilbert Rd. to US 60 (Superstition) (HOV Lanes)	2022	2022	58.9	52.3	(6.6)	
202 SM	I-10 (West) to 51st Avenue (New Frwy.)	2018	2021	1,490.8	1092.2	(398.6)	
202 SM	51st Avenue to Loop 202/I-10 (New Frwy.)	2017	2017	986.4	827.6	(158.8)	
303	I-17 to US 60 (Grand Avenue) (New Frwy.)	2018	2021	691.1	596.9	(94.2)	
303	US 60 (Grand Avenue) to I-10 (New Frwy.)	2014	2014/2027	1,686.7	1471.3	(215.4)	
303	I-10 to I-10R/MC 85 (New Frwy.)	2019	2028	390.2	336.0	(54.2)	Final const. after FY 2026.
303	R/W Protect. for Loop 303 (South of MC 85 to Riggs Rd.)	2025	2030	50.0	46.6	(3.4)	R/W after FY 2026.
801	SR 85 to Loop 303 (New Frwy.)	2025	2031	211.0	192.7	(18.3)	Final const. after FY 2026.
801	Loop 303 to Loop 202 (New Frwy.)	2025	2031	1,652.5	1389.5	(263.0)	Final const. after FY 2026.
802	Loop 202 to Ellsworth Road (New Frwy.)	2016	2027	281.3	265.7	(15.6)	Final const. after FY 2026.
802	Ellsworth Road to Meridian Road (New Frwy.)	2020	2028	264.9	218.6	(46.3)	Final const. after FY 2026.
SW	Freeway Management System			212.6	150.0	(62.6)	
SW	Maint. (Landscaping and litter pick-up)			281.7	256.1	(25.6)	
SW	Noise Mitigation (noise walls and quiet pavement).			389.1	108.1	(281.0)	
SW	R/W Plans and Titles, Prop. Mgmt., Adv. R/W Acquisition			137.0	119.4	(17.6)	
SW	P.E., Design Orders, Risk Mgmt., and Miscel. Studies			472.8	389.7	(83.1)	
SW	Minor projects (park-n-ride, T.I. imprv., and fwy. serv. patrol).			73.3	41.9	(31.4)	
					TOTAL	(2,358.8)	

* Implementation period for certain projects may extend beyond FY 2026.

**TABLE 6-3
FREEWAY/HIGHWAY LIFE CYCLE PROJECTS SHIFTED BEYOND FY 2026**

Route	Project	FY Programmed for Final Construction		Estimated Total Cost (2010 \$'s - millions)	Comment
		From	To		
10	SR 85 to Verrado Way (GP Lanes)	2022	2027	42.8	Final const. after FY 2026.
10	SR 51 to 32nd Street (Local/Expr. Lanes)	2014	N/A	669.0	Illustrative project in RTP.
17	New River Road to Anthem Way (GP Lanes)	2024	2028	57.4	Final const. after FY 2026.
17	Anthem Way to Carefree Hwy. (Final GP Lanes)	2024	2027	87.4	Final const. after FY 2026.
51	Loop 101/Pima to Shea Boulevard (GP Lanes)	2023	2027	60.2	Final const. after FY 2026.
61 G	Loop 101 to Van Buren Street (GP Lanes)	2025	2030	141.6	Final const. after FY 2026.
60 S	Lindsay Road (T.I. Half Interchange)	2012	2027	8.2	Final const. after FY 2026.
74	Right-of-Way Protection for SR 74 (US 60 to Loop 303)	2025	2025	44.8	R/W after FY 2026.
101 AF	I-10 to US 60/Grand Avenue (GP Lanes)	2022	2027	116.4	Final const. after FY 2026.
101 AF	US 60/Grand Avenue to I-17 (GP Lanes)	2024	2029	150.4	Final const. after FY 2026.
101 AF	Agua Fria and I-10 (Sys. T.I. HOV Ramps)	2025	N/A	99.8	Illustrative project in RTP.
101 AF	Agua Fria and I-17 (Sys. T.I. HOV Ramps)	2024	N/A	118.7	Illustrative project in RTP.
202 RM	Gilbert Road to Higley Road (GP Lanes)	2024	2028	51.9	Final const. after FY 2026.
202 RM	Higley Road to US 60/Superstition (GP Lanes)	2025	2029	108.3	Final const. after FY 2026.
202 RM	Mesa Drive (T.I. Ramps Only)	2025	2030	13.5	Final const. after FY 2026.
202 RM	Red Mountain and US 60 (Sys. T.I. HOV Ramps)	2025	2029	42.1	Final const. after FY 2026.
202 SAN	I-10 to Dobson Rd. (GP Lanes)	2023	2027	50.3	Final const. after FY 2026.
203 SAN	Dobson Rd. to Val Vista Dr. (GP Lanes)	2024	2029	83.5	Final const. after FY 2026.
204 SAN	Val Vista Road to US 60 (GP Lanes)	2025	2030	104.0	Final const. after FY 2026.
303	I-10 to I-10R/MC 85 (New Frwy.)	2019	2028	336.0	Final const. after FY 2026.
303	R/W Protect. for Loop 303 (South of MC 85 to Riggs Rd.)	2025	2030	46.6	R/W after FY 2026.
801	SR 85 to Loop 303 (New Frwy.)	2025	2031	192.7	Final const. after FY 2026.
801	Loop 303 to Loop 202 (New Frwy.)	2025	2031	1389.5	Final const. after FY 2026.
802	Loop 202 to Ellsworth Road (New Frwy.)	2016	2027	265.7	Final const. after FY 2026.
802	Ellsworth Road to Meridian Road (New Frwy.)	2020	2028	218.6	Final const. after FY 2026.
			TOTAL	4,456.6	

project limits restructuring, are not accounted for in their entirety. The tables are primarily intended to alert decision-makers and the public to significant cost trends and schedule changes affecting projects included in the Life Cycle Program.

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

6.3.1 Program Expenditures and Estimated Future Costs

Table 6-4 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-8 in the Appendix. In the Life Cycle Program, future costs reflect currently available, real dollars estimates as of 2010, but may not have been specifically factored, in every case, to a 2010 base year. Both the design concepts and cost estimates reflect revisions identified during the update of the Regional Transportation Plan.

As indicated in Table 6-4, expenditures through FY 2010 equal \$1.9 billion (YOE \$'s) and estimated future costs covering the period FY 2011-2026 amount to \$8.3 billion (2010 \$'s). The total FY 2006-2026 cost for the program is currently estimated to be \$10.2 billion (YOE and 2010 \$'s). This estimate incorporates the project cost changes and project schedule shifts discussed in the previous sections. As indicated in Appendix A and summarized in Table A-8, the estimated cost for the Life Cycle Program through FY 2031 totals \$13.6 billion (YOE and 2010 \$'s).

6.3.2 Future Fiscal Status

Table 6-5 summarizes the future funding sources and uses for the Freeway/Highway Life Cycle Program between FY 2011 and FY 2026. Sources for the Life Cycle Program between FY 2011 through FY 2026 include the

TABLE 6-4
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM
SUMMARY OF EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2010 and Year of Expenditure Dollars in Millions)

Category	Expenditures through FY 2010 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011 -2026 (2010 Dollars)	Total Cost: FY 2006-2026 (2009 and YOE Dollars)
	Design	Right-of-Way	Construction	Total		
New Corridors	51.2	104.3	147.7	303.2	4,061.6	4,364.8
Widen Existing Facilities: Add General Purpose Lanes	44.9	144.9	715.7	905.5	2,410.5	3,316.0
Widen Existing Facilities; Add HOV Lanes	16.2	0.0	176.6	192.8	804.8	997.6
New Interchanges on Existing Facilities: Freeway/Arterial	12.0	9.3	158.5	179.8	156.8	336.6
New HOV Ramps on Existing Facilities: Freeway/Freeway	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance, Operations, Mitigation and Systemwide Programs	139.9	20.2	94.3	254.4	812.0	1,066.4
Other Projects *	3.1	0.0	46.4	49.5	65.1	114.6
Total	267.3	278.7	1,339.2	1,885.2	8,310.8	10,196.0

* Minor projects moved to Systemwide Programs.

TABLE 6-5
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM
FUTURE SOURCES AND USES OF FUNDS: FY 2011-2026
(2010 and Year of Expenditure Dollars in Millions)

SOURCES OF FUNDS	
Source	Projected Future Funding: FY 2011-2026 (YOE Dollars)
Proposition 400: One-Half Cent Sales Tax Extension	5,365.2
ADOT Funds	5,363.1
MAG CMAQ and STP (Federal Highway)	373.0
American Recovery and Reinvestment Act (ARRA)	59.0
Other Income	152.7
Bond and Loan Proceeds	4,035.0
Plus Beginning Balance	1,078.0
Less Debt Service and Other Expenses	(6,518.3)
Less Inflation Allowance	(1,495.4)
Total (2010 \$'s)	8,412.3
USES OF FUNDS	
Category	Estimated Future Costs: FY 2011-2026 (2010 Dollars)
New Corridors	4,061.6
Widen Existing Facilities: Add General Purpose Lanes	2,410.5
Widen Existing Facilities: Add HOV Lanes	804.8
New Interchanges on Existing Facilities: Freeway/Arterial	156.8
New HOV Ramps on Existing Facilities: Freeway/Freeway	0.0
Maintenance, Operations, Mitigation and Systemwide Programs	812.0
Other Projects	65.1
Total (2010 \$'s)	8,310.8

Proposition 400 half-cent sales tax extension (\$5.4 billion); ADOT funds, (\$5.4

billion); Federal highway funds, including ARRA funding (\$432 million); bond and loan proceeds (\$4.0 billion); and other income (\$153 million). Expenses totaling \$6.5 billion are deducted from these sources, which includes an RTP implementation allowance identified in legislation, estimated future debt service, and repayment of other financing. In addition, an allowance for inflation of \$1.5 billion is deducted. Including a beginning balance of \$1.1 billion, there is a net total of \$8.4 billion (2010 \$'s) for use on freeway and highway projects through FY 2026.

Table 6-5 also lists the estimated future uses identified in the Life Cycle Program for the period covering FY 2011 through FY 2026, which total \$8.3 billion (2010

\$'s) Therefore, as a result of the cost and project schedule adjustments made during the update of the Regional Transportation Plan, estimated costs and projected revenues through FY 2026 are in balance.

6.4 FREEWAY/HIGHWAY PROGRAM OUTLOOK

In the 2009 Annual Report, it was reported that the estimated costs and revenues for the FLCP were not balance. During FY 2010, the Regional Transportation Plan (RTP), which establishes priorities for the modal life cycle programs, underwent updating by MAG to reflect changing cost and revenue conditions. On July 28, 2010, the MAG Regional Council approved the MAG Regional Transportation Plan - 2010 Update and the MAG FY 2011-2015 Transportation Improvement Program. This update resulted in significant changes to the Freeway/Highway Life Cycle Program and the re-balancing of costs and revenues.

During the program review process, project scopes were reevaluated and cost estimates reviewed. In addition to adjusting individual project cost estimates, the entire Freeway Life Cycle Program schedule was reviewed and compared with expected future cash flows. In order to achieve cost/revenue balance, a number of projects were shifted beyond FY 2026, which is the end of the life cycle program period. However, most of these projects remain in the RTP, which was updated and extended through FY 2031 to comply with Federal planning regulations.

In its revised configuration, the FLCP completes a number of major projects within the original FY 2026 horizon, including the South Mountain Freeway, Loop 303 between I-17 and I-10, the HOV lane system, and other improvements to the inner freeway network. However, construction of SR 801 and SR 802, as well as the addition of general purpose lanes on outer freeways, are shifted beyond FY 2026 into the period between FY 2027 and FY 2031. Also, three projects that were originally identified as part of the FLCP have been moved beyond the current planning period of the RTP (FY 2011 - 2031).

On the cost side, construction bids have been more favorable lately. There were cost decreases in FY 2010 in the ADOT five-year freeway program totaling in the range \$43 million. Also, the Consumer Price Index for the western part of the U.S. (urban areas) increased by only 1.6 percent between March 2009 and March 2010. However, forecasts for the half-cent sales tax released by ADOT in the fall of 2009 estimated that revenues in FY 2011 would total \$322 million, which would be an eight percent increase compared to the actual collections of \$298 million in FY 2010. Although annual increases in collections of this magnitude were not uncommon in the past, the updated revenue forecasts to be prepared in the fall of 2010 may not maintain this level of increase in revenues. Given the continuing level of uncertainty, MAG and ADOT will continue to closely monitor the cost and revenue picture for the Freeway Life Cycle Program and make program adjustments as may be appropriate.

CHAPTER SEVEN

ARTERIAL LIFE CYCLE PROGRAM

The Arterial Life Cycle Program (ALCP) extends through FY 2026 and is maintained by the Maricopa Association of Governments (MAG) to implement arterial street projects identified 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 the estimated costs of the programmed arterial street improvements do not exceed the total amount of revenues available for these improvements. On July 28, 2010, the MAG Regional Council approved the FY 2011 update of the Arterial Life Cycle Program.

The Arterial Life Cycle Program (ALCP) provides MAG with a management tool to administer regional funding for arterial street improvements. The Program receives 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.

During FY 2008, 2009 and 2010, actual and forecasted revenues from the Proposition 400 half-cent sales tax extension declined significantly. Section 270 of the ALCP Policies and Procedures, which addresses a deficit in program funding was implemented to maintain the fiscal balance of the program. The impacts of the deficit as well as efforts to maintain the fiscal balance of the ALCP are discussed in greater detail in Section 7.3.2.

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 PROJECTS

The ALCP provides regional funding to widen existing streets, improve intersections, and construct new arterial segments. The program also provides information on MAG planning studies and project implementation of the regional arterial Intelligent Transportation System (ITS) Plan funded in the program.

It should be noted that the funding for the construction of arterial improvements is spread throughout the 20-year period covered by the Life Cycle Program. In certain cases, local governments plan to construct projects sooner than originally scheduled in the Regional Transportation Plan in response to local priorities and

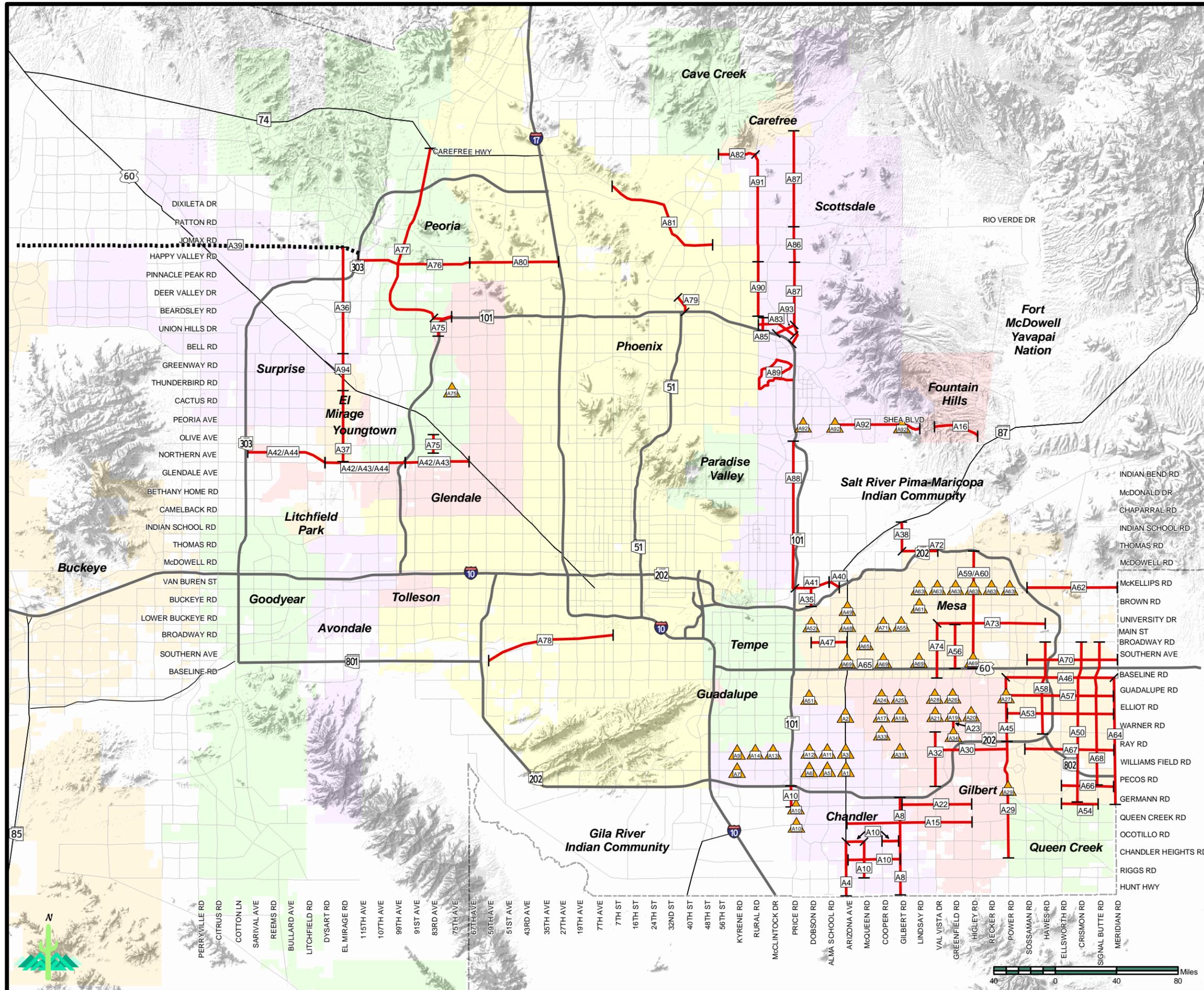
Figure 7-1



MAG 2010 Annual Report on Proposition 400

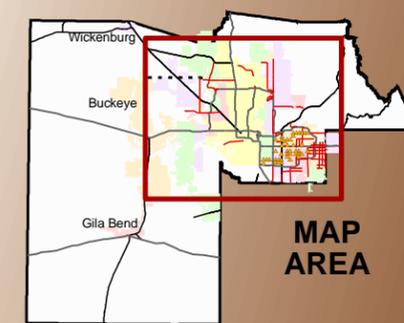
New/Improved Arterials

- New/Improved Arterials
- Improved Intersections
- Right of Way Preservation
- 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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development issues. When this occurs, the local jurisdiction implementing the project will be reimbursed according to the original arterial street program schedule identified in the RTP adopted in November 2003, even though construction occurs earlier. In cases when a project is deferred, the reimbursement does not occur until work is completed. Funding swaps among an individual jurisdiction's projects and the allocation of "close-out" funds may alter the reimbursement sequence for certain projects.

The following sections provide an overview of the status of the projects in the Arterial Life Cycle Program (ALCP). In the discussion, emphasis is placed on reviewing work anticipated during the five-year period from FY 2011 through 2015.

7.1.1 Arterial Capacity/Intersection Improvements

A total of 94 arterial capacity/intersection improvement projects were originally identified in the RTP and included in the Arterial Life Cycle Program. As the engineering process proceeds, the specific types of improvements are defined and detailed designs are prepared. After the detailing of project concepts and phasing, the original 94 projects have been segmented into a total of 204 individually defined projects.

During the period FY 2011 through FY 2015, work will proceed on 87 arterial street project segments. Various stages of work will be conducted on the projects and all segments may not be completed during this period. Arterial street segments that will undergo work (design, right-of-way acquisition, or construction), including projects advanced by local governments from later stages of the program, are listed in Table 7-1. Of the 87 project segments underway between FY 2011 and FY 2015, 61 projects will have design activity in progress, 52 projects will have right-of-way acquisition, and 69 projects will undergo construction at some time during the five-year period. Of these projects, 34 will undergo all three activities; i.e. design, right-of-way acquisition, and construction.

**TABLE 7-1
ARTERIAL STREET PROJECTS UNDERWAY FY 2011 - 2015**

PROJECT/SEGMENT	PROJECT/SEGMENT
75th Avenue at Thunderbird Rd	Northern Parkway: Corridorwide ROW Protection
83rd Avenue: Butler Rd to Mountain View	Northern Parkway: Dysart to 111th
Avendia Rio Salado: 51st Avenue to 7th Street	Northern Parkway: Litchfield Overpass
Baseline Rd: Power Rd to Ellsworth Rd	Northern Parkway: Northern Aven at L101
Black Mountain Blvd: SR-51/Loop 101 to Deer Valley Rd	Northern Parkway: Reems Overpass
Broadway Rd: Dobson Rd to Country Club Dr	Northern Parkway: Sarival Overpass
Carefree Hwy: Cave Creek Rd to Scottsdale Rd	Northern Parkway: Sarival to Dysart

TABLE 7-1 (continued)

Chandler Blvd at Alma School Rd	Northsight Blvd: Hayden to Frank Lloyd Wright
Chandler Blvd at Dobson Rd	Ocotillo Road: Arizona Avenue to McQueen Road
Country Club Dr at University Dr	Pima Rd: Chaparral Rd to Thomas Rd
Crison Rd: Broadway to Guadalupe	Pima Rd: Krail to Chaparral Rd
Dobson Rd at Guadalupe Rd	Pima Rd: Thomas Rd to McDowell Rd
Dobson Rd at University Dr	Pima Rd: Via De Ventura to Krail
Dobson Road Bridge over the Salt River	Pima Rd: Via Linda to Via De Ventura
El Mirage Rd: Bell Rd to Deer Valley Drive	Pima Rd: Pinnacle Peak Rd to Happy Valley Rd
El Mirage Rd: Thunderbird Rd to Bell Rd	Pima Rd: Thompson Peak Pkwy to Pinnacle Peak Rd
Elliot Rd at Greenfield Rd	Power Rd: Santan Fwy to Pecos Rd
Elliot Rd at Val Vista Dr	Queen Creek Rd: Greenfield to Higley
Frank Lloyd Wright Frontage Rd	Queen Creek Rd: Lindsay Rd to Greenfield Rd
Frank Lloyd Wright -Loop 101 Traffic Interchange	Raintree -Loop 101 Traffic Interchange
Germann Rd: Gilbert Rd to Val Vista Rd	Ray Rd at Alma School Rd
Germann Rd: Val Vista Dr to Higley	Ray Rd at Dobson Rd
Gilbert Rd: Ocotillo Rd to Chandler Heights	Ray Rd at McClintock Dr
Gilbert Rd: Queen Creek to Ocotillo	Ray Rd: Higley to Recker
Gilbert Rd: Chandler Heights Rd to Hunt Hwy	Ray Rd: Recker to Power
Gilbert Road Bridge over the Salt River	Ray Rd: Val Vista to Higley
Greenfield Rd: Elliot Rd to Ray Rd	Ray Rd: Sossaman Rd to Ellsworth Rd
Greenfield Rd: Southern Ave to University Dr	Redfield Rd: Scottsdale Rd to Hayden
Guadalupe Rd at Cooper Rd	Scottsdale Rd: Pinnacle Peak to Jomax Rd
Guadalupe Rd at Gilbert Rd	Scottsdale Rd: Thompson Peak Pkwy to Pinnacle Peak
Guadalupe Rd: Hawes Rd to Crison Rd	Shea at 120/124th Streets
Hawes Rd: Santan Fwy to Ray Rd	Shea Blvd - 96th St to 144th St ITS Improvements
Higley Rd Pkwy: US 60 to SR 202L Grade Separations	Shea Blvd at Frank Lloyd Wright Blvd
Lake Pleasant Pkwy: CAP to SR-74/Carefree Hwy	Shea Blvd: Technology Dr to Cereus Wash
Lindsay Rd at Brown Rd	Southern Ave at Country Club Dr
L101 N Frontage Rd: Pima Rd/Princess Dr to Hayden Rd	Southern Ave at Higley Rd
McKellips Rd: Loop 101 to SRP-MIC/Alma School Rd	Southern Ave at Lindsay Rd
McKellips Road Bridge over the Salt River	Southern Ave at Stapley Dr
McQueen Road: Ocotillo Road to Riggs Road	Stapley Dr at University Dr
Meridian Rd: Baseline Rd to Ray	Thunderbird-Raintree Loop
Mesa Dr at Broadway Rd	Val Vista Dr: Baseline Rd to Southern Ave
Mesa Dr: US-60 (Superstition Fwy) to Southern	Warner Rd at Greenfield Rd
Northern Parkway: Agua Fria Bridge	

7.1.2 Intelligent Transportation Systems (ITS)

The RTP allocates funding to assist in the implementation of projects identified in the Regional ITS Plan. The ITS projects smooth traffic flow and help the transportation system to operate more efficiently (see Appendix Table B-2 for project listing). An estimated \$34.7 million (2010 \$'s) in reimbursements from regional funds will be made for ITS projects between FY 2011 and FY 2015.

The focus of the arterial ITS program is to assist MAG member agencies with the development of their arterial traffic management systems to better address jurisdictional needs. The process for identifying and recommending arterial ITS projects for funding is overseen by the MAG ITS Committee. The ITS Committee has used an objective project rating system, which 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 2010, a number of fiscal adjustments were made to the Arterial Life Cycle Program (ALCP). Lead agencies deferred over \$36.7 million in Federal and regional funding from FY 2010 to later years.

In addition to the fiscal adjustments to the ALCP, scheduling changes were also made in response to various project factors encountered by the implementing agencies. The changes are documented in Appendix Table B-3. Consistent with MAG ALCP Policies and Procedures, none of the changes affected total reimbursements by jurisdiction. Significant ALCP project scope changes that occurred in FY 2010 are listed below.

- Price Road: The project was deleted and replaced with nine substitute projects at the request of the City of Chandler after the City's Transportation Master Plan indicated the project scope, as programmed in the ALCP, needed to be refined. The Master Plan also indicated improvements to other arterials in the City were needed to improve congestion and mobility. The substitute projects added the ALCP included:
 - Chandler Heights Rd: Arizona Ave to McQueen Rd;
 - Chandler Heights Rd: McQueen Rd. to Gilbert Rd.;
 - McQueen Rd: Ocotillo Rd to Riggs Rd.;
 - Ocotillo Rd: Arizona Ave to McQueen Rd.;
 - Ocotillo Rd: Cooper Rd to Gilbert Rd.;
 - Price Rd at Germann Rd: Intersection Improvements;
 - Price Rd at Queen Creek Rd: Intersection Improvements; and,
 - Price Rd: Santan to Germann Rd.

- Avenida Rio Salado: The City of Phoenix requested to reduce to the original project scope by deleting the segment from 51st Avenue west to the Loop 202/SR801 freeway interchange. The City requested the change due to increased project costs associated with the bridge over Salt River. The delay of the SR 801 project in the Freeway Life Cycle Program was another factor in the project scope change.

Appendix Table B-3 also lists completed ALCP projects. As of FY 2010, 21 ALCP projects have been completed. These projects included arterial street

widenings, capacity improvement projects, and intersection improvements at the following locations.

- Arizona Ave at Chandler Blvd: Intersection Improvements
- Arizona Ave at Elliot Rd: Intersection Improvements
- Arizona Ave at Ray Rd: Intersection Improvement
- Beardsley Connection: Loop 101 to 83rd Ave/Lake Pleasant Pkwy
- Union Hills Dr at Loop 101: Intersection Improvement
- Gilbert Rd: SR202L/Germann Road to Queen Creek Rd
- Queen Creek Rd: Arizona Ave to McQueen Rd
- Power Rd at Pecos: Intersection Improvements
- Val Vista Dr: Warner Rd to Pecos Rd
- El Mirage Rd: Deer Valley Drive to Loop 303
- Power Rd: Baseline Rd to East Maricopa Floodway
- Gilbert Rd at University Dr: Intersection Improvements
- Happy Valley Rd: Lake Pleasant Pkwy to 67th Ave
- Lake Pleasant Pkwy: Union Hills to Dynamite Rd
- Loop 101 Frontage Rd: Hayden Rd to Scottsdale Rd
- Happy Valley: I-17 to 35th Ave
- Pima Rd: SR101L to Thompson Peak Pkwy
- Shea Blvd at 90th/92nd/96th: Intersection Improvements
- Shea Blvd at Mayo/134th St: Intersection Improvements
- Shea Blvd at Via Linda (Phase1): Intersection Improvements
- Warner Rd at Cooper Rd: Intersection Improvements

7.3 ARTERIAL PROGRAM REIMBURSEMENTS AND FISCAL STATUS

7.3.1 Program Reimbursements

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

The ALCP Policies and Procedures detail the three required documents for each ALCP project - the Project Overview, the Project Agreement, and Project Reimbursement Request. The Project Overview describes the general design features of the project, the implementation schedule, estimated costs, and the relationships among participating agencies. The Project Overview provides the

basis for the preparation of the Project Agreement, which must be executed before the lead agency may be reimbursed from the program.

The Project Agreement is signed by the project's lead agency and MAG. The agreement is developed jointly between the lead agency and MAG and determines the responsibilities of each party. Generally, the Project Agreement is initiated by MAG once a Project Overview is submitted.

Project Reimbursement Requests may be submitted by jurisdictions once a Project Agreement has been executed. The Project Reimbursement Request requires an invoice, progress report, and request for payment signed by the lead agency and MAG. The signed request for payment form is submitted to the Arizona Department of Transportation, who, in turn, reimburses the lead agency.

Table 7-2 provides a summary of past and estimated future regional funding reimbursements and total project expenditures for the Arterial Life Cycle Program. Detailed data showing regional funding reimbursements and estimated total expenditures at the project level is included in Appendix Tables B-1 and B-2. The data in Tables B-1 and B-2 does not include program expenditures and reimbursements that were deferred past FY 2026 due to the deficit of program funds. Future regional funding reimbursements have been factored to represent 2010 dollars. Local match elements of total future expenditures reflect currently available, real dollar estimates as of 2010, but may not have been specifically factored, in every case, to a base year of 2010.

**TABLE 7-2
ARTERIAL STREET LIFE CYCLE PROGRAM
SUMMARY OF EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2010 and Year of Expenditure Dollars in Millions)**

Category	Regional Funding Disbursements			Total Expenditures		
	Disburse. through FY 2010 (YOE Dollars)	Estimated Future Disburse.: FY 2011-2026 (2010 Dollars)	Total Disburse.: FY 2006-2026 (2010 and YOE Dollars)	Expenditures through FY 2010 (YOE Dollars)	Estimated Future Expenditures: FY 2011-2026 (2010 Dollars)	Total Expenditures: FY 2006-2026 (2010 and YOE Dollars)
Capacity / Intersection Improvements	158.8	1,459.7	1,618.5	406.2	2,275.6	2,681.8
Intelligent Transportation Systems	17.6	47.3	64.9	25.1	67.6	92.7
MAG Implementation Studies	1.7	26.7	28.4	1.7	26.7	28.4
Total	178.1	1,533.7	1,711.8	433.0	2,369.9	2,802.9

A comparison of Table 7-2 with the comparable table in the 2009 Annual Report indicates that approximately \$56 million was disbursed in FY 2010, (i.e. \$178 million minus \$122 million). However, \$62 million was actually received by seven jurisdictions in FY 2010, because six million in project saving from FY 2009 were identified after the publication of the 2009 Annual Report, resulting in total disbursements of only \$116 million through FY 2009.

As indicated in Table 7-2, a total of \$ 178.1 million (YOES) has been disbursed through FY 2010 for projects in the Arterial Life Cycle Program. An estimated \$1.5 billion (2010 \$'s) will be disbursed during the remainder of the program (FY 2011 through FY 2026). It should be noted that actual future project reimbursement amounts will be adjusted for inflation based on the Consumer Price Index, as adopted in the MAG Arterial Life Cycle Program Policies and Procedures. Total expenditures for projects, including local government expenditures, amounted to \$433.0 million (YOE \$'s) through FY 2010. The total future expenditures for the remainder of the program (FY 2011 through FY 2026) are estimated to reach \$2.8 billion (2010 \$'s).

As part of the American Recovery and Reinvestment Act (ARRA), the MAG area received approximately \$105 million that was obligated by September 30, 2010 for local government projects. Approximately \$11.9 million from this allocation was utilized for projects in the ALCP, freeing up local funding that can be applied in the ALCP as local match on other projects. The remainder of the ARRA funding was applied to local government projects not in the ALCP.

7.3.2 Deficit of Program Funds

Each year, the Arizona Department of Transportation (ADOT) updates the forecasted revenues for the Proposition 400 half-cent sales tax extension. When warranted, ADOT may revise the forecasted revenue stream more frequently. In both FY 2009 and 2010, the forecasts of revenues from the Proposition 400 half-cent sales tax extension were reduced.

To maintain the fiscal balance of the program, approximately \$22 million in programmed reimbursements were shifted to FY 2027, an unfunded year of the program, as listed in Table 7-3. While total estimated funding for the period FY 2011 - FY 2026 exceeds the total future reimbursements by approximately \$89 million (see Table 7-4), the excess funds that would be available would not be in the proper funding category to be applied to the projects that were shifted. The amount shifted represents 1.4 percent of the programmed reimbursements from FY 2011 - FY 2026. In accordance with Section 270 of the ALCP Policies and Procedures, the \$22 million in unfunded programmed reimbursements will be funded in priority order of the ALCP, if forecasted revenues increase or other program adjustments occur. While these reimbursements fall beyond the ALCP, the affected projects remain in the MAG Regional Transportation Plan, which extends through FY 2031.

TABLE 7-3
ARTERIAL STREET LIFE CYCLE PROJECTS SHIFTED
BEYOND FY 2026
(2010 Dollars in Thousands)

Agency	Project	Amount
Chandler	Gilbert Rd: Chandler Heights Rd to Hunt Hwy	2,406
Gilbert	Ray Rd: Recker to Power	1,961
Mesa	McKellips Rd: Crismon Rd to Meridian Rd	7,885
Peoria	Lake Pleasant Pkwy: Dynamite Blvd to CAP	296
Peoria	Lake Pleasant Pkwy: CAP to SR74/Carefree Hwy	2,418
Phoenix	Happy Valley: 55th Ave to 67th Ave	2,374
Scottsdale	Shea Auxiliary Lane from 90th St to Loop 101	4,058
Scottsdale	Shea Blvd at 120/124th St: Intersection Improvements	1,010

7.3.3 Future Fiscal Status

Table 7-4 summarizes the future funding sources and uses applicable to the Arterial Life Cycle Program for FY through FY 2026. Sources for the Life Cycle Program include the Proposition 400 half-cent sales tax extension (\$1.0 billion); Federal Highway Congestion Mitigation and Air Quality (CMAQ) funds (\$133 million); Federal Highway Surface Transportation Program (STP) funds (\$896 million); and bond proceeds (\$305 million). (Note that the bonding program is adjusted annually with the objective of lowering the overall level of bonding for the Arterial Street Program.) Expenses totaling \$382 million are deducted from the funding sources, representing estimated future debt service and repayment of other financing.

In addition, an allowance for inflation of \$414 million has been deducted. Including a beginning balance of \$81 million, this yields a net total of \$1.6 billion (2010 \$'s) for use on arterial street projects through FY 2026. Table 7-4 also lists the estimated future regional funding reimbursements identified in the Life Cycle Program for the period FY through FY 2026. As shown, Life Cycle Program reimbursements are in balance with the projected available future funds, with funding in excess of disbursements by about \$89 million or 5.5 percent.

7.4 ARTERIAL STREET PROGRAM OUTLOOK

The Arterial 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). Since the beginning of the program, \$178.1 million has been disbursed and 20 projects have been completed.

TABLE 7-4
ARTERIAL STREET LIFE CYCLE PROGRAM
FUTURE SOURCES AND USES OF FUNDS: FY 2011-2026
(2010 and Year of Expenditure Dollars in Millions)

SOURCES OF FUNDS	
Source	Projected Future Regional Funding FY 2011-2026 (YOE Dollars)
Proposition 400: One-Half Cent Sales Tax Extension	1,002.4
Federal Highway / MAG CMAQ	133.4
Federal Highway / MAG STP	896.2
Other Income	-
Bond and Loan Proceeds	305.2
Plus Beginning Balance	80.9
Less Debt Service	(382.0)
Less Inflation Allowance	(413.9)
Total (2010 \$'s)	1,622.2
USES OF FUNDS	
Category	Estimated Future Regional Disbursements: FY 2011-2026 (2010 Dollars)
Capacity / Intersection Improvements	1,459.7
Intelligent Transportation Systems	47.3
MAG Implementation Studies	26.7
Total (2010 \$'s)	1,533.7

On July 28, 2010, the FY 2011 ALCP project listing was approved by the MAG Regional Council to incorporate updated information regarding project development status. This version of the ALCP is reflected in the Annual Report in Appendix B-1.

The estimated future regional revenue reimbursements totaling \$1.5 billion for ALCP projects are in balance with projected revenues. To achieve this balance, approximately \$22 million in programmed reimbursements were shifted to FY 2027, an unfunded year of the program. While total estimated funding for the period FY 2011 - FY 2026 exceeds the total future reimbursements by approximately \$89 million (see Table 7-4), the excess funds that would be available would not be in the proper funding category to be applied to the

projects that were shifted. While these reimbursements fall beyond the ALCP, the affected projects remain in the MAG Regional Transportation Plan, which extends through FY 2031.

During FY 2010, project overview reports were prepared by the lead agencies for eight projects in the ALCP. Since the inception of the program, 53 project overviews have been submitted to MAG. 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 five project agreements were executed in FY 2010. Seven jurisdictions received reimbursements for project work during FY 2010 totaling over \$62 million. In all, 39 project agreements have been executed to date. For FY 2011, MAG staff anticipates the execution of 19 additional agreements. Also during FY 2011, MAG anticipates the reimbursement of \$98 million to seven jurisdictions for eligible project expenditures.

Lead implementing agencies deferred \$36.7 million in Federal and regional funding from FY 2010 to later years. It is anticipated that project scope changes and deferrals may occur in the future, as local jurisdictions continue to face a variety of fiscal issues.

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., (VMR) a public nonprofit corporation, was created to form a partnership among the cities of Phoenix, Tempe, Mesa and Glendale to implement the LRT system. The cities of Chandler and Peoria are also current members of VMR. VMR 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. Similarly, VMR uses the name "*METRO*" to refer to the light rail 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 2011 through FY 2015).

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.

Collectively, the Regional BRT/Express transit services account for a total of \$116 million (2010 and YOY \$'s) in regional funding for operating costs for the period FY 2006 through FY 2026 (see Table 8-3). This total represents approximately 2.1 percent of the total regional funding budget allocated for transit. There are a total of 16 BRT/Express routes identified for funding in the TLCP during the planning period from FY 2006 through 2026. An additional 15 routes have been shifted beyond FY 2026 but are in the Regional Transportation Plan. Also, another route (Chandler Blvd. Arterial BRT) is included in the RTP as an illustrative project. Since funding became available a total of eleven routes have been implemented. Two of the routes were implemented with two different patterns, one providing an express connection to downtown Phoenix and the other to light rail stations. As a result of the continued decline in revenues and the loss of Local Transportation Assistance Funds (LTAF), four of the express routes have been eliminated due to low productivity. The routes were eliminated in July 2010 and include routes 511 (East Loop 101 Connector), 536 (Part of Red Mountain Express), 572 (North Loop 101 Connector) and 576 (Part of West Loop 101 Connector).

During the next five years, FY 2011 through FY 2015, one additional route is planned for implementation. The routes generally operate in the peak direction at 30-minute intervals, during the three-hour morning and afternoon commute periods.

Routes Implemented During FY 2010

- None.

Figure 8-1



MAG 2010 Annual Report
on Proposition 400

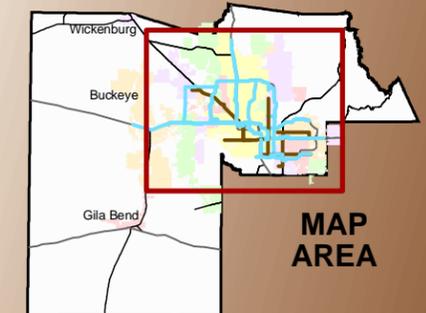
Bus Rapid Transit (BRT)

- Arterial BRT Routes
- Freeway BRT Routes
- Freeways
- Highways
- Other Roads
- County Boundary

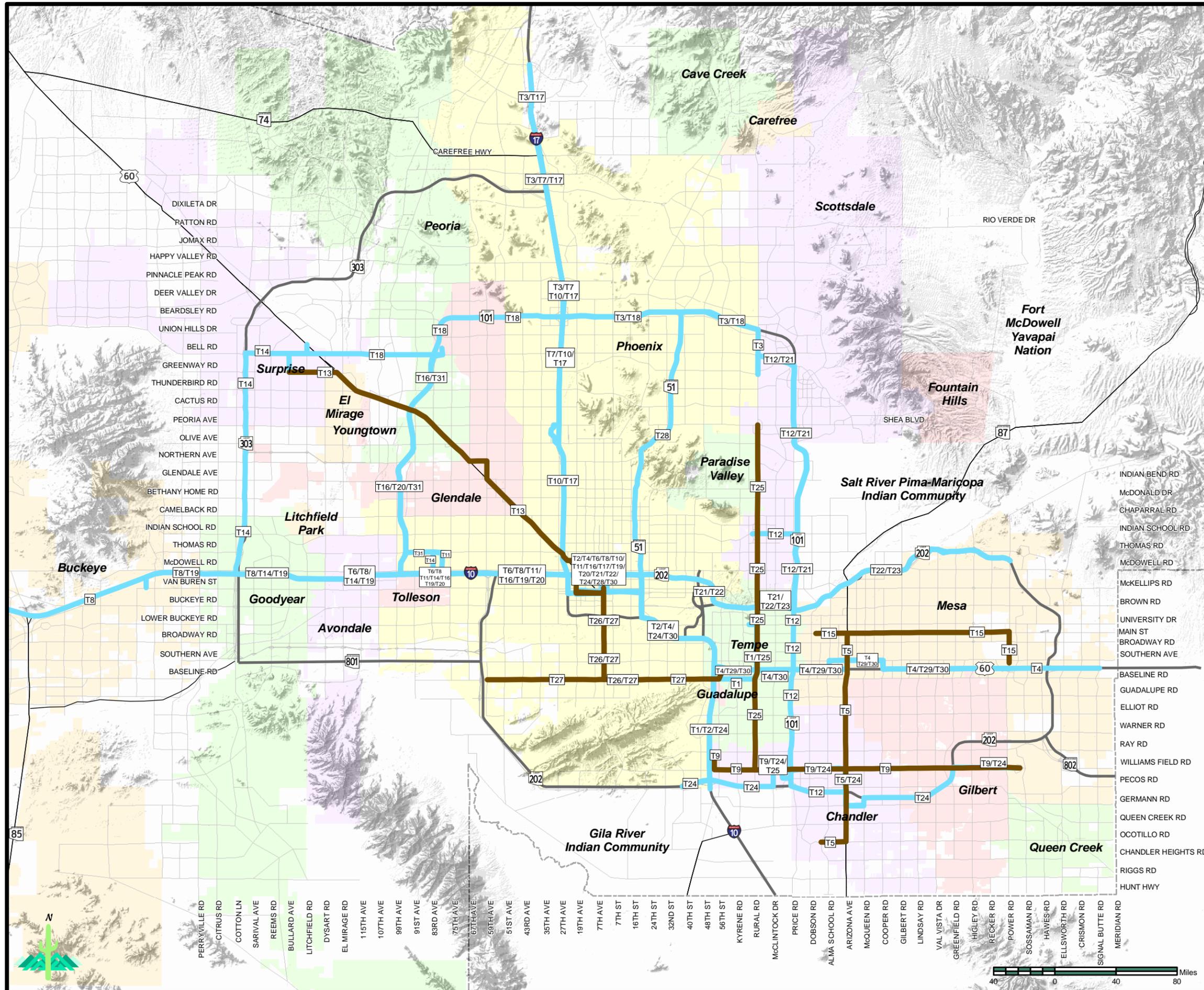
Routes are conceptual and subject to change. Contact Valley Metro to obtain current status. Ongoing operational planning includes an extensive public outreach component.

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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Routes Planned for Implementation During FY 2011 through FY 2015

- Arizona Avenue Arterial BRT (T5); Service start: FY 2011.

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 network addresses a major weakness of the current fixed route bus network. The operational efficiency of the current bus network is hampered by varying service levels across routes and jurisdictions, which is a direct result of the variability of local funding from jurisdiction to jurisdiction. The supergrid addresses this problem by regionally funding key routes at 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 current funding limitations at the local level. 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.

Regional Grid bus operations account for a total of \$711 million (2010 and YOE \$'s) in regional funding for the period FY 2006 through FY 2026 (see Table 8-3). This represents approximately 12.8 percent of the total regional funding budget allocated for transit. There are a total of 24 Regional Grid routes identified for funding in the TLCP during the planning period from FY 2006 through 2026. However, many of the routes scheduled for funding will not be implemented with the full service levels originally programmed. Lower levels of service have been programmed in order to implement more of the routes through FY 2026. An additional 9 routes have been shifted beyond FY 2026 but are in the Regional Transportation Plan. Also, another route (Litchfield Rd.) is included in the RTP as an illustrative project. Since funding became available seven routes have been implemented.

During the next five years, FY 2011 through FY 2015, six routes are planned for implementation. In most cases these routes 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 is provided.

Routes Implemented During FY 2010

- Gilbert Road (T54); Implemented as Route 136.

Figure 8-2



MAG 2010 Annual Report on Proposition 400

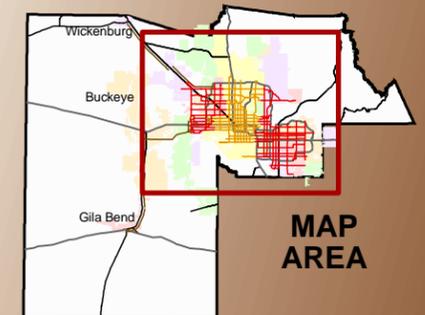
Super Grid Bus System

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

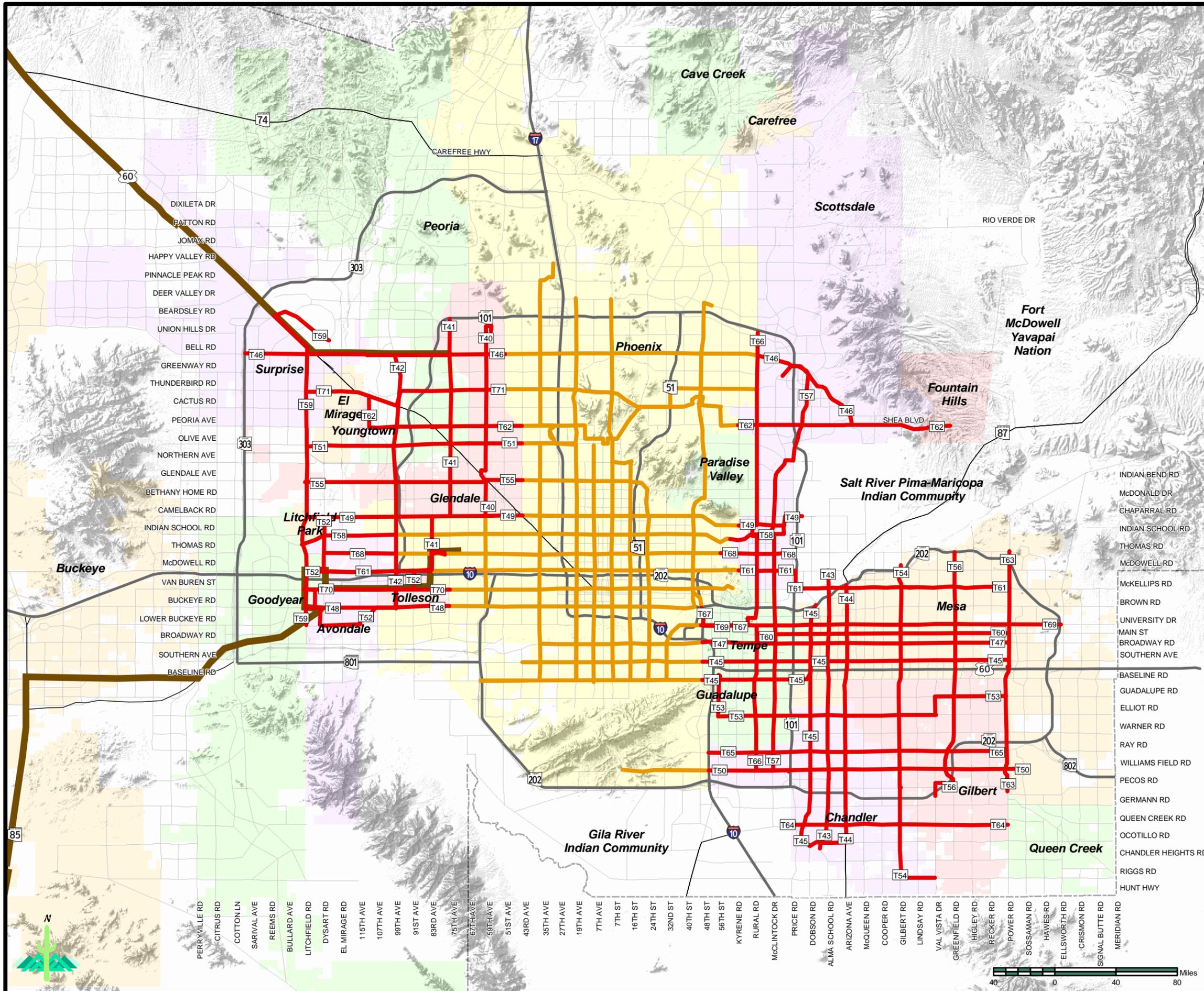
Routes are conceptual and subject to change. Contact Valley Metro to obtain current status. Ongoing operational planning includes an extensive public outreach component.

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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Routes Planned for Implementation During FY 2011 through FY 2015

- Arizona Avenue/Country Club Drive (T44); Service start: FY 2012.
- 59th Avenue (T40); Service start: FY 2014.
- Baseline Road (T45); Service start: FY 2015.
- Elliot Road (T53); Service start: FY 2013.
- McDowell/McKellips Roads (T61); Service start: FY 2014.
- Power Road (T63); Service start: FY 2011.

8.1.3 Bus Operations: Other

In addition to the BRT/Express and Regional Grid services, other services account for a total of \$805 million (2010 and YOE \$'s) in regional funding for operating costs for the period FY 2006 through FY 2026 (see Table 8-3). These services include rural/flexible routes, commuter vanpools, paratransit services, safety and security, operations and capital contingencies and RPTA planning and administration costs. Table C-3 provides information on the costs associated with 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. These services account for a total of \$16 million (2010 and YOE \$'s) in regional funding during FY 2006 through FY 2026 (see Table C-3).

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. Productivity on the Wickenburg route has been very low and Valley Metro is looking at ways to enhance ridership. However, if the current productivity continues, changes to the route may be made up to and including eliminating the route.

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. These services account for a total of \$421 million (2010 and YOE \$'s) in regional funding during FY 2006 through FY 2026 (see Table C-3). During the next five years (FY 2011 through FY 2015), it is anticipated that \$108 million (2010 \$'s) will be expended to provide required ADA paratransit services.

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 two and one half percent of the budget for operations and 3.75 percent of the budget for purchased capital (e.g. fleet) and 10 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: Supplementary funding is allocated to previously existing local and express services, which complement the planned BRT and Supergrid networks. This accounts for a total of \$123 million (2010 and YOE \$'s) in regional funding during FY 2006 through FY 2026 (see Table C-3).

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 \$324 million (2010 and YOE \$'s) during FY 2006 through 2026 (see Table 8-3). There is \$23 million (2010 and YOE \$'s) for contingency included in this amount. The Regional Transportation Plan 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. Not all of these facilities are currently funded through FY 2026. These facilities include 5 maintenance facilities, 2 park-and-ride facilities, 9 transit centers and 2 BRT corridors.

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 \$88 million (2010 \$'s) in regional funding will be expended during the next five years (FY 2011 through FY 2015) on bus capital facilities.

8.1.5 Bus Capital: Fleet

Over the planning horizon associated with Proposition 400, fleet purchases account for a total of \$954 million (2010 and YOE \$'s) during FY 2006 to FY 2026 (see Table 8-3). This includes the purchase of 1,662 buses for fixed route networks; 40 buses for rural routes; 939 Dial-a-Ride (DAR) vans for paratransit purposes; and 1,381 vanpool vans. There is \$16 million (2010 and YOE \$'s) contingency included. It is anticipated that a total of \$266 million (2010 \$'s) in regional funding will be expended during the period FY 2011 through FY 2015 on vehicle purchases. These purchases will include 417 fixed route buses, 16 express/BRT buses, 10 rural transit buses, 235 paratransit vehicles, and 255 commuter vans. These reflect both replacement and expansion vehicles.

8.2 STATUS OF HIGH CAPACITY/ LIGHT RAIL TRANSIT PROJECTS

The Transit Life Cycle Program includes an extensive High Capacity / Light Rail Transit (HCT/LRT) component for the MAG Region. This covers support infrastructure for the HCT/LRT system, as well as future extensions of HCT/LRT corridors that are planned throughout the region. The construction of the 20-mile light rail Central Phoenix / East Valley (CP/EV) that was developed through the CP/EV 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 HCT/LRT throughout the metropolitan area. HCT/LRT projects account for a total of \$2.6 billion (2010 and YOE \$'s) in the Transit Life Cycle Program (see

Figure 8-3



MAG 2010 Annual Report
on Proposition 400

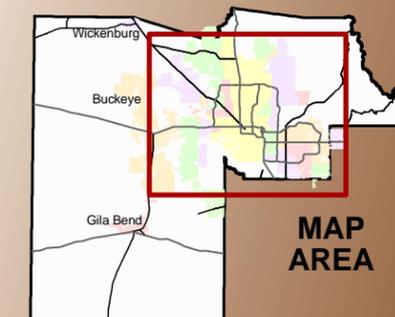
Light Rail Transit (LRT)/
High Capacity Transit

-  Initial 20-mile Light Rail Segment
-  Future High Capacity Transit Corridor
-  Freeways
-  Highways
-  Other Roads
-  County Boundary

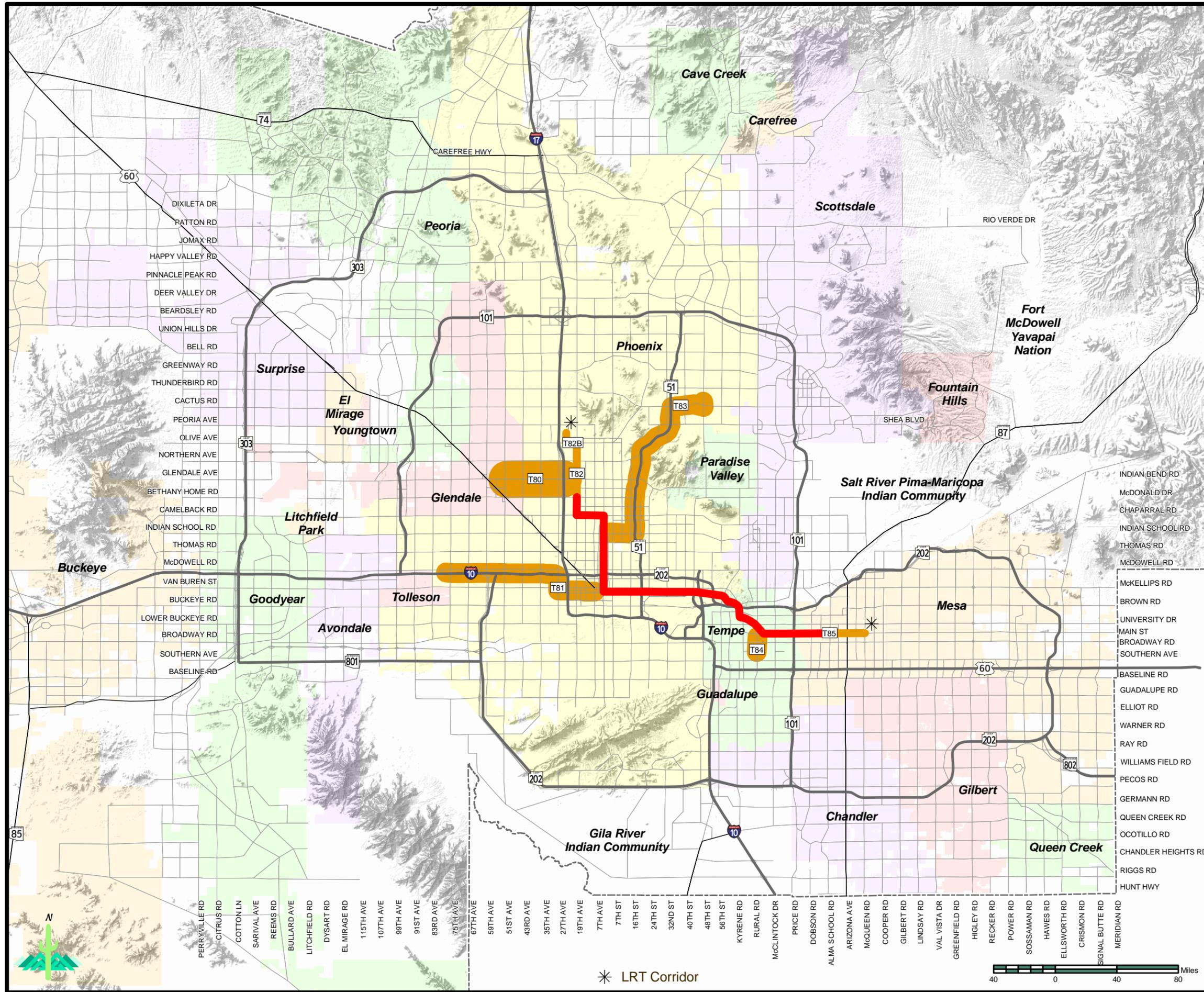
The Transit Life Cycle Program does not include funding for the Eligible High Capacity Corridors

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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* LRT Corridor

40 0 40 80 Miles

Table 8-3), which is approximately 48 percent of the total regional funding dedicated to transit. Of this amount, approximately \$2.1 billion (2010 and YOE \$'s) applies toward construction, whereas the remaining \$592 million (2010 and YOE \$'s) applies to support infrastructure affiliated with the HCT/LRT system. None of the regional funding for HCT/LRT is allocated to operating costs.

8.2.1 Central Phoenix/East Valley (CP/EV) LRT

Although the construction of the CP/EV light rail starter segment was not a part of the Transit Life Cycle Program, background information on this project is provided here to provide an overview of the entire HCT/LRT system planned for the region. The conceptualization of the light rail starter segment began with the completion of the CP/EV Major Investment Study (MIS) in 1998. The purpose of the CP/EV 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 CP/EV extends from Bethany Home Road and 19th Avenue 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 CP/EV was completed in December 2008 and averaged over 37,900 boardings per day in FY 2010, 45 percent higher than projected.

The CP/EV operates primarily at-grade on city streets, with two tracks and light rail vehicles running in trains from one to three cars. The trains run in both directions approximately 18 hours per day on weekdays, and 22 hours per day on weekends. The trains operate every 10 minutes during peak hours, 15 minutes on weekends and 20 minutes during off-peak hours. During FY 2011 service levels will be cut back due to the decrease in revenues.

Important elements of the CP/EV include 28 stations, 8 park-and-ride lots, 50 light rail vehicles and traffic signal priority strategies to improve speed. The park-and-ride facilities have over 3,500 spaces. Light rail stations are generally located about 3/4-mile apart, but closer (1/3-mile) in urban centers. Shuttle buses and an improved fixed route network play an important role in the light rail system. Half-cent sales tax money from Proposition 400 was not utilized to pay for route construction of the CP/EV, but is rather allocated toward certain elements of the support infrastructure.

8.2.2 High Capacity / Light Rail Transit: Support Infrastructure

Completion of support infrastructure affiliated with the HCT/LRT system accounts for a total of \$592 (2010 and YOE \$'s) in the Transit Life Cycle Program for the period FY 2006 through FY 2026. Of this amount, \$199 million (2010 and YOE \$'s) applies toward infrastructure along the CP/EV (to be expended by 2010); \$5 million (2010 and YOE \$'s) applies toward infrastructure needs on the Northwest

Extension, from 19th Avenue/Bethany Home to the Rose Mofford Sports Complex (to be expended by 2026; \$5 million (2010 and YOE \$'s) applies toward infrastructure needs on the Glendale corridor from 19th Avenue/Bethany Home to Downtown Glendale (to be expended by 2026); \$157 million for utility relocation reimbursements; and \$226 million (2010 and YOE \$'s) applies to other HCT/LRT improvements throughout the system (to be expended by 2026).

8.2.3 High Capacity / Light Rail Transit: Future Corridors

The Transit Life Cycle Program includes regional funding for the completion of six additional LRT/HCT segments on the system. These include a five-mile Northwest Extension, which in FY 2007 was split into two phases; a two-mile Tempe South corridor; a 2.7-mile light rail extension from the east terminus of the CP/EV to Mesa Drive; a five-mile corridor to downtown Glendale; an 11-mile corridor along I-10 west to 79th Avenue; and a 12-mile corridor to Paradise Valley Mall; In total, the future corridors account for a total of 37.7 miles of the 57.7-mile system. Development of the route extensions account for a total of \$2.1 billion (2010 and YOE \$'s) during FY 2006 through FY 2026 (see Table 8-3).

It should be noted that local sources will provide a significant share of the funding for the Northwest Extension and Glendale corridor. 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 and preliminary planning efforts, 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.

Future Corridors

In FY 2007 the Northwest Extension was split into two phases. For Phase 1, the design was completed in 2008-2009 and right-of-way acquisition occurring in 2008-2010. Construction of the extension is on-hold and Phase 1 is now scheduled to be complete in FY 2023. Phase 2 is scheduled to be complete in FY 2026. It is expected that utility relocations and street improvements will be completed in the corridor in FY 2013 to facilitate the eventual light rail construction.

The Central Mesa LRT Extension locally preferred alternative was approved in FY 2009 and has entered the Small Starts Project Development (design) phase. The light rail transit extension will extend along Main Street from the end of line station for the CP/EV at Sycamore eastward to Mesa Drive. Construction is scheduled to be complete in FY 2016.

The Tempe South corridor is currently in the Alternatives Analysis/Draft Environmental Assessment phase. A locally preferred alternative will be

identified in FY 2010-2011. This corridor's study area is bounded by the Tempe branch of the Union Pacific Railroad on the west, Loop 101 on the east, Loop 202 (Red Mountain) on the north and Loop 202 (Santan) on the south. The analysis is focused on a modern streetcar solution along Mill Avenue from downtown Tempe to Southern Avenue, as well as a bus rapid transit solution along Rural Road. Construction is scheduled to be complete in FY 2016.

The Phoenix West corridor is currently in the Alternatives Analysis/Draft Environmental Impact Statement phase. An early recommendation adopted by the METRO Board in 2008 was a high capacity transit alignment within the I-10 right-of-way west of I-17. Two transit modes, Bus Rapid Transit (BRT) and LRT, are still under consideration. Construction is scheduled to be complete in FY 2021.

The City of Glendale and the City of Phoenix have engaged with METRO to discuss alternatives to the 2026 Glendale corridor currently shown in the RTP to ensure service to prominent activity centers and anticipated growth areas. As an initial step, an early Alternatives Analysis begun in FY 2010 and will evaluate corridors primarily to identify priorities for federal funding opportunities. The purpose of the study is to identify the potential project alternatives for the Glendale corridor that would be eligible for FTA 5309 New Starts funding and further evaluated through AA/NEPA. The full Alternatives Analysis/Draft Environmental Impact Statement phase will begin in FY 2012. Construction is scheduled to be completed in FY 2026.

While remaining in the Regional Transportation Plan, the Northeast Phoenix LRT corridor, which is planned to begin at Indian School Rd./Central Ave. and extend to Paradise Valley Mall, has been shifted beyond the TLCP horizon year of FY 2026. It was necessary to delay this project beyond FY 2026 to accommodate the decrease in actual and forecasted revenues, and construction is scheduled to be complete in FY 2031.

8.3 TRANSIT PROGRAM CHANGES

The estimated total transit costs of \$5.6 billion for FY 2006-2026 represent a 2.1 percent decrease over the figure of \$5.7 billion provided in the 2009 Annual Report. During FY 2010, a significant effort was undertaken to review the projects in the TLCP. Service levels on fixed routes were reduced to maintain as many routes in the program as possible. As a result, fewer buses were needed in the program and fewer capital facilities are funded. Also, certain expenditures for the LRT/HCT system were shifted beyond FY 2026. The resulting cost adjustments estimated for the Life Cycle Program components are summarized in Table 8-1. The net total of these cost changes amounts to approximately a \$118 million decrease. The TLCP projects will continue to be reevaluated and

TABLE 8-1
TRANSIT LIFE CYCLE PROGRAM COST CHANGES
(2009, 2010 and Year of Expenditure Dollars in Millions)

Category	2009 Annual Report Total Costs: FY 2006 - 2026 (2009 and YOE Dollars)	2010 Annual Report Total Costs: FY 2006 - 2026 (2010 and YOE Dollars)	Change in Total Costs: 2009 vs. 2010
Bus Operations: BRT/Express	165.9	115.9	(50.0)
Bus Operations: Regional Grid	572.3	710.8	138.5
Bus Operations: Other	688.6	804.5	115.9
Bus Capital Projects: Facilities	370.9	323.9	(47.0)
Bus Capital Projects: Fleet	1,139.2	954.1	(185.1)
Light Rail Transit: Support Infrastructure	416.1	591.9	175.8
Light Rail Transit Capital: Route Extensions	2,317.2	2,051.4	(265.8)
Total	5,670.2	5,552.5	(117.7)

changes in project implementation may be made based on actual revenues received.

As a result of the TLCP adjustments made in FY 2009 and FY 2010, the “service start date” for a number of bus routes has been shifted beyond FY 2026. Table 8-2 provides a listing of the specific routes that have been affected.

8.4 TRANSIT PROGRAM EXPENDITURES, ESTIMATED FUTURE COSTS AND FISCAL STATUS

8.4.1 Program Expenditures and Estimated Future Costs

Table 8-3 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.

As indicated in Table 8-3, the total estimated cost for the Transit Life Cycle Program for the period FY 2006 through FY 2026 is \$5.6 billion (2010 and YOE \$’s). Expenditures through FY 2010 total \$933 million (YOE \$’s), while estimated future costs total \$4.6 billion (2010 \$’s).

8.4.2 Future Fiscal Status

Table 8-4 summarizes the future funding sources and uses that apply to the Transit Life Cycle Program for the period FY 2011 through FY 2026. Funding

**TABLE 8-2
BRT AND SUPERGRID BUS ROUTES SHIFTED BEYOND FY 2026**

Route	Service Start Date		Route	Service Start Date	
	Original*	Revised		Original*	Revised
<u>BRT/Express</u>			<u>Supergrid</u>		
Ahwatukee Connector	2016	2031	99th Avenue	2020	2031
Anthem Express	2023	2031	Buckeye Road	2019	2031
Apache Junction Express	2010	2027	Dunlap/Olive Avenue	2020	2031
Avondale Express	2019	2020	Dysart Road	2014	2030
Black Canyon Freeway Corridor	2015	2031	Indian School Road	2019	2031
Buckeye Express	2010	2028	Litchfield Road	2023	**
Chandler Boulevard Arterial BRT	2023	**	Peoria Ave./Shea	2014	2030
East Loop 101 Connector	2009	***	Queen Creek Road	2018	2031
Loop 303 Express	2022	2031	Tatum / 44th Street	2015	2031
North I-17 Express	2021	2031	Thomas Road	2019	2031
North Loop 101 Connector	2008	***			
Peoria Express	2013	2028			
Pima Express	2012	2028			
Red Mountain Fwy Connector	2018	2031			
Santan Express	2017	2031			
South Central Avenue Arterial BRT	2015	2031			
SR 51 Express	2008	****			
Superstition Fwy Connector	2011	2027			
Superstition Springs Express	2018	2031			

- * As indicated in 2003 RTP.
- ** Designated as an illustrative project in the 2010 RTP Update.
- *** Route eliminated in FY 2011.
- **** City of Phoenix to assume funding in FY 2011.

sources available for this period are estimated to total \$4.8 billion (2010 \$'s). These sources include the Proposition 400 half-cent sales tax extension (\$3.2 billion); Regional Area Road Fund transfer (\$84 million); Federal Transit/5307 funds (\$679 million); Federal Transit/5309 funds (\$1.2 billion); Federal Highway/CMAQ funds (\$357 million); other income from local sources (\$151 million); bond and loan proceeds (\$175 million); and bus farebox revenues (\$208 million). Expenses totaling \$389 million are deducted from these sources, covering estimated future debt service. In addition, an allowance for inflation of \$972 million is deducted. Including a beginning balance of \$105 million, this yields a net total of \$4.8 billion (2010 \$'s) for use transit projects and programs through FY 2026.

Table 8-4 also lists the estimated future uses identified in the Life Cycle Program totaling \$4.6 billion for the period covering FY 2011 through FY 2026, expressed in 2010 \$'s. These costs cover bus operations (\$1.4 billion), bus capital projects

(\$928 million), and light rail transit capital projects (\$2.3 billion). Therefore, for the remainder of the Transit Life Cycle Program, projected revenues are in balance with future projects costs. However, as noted previously, the balance was achieved by the implementation of numerous projects beyond FY 2026.

TABLE 8-3
TRANSIT LIFE CYCLE PROGRAM
SUMMARY OF EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026
(2010 and Year of Expenditure Dollars in Millions)

Category	Expenditures: through FY 2010 (Year of Expenditure Dollars)			Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Costs: FY 2006 - 2026 (2010 and YOE Dollars)
	Operations	Capital Investments	Total		
Bus Operations: BRT/Express	18.0	--	18.0	97.9	115.9
Bus Operations: Regional Grid	60.9	--	60.9	649.9	710.8
Bus Operations: Other	125.4	--	125.4	679.1	804.5
Bus Capital Projects: Facilities	--	175.3	175.3	148.6	323.9
Bus Capital Projects: Fleet	--	175.1	175.1	779.0	954.1
Light Rail Transit: Support Infrastructure	--	282.2	282.2	309.8	591.9
Light Rail Transit Capital: Route Extensions		96.5	96.5	1,954.9	2,051.4
Total	204.3	729.0	933.3	4,619.2	5,552.5

8.5 TRANSIT PROGRAM OUTLOOK

The Transit Life Cycle Program, which covers FY 2006 through FY 2026, started on July 1, 2005. The primary goal of the life cycle program is the development and implementation of transit projects, as identified in the MAG RTP. The estimated future costs for FY 2011 to 2026 are in balance with the projected future funds available. However, it should be noted that the balance was achieved in FY 2009, and further refined in FY 2010, by delaying the implementation of numerous projects, due to the current economic downturn and the decrease in estimated future revenues that resulted.

During FY 2010, a significant effort was undertaken to re-prioritize the projects in the TLCP. As a result of that effort, more funding was directed to operations, including nearly doubling the amount to fund the Federally mandated ADA Complementary Paratransit service. However, service levels on fixed routes have been reduced to maintain as many routes in the program as possible. As a result, fewer buses were needed in the program and fewer capital facilities are funded.

TABLE 8-4
TRANSIT LIFE CYCLE PROGRAM
FUTURE SOURCES AND USES OF FUNDS: FY 2011-2026
(2010 and Year of Expenditure Dollars in Millions)

SOURCES OF FUNDS	
Category	Projected Future Funding: FY 2011-2026 (YOE Dollars)
Proposition 400: One-Half Cent Sales Tax Extension	3,179.1
Regional Area Road Fund	84.3
Federal Transit / 5307 Funds	679.4
Federal Transit / 5309 Funds	1,222.6
Federal Highway/ MAG CMAQ	356.8
Other Income	151.1
Bond and Loan Proceeds	174.5
Bus Farebox Revenues	207.6
Plus Beginning Balance	104.5
Less Debt Service	(388.6)
Less Inflation Allowance	(971.8)
Total (2010 \$'s)	4,799.5
USES OF FUNDS	
Category	Estimated Future Costs: FY 2011-2026 (2010 Dollars)
Bus Operations: BRT/Express	97.9
Bus Operations: Regional Grid	649.9
Bus Operations: Other	679.1
Bus Capital Projects: Facilities	148.6
Bus Capital Projects: Fleet	779.0
Light Rail Transit: Support Infrastructure	309.8
Light Rail Transit Capital: Route Extensions	1,954.9
Total (2010 \$'s)	4,619.2

A continuing requirement of the life cycle process is to maintain a balance, through effective financing and cash flow management, value engineering of projects, and Plan and Program adjustments as may be necessary.

Another consideration is that a large part of the funding for the LRT/HCT system is awarded by the US Department of Transportation through the discretionary "New Starts Program". 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

PERFORMANCE MONITORING AND ASSESSMENT

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. A number of the goals and objectives adopted relate to the performance of the system as a whole, as well as the individual components of the systems across all modes. MAG, continuing to place emphasis on performance-based planning, has established an ongoing Transportation System Performance Monitoring and Assessment Program. The material presented in this chapter documents performance of the system as a result of the on-going monitoring and assessment program, as well as forecasted performance of the system based on simulations for 2030.

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 principal operating characteristics of the current transportation system and to establish a historical record that tracks performance trends over time. The specific parameters observed vary by the transportation mode 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. A large amount of data is collected annually in the MAG region related to the movement of people, goods, and services. Data from the Arizona Department of Transportation's (ADOT) Freeway Management System (FMS) is collected continuously from sensors and other systems that detect and record the

movement of vehicles across a large portion of the MAG region. As the FMS system continues to grow, it will allow the use of these data for future reliability performance calculations. In addition, traffic data is collected on arterial roadways through both permanent and temporary counting stations deployed by a variety of MAG member agencies. Moreover, periodic studies are conducted to collect information on topics such as the average number of people in cars, the proportion of trucks on the roadways, and levels of congestion on the freeways and arterials.

Per Capita Freeway Vehicle-Miles of Travel (VMT) is defined as the average number of freeway miles a vehicle in the Phoenix-Mesa urbanized area travels per day. This measure tracks overall personal vehicle use travel trends for the region. As seen in Table 9-1, the average person in the Phoenix-Mesa urbanized area traveled 8.36 freeway miles by vehicle per day in 2008, which is a decrease of 5.0 percent compared to 2006, and a decrease of 1.6 percent compared to 2007. Total freeway travel also decreased from 29,451,000 vehicle miles of travel in 2006 to 29,416,000 vehicle miles of travel in 2007, and down further to 29,130,000 in 2008.

Results in Table 9-1 are illustrative of the fact that national and regional economic conditions have changed between FY2006 and 2008. Economic indicators point at a reduction in automobile use due to higher fuel costs. This is confirmed by a reduction in HURF (Highway User Fund) revenues primarily due to a decrease in travel volume and registration of motor vehicles. Additionally, Arizona's economy reached recession levels partly related to job losses and a prolonged housing market slowdown. These changes have had an effect in VMT (vehicle miles traveled) and congestion measures, as well as an impact in transit ridership measures.

**TABLE 9-1
PER CAPITA VMT for the PHOENIX/MESA URBANIZED AREA**

	2006	2007	2008
Total Freeway VMT	29,451,000	29,416,000	29,130,000
Population of Phoenix-Mesa Urbanized Area	3,350,000	3,459,000	3,481,000
Per Capita Freeway VMT	8.80	8.50	8.36

Source: ADOT Highway Performance Monitoring System (HPMS)

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.

In the near future, MAG is anticipated to contract with private data collection sources to supplement the arterial and freeway observed data. This will allow the current data archive to be more geographically comprehensive and enable MAG to perform analysis on system and corridor performance from real-time data sources. 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 transportation system, projections of future population levels, and other critical factors such as land use densities and patterns. 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 when an area experiences high growth, such as the years 2004-2006 in 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.

An important observation regarding the current MAG Four Step Travel Demand Model is that it is inherently a static model. Current performance results have been consolidated from model runs using the 2007 Update to the Socioeconomic Projections, which may not reflect recent changes in regional demographics, as well as the fact that market conditions such as fuel costs are not factored into the simulation runs.

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 2003 and 2007 Travel Time and Speed Study, the 2006 Weekday Traffic Volume Study and Database, the 2006 Regional Freeway Bottleneck Study, the 2006 Freeway Level of Service Study, the Phoenix External Travel Survey, and the Freeway Travel Conditions and Trends Study. During the 2007-2009 Fiscal Years, a number of additional studies have been completed, including: the ADOT Freeway Management System (FMS) Detector Accuracy Evaluation, the 2008 Regional Household Survey, the 2007 Regional On-Board Transit Survey conducted by RPTA and the Internal Truck Travel Survey. Work on the GIS-T Phase II Study is underway and is expected to be completed by the end of 2010.

Volume Data: The ADOT Freeway Management System (FMS) provides count data on the mainline general purpose lanes and HOV lanes 24/7/365, and on ramps on the majority of the urbanized freeway system. Traffic counts are collected through in-pavement loop detectors and passive acoustic detectors (PADs). This data feeds directly to the Arizona AZ511 system, providing real-time traveler information. Data is also aggregated in periods from five minutes to 24 hours for weekdays and weekends.

For the arterial system, MAG collects traffic data at over 770 stations using machine counts. Data is collected on weekdays every three to four years, over a 48-hour time period, and aggregated by 15 minute, hour, peak period, and 24 hours. Counts are conducted by direction at mid-block locations throughout the region. Data from the MAG count program undergoes a variety of data quality control checks; count data collected from other jurisdictions/member agencies is usually subject to the same kind of quality control checks.

Travel Time Data: Travel Time is among the measures that are most meaningful to travelers and system managers alike, since it relates to their experience of everyday travel. Point-to-point travel time is the average time required to traverse a fixed distance in a single direction. Point-to-point travel times were calculated for specific freeway origin-destination (O-D) pairs that are representative of common commutes in the MAG region.

The travel time changes shown in Table 9-2 are illustrative of many of the measured changes in freeway performance between 2006 and 2007. They show that freeway conditions in the MAG region are changing, but those changes are

generally modest in size and scope and differ from facility to facility across the region. Travel on two of the representative trips in the region became faster in 2007 than 2006. The other five trips remained essentially the same, experiencing changes in travel time of less than one minute. All of the changes from 2006 to 2007 are modest in size, with the largest representing a five percent change in travel time. The other changes are approximately one to two percent, and are small enough that they are unlikely to be noticeable to the public.

**TABLE 9-2
FREEWAY TRAVEL TIME RESULTS for SELECTED LOCATIONS**

From	To	Time Period	Dir	Average Peak Period Travel Time (min)		
				2006	2007	Change from 2006
US 60 at Val Vista Drive - midway between Loop 101 and Loop 202	SR 143 at Sky Harbor Blvd - just east of Sky Harbor Airport	AM Peak	WB	22	22	0
Loop 101 at US 60 - south of Loop 202 (Red Mountain)	I-10 at 7th Street - north of downtown Phoenix	PM Peak	WB	19	19	0
Loop 101 at Guadalupe - south of US 60	I-17 and Dunlap - near MetroCenter Mall	AM Peak	NB	32	32	0
I-17 at 19th Avenue - east of the Durango Curve	I-10 at Elliot - midway between US 60 and Loop 202 (Santan)	PM Peak	WB	24	23	-1
I-10 at Warner Road - midway between US 60 and Loop 202 (Santan)	SR 143 at University - west end of Tempe, near Sky Harbor Airport	AM Peak	NB	12	12	0
I-10 at 83rd Avenue - east of Loop 101	SR 51 at Bell Road - south of Loop 101	PM Peak	EB/NB	26	25	-1
I-10 at 83rd Avenue - east of Loop 101	Loop 202 at Loop 101 - near Tempe Marketplace	Off-Peak	EB	22	22	0

Speed Data: The principal source of speed data is the MAG Travel Time and Speed Study, conducted in 2003 and 2007. This study used probe vehicles to collect travel times on freeways (including both general purpose and HOV lanes) and on arterials. Data was collected for the peak hours and mid-day for over 2,038 centerline miles. Roadways were divided into 7,492 segments for data collection and reporting purposes. In all, 71,841 miles of travel time runs were undertaken for the 2007 study. Speed data is also available through the ADOT FMS, the ADOT Transportation Planning Division traffic detector stations. Table 9-3 depicts changes in average speed for all freeway corridors monitored by ADOT'S FMS System between 2006 and 2007.

**TABLE 9-3
EXAMPLE RESULTS FOR AVERAGE SPEED FOR FREEWAY CORRIDORS**

Freeway Corridor	Dir	AM Peak		PM Peak	
		2007	Change from 2006	2007	Change from 2006
I-10 Papago: 81 st Avenue to SR 51	EB	39.6	0.0	58.8	1.1
I-10 Papago: SR 51 to 82 nd Avenue	WB	60.4	0.2	36.6	-1.5
I-10 Maricopa: SR 51 to Chandler Blvd	EB	60.1	1.6	34.8	1.9
I-10 Maricopa: Chandler Blvd to SR 51	WB	36.3	-0.1	54.5	-0.1
I-17: Maricopa Traffic Interchange to Peoria Avenue	NB	57.8	-0.1	38.9	-1.9
I-17: Peoria Ave to Maricopa Traffic Interchange	SB	39.1	0.0	49.3	2.2
SR 51: I-10/Loop 202 to Bell Road	NB	64.3	-0.8	53.4	-0.3
SR 51: Bell Road to I-10/Loop 202	SB	52.3	3.0	56.9	2.5
Loop 202: I-10/SR 51 to Loop 101	EB	60.7	-0.3	37.6	-0.5
Loop 202: Loop 101 to I-10/SR 51	WB	44.0	-0.1	41.2	-0.8
US 60: I-10 to Val Vista Drive	EB	59.5	2.3	52.4	3.8
US 60: Val Vista Drive to I-10	WB	43.4	0.0	60.1	2.0
Loop 101: Guadalupe Road to Loop 202	NB	41.8	-0.1	62.6	-0.2
Loop 101: Loop 202 to Guadalupe Road	SB	62.6	0.2	29.9	-1.7
SR 143: I-10 to Loop 202/McDowell Road	NB	57.0	-0.6	55.1	0.9
SR 143: Loop 202/McDowell Road to I-10	SB	56.0	0.4	34.5	-3.4

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.

Modeling Scenarios: For the analysis presented in this chapter, three network scenarios were modeled to assess potential future conditions on the transportation system in the region.

- 2008 Current Year Scenario - For this scenario the highway, arterial and transit networks reflect the current year 2008. This network reflects conditions after implementing a number of projects identified in the RTP, as well as 2008 travel demand. The socio-economic data that generated the travel demand for this scenario is based on the 2007 Update to the Socioeconomic Projections.
- 2030 RTP Plan Scenario - The network used for this model run includes all the projects in the RTP Plan and utilizes MAG's 2007 Update to the Socioeconomic Projections for the year 2030.
- 2030 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 2030 as that used for the RTP scenario, but does not include the regionally funded freeway 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 2008 Current Base Year, the 2030 RTP and the 2030 No-Build. All data is for the Maricopa County portion of the MAG transportation modeling area. Table 9-4 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 9-4: lanes miles and capacity miles. As shown, there is an increase of approximately 49 percent in freeway capacity between the 2008 Base Year and the 2030 RTP. Arterial capacity miles for the RTP nearly double, increasing by approximately 98 percent as compared to the Base 2008 Year network.
- Demand Measures - The demand measure identified in Table 9-4 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 9-4.

**TABLE 9-4
ROADWAY PERFORMANCE MEASURES FROM MAG MODEL
(Maricopa County Portion of MAG Modeling Area)***

Measures	Scenario		
	2008 Base	2030 RTP	2030 No Build
Population**	4,236,285	6,381,4254	6,381,425
Supply Measures			
Lane-Miles			
Freeways	1,920	2,865	1,914
Arterials	10,270	19,596	18,166
Capacity Miles			
Freeways	53,210,043	79,389,209	53,048,469
Arterials	79,486,623	157,610,234	146,796,437
Demand Measures			
Daily Vehicle-Miles (VMT)			
Freeways	33,721,948	58,423,300	43,355,601
Arterials	46,296,429	81,316,236	92,823,216
Level of Service Measures			
Congested Lane-Miles			
Freeways	433	825	966
Arterials	1,236	2,277	3,994
% Congested Lane-Miles			
Freeways	22.6	28.8	50.5
Arterials	12.0	11.6	22.0
Daily Congested VMT			
Freeways	11,777,622	22,588,646	27,677,484
Arterials	10,095,551	19,153,038	33,478,230
% Daily Congested VMT			
Freeways	34.9	38.7	63.8
Arterials	21.8	23.6	36.1
Total Vehicle Hours of Delay			
Hours of Delay	686,069	1,436,565	2,115,615
Hrs of. Delay per 1000 VMT	8.50	10.2	15.5

* Results are derived from Base Year 2008, 2030 RTP and 2030 No Build MAG model runs - August 2009

* The No-build is based on the 2008 Base Year Freeway and the Planned Arterial networks

** Resident population in households + resident population in group quarters (excluding institutional facilities, military and correctional facilities) + Transient population + Seasonal Population.

Comparing the 2008 Base Year and the 2030 RTP, a 73 percent VMT increase is observed on freeways and 76 percent on arterials. For the No

- Build scenario, the VMT increases are 28 percent and 100 percent, respectively, reflecting the increased burden of traffic that arterials must carry due to lack of freeway improvements.

- Level of Service (LOS) Measures - A number of LOS measures are included in Table 9-4 for the three modeled scenarios, including congestion on freeways, congested VMT, and vehicle hours of delay. As noted previously, congested freeway segments are those with LOS E-F, and delay represents amount of extra travel time due to congestion.

A review of Table 9-4 indicates that, while the number of lane miles of congested freeways nearly doubles between the 2008 Base Year and the 2030 RTP, the portion of total lane miles that are congested increases by only 27 percent. When comparing the 2008 Base Year to the No Build scenario, the percentage of congested freeway lane miles more than doubles. The total vehicle hours of delay experiences an increase of 109 percent between the 2008 Base Year and the 2030 RTP, but dramatically increases by more than two hundred percent under the No Build scenario. Clearly, the freeway capacity added in the RTP helps significantly to mitigate the effects of a growing population. For arterials, the percentage of congested lane miles for the RTP increases by approximately three percent compared to the 2008 Base Year. This is, in part, a consequence of the projected nearly doubling of arterial lane miles between the 2008 Base and the RTP. However, even though a similar high rate of increase in arterial lane miles occurs in the No-Build scenario, its percentage of congested lane miles is 83 percent higher than the 2008 Base.

A similar pattern occurs for the percentage of congested VMT on arterials, with the percentage of congested VMT for the RTP 8.2 percent higher than the 2008 Base, versus 66 percent higher for the No Build. Clearly, the enhanced freeway network provided in the RTP, but not included in the No Build scenario, results in significant congestion relief on the arterial system.

The vehicle hours of delay per 1000 VMT also reveals the benefits of the expanded freeway system. The vehicle hours of delay per 1000 VMT increases by 20 percent between the 2008 Base Year and the 2030 RTP, but experiences an increase of 82 percent under the No Build scenario.

Figures 9-1, 9-2 and 9-3 show the geographic distribution of P.M. peak period congestion patterns for the three modeled scenarios, depicting number of hours in congestion for the Maricopa County portion of the MAG freeway system. Similarly, arterial intersection maps shown in Figures 9-4, 9-5 and 9-6 indicate locations and distribution of congested intersections for the P.M. peak period.

9.3 TRANSIT SYSTEM PERFORMANCE

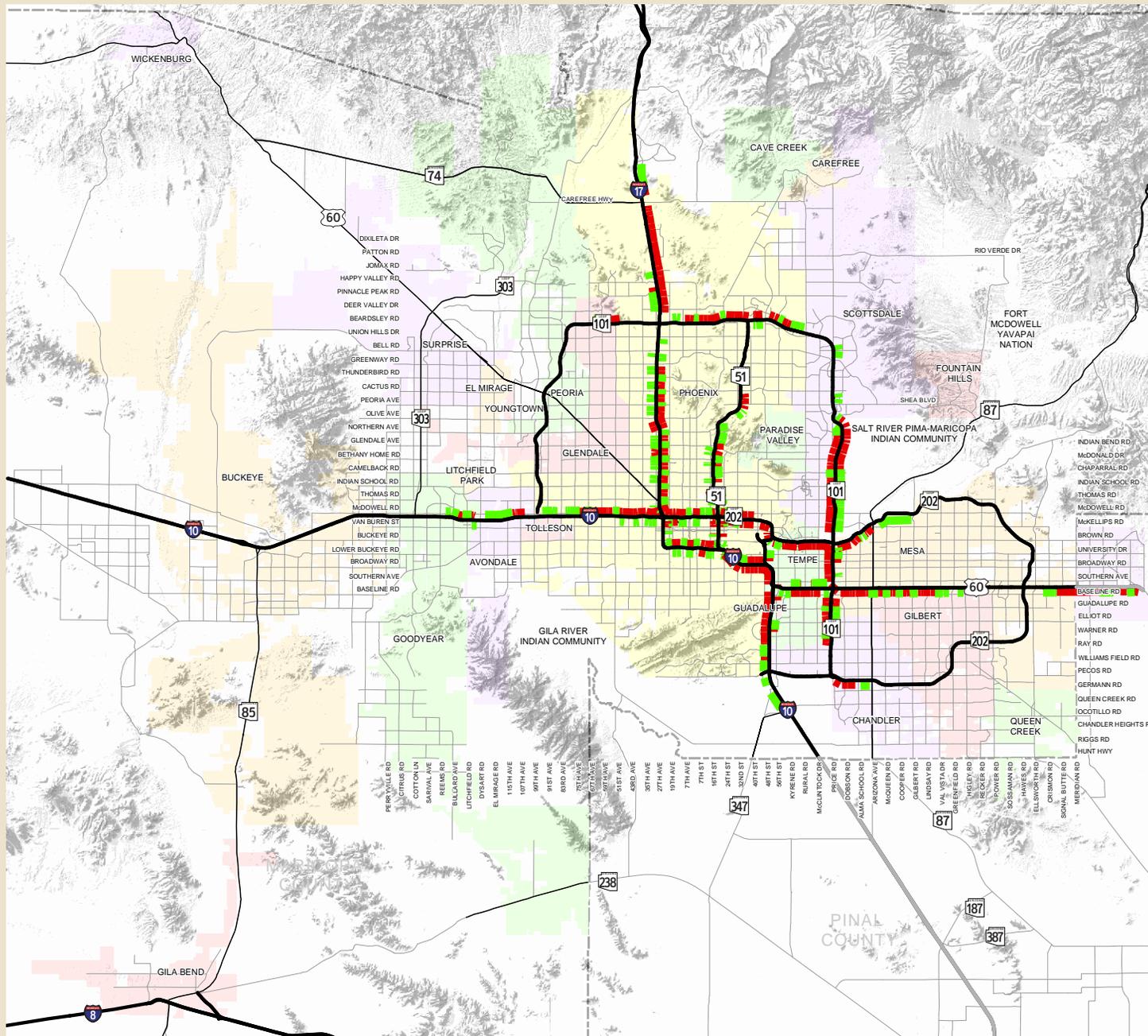
One of the key components of the transit performance monitoring effort is the Transit Performance Report (TPR). The TPR is prepared and updated annually by Valley Metro/Regional Public Transportation Authority (RPTA). This report is

Fig. 9-1



MAG 2010 Annual Report
on Proposition 400

2008 Base Year Network:
Freeway PM Peak Period
Hours of
Level of Service E & F



- █ Less than 1
- █ Greater than 1
- Freeways
- Highways
- Other Roads
- - -** County Boundary

Regional transportation facilities in Pinal County are planned by the Central Arizona Association of Governments (CAAG).



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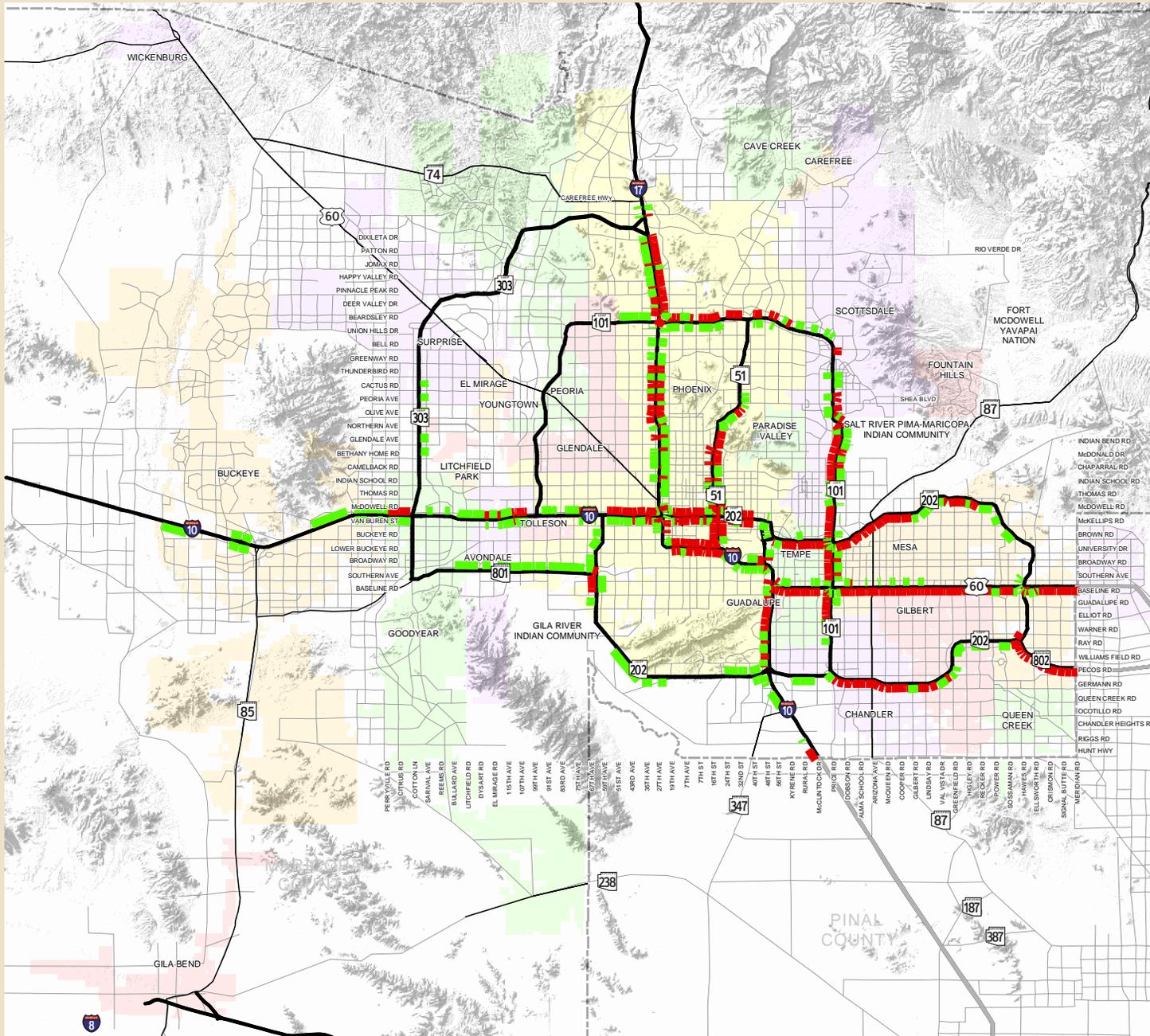
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Fig. 9-2



**MAG 2010 Annual Report
on Proposition 400**

**2030 RTP Network:
Freeway PM Peak Period
Hours of
Level of Service E & F**



- █ Less than 1
- █ Greater than 1
- 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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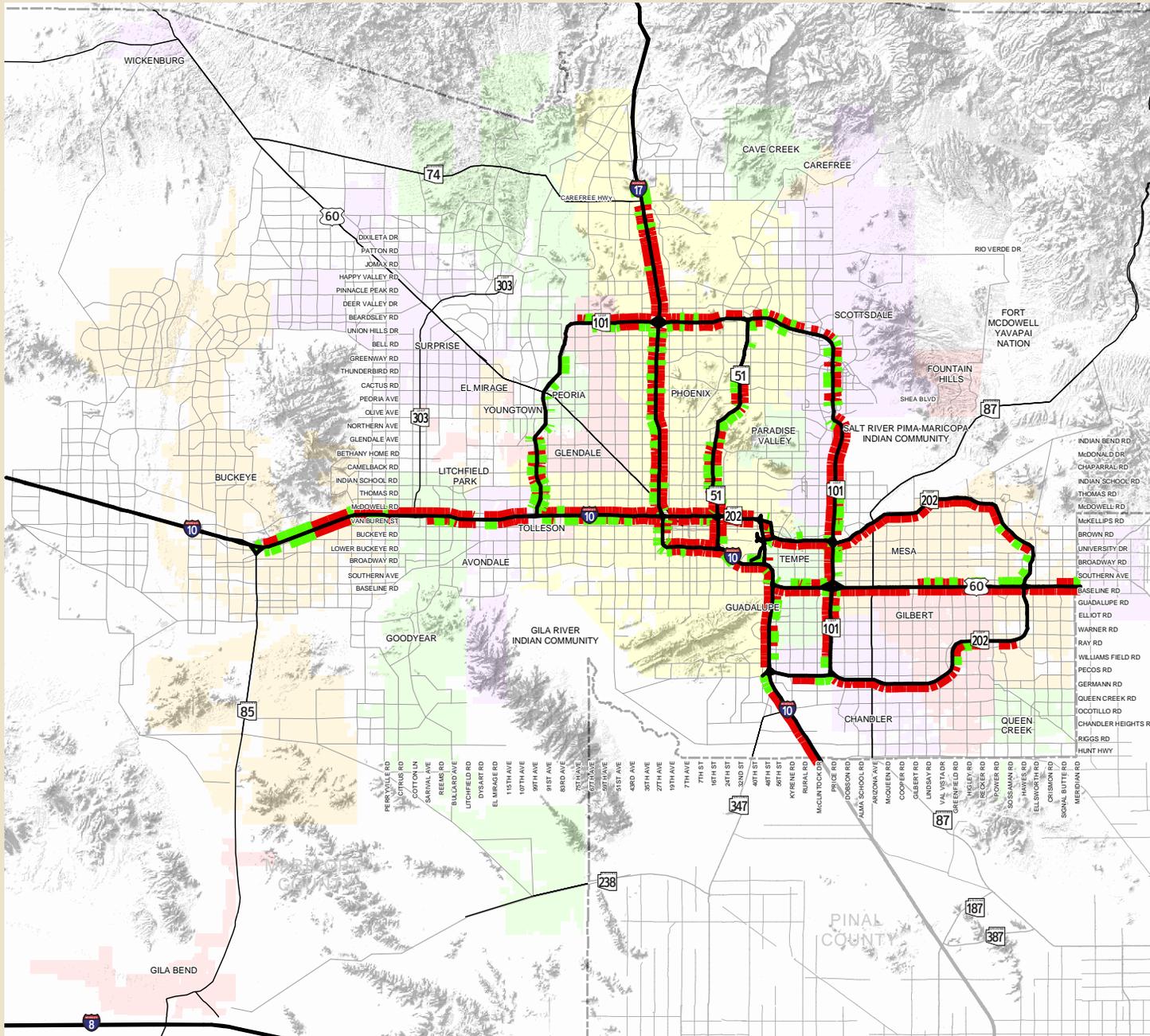
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Fig. 9-3



MAG 2010 Annual Report
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2030 No Build Network:
Freeway PM Peak Period
Hours of
Level of Service E & F

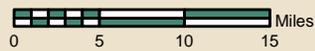


- - - Less than 1
- - - Greater than 1
- Freeways
- Highways
- Other Roads
- - - County Boundary

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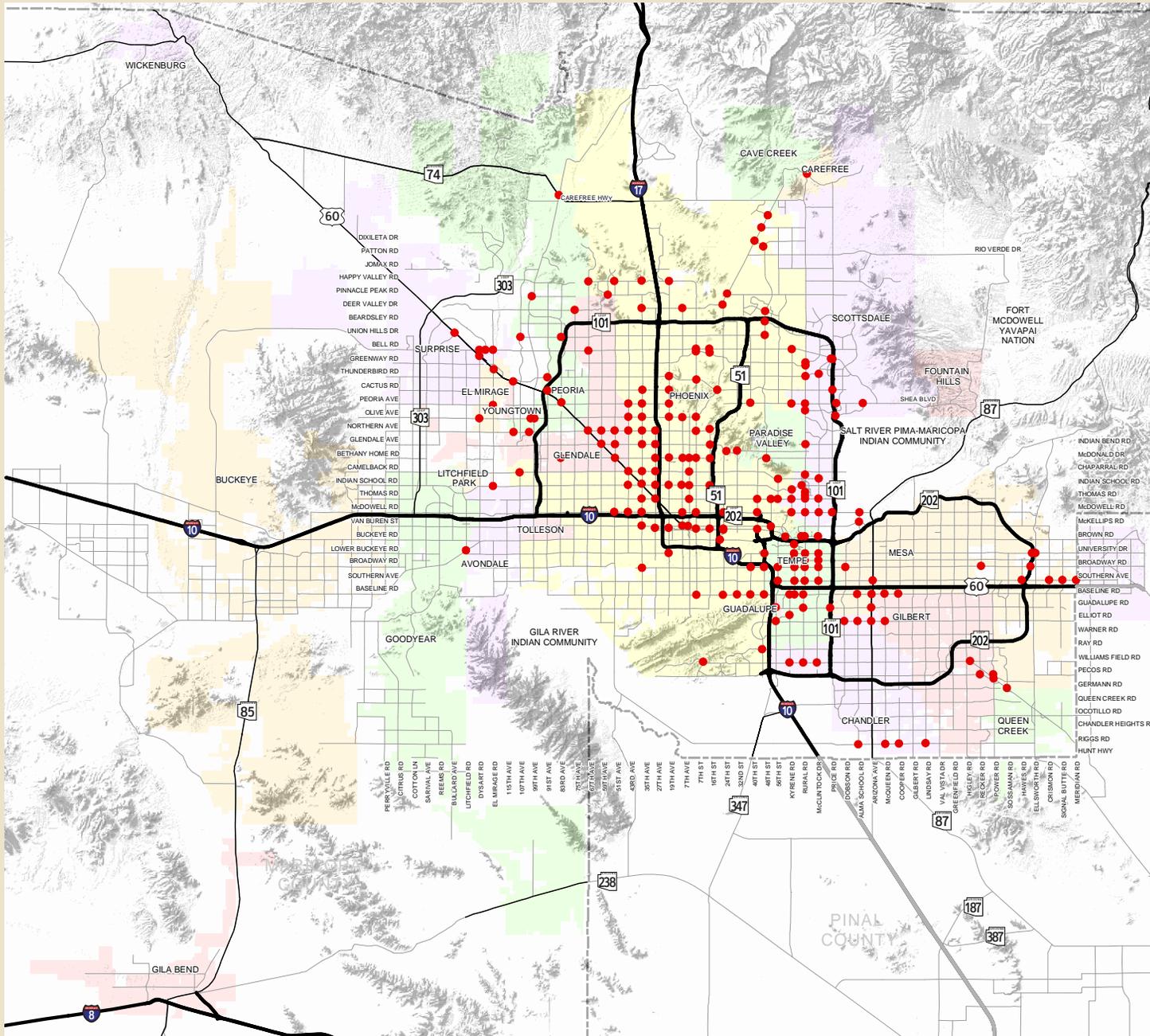
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Fig. 9-4



MAG 2010 Annual Report
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2008 Base Year Network:
Intersections
PM Peak Period
Level of Service E & F



- Level of Service E & F
- Freeways
- Highways
- Other Roads
- County Boundary

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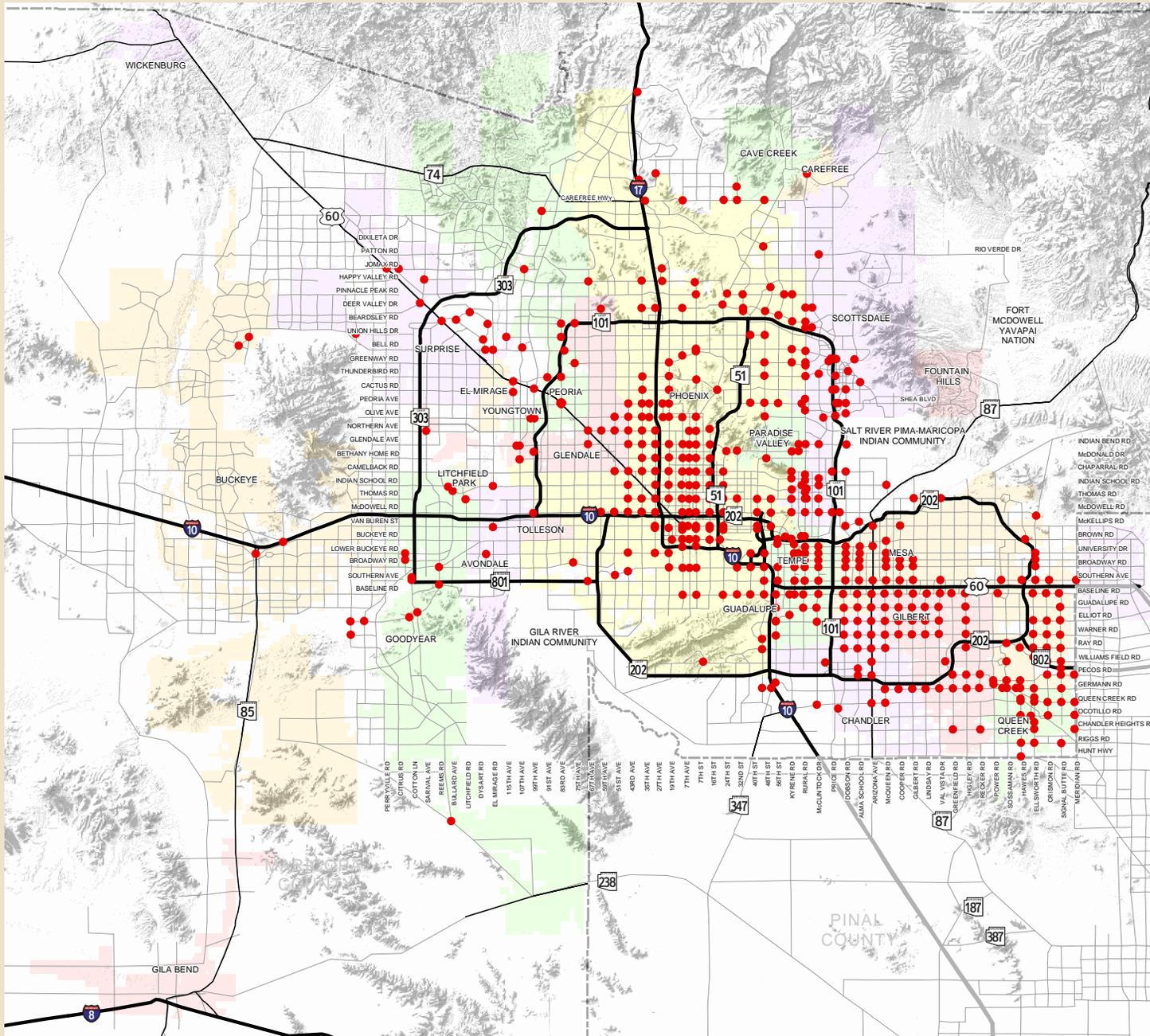
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Fig. 9-5



**MAG 2010 Annual Report
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**2030 RTP Network:
Intersections
PM Peak Period
Level of Service E & F**



- Level of Service E & F
- 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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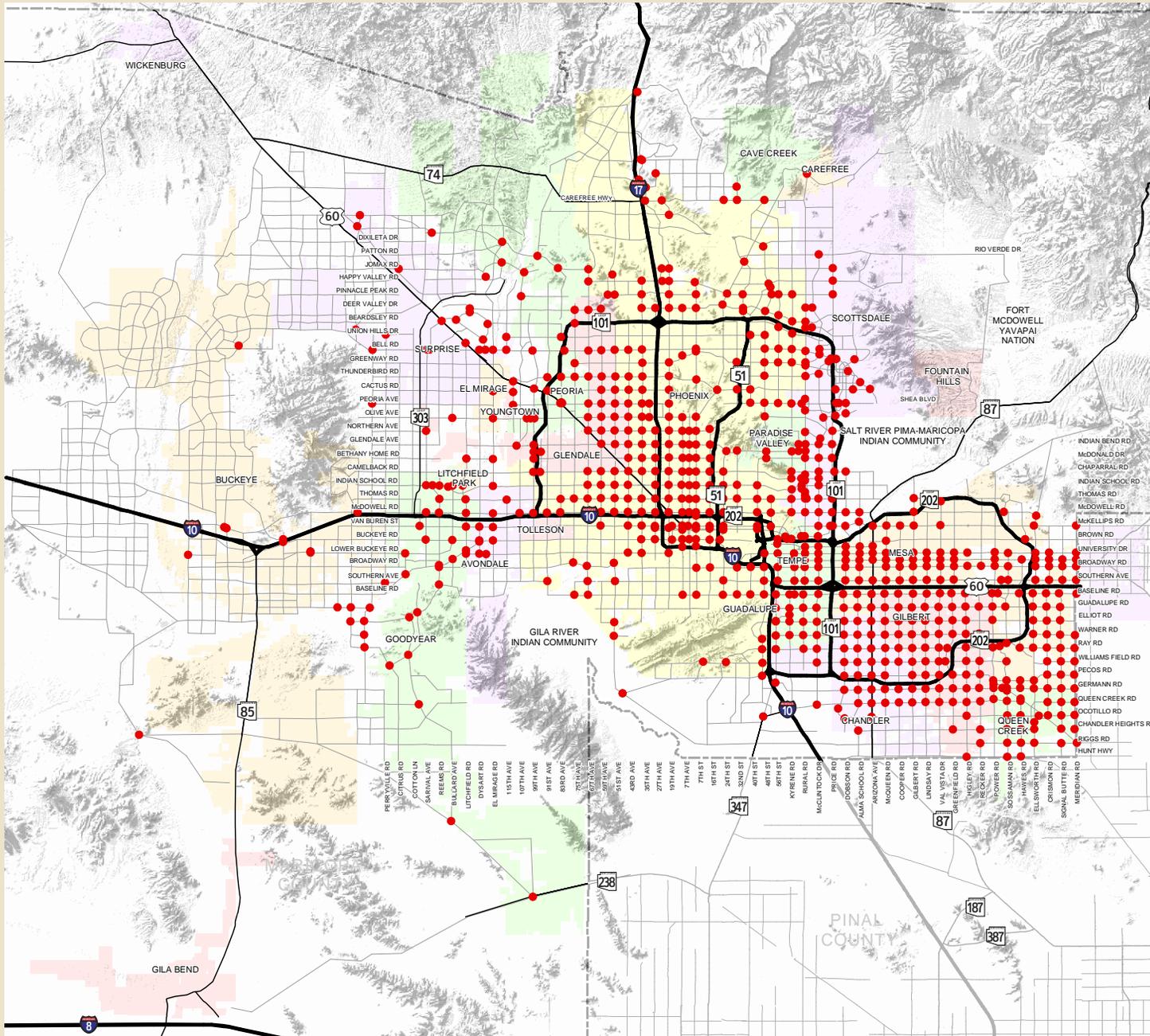
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Fig. 9-6



MAG 2010 Annual Report
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2030 No Build Network:
Intersections
PM Peak Period
Level of Service E & F



- Level of Service E & F
- 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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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 also developed initial performance targets that allow comparison between performance expectations and actual performance. These performance measures and performance targets are being incorporated into the TPR. As plan implementation continues, targets are reviewed, refined and indexed to inflation as appropriate.

The SEES framework performance targets establish a baseline of performance expectation for Fixed Route bus (system-wide); 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 Operating Results

The specific performance measures and targets developed during the Service Efficiency and Effectiveness Study are listed in Tables 9-5 through 9-7. It is important to note that SEES targets for LRT are preliminary, since data only represents one year of service. Results are preliminary and may not be an appropriate basis for final targets until the system continues to operate and mature.

Tables 9-5 through 9-7 also include actual operating results, where available, from the 2006, 2007 and 2008 Transit Performance Reports (TPR). The TPR process is still in a transition between the previous Performance Management Analysis System format and the new TPR. The data presented is based on the findings from the SEES and data available at this time. The modes covered by the TPR includes fixed route bus, paratransit, and, in the future, light rail. Fixed route bus service includes local routes, super grid (major arterial routes), Express/Bus Rapid Transit, Circulators, and rural connector routes and shuttles.

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 corridor 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 consolidates the data collection efforts related

to system performance and develops 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 continuously provide the public with timely and relevant information on the performance of the multi-modal transportation system. As mentioned, the Regional Public Transportation Authority has established a specific set of performance measures to monitor and evaluate bus and rail systems in the region, results are published in the RPTA Annual Transit Performance Report. For roadway systems in the region, a broad range data to support performance measurement activities has been collected and state-of-the-art modeling capabilities are in place. In order to enhance these initial efforts, in June 2008 MAG initiated the Performance Measurement study to further refine and focus the performance monitoring approach for the regional roadway network.

**TABLE 9-5
FIXED ROUTE BUS PERFORMANCE MEASURES (SYSTEM-WIDE)**

Measure	Target	2006 Results	2007 Results	2008 Results
Cost Efficiency/Effectiveness				
Farebox Recovery Ratio	25%	23.6%	24.2%	22.4%
Operating Cost per Boarding	\$2.49	\$2.29	\$2.62	\$3.05
Subsidy (Net Operating Cost per Boarding)	\$1.88	\$1.75	\$1.99	\$2.37
Operating Cost Per Revenue Mile	\$5.32	\$4.90	\$5.28	\$5.61
Average Fare	\$0.72	\$0.54	\$0.64	\$0.68
Service Effectiveness				
Annual Increase in Total Boardings	3.0%	3.4%	-1.1%	3.5%
Annual Increase in Average Boardings (Weekday/Sat., Sun.)	3.0%, 3.0%	5.0%, 10%,6%	-1.9%, -2.7%,1.15%	3.3%, 3.8%,12.1%
Avg. Boardings per Revenue Mile	2.10	2.15	2.01	1.84

**TABLE 9-6
PARATRANSIT PERFORMANCE MEASURES**

Measure	Target	2006 Results	2007 Results	2008 Results
Cost Efficiency/Effectiveness				
Farebox Recovery Ratio	5.0%	4.9%	4.4%	4.0%
Operating Cost per Boarding	\$30.61	\$28.55	\$31.97	\$35.33
Subsidy (Net Operating Cost) per Boarding)	\$29.12	\$27.16	\$30.56	\$33.90
Operating Cost Per Revenue Hour	\$53.92	\$50.30	\$55.46	\$59.04
Service Effectiveness				
Annual Increase in Total Boardings	3.0%	3.1%	-1.7%	-2.1%
Boardings per Revenue Hour	1.76	1.76	1.73	1.67
ADA On-time Performance	90.0%	89.8%	95.4%	94.7%

**TABLE 9-7
LIGHT RAIL TRANSIT (LRT) PERFORMANCE MEASURES**

Measure	Target	Actual FY 10 July 1, 2009 thru June 30, 2010
<u>Cost Efficiency/Effectiveness</u>		
Farebox Recovery Ratio	25.0%	28.1%
Operating Cost per Boarding	\$3.04	\$2.71
Subsidy (Net Operating Cost per Boarding)	\$2.23	\$1.95
Cost Per Revenue Mile	\$15.43	\$12.39
Average Fare	\$0.82	\$0.76
<u>Service Effectiveness</u>		
Annual Total Boardings	7,827,000	12,112,733
Boardings Average Weekday	26,090	38,098
Boardings Average Saturday	20,800	27,779
Boardings Average Sunday/Holiday	11,267	16,801
Boardings per Vehicle Revenue Mile	3.94	4.57
Boardings per Revenue Mile	8.04	9.13
Safety Incidents per 100,000 Vehicle Miles	0.874	0.41
Security Incidents per "x" Boardings	2.00	No data
Complaints per "x" Boardings	28	No data
On-Time Performance	95.0%	95.8%
Miles Between Mechanical Failures	25,000	11,738
Customer Satisfaction	89.0%	No data

A Performance Measurement Framework has been developed with the participation of MAG's member agencies, and will be used for periodic reporting as the implementation of the RTP moves forward. Additionally, recognizing the close relationship between congestion and performance, and in an effort to align key performance measurement indicators with the congestion management process, MAG has combined this study with the Congestion Management Update in order to coordinate results and implementation of strategies. Based on the findings of this study and input from the Transit Performance Report, 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, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Estimated Cost: FY 2006-2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Information
		Design	R/W	Construc.	Total							
SR 801 (I-10 Reliever)												
F1	SR 85 to Loop 303	0.0	0.0	0.0	0.0	0.0	0.0	192.7	192.7	2031	11.0	Final construction moved beyond FY 2026 in FY 2010.
F2	Loop 303 to Loop 202	0.0	15.0	0.0	14.9	33.4	48.3	1,341.2	1,389.5	2031	13.0	Final construction moved beyond FY 2026 in FY 2010.
Subtotal		0.0	15.0	0.0	14.9	33.4	48.3	1,533.9	1,582.2		24.0	
Loop 202 (South Mountain Freeway)												
F3	I-10 (West) to 51st Avenue	0.3	0.0	0.0	0.3	1,091.9	1,092.2	0.0	1,092.2	2021	10.0	
F4	51st Avenue to Loop 202/I-10	0.1	0.0	0.0	0.1	827.5	827.6	0.0	827.6	2017	12.0	
Subtotal		0.4	0.0	0.0	0.4	1,919.4	1,919.8	0.0	1,919.8		22.0	
Loop 303 (Estrella Freeway)												
F5	I-17 to US 60 (Grand Avenue)	27.5	3.6	130.9	162.0	434.9	596.9	0.0	596.9	2021	18.0	
F6	US 60 (Grand Avenue) to I-10	22.2	73.5	16.8	112.5	1,278.8	1,391.3	80.0	1,471.3	2014/2027	15.0	Includes final phase of Northern Pkwy. T.I.
F7	I-10 to I-10R/MC 85	0.0	0.0	0.0	0.0	107.0	107.0	229.0	336.0	2028	5.0	Final construction moved beyond FY 2026 in FY 2010.
Subtotal		49.7	77.1	147.7	274.5	1,820.7	2,095.2	309.0	2,404.2		38.0	
SR 802 (Williams Gateway Freeway)												
F8	Loop 202 to Ellsworth Road	1.1	12.2	0.0	13.3	208.6	221.9	43.8	265.7	2027	2.0	Interim construction advanced to FY 2012; final construction moved beyond FY 2026 in FY 2010.
F9	Ellsworth Road to Meridian Road	0.0	0.0	0.0	0.0	60.8	60.8	157.8	218.6	2028	3.0	Final construction moved beyond FY 2026 in FY 2010.
Subtotal		1.1	12.2	0.0	13.3	269.4	282.7	201.6	484.3		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	0.0	0.0	46.6	46.6	2030		Acquisition moved beyond FY 2026.
F11	Right-of-Way Protection for SR 74 (US 60 to Loop 303)	0.0	0.0	0.0	0.0	18.7	18.7	26.1	44.8	2025		Acquisition moved beyond FY 2026.
Subtotal		0.0	0.0	0.0	0.0	18.7	18.7	72.7	91.4			
Sky Harbor Expressway												
F12	Superior Ave. to University Dr.											Project deleted from program in FY 2008.
Subtotal		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
TOTAL		51.2	104.3	147.7	303.1	4,061.6	4,364.7	2,117.2	6,481.9			

TABLE A-2
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - WIDEN EXISTING FACILITIES: GENERAL PURPOSE LANES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Estimated Cost: FY 2006-2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgrm. for Final Construction	Project Length (Center-line Miles)	Other Information
		Design	R/W	Construc.	Total							
I-10												
F20	SR 85 to Loop 303	2.5	0.0	12.4	14.9	19.2	34.1	40.0	74.1	2009/2027	12.0	Includes advancement of segment between Loop 303 and Verrado to FY 2009 as an ARRA project. Final construction of remainder moved beyond FY 2026 in FY 2010.
F21	Loop 303 to Loop 101	8.0	1.5	103.1	112.6	34.7	147.3	0.0	147.3	2009	9.0	Includes projects F22, F70 and F71; inside widening completed in FY 2010.
F22	Dysart Road to Loop 101											Combined with project F21.
F23	Loop 101 to I-17	0.0	0.0	0.0	0.0	88.2	88.2	0.0	88.2	2019	7.0	
F24	SR 51 to 32nd Street											Project limits redefined from SR-51 to 40th to cover SR-51 to 32nd St.; Project dropped from program in FY 2010 and designated as an illustrative project in the 2010 RTP Update.
F25	32nd Street to Loop 202/Santan	0.2	10.1	3.2	13.5	684.6	698.1	0.0	698.1	2015	11.0	Includes auxiliary lane project from Southern Ave. to SR 143. Project limits redefined from 40th St. to Baseline to cover 32nd St. to 202L/Santan.
F26	Baseline Road to Loop 202/Santan											Combined with F25
F27	Loop 202/Santan Freeway to Riggs Rd.	0.0	0.0	0.0	0.0	73.7	73.7	0.0	73.7	2015	6.0	Includes project F72.
	Subtotal	10.7	11.6	118.7	141.0	900.4	1,041.4	40.0	1,081.4			
I-17												
F28	New River Road to Anthem Way	0.0	0.0	0.0	0.0	0.0	0.0	57.4	57.4	2028	3.0	Final construction moved beyond FY 2026 in FY 2010.
F29	Anthem Way to Carefree Highway	2.5	0.0	12.4	14.9	7.6	22.5	83.6	106.1	2009/2027	5.0	Includes project F73. Interim GP lane improvements were completed in FY 2010 as an ARRA project. Final construction of remainder moved beyond FY 2026 in FY 2010.

Map Code	Facility	Expenditures through FY 2010: (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Estimated Cost: FY 2006-2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgrm. for Final Construction	Project Length (Center-line Miles)	Other Information
		Design	R/W	Construc.	Total							
F30	Carefree Highway to Loop 101	12.8	116.5	166.0	295.3	0.0	295.3	0.0	295.3	2008	9.0	Includes project F74; project completed in FY 2010.
F31	Loop 101 to Arizona Canal	0.0	0.0	0.0	0.0	92.4	92.4	0.0	92.4	2015	6.0	
F32	Arizona Canal to McDowell Road	0.0	0.0	0.0	0.0	598.6	598.6	0.0	598.6	2024	7.0	
	Subtotal	15.3	116.5	178.4	310.2	698.6	1,008.8	141.0	1,149.8			
Loop 101 (Agua Fria Freeway)												
F33	US 60/Grand Avenue to I-17	0.0	0.0	0.0	0.0	0.0	0.0	150.4	150.4	2029	12.0	Final construction moved beyond FY 2026 in FY 2010.
F34	I-10 to US 60/Grand Avenue	0.0	0.0	0.0	0.0	7.6	7.6	108.8	116.4	2027	10.0	Final construction moved beyond FY 2026 in FY 2010.
	Subtotal	0.0	0.0	0.0	0.0	7.6	7.6	259.2	266.8			
Loop 101 (Pima Freeway)												
F35	I-17 to SR 51	0.0	0.0	0.0	0.0	73.5	73.5	0.0	73.5	2024	7.0	
F36	SR 51 to Princess Drive	0.0	0.0	0.0	0.0	77.9	77.9	0.0	77.9	2021	6.0	
F37	Princess Drive to Shea Boulevard	0.0	0.0	0.0	0.0	56.4	56.4	0.0	56.4	2021	4.0	
F38	Shea Boulevard to Loop 202 (Red Mt.)	3.5	0.0	0.0	3.5	93.9	97.4	0.0	97.4	2014	11.0	
	Subtotal	3.5	0.0	0.0	3.5	301.7	305.2	0.0	305.2			
Loop 101 (Price Freeway)												
F39	Baseline Road to Loop 202/Santan	0.0	0.0	0.0	0.0	53.4	53.4	0.0	53.4	2023	6.0	
	Subtotal	0.0	0.0	0.0	0.0	53.4	53.4	0.0	53.4			
Loop 202 (Red Mountain Freeway)												
F40	I-10/SR 51 to Loop 101 (Pima)	0.9	0.0	203.6	204.5	22.5	227.0	0.0	227.0	2008	9.0	Includes project F41; converted to design-build project in FY 2008; project completed in FY 2010.
F41	Rural Road to Loop 101 (EB & WB)											Combined with project F40.
F42	Loop 101 to Gilbert Road	0.0	0.0	0.0	0.0	60.3	60.3	0.0	60.3	2015	6.0	
F43	Gilbert Road to Higley Road	0.0	0.0	0.0	0.0	0.0	0.0	51.9	51.9	2028	5.0	Final construction moved beyond FY 2026 in FY 2010.
F44	Higley Road to US 60/Superstition	0.0	0.0	0.0	0.0	0.0	0.0	108.3	108.3	2029	10.0	Final construction moved beyond FY 2026 in FY 2010.
	Subtotal	0.9	0.0	203.6	204.5	82.8	287.3	160.2	447.5			
Loop 202 (Santan Freeway)												
F45	I-10 to Dobson Rd.	0.0	0.0	0.0	0.0	3.3	3.3	47.0	50.3	2027	5.0	Final construction moved beyond FY 2026 in FY 2010.
F46	Dobson Rd. to Val Vista Dr.	0.0	0.0	0.0	0.0	0.0	0.0	83.5	83.5	2029	7.0	Final construction moved beyond FY 2026 in FY 2010.

Map Code	Facility	Expenditures through FY 2010: (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Estimated Cost: FY 2006-2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgrm. for Final Construction	Project Length (Center-line Miles)	Other Information
		Design	R/W	Construc.	Total							
F47	Val Vista Road to US 60	0.0	0.0	0.0	0.0	0.0	0.0	104.0	104.0	2030	11.0	Final construction moved beyond FY 2026 in FY 2010.
	Subtotal	0.0	0.0	0.0	0.0	3.3	3.3	234.5	237.8			
SR 51 (Piestewa Freeway)												
F48	Loop 101/Pima to Shea Boulevard	0.0	0.0	0.0	0.0	4.0	4.0	56.2	60.2	2027	6.0	Final construction moved beyond FY 2026 in FY 2010.
	Subtotal	0.0	0.0	0.0	0.0	4.0	4.0	56.2	60.2			
SR 85												
F49	I-10 to I-8	1.5	0.8	63.3	65.6	132.8	198.4	0.0	198.4	2018	32.5	Includes project F50.
F50	Hazen Road to I-8											Combined with project F49.
	Subtotal	1.5	0.8	63.3	65.6	132.8	198.4	0.0	198.4			
US 60 (Grand Avenue)												
F51	Loop 303 to Loop 101	3.9	0.9	5.5	10.3	82.6	92.9	0.0	92.9	2016	10.0	Widening phase identified as an ARRA project for programming in FY 2009.
F52	Loop 101 to Van Buren Street	2.5	0.0	0.0	2.5	71.6	74.1	67.5	141.6	2030	11.0	Final construction moved beyond FY 2026 in FY 2010.
F53	99th Ave. to 83rd Ave.	0.7	0.0	4.8	5.5	5.1	10.6	0.0	10.6	2009	2.0	Designated as an ARRA project.
	83rd Ave. / Peoria Ave.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2006	0.5	Project completed in FY 2007.
F54	71st Ave. to Grand Canal Bridge	0.0	0.0	3.0	3.0	1.0	4.0	0.0	4.0	2006	6.5	Project completed in FY 2008.
	Subtotal	7.1	0.9	13.3	21.3	160.3	181.6	67.5	249.1			
US 60 (Superstition Freeway)												
F55	I-10 to Loop 101	0.0	0.0	24.8	24.8	0.2	25.0	0.0	25.0	2008	5.0	Project completed in FY 2010.
F56	Gilbert Rd. to Power Road	1.0	0.0	86.7	87.7	3.0	90.7	0.0	90.7	2007	6.0	Includes project F91. Project completed in FY 2007.
F57	Crismon Road to Meridian Road	0.0	0.0	0.0	0.0	28.4	28.4	0.0	28.4	2017	2.0	Includes project F92.
	Subtotal	1.0	0.0	111.5	112.5	31.6	144.1	0.0	144.1			
US 93 (Wickenburg Bypass)												
F58	Wickenburg Bypass	0.0	15.1	26.9	42.0	0.0	42.0	0.0	42.0	2007	1.7	Project completed in FY 2010.
	Subtotal	0.0	15.1	26.9	42.0	0.0	42.0	0.0	42.0			
SR 143 (Hohokam Expressway)												
F59	Sky Harbor Blvd. T.I.	4.9	0.0	0.0	4.9	34.0	38.9	0.0	38.9	2010	1.0	Project added to program in FY 2008.
	Subtotal	4.9	0.0	0.0	4.9	34.0	38.9	0.0	38.9			
	TOTAL	44.9	144.9	715.7	905.5	2,410.5	3,316.0	958.6	4,274.6			

TABLE A-3
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - WIDEN EXISTING FACILITIES: HIGH OCCUPANCY VEHICLE LANES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY-2010 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Estimated Cost: FY 2006-2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Information
		Design	R/W	Construc.	Total							
I-10												
F70	Loop 303 to Dysart Road											Combined with project F21.
F71	Dysart Road to Loop 101											Combined with project F21.
F72	Loop 202/Santan to Riggs Road											Combined with project F27.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
I-17												
F73	Anthem Way to Carefree Highway											Combined with project F29.
F74	Carefree Highway to Loop 101											Combined with project F30.
F75	I-10 (West) to I-10 (East)	0.0	0.0	0.0	0.0	400.0	400.0	0.0	400.0	2025	7.0	Expanded to include GP lanes.
	Subtotal	0.0	0.0	0.0	0.0	400.0	400.0	0.0	400.0			
Loop 101 (Agua Fria Freeway)												
F76	I-10 to SR-51	0.0	0.0	0.0	0.0	148.5	148.5	0.0	148.5	2010	29.0	Includes F77 and F78. Project limits expanded from US 60 to I-17 to cover I-10 to SR 51.
F77	I-10 to US 60/Grand Avenue											Combined with F76.
	Subtotal	0.0	0.0	0.0	0.0	148.5	148.5	0.0	148.5			
Loop 101 (Pima Freeway)												
F78	I-17 to SR 51 (Tatum)											Combined with F76.
F79	SR 51 (Tatum) to Princess Drive	1.4	0.0	16.0	17.4	1.4	18.8	0.0	18.8	2008	6.0	Project completed in FY 2010.
F80	Princess Drive to Loop 202 (Red Mt.)	5.7	0.0	56.1	61.8	0.0	61.8	0.0	61.8	2007	4.0	Project completed in FY 2009.
F81	Shea Boulevard to Loop 202											Combined with project F80.
	Subtotal	7.1	0.0	72.1	79.2	1.4	80.6	0.0	80.6			
Loop 101 (Price Freeway)												
F82	Loop 202/Red Mountain to Loop 202/Santan	3.1	0.0	35.2	38.3	4.9	43.2	0.0	43.2	2008	10.0	Includes project F83. Project completed in FY 2010.
F83	Baseline to Loop 202/Santan											Combined with project F82
	Subtotal	3.1	0.0	35.2	38.3	4.9	43.2	0.0	43.2			

Map Code	Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011- 2026 (2010 Dollars)	Total Estimated Cost: FY 2006- 2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027- 2031 (2010 Dollars)	Total Estimated Cost: FY 2006- 2031 (2010 and YOE Dollars)	FY Prgm. for Final Construc- tion	Project Length (Center- line Miles)	Other Information
		Design	R/W	Construc.	Total							
Loop 202 (Red Mountain Freeway)												
F84	Loop 101 to Gilbert Road	2.6	0.0	21.3	23.9	2.9	26.8	0.0	26.8	2008	6.0	Project completed in FY 2010.
F85	Gilbert Road to Higley Road	0.0	0.0	0.0	0.0	19.3	19.3	0.0	19.3	2019	5.0	
F86	Higley Road to US 60/Superstition	0.0	0.0	0.0	0.0	33.5	33.5	0.0	33.5	2022	10.0	
	Subtotal	2.6	0.0	21.3	23.9	55.7	79.6	0.0	79.6			
Loop 202 (Santan Freeway)												
F87	I-10 to Gilbert Road	0.0	0.0	0.0	0.0	142.0	142.0	0.0	142.0	2010	10.5	Includes project F128 and F129 and portion of F88. Project limits extended from I-10 to Dobson Rd. to cover I-10 to Gilbert Rd.
F88	Dobson Road to Val Vista Road											Project combined with F87 and F89.
F89	Gilbert Rd. to US 60 (Superstition)	0.0	0.0	0.0	0.0	52.3	52.3	0.0	52.3	2022	14.5	Includes portion of F88. Project limits extended from Val Vista Dr. to US 60 to cover Gilbert Rd. to US 60.
	Subtotal	0.0	0.0	0.0	0.0	194.3	194.3	0.0	194.3			
SR 51 (Piestewa Freeway)												
F90	Loop 101/Pima to Shea Boulevard	3.4	0.0	48.0	51.4	0.0	51.4	0.0	51.4	2007	6.0	Includes project F130. Project completed in FY 2009.
	Subtotal	3.4	0.0	48.0	51.4	0.0	51.4	0.0	51.4			
US 60 (Superstition Freeway)												
F91	Gilbert Road to Power Road											Combined with project F56.
F92	Crismon Road to Meridian Road											Combined with project F57.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	TOTAL	16.2	0.0	176.6	192.8	804.8	997.6	0.0	997.6			

TABLE A-4
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - NEW ARTERIAL INTERCHANGES ON EXISTING FACILITIES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Estimated Cost: FY 2006-2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgm. for Final Construction	Project Length (Centerline Miles)	Other Information
		Design	R/W	Construc.	Total							
I-10												
F100	Bullard Avenue	1.1	5.5	9.6	16.2	0.0	16.2	0.0	16.2	2007	N/A	Project completed in FY 2008.
F101	Chandler Heights	0.0	0.0	0.0	0.0	22.9	22.9	0.0	22.9	2022	N/A	
F102	El Mirage	0.0	0.0	0.0	0.0	20.3	20.3	0.0	20.3	2023	N/A	
F103	Perryville Road	0.0	0.0	0.0	0.0	21.1	21.1	0.0	21.1	2013	N/A	
F104	Sky Harbor West Access	0.0	0.0	0.0	0.0	50.6	50.6	0.0	50.6	2015	N/A	Project added to program in FY 2010.
Subtotal		1.1	5.5	9.6	16.2	114.9	131.1	0.0	131.1			
I-17												
F104	Dixileta Drive/Jomax Road	2.8	2.7	40.2	45.7	4.0	49.7	0.0	49.7	2007	N/A	Includes project F106. Project completed in FY 2009.
F105	Dove Valley Road	2.2	0.0	20.2	22.4	2.6	25.0	0.0	25.0	2009	N/A	Local advancement; project completed in FY 2010.
F106	Jomax Road											Combined with project F104.
Subtotal		5.0	2.7	60.4	68.1	6.6	74.7	0.0	74.7			
Loop 101 (Agua Fria Freeway)												
F107	Beardsley Road/Union Hills Drive	0.1	0.0	6.3	6.4	11.3	17.7	0.0	17.7	2009	N/A	Local advancement. Identified as an ARRA project.
F108	Bethany Home Road	1.5	0.0	8.4	9.9	0.0	9.9	0.0	9.9	2006	N/A	Project completed in FY 2008.
Subtotal		1.6	0.0	14.7	16.3	11.3	27.6	0.0	27.6			
Loop 101 (Pima Freeway)												
F109	64th Street	2.3	1.1	24.1	27.5	3.9	31.4	0.0	31.4	2007	N/A	Project completed in FY 2009.
Subtotal		2.3	1.1	24.1	27.5	3.9	31.4	0.0	31.4			
Loop 202 (Red Mountain Freeway)												
F110	Mesa Drive (Ramps Only)	0.0	0.0	0.0	0.0	0.0	0.0	13.5	13.5	2030	N/A	Final construction moved beyond FY 2026 in FY 2010.
Subtotal		0.0	0.0	0.0	0.0	0.0	0.0	13.5	13.5			
US 60 (Superstition Freeway)												
F111	Lindsay Road (Half Interchange)	0.0	0.0	0.0	0.0	0.6	0.6	7.6	8.2	2027	N/A	Final construction moved beyond FY 2026 in FY 2010.

Map Code	Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Estimated Future Costs: FY 2011-2026 (2010 Dollars)	Total Estimated Cost: FY 2006-2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgrm for Final Construction	Project Length (Centerline Miles)	Other Information
		Design	R/W	Construc.	Total							
F112	Meridian Road (Half Interchange)	0.0	0.0	0.0	0.0	12.5	12.5	0.0	12.5	2013	N/A	
	Subtotal	0.0	0.0	0.0	0.0	13.1	13.1	7.6	20.7			
Other Arterial Interchange Improvements												
	Deer Valley Road at I-17											Deleted from program in FY 2006.
	Higley Road at US 60	0.3	0.0	5.0	5.3	0.0	5.3	0.0	5.3	2007	N/A	Project completed in FY 2008.
	Ray Road at I-10	0.0	0.0	9.4	9.4	0.0	9.4	0.0	9.4	2006	N/A	Project completed in FY 2008.
	Carefree Highway at I-17	1.4	0.0	22.4	23.8	1.2	25.0	0.0	25.0	2007	N/A	Project completed in FY 2009.
	43rd Avenue at I-10	0.3	0.0	2.5	2.8	0.0	2.8	0.0	2.8	2007	N/A	Project completed in FY 2008.
	51st Avenue at I-10											Combined with 43rd Avenue.
	Avondale Blvd. at I-10	0.0	0.0	0.0	0.0	2.7	2.7	0.0	2.7	2010	N/A	Included in program in FY 2009
	SR 347 at I-10	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	2008	N/A	Included in program in FY 2007
	Cactus Rd. at I-17	0.0	0.0	6.7	6.7	0.1	6.8	0.0	6.8	2006	N/A	Project completed in FY 2008.
	Thunderbird Rd at Loop 101	0.0	0.0	3.4	3.4	0.0	3.4	0.0	3.4	2008	N/A	Included in program in FY 2007; project completed in FY 2010.
	Olive Ave. at Loop 102	0.0	0.0	0.3	0.3	1.9	2.2	0.0	2.2	2009	N/A	Included in program in FY 2009.
	Chaparral Rd. at Loop 101	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.9	2010	N/A	Included in program in FY 2009.
	Subtotal	2.0	0.0	49.7	51.7	7.0	58.7	0.0	58.7			
	TOTAL	12.0	9.3	158.5	179.8	156.8	336.6	21.1	357.7			

**TABLE A-5
 FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - NEW HOV RAMPS AT FREEWAY-TO-FREEWAY INTERCHANGES
 EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
 (2010 and Year of Expenditure Dollars in Millions)**

Map Code	Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Est. Future Costs: FY 2011-2026 (2010 Dollars)	Total Est. Cost: FY 2006-2026 (2010 and YQE Dollars)	Est. Future Costs: FY 2027-2031 (2010 Dollars)	Total Estimated Cost: FY 2006-2031 (2010 and YQE Dollars)	FY Prgm. for Final Construction	Project Length (Center-line Miles)	Other Information
		Design	R/W	Construc.	Total							
Loop 101												
F125	I-10											Project dropped from program in FY 2010 and designated as an illustrative project in the 2010 RTP Update.
F126	I-17											Project dropped from program in FY 2010 and designated as an illustrative project in the 2010 RTP Update.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Loop 202 (Red Mountain Freeway)												
F127	Red Mountain and US 60 (Superstition)	0.0	0.0	0.0	0.0	0.0	0.0	42.1	42.1	2029	N/A	Final construction moved beyond FY 2026 in FY 2010.
F128	Santan and I-10											Combined with project F87.
F129	Santan and Loop 101 / Price											Combined with project F87.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	42.1	42.1			
SR 51												
F130	Loop 101 / Pima										N/A	Combined with project F90.
	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	42.1	42.1			

TABLE A-6
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - OPERATIONS, MAINTENANCE AND SYSTEMWIDE PROGRAMS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)			Estimated Future Costs: FY 2011- 2026 (2010 Dollars)	Total Estimated Cost: FY 2006- 2026 (2010 and YOE Dollars)	Estimated Future Costs: FY 2027- 2031 (2010 Dollars)	Total Estimated Cost: FY 2006- 2031 (2010 and YOE Dollars)	FY Prgm. for Implementation	Other Information
	Operating	Capital	Total						
Freeway Management System									
Freeway Management System	0.2	9.5	9.7	140.3	150.0	0.0	150.0	2011-2026	Includes all corridor-specific FMS projects, ramp meters, as well as systemwide FMS activities.
Subtotal	0.2	9.5	9.7	140.3	150.0	0.0	150.0		
Maintenance									
Maintenance (Landscaping, including restoration and litter pick-up)	41.1	0.0	41.1	215.0	256.1	82.5	338.6	2011-2026	
Subtotal	41.1	0.0	41.1	215.0	256.1	82.5	338.6		
Noise Mitigation									
Noise Mitigation (noise walls and quiet pavement).	0.1	41.8	41.9	66.2	108.1	120.0	228.1	2011-2026	
Subtotal	0.1	41.8	41.9	66.2	108.1	120.0	228.1		
Systemwide									
Right-of-Way Plans and Titles, Property Management, Advanced R/W Acquisition	2.2	20.2	22.4	97.0	119.4	7.8	127.2	2011-2026	
Preliminary Engineering, Design Change Orders, Risk Management, and Miscel. Studies.	96.2	0.0	96.2	293.5	389.7	74.0	463.7	2011-2026	
Minor projects (park-n-ride lots, T.I. improvements and freeway service patrol).	0.1	43.0	43.1	0.0	43.1	0.0	43.1	2011-2026	
Subtotal	98.5	63.2	161.7	390.5	552.2	81.8	634.0		
TOTAL	139.9	114.5	254.4	812.0	1,066.4	284.3	1,350.7		

TABLE A-7
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - OTHER PROJECTS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Est. Future Costs: FY 2011- 2026 (2010 Dollars)	Total Est. Cost: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY 2027- 2031 (2010 Dollars)	Total Est. Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgrm. for Final Construc- tion	Project Length (Center- line Miles)	Other Information
	Design	R/W	Construc.	Total							
I-17											
Greenway Rd./Thunderbird Rd. (Drainage Improvements)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		N/A	Combined with Peoria Avenue.
Peoria Ave./Cactus Rd. (Drainage Improvements)	0.0	0.0	0.0	0.0	16.5	16.5	0.0	16.5	2015	N/A	Includes Greenway/Thunderbird.
Bethany Home Rd. - Northern Ave., Alhambra District (Construction)	0.0	0.0	0.0	0.0	2.3	2.3	0.0	2.3	2010	N/A	
16th Street - Buckeye Rd.	0.0	0.0	4.6	4.6	0.0	4.6	0.0	4.6	2006	N/A	Project completed in FY 2008.
Buckeye Rd./Northbound On-Ramp (Construction)										N/A	Project deleted in FY 2006.
I-10 to Indian School Rd.	0.0	0.0	0.0	0.0	1.1	1.1	0.0	1.1	2010	N/A	Project added in FY 2010 (ARRA).
Subtotal	0.0	0.0	4.6	4.6	19.9	24.5	0.0	24.5			
US 60 (Superstition Freeway)											
Val Vista to Power (landscape)	0.0	0.0	4.9	4.9	0.0	4.9	0.0	4.9	2007	N/A	Included in program in FY 2006. Completed in FY 2009.
Subtotal	0.0	0.0	4.9	4.9	0.0	4.9	0.0	4.9			
SR 74											
Passing Lanes	0.0	0.0	2.3	2.3	3.5	5.8	0.0	5.8	2010	N/A	Included in program in FY 2006.
Subtotal	0.0	0.0	2.3	2.3	3.5	5.8	0.0	5.8			
SR 87											
Forest Boundary - New Four Peaks (Construction)	0.0	0.0	22.2	22.2	0.0	22.2	0.0	22.2	2007	N/A	Project completed in FY 2009.
MP 211.8 - MP 213.0	0.0	0.0	0.0	0.0	1.8	1.8	0.0	1.8	2010	N/A	Included in program in FY 2007.
New Four Peaks Road - Dos S South Ranch Road	2.2	0.0	0.0	2.2	18.6	20.8	0.0	20.8	2010	N/A	Included in program in FY 2007.
Subtotal	2.2	0.0	22.2	24.4	20.4	44.8	0.0	44.8			
SR 88											
Apache Trail (District Force Account)	0.0	0.0	0.2	0.2	0.0	0.2	0.0	0.2	2006	N/A	Project completed in FY 2007.
Fish Creek Hill	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.2		N/A	Dropped from program in FY 2010.
Subtotal	0.1	0.0	0.2	0.3	0.1	0.4	0.0	0.4			

Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Est. Future Costs: FY 2011- 2026 (2010 Dollars)	Total Est. Cost: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY 2027- 2031 (2010 Dollars)	Total Est. Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgm. for Final Construc- tion	Project Length (Center- line Miles)	Other Information
	Design	R/W	Construc.	Total							
Loop 101 (Agua Fria Freeway)											
I-10 - MC 85 (99th Avenue)	0.6	0.0	0.0	0.6	7.1	7.7	0.0	7.7	2010	N/A	
Northern Ave. to 31st Ave. (Landscape)	0.2	0.0	0.0	0.2	1.3	1.5	0.0	1.5	2007	N/A	Project completed in FY 2008.
Skunk Crk. To Union Hills	0.0	0.0	2.5	2.5	0.0	2.5	0.0	2.5	2007	N/A	Project completed in FY 2008.
I-10 to I-17 (Traffic Flow Imprv.)	0.0	0.0	9.7	9.7	0.0	9.7	0.0	9.7	2007	N/A	Project completed in FY 2008.
Northern Ave. To Grand Ave. (SB)	0.0	0.0	0.0	0.0	2.2	2.2	0.0	2.2	2010	N/A	Project added FY 2010 (ARRA).
51st Ave. to 35th Ave. (EB)	0.0	0.0	0.0	0.0	2.1	2.1	0.0	2.1	2010	N/A	Project added FY 2010 (ARRA).
Subtotal	0.8	0.0	12.2	13.0	12.7	25.7	0.0	25.7			
Loop 101 (Pima Freeway)											
Pima Road Extension (JPA)	0.0	0.0	0.0	0.0	3.9	3.9	0.0	3.9	2007	N/A	Included in program in FY 2008.
Subtotal	0.0	0.0	0.0	0.0	3.9	3.9	0.0	3.9			
Loop 101 (Price Freeway)											
Balboa Dr., Multi-Use Path (Local)	0.0	0.0	0.0	0.0	2.0	2.0	0.0	2.0	2015	N/A	
Galveston St. (Drainage)	0.0	0.0	0.0	0.0	2.1	2.1	0.0	2.1	2009	N/A	Included in program in FY 2009.
Subtotal	0.0	0.0	0.0	0.0	4.1	4.1	0.0	4.1			
Loop 202 (Santan Freeway)											
Lindsey Rd. to Gilbert Rd., Multi-Use Path	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.5	2011	N/A	
Subtotal	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.5			
TOTAL	3.1	0.0	46.4	49.5	65.1	114.6	0.0	114.6			

**TABLE A-8
FREEWAY/HIGHWAY LIFE CYCLE PROGRAM - SUMMARY TOTALS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)**

Facility	Expenditures through FY 2010 (Year of Expenditure Dollars)				Est. Future Costs: FY 2011- 2026 (2010 Dollars)	Total Est. Cost: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY 2027- 2031 (2010 Dollars)	Total Est. Cost: FY 2006-2031 (2010 and YOE Dollars)	FY Prgm. for Final Construc- tion	Project Length (Center- line Miles)	Other Information
	Design	R/W	Const.	Total							
SUMMARY TOTALS	267.3	278.7	1,339.2	1,885.1	8,310.8	10,195.9	3,423.3	13,619.2			

Appendix B

Arterial Street Life Cycle Program

TABLE B-1
ARTERIAL STREET LIFE CYCLE PROGRAM
REGIONAL FUNDING REIMBURSEMENTS AND TOTAL EXPENDITURES: FY 2006-2026
(2010 and Year of Expenditure Dollars in Millions)

YOE Year of Expenditure CONST Construction All Arterial Intersection Improvements
FY Fiscal Year Expend Expenditures ACI Arterial Capacity Improvements
\$ Dollars Reimb Reimbursement(s) * Measured in centerline miles

MAP CODE	FACILITY/LOCATION	PROJECT TYPE	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	LENGTH* (Miles)	OTHER PROJECT INFORMATION
			Reimb through FY10 (YOE\$)	Estimated Future Reimb FY10-FY26 (2010\$)	Total Reimb FY06-FY26 (2010\$,YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY10-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$,YOE\$)			
CHANDLER											
A1	Arizona Ave/Chandler Blvd	All	3.582	0.000	3.582	7.209	0.000	7.209	2006	0.25	Project Completed
A2	Arizona Ave/Elliott Rd	All	3.211	0.000	3.211	4.587	0.000	4.587	2006	0.25	Project Completed
A3	Arizona Ave/Ray Rd	All	3.464	0.000	3.464	4.949	0.000	4.949	2007	0.25	Project Completed
A4	Arizona Ave: Ocotillo Rd to Hunt Highway	ACI	0.000	7.407	7.407	0.000	15.902	15.902	2022	3.00	Project exchanged/deferred to Phase IV
A5	Chandler Blvd/Alma School Rd	All	0.387	3.361	4.096	1.875	9.846	11.721	2012	0.25	
A6	Chandler Blvd/Dobson Rd	All	2.073	0.427	2.500	6.922	0.427	7.349	2011	0.25	
A7	Chandler Blvd/Kyrene Rd	All	0.000	3.753	3.753	0.000	16.656	16.656	2026	0.25	
A8	Gilbert Rd: SR-202L to Hunt Hwy	ACI	6.078	14.649	20.727	14.533	50.595	65.128	2014	5.25	
	Gilbert Rd: SR-202L/Germann to Queen Creek Rd	ACI	6.078	0.670	6.747	10.307	0.000	10.307	2010	1.25	FY10 RARF Closeout Project. Project Completed.
	Gilbert Rd: Queen Creek Rd to Ocotillo Rd	ACI	0.000	4.011	4.011	1.057	10.002	11.059	2012	1.00	
	Gilbert Rd: Chandler Heights Rd to Hunt Hwy	ACI	0.000	5.957	5.957	2.113	30.590	32.703	2013	2.00	
	Gilbert Rd: Ocotillo Rd to Chandler Heights	ACI	0.000	4.011	4.011	1.057	10.002	11.059	2014	1.00	
A9	Kyrene Rd/Ray Rd	All	0.000	3.753	3.753	0.000	17.419	17.419	2024	0.25	

MAP CODE	FACILITY/LOCATION	PROJECT TYPE	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	LENGTH* (Miles)	OTHER PROJECT INFORMATION
			Reimb through FY10 (YOE\$)	Estimated Future Reimb FY10-FY26 (2010\$)	Total Reimb FY06-FY26 (2010\$,YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY10-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$,YOE\$)			
A10	Price Rd Substitute Projects	ACI	0.000	49.506	49.506	0.000	78.312	78.312	2020	6.00	
	Chandler Heights Rd: Arizona Avenue to McQueen Road	ACI	0.000	7.282	7.282	0.000	10.403	10.403	2018	1.00	
	Chandler Heights Road: McQueen Road to Gilbert Road	ACI	0.000	10.728	10.728	0.000	17.250	17.250	2020	3.00	
	McQueen Road: Ocotillo Road to Riggs Road	ACI	0.000	7.226	7.226	0.000	12.224	12.224	2015	2.00	
	Ocotillo Road: Arizona Avenue to McQueen Road	ACI	0.000	6.227	6.227	0.000	6.453	6.453	2015	1.00	
	Ocotillo Road: Cooper Road to Gilbert Road	ACI	0.000	6.460	6.460	0.000	9.229	9.229	2019	2.50	
	Price Rd at Germann Rd: Intersection Improvements	ACI	0.000	3.357	3.357	0.000	4.795	4.795	2020	0.80	
	Price Rd at Queen Creek Rd: Intersection Improvements	ACI	0.000	5.191	5.191	0.000	7.415	7.415	2020	0.80	
	Price Rd: Santan to Germann	ACI	0.000	3.035	3.035	4.414	0.000	4.414	2008	1.25	
A11	Ray Rd/Alma School Rd	All	2.217	3.630	5.846	5.973	6.811	12.784	2011	0.25	
A12	Ray Rd/Dobson Rd	All	0.000	6.678	6.678	0.000	9.541	9.541	2015	0.25	
A13	Ray Rd/McClintock Dr	All	0.000	5.614	5.614	0.327	8.019	8.346	2015	0.25	
A14	Ray Rd/Rural Rd	All	0.000	3.753	3.753	0.000	15.822	15.822	2025	0.25	
CHANDLER/GILBERT											
A15	Queen Creek Rd: Arizona Ave to Higley Rd	ACI	5.672	31.675	37.347	8.103	48.749	56.852	2013	6.00	
	CHANDLER Queen Creek Rd: Arizona Ave to McQueen Rd	ACI	5.672	0.000	5.672	8.103	0.000	8.103	2009	1.00	Project Completed
	CHANDLER Queen Creek Rd: McQueen Rd to Gilbert Rd	ACI	0.000	10.478	10.478	0.000	14.970	14.970	2020	2.00	
	GILBERT Queen Creek Rd: Lindsay Rd to Greenfield Rd	ACI	0.000	11.530	11.530	0.000	17.298	17.298	2015	2.00	Combined two segments
	GILBERT Queen Creek Rd: Greenfield Rd to Higley	ACI	0.000	9.667	9.667	0.000	16.482	16.482	2013	1.00	
FOUNTAIN HILLS											

MAP CODE	FACILITY/LOCATION	PROJECT TYPE	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	LENGTH* (Miles)	OTHER PROJECT INFORMATION
			Reimb through FY10 (YOE\$)	Estimated Future Reimb FY10-FY26 (2010\$)	Total Reimb FY06-FY26 (2010\$,YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY10-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$,YOE\$)			
A16	Shea Blvd: Palisades Blvd to Cereus Wash	ACI	0.367	5.681	6.049	4.768	8.142	12.910	2020	4.00	
	Shea Blvd: Palisades Blvd to Fountain Hills Blvd	ACI	0.247	0.040	0.287	4.595	0.000	4.595	----	1.00	Project is for design only
	Shea Blvd: Technology Dr to Cereus Wash	ACI	0.121	3.043	3.163	0.172	4.347	4.520	2011	0.80	
	Shea Blvd: Fountain Hills Blvd to Technology Dr	ACI	0.000	2.598	2.598	0.000	3.794	3.794	2020	2.20	
GILBERT											
A17	Elliot Rd/Cooper Rd	All	0.000	4.116	4.116	0.000	6.976	6.976	2020	0.50	
A18	Elliot Rd/Gilbert Rd	All	0.000	3.753	3.753	0.000	10.474	10.474	2021	0.50	
A19	Elliot Rd/Greenfield Rd	All	0.000	3.753	3.753	0.000	5.364	5.364	2017	0.50	
A20	Elliot Rd/Higley Rd	All	0.000	3.753	3.753	0.000	6.976	6.976	2020	0.50	
A21	Elliot Rd/Val Vista Dr	All	0.000	3.753	3.753	0.000	6.976	6.976	2017	0.50	
A22	Germann Rd: Gilbert Rd to Power Rd	ACI	0.000	22.034	22.034	0.000	31.475	31.475	2015	4.00	
	Germann Rd: Gilbert Rd to Val Vista Dr	ACI	0.000	6.609	6.609	0.000	9.440	9.440	2015	2.00	
	Germann Rd: Val Vista Dr to Higley Rd	ACI	0.000	15.424	15.424	0.000	22.035	22.035	2015	2.00	
A23	Greenfield Rd: Elliot Rd to Ray Rd	ACI	0.000	3.753	3.753	0.000	5.525	5.525	2015	2.00	
A24	Guadalupe Rd/Cooper Rd	All	0.000	3.753	3.753	4.800	2.138	6.939	2011	0.50	
A25	Guadalupe Rd/Gilbert Rd	All	0.000	3.753	3.753	0.000	5.361	5.361	2013	0.50	
A26	Guadalupe Rd/Greenfield Rd	All	0.000	3.753	3.753	0.000	6.976	6.976	2023	0.50	
A27	Guadalupe Rd/Power Rd	All	0.000	3.753	3.753	0.000	8.919	8.919	2018	0.50	
A28	Guadalupe Rd/Val Vista Dr	All	0.000	3.753	3.753	0.000	5.659	5.659	2018	0.50	
A30	Ray Rd: Val Vista Dr to Power Rd	ACI	0.000	16.925	16.925	0.000	23.694	23.694	2017	4.00	

MAP CODE	FACILITY/LOCATION	PROJECT TYPE	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	LENGTH* (Miles)	OTHER PROJECT INFORMATION
			Reimb through FY10 (YOE\$)	Estimated Future Reimb FY10-FY26 (2010\$)	Total Reimb FY06-FY26 (2010\$,YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY10-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$,YOE\$)			
	Ray Rd: Val Vista to Higley	ACI	0.000	7.567	7.567	0.000	7.486	7.486	2017	2.00	
	Ray Rd: Higley to Recker	ACI	0.000	3.753	3.753	0.000	5.399	5.399	2017	1.00	
	Ray Rd: Recker to Power	ACI	0.000	5.606	5.606	0.000	10.809	10.809	2017	1.00	
A31	Ray Rd/Gilbert Rd	All	0.000	5.240	5.240	0.000	5.362	5.362	2018	0.50	
A32	Val Vista Dr: Warner Rd to Pecos	ACI	10.398	0.000	10.398	15.768	0.000	15.768	2006	2.90	FY08 RARF Closeout Project. Project Completed.
A33	Warner Rd/Cooper Rd	All	3.701	0.000	3.701	6.268	0.000	6.268	2010	0.50	Project Completed
A34	Warner Rd/Greenfield Rd	All	0.000	3.753	3.753	0.000	5.361	5.361	2015	0.50	
GILBERT/MESA/MARICOPA COUNTY											
A29	Power Rd: Santan Fwy to Chandler Heights	ACI	5.143	15.356	20.499	23.849	39.883	63.732	2024	5.00	
	GILBERT Power Rd/Pecos	All	5.143	0.000	5.143	7.347	0.000	7.347	2009	0.50	Project Completed
	GILBERT Power Rd: Santan Fwy to Pecos Rd	ACI	0.000	15.356	15.356	16.502	12.055	28.557	2011	1.50	
	GILBERT Power Rd: Pecos to Chandler Heights	ACI	0.000	0.000	0.000	0.000	27.828	27.828	2024	3.00	
A45	Power Rd: Baseline Rd to Santan Fwy	ACI	7.760	10.197	17.958	23.312	15.048	38.359	2009	4.50	
	MESA Power Rd: East Maricopa Floodway to Santan Fwy/Loop 202	ACI	0.000	10.197	10.197	1.272	15.048	16.319	2018	3.50	
	M.C. Power Rd: Baseline Rd to East Maricopa Floodway	ACI	7.760	0.000	7.760	22.040	0.000	22.040	2009	1.00	Project Completed
MARICOPA COUNTY											
A35	Dobson Rd: Bridge over Salt River	ACI	0.000	18.523	18.523	0.692	42.665	43.357	2015	1.60	
A36	El Mirage Rd: Bell Rd to Jomax Rd	ACI	5.535	13.869	19.403	13.908	36.249	50.157	2016	6.20	
	El Mirage Rd: Bell Rd to Deer Valley Dr	ACI	0.000	13.869	13.869	6.002	18.466	24.467	2011	3.00	
	El Mirage Rd: L303 to Jomax	ACI	0.000	0.000	0.000	0.000	17.783	17.783	2024	2.00	

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	El Mirage Rd: Deer Valley Dr to L303	ACI	5.535	0.000	5.535	7.906	0.000	7.906	2009	1.20	FY10 RARF Closeout Project. Project Completed.
A94	El Mirage Rd: Thunderbird Rd to Bell Rd	ACI	1.448	19.843	21.290	2.334	45.694	48.028	2016	2.00	
A37	El Mirage Rd: Thunderbird Rd to Northern Ave	ACI	0.000	16.707	16.707	0.434	25.857	26.291	2018	4.00	
A38	Gilbert Rd: Bridge over Salt River	ACI	0.000	13.922	13.922	1.285	39.625	40.910	2015	1.62	
A39	Jomax Rd: SR-303L to Sun Valley Parkway	ACI	0.000	20.581	20.581	0.000	29.401	29.401	2018	18.50	
A40	McKellips Rd: Bridge over Salt River	ACI	0.000	13.922	13.922	1.769	26.344	28.112	2016	0.80	
A41	McKellips Rd: SR-101L to SRP-MIC/Alma School Rd	ACI	0.000	39.225	39.225	0.629	47.377	48.005	2015	1.96	
A42	Northern Pkwy: Sarival to Grand (Phase I)	ACI	19.776	40.532	60.308	22.725	74.734	97.460	2013	12.50	Total corridor length is 12.5 miles
	Northern Parkway: Sarival to Dysart	ACI	19.776	35.330	55.106	20.112	69.915	90.028	2013	4.10	
	Northern Parkway: ROW Protection	ACI	0.000	5.202	5.202	2.613	4.819	7.432	2012	12.50	
A43	Northern Pkwy: Sarival to Grand (Phase II)	ACI	0.000	80.371	80.371	0.000	127.381	127.381	2020	12.50	
	Northern Pkwy: Dysart to 111th	ACI	0.000	18.919	18.919	0.000	27.028	27.028	2015	2.50	
	Northern Pkwy: Sarival Overpass	ACI	0.000	9.753	9.753	0.000	13.933	13.933	2016	0.10	
	Northern Pkwy: Reems Overpass	ACI	0.000	8.360	8.360	0.000	11.942	11.942	2014	0.10	
	Northern Pkwy: Litchfield Overpass	ACI	0.000	7.846	7.846	0.000	11.466	11.466	2015	0.10	
	Northern Pkwy: Agua Fria Bridge	ACI	0.000	4.913	4.913	0.000	7.019	7.019	2014	0.10	
	Northern Pkwy: Northern Ave at L 101	ACI	0.000	5.940	5.940	0.000	8.485	8.485	2015	0.50	
	Northern Pkwy: Dysart Overpass	ACI	0.000	20.313	20.313	0.000	35.243	35.243	2018	0.10	
	Northern Pkwy: ROW Protection	ACI	0.000	4.327	4.327	0.000	6.181	6.181	2020	12.50	

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A44	Northern Pkwy: Sarival to Grand (Phase III)	ACI	0.000	82.778	82.778	0.000	6.084	6.084	2026	12.50	
	Northern Pkwy: El Mirage Alternative Access	ACI	0.000	4.180	4.180	0.000	5.972	5.972	2022	1.00	
	Northern Pkwy: El Mirage Overpass	ACI	0.000	21.999	21.999	0.000	31.428	31.428	2022	0.10	
	Northern Pkwy: Agua Fria to 111th	ACI	0.000	2.713	2.713	0.000	3.876	3.876	2022	1.00	
	Northern Pkwy: 111th to 107th	ACI	0.000	14.740	14.740	0.000	21.057	21.057	2024	0.50	
	Northern Pkwy: 107th to 99th	ACI	0.000	21.119	21.119	0.000	30.171	30.171	2025	1.00	
	Northern Pkwy: Loop 101 to 91st	ACI	0.000	3.447	3.447	0.000	4.924	4.924	2026	0.50	
	Northern Pkwy: 91st to Grand Intersection Improvements	ACI	0.000	5.866	5.866	0.000	8.381	8.381	2026	3.00	
	Northern Pkwy: ROW Protection	ACI	0.000	2.567	2.567	0.000	3.667	3.667	2026	12.50	
	Northern Pkwy: Ultimate Construction	All	0.000	6.147	6.147	0.000	9.013	9.013	2026	12.50	
MESA											
A46	Baseline Rd: Power Rd to Meridian Rd	ACI	0.000	17.796	17.796	0.000	25.501	25.501	2019	6.00	
	Baseline Rd: Power Rd to Ellsworth Rd	ACI	0.000	8.708	8.708	0.000	12.512	12.512	2016	3.00	
	Baseline Rd: Ellsworth Rd to Meridian Rd	ACI	0.000	9.089	9.089	0.000	12.989	12.989	2019	3.00	
A47	Broadway Rd: Dobson Rd to Country Club	ACI	0.082	7.299	7.381	0.286	19.045	19.332	2015	2.00	
A48	Country Club/University Dr	All	0.000	2.784	2.784	0.096	8.790	8.887	2015	1.00	
A49	Country Club/Brown Rd	All	0.000	2.784	2.784	0.000	5.033	5.033	2018	0.50	
A50	Crismon Rd: Broadway Rd to Germann Rd	ACI	0.000	36.561	36.561	0.000	52.289	52.289	2025	9.00	

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	Crismon Rd: Broadway Rd to Guadalupe Rd	ACI	0.000	12.456	12.456	0.000	17.809	17.809	2016	3.00	
	Crismon Rd: Guadalupe Rd to Ray Rd	ACI	0.000	12.090	12.090	0.000	17.272	17.272	2025	3.00	
	Crismon Rd: Ray Rd to Germann Rd	ACI	0.000	12.016	12.016	0.000	17.209	17.209	2020	3.00	
A51	Dobson Rd/Guadalupe Rd	All	0.707	2.063	2.770	1.010	3.387	4.398	2011	0.50	
A52	Dobson Rd/University Dr	All	0.000	2.784	2.784	0.649	6.339	6.988	2012	0.50	
A53	Elliot Rd: Power Rd to Meridian Rd	ACI	0.000	18.038	18.038	0.000	25.770	25.770	2025	6.00	
	Elliot Rd: Power Rd to Ellsworth Rd	ACI	0.000	8.950	8.950	0.000	12.785	12.785	2023	3.00	
	Elliot Rd: Ellsworth Rd to Meridian Rd	ACI	0.000	9.089	9.089	0.000	12.985	12.985	2025	3.00	
A54	Germann Rd: Ellsworth Rd to Signal Butte Rd	ACI	0.000	12.470	12.470	0.000	17.822	17.822	2021	2.00	
A55	Gilbert Rd/University Dr	All	2.741	0.000	2.741	11.765	0.000	11.765	2010	0.50	FY10 RARF Closeout Project. Project Completed.
A56	Greenfield Rd: University Rd to Baseline Rd	ACI	2.367	8.356	10.723	8.295	11.021	19.316	2016	3.00	
	Greenfield Rd: Baseline Rd to Southern Ave	ACI	2.367	2.810	5.176	8.295	0.000	8.295	2010	1.00	
	Greenfield Rd: Southern Ave to University Rd	ACI	0.000	5.546	5.546	0.000	11.021	11.021	2019	2.00	
A57	Guadalupe Rd: Power Rd to Meridian Rd	ACI	0.000	23.002	23.002	0.000	38.544	38.544	2019	6.00	
	Guadalupe Rd: Power Rd to Hawes Rd	ACI	0.000	7.830	7.830	0.000	15.037	15.037	2019	2.00	
	Guadalupe Rd: Hawes Rd to Crimson Rd	ACI	0.000	7.830	7.830	0.000	13.017	13.017	2017	2.00	
	Guadalupe Rd: Crimson Rd to Meridian Rd	ACI	0.000	7.343	7.343	0.000	10.490	10.490	2018	2.00	

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A58	Hawes Rd: Broadway Rd to Ray Rd	ACI	0.000	20.702	20.702	1.237	28.760	29.997	2024	6.00	
	Hawes Rd: Broadway Rd to US60	ACI	0.000	7.131	7.131	0.000	10.187	10.187	2022	2.00	
	Hawes Rd: Baseline Rd to Elliot Rd	ACI	0.000	6.922	6.922	0.000	9.889	9.889	2024	2.00	
	Hawes Rd: Elliot Rd to Santan Freeway	ACI	0.000	4.296	4.296	0.000	6.138	6.138	2024	1.25	
	Hawes Rd: Santan Freeway to Ray Rd	ACI	0.000	2.353	2.353	1.237	2.547	3.784	2011	0.75	
A59	Higley Rd Parkway: S 60 to SR-202L	ACI	0.000	16.707	16.707	0.000	23.867	23.867	2020	6.50	
	Higley Rd Parkway: SR-202L to Brown Rd	ACI	0.000	8.353	8.353	0.000	11.934	11.934	2019	3.00	
	Higley Rd Parkway: Brown Rd to US-60	ACI	0.000	8.353	8.353	0.000	11.933	11.933	2020	3.50	
A60	Higley Rd Parkway: US 60 to SR 202L (RM) Grade Separations	ACI	0.000	27.724	27.724	0.000	39.606	39.606	2017	1.00	
A61	Lindsay Rd/Brown Rd	All	0.000	2.784	2.784	0.000	4.049	4.049	2017	0.50	
A62	McKellips Rd: East of Sossaman to Meridian	ACI	0.000	19.854	19.854	0.000	28.364	28.364	2018	5.00	
	McKellips Rd: East of Sossaman to Crismon Rd	ACI	0.000	11.969	11.969	0.000	17.100	17.100	2018	3.00	
	McKellips Rd: Crismon Rd to Meridian Rd	ACI	0.000	7.885	7.885	0.000	11.264	11.264	2018	2.00	A portion of the programmed reimbursement was deferred to FY2027
A63	McKellips Rd: Gilbert Rd to Power Rd	All	0.162	21.501	21.663	0.234	33.929	34.163	2019	3.00	
	McKellips Rd/Lindsay Rd	All	0.043	6.299	6.341	0.061	10.401	10.462	2018	0.50	
	McKellips Rd/Greenfield Rd	All	0.040	2.869	2.909	0.057	5.000	5.058	2018	0.50	
	McKellips Rd/Higley Rd	All	0.040	2.869	2.909	0.058	5.007	5.065	2018	0.50	

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	McKellips Rd/Power Rd	All	0.000	3.298	3.298	0.000	4.711	4.711	2019	0.50	
	McKellips Rd/Recker Rd	All	0.000	3.297	3.297	0.000	4.710	4.710	2019	0.50	
	McKellips Rd/Val Vista Dr	All	0.040	2.869	2.909	0.058	4.100	4.157	2018	0.50	
A64	Meridian Rd: Baseline Rd to Germann Rd	ACI	0.000	29.176	29.176	0.000	41.683	41.683	2019	7.00	
	Meridian Rd: Baseline Rd to Ray Rd	ACI	0.000	16.779	16.779	0.000	23.973	23.973	2017	4.00	
	Meridian Rd: Ray Rd to Germann Rd	ACI	0.000	12.397	12.397	0.000	17.710	17.710	2019	3.00	
A65	Mesa Dr: Southern Ave to US60 and Mesa Dr to Broadway Rd	ACI	0.312	9.003	9.316	0.510	38.608	39.118	2016	2.00	
	Mesa Dr: US60 to Southern Ave	ACI	0.257	8.199	8.456	0.367	13.337	13.704	2013	1.00	
	Mesa Dr/Broadway Rd	All	0.056	0.804	0.860	0.143	25.271	25.414	2016	1.00	
A66	Pecos Rd: Ellsworth Rd to Meridian Rd	ACI	0.000	12.591	12.591	0.000	19.246	19.246	2019	3.00	
A67	Ray Rd: Sossaman Rd to Meridian Rd	ACI	0.000	25.060	25.060	5.351	31.685	37.036	2025	5.00	
	Ray Rd: Sossaman Rd to Ellsworth Rd	ACI	0.000	3.799	3.799	5.351	4.138	9.489	2011	2.00	
	Ray Rd: Ellsworth Rd to Meridian Rd	ACI	0.000	21.262	21.262	0.000	27.547	27.547	2025	3.00	
A68	Signal Butte Rd: Broadway to Pecos Rd	ACI	0.000	32.929	32.929	0.000	47.044	47.044	2024	8.00	
	Signal Butte Rd: Broadway Rd to Elliot Rd	ACI	0.000	16.780	16.780	0.000	23.972	23.972	2022	4.00	
	Signal Butte Rd: Elliot Rd to Pecos Rd	ACI	0.000	16.150	16.150	0.000	23.072	23.072	2024	4.00	
A69	Southern Ave: Country Club Dr to Recker Rd	All	0.168	30.455	30.623	0.424	49.927	50.350	2015	2.00	
	Southern/Country Club Dr	All	0.000	4.861	4.861	0.108	8.272	8.380	2013	0.50	

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	Southern Ave/Stapley Dr	All	0.168	12.560	12.728	0.316	21.601	21.917	2013	0.50	
	Southern Ave/Lindsay Rd	All	0.000	4.779	4.779	0.000	8.258	8.258	2015	0.50	
	Southern Ave/Higley Rd	All	0.000	8.255	8.255	0.000	11.796	11.796	2015	0.50	
A70	Southern Ave: Sossaman Rd to Meridian Rd	ACI	0.000	18.038	18.038	0.000	25.770	25.770	2024	5.00	
	Southern Ave: Sossaman Rd to Crismon Rd	ACI	0.000	10.908	10.908	0.000	15.584	15.584	2022	3.00	
	Southern Ave: Crismon Rd to Meridian Rd	ACI	0.000	7.130	7.130	0.000	10.186	10.186	2024	2.00	
A71	Stapley Dr/University Dr	All	0.000	2.784	2.784	0.000	13.485	13.485	2015	0.50	
A72	Thomas Rd: Gilbert Rd to Val Vista Dr	ACI	0.000	5.569	5.569	0.000	8.035	8.035	2026	2.00	
A73	University Dr: Val Vista Dr to Hawes Rd	ACI	0.000	21.670	21.670	0.000	30.962	30.962	2023	6.00	
	University Dr: Val Vista Dr to Higley Rd	ACI	0.000	10.906	10.906	0.000	15.585	15.585	2021	2.00	
	University Dr: Higley Rd to Hawes Rd	ACI	0.000	10.764	10.764	0.000	15.377	15.377	2023	4.00	
A74	Val Vista Dr: University Dr to Baseline Rd	ACI	0.000	11.017	11.017	0.000	16.867	16.867	2018	3.00	
	Val Vista Dr: Baseline Rd to Southern Ave	ACI	0.000	5.563	5.563	0.000	9.075	9.075	2014	1.00	
	Val Vista Dr: Southern Ave to University Dr	ACI	0.000	5.454	5.454	0.000	7.792	7.792	2018	2.00	
PEORIA											
A75	Beardsley Connection: SR-101L to Beardsley Rd at 83rd Ave/Lake Pleasant Pkwy	ACI	16.976	6.003	22.978	29.097	12.524	41.621	2012	3.95	
	Beardsley Connection: Loop 101 to 83rd Ave/Lake Pleasant Pkwy	ACI	6.125	0.000	6.125	8.473	0.000	8.473	2010	0.75	Project Completed.

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	Loop 101 (Agua Fria Fwy) at Beardsley Rd/Union Hills Dr	ACI	10.851	0.000	10.851	19.151	0.000	19.151	2010	2.00	Project Completed.
	83rd Avenue: Butler Rd to Mountain View	ACI	0.000	4.118	4.118	0.813	5.413	6.225	2011	1.00	
	75th Ave at Thunderbird Rd: Intersection Improvement	ACI	0.000	1.884	1.884	0.660	7.111	7.771	2012	0.20	
A76	Happy Valley Rd: L303 to 67th Avenue	ACI	0.000	20.581	20.581	50.078	0.000	50.078	2024	8.00	
	Happy Valley Rd: Loop 303 to Lake Pleasant Parkway	ACI	0.000	0.000	0.000	0.000	0.000	0.000	2024	3.00	
	Happy Valley Rd: Lake Pleasant Pkwy to 67th Ave	ACI	0.000	20.581	20.581	50.078	0.000	50.078	2010	5.00	Exchanged with Lake Pleasant Parkway. Project Completed.
A77	Lake Pleasant Pkwy: Union Hills to SR74	ACI	29.034	24.744	53.779	48.591	36.730	85.321	2020	14.06	
	Lake Pleasant Pkwy: Dynamite Blvd to CAP	ACI	1.907	22.327	24.234	9.838	33.276	43.114	2012	2.50	
	Lake Pleasant Pkwy: Union Hills to Dynamite Rd	ACI	27.127	0.000	27.127	38.753	0.000	38.753	2008	9.76	FY2008 RARF Closeout Project. Project Completed.
	Lake Pleasant Pkwy: CAP to SR-74/Carefree Hwy	ACI	0.000	2.418	2.418	0.000	3.454	3.454	2021	1.80	
PHOENIX											
A78	Avendia Rio Salado: 51st Ave. to 7th St.	ACI	0.000	44.430	44.430	7.199	63.473	70.672	2015	6.00	Project length and scope changed.
A79	Black Mountain Blvd: SR-51and Loop 101/ Pima Fwy to Deer Valley Rd	ACI	0.000	22.397	22.397	0.041	31.995	32.036	2014	2.00	
A80	Happy Valley Rd: 67th Ave to I-17	ACI	0.000	16.465	16.465	7.927	30.066	37.993	2018	4.50	
	Happy Valley: I-17 to 35th Ave	ACI	0.000	5.218	5.218	7.454	0.000	7.454	2005	1.00	Project Completed

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	Happy Valley: 35th Ave to 43rd Ave	ACI	0.000	4.237	4.237	0.437	11.632	12.069	2018	1.00	
	Happy Valley: 43rd Ave to 55th Ave	ACI	0.000	4.181	4.181	0.035	9.473	9.508	2018	1.50	
	Happy Valley: 55th Ave to 67th Ave	ACI	0.000	2.828	2.828	0.000	8.962	8.962	2018	1.00	A portion of the programmed reimbursement was deferred to FY2027
A81	Sonoran Blvd: 15th Avenue to Cave Creek	ACI	0.000	32.445	32.445	13.830	46.352	60.182	2013	7.00	
SCOTTSDALE/CAREFREE											
A87	Pima Rd: SR101L to Happy Valley Rd and Dynamite Rd to Cave Creek	ACI	16.891	79.527	96.417	29.801	111.110	140.911	2020	10.65	
	SCOTTSDALE Pima Rd: Thompson Peak Parkway to Pinnacle Peak	ACI	3.251	20.544	23.795	8.275	25.718	33.993	2011	1.50	
	SCOTTSDALE Pima Rd/Happy Valley	All	0.000	0.000	0.000	1.599	0.000	1.599	2008	0.40	
	SCOTTSDALE Pima Rd: Pinnacle Peak to Happy Valley Rd	ACI	0.000	15.896	15.896	0.000	22.709	22.709	2013	1.00	
	SCOTTSDALE Pima Rd: Dynamite Blvd to Stagecoach Rd	ACI	0.000	37.669	37.669	0.000	54.945	54.945	2020	5.00	
	CAREFREE Pima Rd: Stagecoach Rd to Cave Creek	ACI	0.000	5.417	5.417	0.000	7.739	7.739	2018	0.25	
	SCOTTSDALE Pima Rd: SR101L to Thompson Peak Pkwy	ACI	13.639	0.000	13.639	19.926	0.000	19.926	2008	2.50	Project completed.
SCOTTSDALE											
A82	Carefree Hwy: Cave Creek Rd to Scottsdale Rd	ACI	0.000	9.322	9.322	0.000	14.260	14.260	2016	2.00	
A83	SR-101L North Frontage Roads: Pima/Princess Dr to Scottsdale Rd	ACI	3.745	16.097	19.842	5.350	18.668	24.018	2015	2.00	
	SR-101L Frontage Rd: Hayden Rd to Scottsdale Rd	ACI	3.745	0.000	3.745	5.350	0.000	5.350	2009	1.00	Project completed.
	SR-101L Frontage Rd: Pima Rd/Princess Dr to Hayden Rd	ACI	0.000	16.097	16.097	0.000	18.668	18.668	2015	1.00	

MAP CODE	FACILITY/LOCATION	PROJECT TYPE	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	LENGTH* (Miles)	OTHER PROJECT INFORMATION
			Reimb through FY10 (YOE\$)	Estimated Future Reimb FY10-FY26 (2010\$)	Total Reimb FY06-FY26 (2010\$,YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY10-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$,YOE\$)			
A84	SR-101L South Frontage Rd: Hayden Rd to Pima	ACI	0.000	0.000	0.000		0.000	0.000	0	1.00	This project was deleted in FY2009.
A85	Miller Rd/SR-101L Underpass	ACI	0.000	13.922	13.922	0.000	19.889	19.889	2020	1.30	
A86	Pima Rd: Happy Valley Rd to Dynamite Blvd	ACI	0.000	23.607	23.607	0.000	33.725	33.725	2018	2.00	
A88	Pima Rd: McKellips Rd to Via Linda	ACI	0.000	30.294	30.294	5.763	43.317	49.080	2011	7.40	
	Pima Rd: Via Linda to Via De Ventura	ACI	0.000	1.331	1.331	0.000	2.341	2.341	2013	1.30	
	Pima Rd: Via De Ventura to Krail	ACI	0.000	7.467	7.467	5.763	4.907	10.670	2011	1.30	
	Pima Rd: Thomas Rd to McDowell Rd	ACI	0.000	6.044	6.044	0.000	8.641	8.641	2012	1.00	
	Pima Rd: Krail to Chaparral	ACI	0.000	9.407	9.407	0.000	16.453	16.453	2012	1.80	
	Pima Rd: Chaparral Rd to Thomas Rd	ACI	0.000	6.044	6.044	0.000	10.976	10.976	2014	2.00	
A89	Scottsdale Airport: Runway Tunnel	ACI	0.000	72.983	72.983	0.000	104.261	104.261	2026	6.15	
	Frank Lloyd Wright -Loop 101 Traffic Interchange	ACI	0.000	3.954	3.954	0.000	5.648	5.648	2017	0.40	
	Raintree -Loop 101 Traffic Interchange	ACI	0.000	1.168	1.168	0.000	1.668	1.668	2014	0.40	
	Northsight Blvd: Hayden to Frank Lloyd Wright	ACI	0.000	6.957	6.957	0.000	9.939	9.939	2015	0.35	
	Frank Lloyd Wright Frontage Rd: Northsight to Greenway-Hayden Loop	ACI	0.000	0.977	0.977	0.000	1.396	1.396	2015	0.75	
	Redfield Rd: Scottsdale Rd to Hayden	ACI	0.000	2.456	2.456	0.000	3.509	3.509	2015	1.20	
	Thunderbird-Raintree Loop	ACI	0.000	20.596	20.596	0.000	29.422	29.422	2016	0.30	
	Raintree Drive: Loop 101 to Hayden	ACI	0.000	17.715	17.715	0.000	25.307	25.307	2023	1.00	
	Hayden Rd: Redfield to Raintree	ACI	0.000	4.819	4.819	0.000	6.884	6.884	2024	0.50	
	CAP Canal South Frontage Rd: Loop 101 to Frank Lloyd Wright	ACI	0.000	2.753	2.753	0.000	3.933	3.933	2018	0.50	

MAP CODE	FACILITY/LOCATION	PROJECT TYPE	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	LENGTH* (Miles)	OTHER PROJECT INFORMATION
			Reimb through FY10 (YOE\$)	Estimated Future Reimb FY10-FY26 (2010\$)	Total Reimb FY06-FY26 (2010\$,YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY10-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$,YOE\$)			
	Hayden Rd - Loop 101 Interchange Improvements	ACI	0.000	11.588	11.588	0.000	16.555	16.555	2026	0.75	
A90	Scottsdale Rd: Thompson Peak Pkwy to Jomax Rd	ACI	0.000	13.317	13.317	6.957	62.117	69.074	2015	4.00	
	Scottsdale Rd: Thompson Peak Pkwy to Pinnacle Peak Pkwy	ACI	0.000	11.528	11.528	6.957	24.308	31.265	2012	2.00	
	Scottsdale Rd: Pinnacle Peak Pkwy to Jomax Rd	ACI	0.000	1.789	1.789	0.000	37.809	37.809	2015	2.00	
A91	Scottsdale Rd: Jomax Rd to Carefree Hwy	ACI	0.000	28.329	28.329	0.000	51.027	51.027	2019	5.00	
	Scottsdale Rd: Jomax Rd to Dixileta Dr	ACI	0.000	9.443	9.443	0.000	17.975	17.975	2019	2.00	
	Scottsdale Rd: Dixileta Dr to Ashler Hills Dr	ACI	0.000	9.443	9.443	0.000	16.526	16.526	2019	1.50	
	Scottsdale Rd: Ashler Hills Dr to Carefree Highway	ACI	0.000	9.443	9.443	0.000	16.526	16.526	2019	1.50	
A92	Shea Blvd: SR-101L to SR-87	All	4.839	18.173	23.012	7.932	24.968	32.900	2019	12.80	
	Shea Blvd at 90th/92nd/96th	All	4.056	0.000	4.056	5.749	0.000	5.749	2007	0.75	Project completed.
	Shea Auxiliary Lane from 90th St to Loop 101	All	0.000	6.353	6.353	0.000	9.075	9.075	2021	1.00	A portion of the programmed reimbursement was deferred to FY2027
	Shea Blvd at Via Linda (Phase1)	All	0.621	0.000	0.621	0.888	0.000	0.888	2006	0.20	Project completed.
	Shea Blvd at Via Linda (Phase 2)	All	0.000	2.074	2.074	0.000	2.962	2.962	2017	0.25	
	Shea Blvd at 120/124th St	All	0.000	1.391	1.391	0.136	1.852	1.988	2011	0.40	
	Shea Blvd at Mayo/134th St	All	0.162	0.000	0.162	0.231	0.000	0.231	2006	0.20	Project completed.
	Shea Blvd: SR-101L to 96th St, ITS Improvements	All	0.000	0.381	0.381	0.614	0.000	0.614	2010	1.00	
	Shea Blvd: 96th St to 144th St, ITS Improvements	All	0.000	2.347	2.347	0.000	3.352	3.352	2012	6.25	
	Shea Blvd at Loop 101	All	0.000	3.667	3.667	0.000	5.238	5.238	2018	1.00	

MAP CODE	FACILITY/LOCATION	PROJECT TYPE	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	LENGTH* (Miles)	OTHER PROJECT INFORMATION
			Reimb through FY10 (YOE\$)	Estimated Future Reimb FY10-FY26 (2010\$)	Total Reimb FY06-FY26 (2010\$,YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY10-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$,YOE\$)			
	Shea Blvd at 110th St	All	0.000	0.264	0.264	0.000	0.377	0.377	2017	0.25	
	Shea Blvd at 114th St	All	0.000	0.264	0.264	0.000	0.377	0.377	2019	0.25	
	Shea Blvd at Frank Lloyd Wright Blvd	All	0.000	0.660	0.660	0.314	0.629	0.943	2011	0.25	
	Shea Blvd at 115th St	All	0.000	0.110	0.110	0.000	0.158	0.158	2019	0.25	
	Shea Blvd at 125th St	All	0.000	0.377	0.377	0.000	0.540	0.540	2019	0.25	
	Shea Blvd at 135th St	All	0.000	0.110	0.110	0.000	0.158	0.158	2019	0.25	
	Shea Blvd at 136th St	All	0.000	0.176	0.176	0.000	0.251	0.251	2017	0.25	
A93	Legacy Dr: Hayden Rd to 88th Street	ACI	0.000	13.559	13.559	1.953	21.354	23.307	2021	1.20	Project limits extended by 0.2 miles and segment renamed from Union Hills Dr to Legacy Dr.
TOTALS			158.835	1459.718	1618.901	406.229	2275.551	2681.779			

TABLE B-2
ARTERIAL STREET LIFE CYCLE PROGRAM - INTELLIGENT TRANSPORTATION SYSTEMS
REGIONAL FUNDING DISBURSEMENTS AND TOTAL EXPENDITURES: FY2006-2026
(2010 and Year of Expenditure Dollars in Millions)

FACILITY	REGIONAL FUNDING			TOTAL EXPENDITURES			FINAL FY for CONST	OTHER PROJECT INFORMATION
	Disbursed through FY10 (YOE Dollars)	Estimated Future Disbursements FY11-2026 (2010\$)	Total Disbursement FY06-26 (2010\$, YOE\$)	Expend through FY10 (YOE\$)	Estimated Future Expend FY11-FY26 (2010\$)	Total Expend FY06-FY26 (2010\$, YOE\$)		
Systemwide ITS	17.661	47.287	64.948	25.230	67.552	92.782	2009-2019	
TOTAL	17.661	47.287	64.948	25.230	67.552	92.782		

**TABLE B-3
ARTERIAL STREET LIFE CYCLE PROGRAM CHANGES: FY 2011-2026**

Advancements	
Projects	Description
McQueen Road: Ocotillo Road to Riggs Road	Project advanced from Phase III to Phase II
Ocotillo Road: Arizona Avenue to McQueen Road	Project advanced from Phase III to Phase II
Price Rd: Santan to Germann	Project advanced from Phase III to Phase I
Ray Rd at Dobson Rd: Intersection Improvements	Project advanced from Phase IV to Phase II
Ray Rd at McClintock Dr: Intersection Improvements	Project advanced from Phase III to Phase II
Shea Blvd: Palisades Blvd. to Technology Dr	Project advanced from Phase IV to Phase III
Elliot Rd at Val Vista Dr	Project advanced from Phase IV to Phase III
CAP Canal South Frontage Rd: Loop 101 to Frank Lloyd Wright	Project advanced from Phase IV to Phase III
Change in Project Scope	
Projects	Description
Queen Creek Rd: McQueen Rd to Lindsay Dr	Reduced Project Scope by 1 mile. New Segment called Queen Creek Rd: McQueen Rd to Gilbert Rd. Section between Lindsay Rd and Gilbert Rd completed by developers
Lake Pleasant Pkwy: CAP to SR74/Carefree Hwy	Segment limits changed on Lake Pleasant Pkwy from Loop 303 to SR74/Carefree Hwy to CAP to SR74/Carefree Hwy
Lake Pleasant Pkwy: Dynamite Blvd to CAP	Segment limits changed from Lake Pleasant Pkwy: Dynamite to Loop 303 to Lake Pleasant Pkwy: Dynamite Blvd to CAP
Avendia Rio Salado: 51st Avenue to 7th St	Project Scope reduced from Loop 202 to 7th St to 51st Avenue to 7th St
Combine Segments	
Projects	Description
Queen Creek Rd: Lindsay Rd to Greenfield Rd	Combined two project segments: Queen Creek: Lindsay Rd to Val Vista Dr and Queen Creek: Val Vista Dr to Greenfield Rd
Sonoran Blvd: 15th Avenue to Cave Creek	Combined three project segments into one: Sonoran Blvd: 15th Ave to 10th St, Sonoran Blvd: 10th St to 26th St, Sonoran Blvd: 26th St to Cave Creek
Deferments	
Projects	Description
Arizona Ave: Ocotillo Rd to Hunt Hwy	Project deferred from Phase III to Phase IV
Chandler Blvd at Kyrene Rd	Project deferred from Phase III to Phase IV
Queen Creek Rd: McQueen Rd to Gilbert Rd	Project deferred from Phase II to Phase III
Shea Blvd: Technology Dr to Cereus Wash	Project deferred from Phase I to Phase II
Elliot Rd at Greenfield Rd	Project deferred from Phase II to Phase III
Ray Rd: Val Vista to Higley	Project deferred from Phase II to Phase III
Ray Rd: Higley to Recker	Project deferred from Phase II to Phase III
Ray Rd: Recker to Power Rd	Project deferred from Phase II to Phase III
El Mirage Rd: Bell Rd to Deer Valley Drive	Project deferred from Phase I to Phase II
El Mirage Rd: Loop 303 to Jomax	Project deferred from Phase III to Phase IV
McKellips Road Bridge over the Salt River	Project deferred from Phase II to Phase III
Northern Parkway: Corridorwide ROW Protection	Project deferred from Phase I to Phase II

Northern Parkway: El Mirage Alternative Access	Project deferred from Phase III to Phase IV
Northern Parkway: El Mirage Overpass	Project deferred from Phase III to Phase IV
Northern Parkway: Sarival to Dysart	Project deferred from Phase I to Phase II
Country Club/Brown Rd: Intersection Improvements	Project deferred from Phase II to Phase III
Guadalupe Rd: Power Rd to Hawes Rd	Project deferred from Phase II to Phase III
Hawes Rd: Santan Fwy to Ray Rd	Project deferred from Phase I to Phase II
Lindsay Rd/Brown Rd: Intersection Improvements	Project deferred from Phase II to Phase III
McKellips Rd/Higley Rd: Intersection Improvements	Project deferred from Phase II to Phase III
McKellips Rd/Lindsay Rd: Intersection Improvements	Project deferred from Phase II to Phase III
McKellips Rd/Val Vista Dr: Intersection Improvements	Project deferred from Phase II to Phase III
Mesa Dr at Broadway Rd	Project deferred from Phase II to Phase III
Pecos Rd: Ellsworth Rd to Meridian Rd	Project deferred from Phase II to Phase III
Power Rd: East Maricopa Floodway to Santan Fwy/Loop 202	Project deferred from Phase II to Phase III
Ray Rd: Sossaman Rd to Ellsworth Rd	Project deferred from Phase I to Phase II
Val Vista Dr: Southern Ave to University Dr	Project deferred from Phase II to Phase III
Happy Valley Rd: Loop 303 to Lake Pleasant Parkway	Project deferred from Phase III to Phase IV
Black Mountain Blvd: SR-51 and Loop 101 (Pima Fwy) to Deer Valley Rd	Project deferred from Phase I to Phase II
Pima Rd: Dynamite Blvd to Stagecoach Pass	Project deferred from Phase II to Phase III
Shea at 120/124th Streets	Project deferred from Phase I to Phase II
Shea Auxiliary Lane from 90th St to Loop 101	Project deferred from Phase III to Phase IV
Shea Blvd at 110th Street	Project deferred from Phase II to Phase III
Shea Blvd at Frank Lloyd Wright Blvd	Project deferred from Phase I to Phase II
Shea Blvd at Loop 101	Project deferred from Phase II to Phase III
Deleted/Substitute Projects	
Projects	Description
Price Rd (Extension): SR202 to 1-10	Project deleted from ALCP. Project budget allocated to 8 substitute projects (ACIPRC-10-03 A through H), Ray/McClintock (All-RAY-40-03), Ray/Dobson (All-RAY-20-03), Arizona Avenue (ACI-ARZ-10-03), and Queen Creek Rd (ACI-QNC-10-03-B)
Chandler Heights Rd: Arizona Ave to McQueen Rd	Substitute project for Price Rd Extension
Chandler Heights Road: McQueen Road to Gilbert Rd	Substitute project for Price Rd Extension
McQueen Road: Ocotillo Road to Riggs Road	Substitute project for Price Rd Extension
Ocotillo Road: Arizona Avenue to McQueen Road	Substitute project for Price Rd Extension
Ocotillo Road: Cooper Road to Gilbert Road	Substitute project for Price Rd Extension
Price Rd at Germann Rd: Intersection Improvements	Substitute project for Price Rd Extension
Price Rd at Queen Creek Rd: Intersection Improvements	Substitute project for Price Rd Extension
Price Rd: Santan to Germann	Substitute project for Price Rd Extension
Exchange	
Projects	Description
Chandler Boulevard at Kyrene Road: Intersection Improvements	Exchange Project with Ray Rd at Dobson Rd: Intersection Improvements
Ray Road at Dobson Road: Intersection Improvements	Exchange Project with Chandler Boulevard at Kyrene Road: Intersection Improvements

CAP Canal South Frontage Rd: Loop 101 to Frank Lloyd Wright	Exchanged project with Pima Rd: Dynamite to Stagecoach
Frank Lloyd Wright Frontage Rd: Northsight to Greenway-Hayden Loop	Exchanged project with Pima Rd: Dynamite to Stagecoach
Northsight Blvd: Hayden to Frank Lloyd Wright	Exchanged project with Pima Rd: Dynamite to Stagecoach
Raintree -Loop 101 Traffic Interchange	Exchanged project with Pima Rd: Dynamite to Stagecoach
Redfield Rd: Scottsdale Rd to Hayden	Exchanged project with Pima Rd: Dynamite to Stagecoach
Thunderbird-Raintree Loop	Exchanged project with Pima Rd: Dynamite to Stagecoach
Exchange Funds	
Projects	Description
Queen Creek Rd: McQueen Rd to Lindsay Dr	Existing RARF funds swapped with STP-MAG from the deletion of Price Rd. RARF funds were reallocated to McQueen Road: Ocotillo Road to Riggs Road
Arizona Ave: Ocotillo Rd to Hunt Hwy	Existing RARF funds swapped with STP-MAG from the deletion of Price Rd. RARF funds were reallocated to Ocotillo Rd: Arizona Ave to McQueen Rd and Price Rd: Loop 202 to Germann
Other	
Projects	Description
Shea Blvd: Technology Dr to Cereus Wash	Reallocated \$2.6 million in funds to Shea Blvd: Palisades Blvd to Technology Dr
Queen Creek Rd: Greenfield Rd to Higley	Reassigned Segment ID. Project segment previously listed under ACI-QNC-10-03-E
Reallocation of Project Savings	
Projects	Description
Ray Rd at McClintock Dr: Intersection Improvements	A portion of the funds from the deletion of Price Rd. were reallocated to the project. Total Remaining Regional Budget
Ray Road at Dobson Road: Intersection Improvements	A portion of the funds from the deletion of Price Rd. were reallocated to the project. Total Remaining Regional Budget increased by \$2,879,476
Queen Creek Rd: McQueen Rd to Lindsay Dr	Reallocated \$161,460 in project savings from Price Rd to Queen Creek Rd
Arizona Ave: Ocotillo Rd to Hunt Hwy	Reallocated \$1,213,375 in project savings from Price Rd to Arizona Avenue
Power Rd at Pecos Rd: Intersection Improvement	Reallocated \$4.7 million in project savings to Power Rd: Santan/202 to Pecos Rd (ACI-PWR-10-03-B)
Lake Pleasant Pkwy: Union Hills to SR74	Reallocation project savings of \$5,334,127 from Beardsley Connection (ACI-BRD-10-03)
Reimbursement Deferred	
Projects	Description
Dobson Rd: Bridge over Salt River	A portion of the reimbursement was deferred from Phase II to Phase III
Segment	
Projects	Description
Gilbert Rd: Queen Creek Rd to Chandler Heights Rd	Project divided into 2 segments: Gilbert Rd: Queen Creek to Ocotillo (ACI-GIL-10-03-B) and Gilbert Rd: Ocotillo Rd to Chandler Heights (ACI-GIL-10-03-D)
Ray Rd: Val Vista Dr to Power Rd	Project divided into 3 segments: Ray Rd: Val Vista to Higley (ACI-RAY-10-03-A), Ray Rd: Higley to Recker (ACI-RAY-10-03-B), and Ray Rd: Recker to Power (ACI-RAY-10-03-C)

Pima Rd: McKellips to Via Linda	Project divided into 5 segments: Pima Rd: Via Linda to Via de Ventura (ACI-PMA-30-03-A), Pima Rd: Via de Ventura to Krail (ACI-PMA-30-03-B), Pima Rd: Krail to Chapparal (ACI-PMA-30-03-C), Pima Rd: Chapparal to Thomas Rd (ACI-PMA-30-03-D), and Pima Rd: Thomas Rd to McDowell Rd (ACI-PMA-10-03-E)	
Project Completions		
Projects	Fiscal Year Completed	Fiscal Year Reimbursed
Gilbert Rd: SR-202L/Germann to Queen Creek Rd	2010	2010 / TBD
Power Rd at Pecos Rd: Intersection Improvement	2010	2010
Gilbert Rd/University Dr: Intersection Improvements	2010	2010
Beardsley Rd: Loop 101 to 83rd Ave/Lake Pleasant Pkwy	2010	2010
Happy Valley Rd: Lake Pleasant Pkwy to 67th Ave	2010	TBD
Loop 101 at Beardsley/Union Hills Drive	2010	2010
Queen Creek Rd: Arizona Ave to McQueen Rd	2009	2009
Power Rd.: Baseline to East Maricopa Floodway	2009	2009
El Mirage Rd: Deer Valley Drive to L303	2009	TBD
SR-101L Frontage Rd: Hayden Rd to Scottsdale Rd	2008	2008
Pima Rd: SR101L to Thompson Peak Pkwy	2008	2008
Lake Pleasant Pkwy: Union Hills to Dynamite Rd	2008	2006-2009
Arizona Ave/Ray Rd: Intersection Improvement	2007	2007
Shea Blvd at 90th/92nd/96th: Intersection Improvements	2007	2009
Arizona Ave at Elliot Rd	2006	TBD
Arizona Ave at Chandler Blvd	2006	2008
Val Vista Dr: Warner Rd to Pecos Rd	2006	2008
Shea Blvd at Via Linda (Phase1): Intersection Improvements	2006	2009
Shea Blvd at Mayo/134th St: Intersection Improvements	2006	2009
Warner Rd at Cooper Rd.: Intersection Improvements	2010	2010
Happy Valley: I-17 to 35th Ave	2005	TBD

TBD - To be determined. Please refer to the currently approved version of the ALCP for the estimated fiscal year for reimbursement.

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 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Map Code	Route	Expenditures through FY 2010: (YOE Dollars)	Est. Future Costs: FY2011-2026 (2010 Dollars)	Total Est. Costs: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY2027-2031 (2010 Dollars)	Total Est. Costs: FY 2006-2031 (2010 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T1	Ahwatukee Connector	0.00	0.00	0.00	0.27	0.27	2031	
T2	Ahwatukee Express	2.13	0.00	2.13	0.00	2.13	2008	I-10 East RAPID (Phoenix to assume funding in FY 2011)
T3	Anthem Express	0.00	0.00	0.00	0.81	0.81	2031	
T4	Apache Junction Express	0.00	0.00	0.00	3.15	3.15	2027	
T5	Arizona Avenue Arterial BRT	0.00	10.15	10.15	6.16	16.31	2011	
T6	Avondale Express	0.00	1.37	1.37	1.97	3.34	2020	
T7	Black Canyon Freeway Corridor	0.00	0.00	0.00	0.44	0.44	2031	
T8	Buckeye Express	0.00	0.00	0.00	2.09	2.09	2028	
T9	Chandler Boulevard Arterial BRT	0.00	0.00	0.00	0.00	0.00	2034	
T10	Deer Valley Express	2.79	0.00	2.79	0.00	2.79	2008	I-17 RAPID (Phoenix to assume funding in FY 2011)
T11	Desert Sky Express	0.95	0.00	0.95	0.00	0.95	2008	I-10 West RAPID (Phoenix to assume funding in FY 2011)
T12	East Loop 101 Connector	0.84	4.40	5.24	2.67	7.91	2009	Route 511 - Chandler/Scottsdale Airpark Express (route eliminated in FY 2011)
T13	Grand Avenue Limited	0.00	4.64	4.64	3.23	7.87	2013	
T14	Loop 303 Express	0.00	0.00	0.00	1.10	1.10	2031	
T15	Main Street Arterial BRT	2.65	26.21	28.87	15.90	44.77	2009	
T16	North Glendale Express	2.22	11.67	13.89	7.08	20.97	2008	Route 573 - Northwest Valley
T17	North I-17 Express	0.00	0.00	0.00	0.70	0.70	2031	
T18	North Loop 101 Connector	2.48	6.83	9.31	4.14	13.45	2008	Route 572 - Surprise/Scottsdale Express (route eliminated in FY 2011)
T19	Papago Fwy Connector	0.26	6.57	6.83	3.98	10.81	2009	Routes 562 - Goodyear Express
T20	Peoria Express	0.00	0.00	0.00	1.74	1.74	2028	
T21	Pima Express	0.00	0.00	0.00	2.48	2.48	2028	
T22	Red Mountain Express	0.57	2.89	3.46	1.75	5.21	2009	Routes 535 & 536 - Northeast Mesa Express (route 536 eliminated in FY 2011)
T23	Red Mountain Fwy Connector	0.00	0.00	0.00	0.40	0.40	2031	
T24	Santan Express	0.00	0.00	0.00	1.07	1.07	2031	
T25	Scottsdale/Rural Arterial BRT	0.00	4.93	4.93	4.40	9.33	2016	
T26	South Central Avenue	0.00	0.00	0.00	1.18	1.18	2015	

Map Code	Route	Expenditures through FY 2010: (YOE Dollars)	Est. Future Costs: FY2011-2026 (2010 Dollars)	Total Est. Costs: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY2027-2031 (2010 Dollars)	Total Est. Costs: FY 2006-2031 (2010 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T27	South Central Avenue Arterial BRT	0.00	5.81	5.81	4.74	10.55	2031	
T28	SR 51 Express	1.79	0.84	2.63	0.00	2.63	2008	SR-51 RAPID (Phoenix to assume funding in FY 2011)
T29	Superstition Fwy Connector	0.00	0.00	0.00	1.04	1.04	2027	
T30	Superstition Springs Express	0.00	0.00	0.00	0.78	0.78	2031	
T31	West Loop 101 Connector	1.32	11.57	12.89	7.02	19.90	2009	Routes 575 & 576 - Northwest Valley Express (route 576 eliminated in FY 2011)
TOTAL		18.01	97.89	115.89	80.28	196.17		

TABLE C-2
TRANSIT LIFE CYCLE PROGRAM - BUS OPERATIONS: REGIONAL GRID
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Map Code	Route	Expenditures through FY 2010 (YOE Dollars)	Est. Future Costs: FY2011-2026 (2010 Dollars)	Total Est. Costs: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY2027-2031 (2010 Dollars)	Total Est. Costs: FY 2006-2031 (2010 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T40	59th Avenue	0.00	19.61	19.61	14.72	34.33	2014	
T41	83rd Avenue/75th Avenue	0.00	4.36	4.36	11.48	15.84	2023	
T42	99th Avenue	0.00	0.00	0.00	1.64	1.64	2031	
T43	Alma School Rd.	0.00	9.85	9.85	10.84	20.69	2018	
T44	Arizona Avenue/Country Club	0.00	24.39	24.39	15.80	40.19	2012	
T45	Baseline Rd	0.00	26.53	26.53	21.63	48.17	2015	
	Dobson Rd	4.04	28.42	32.46	17.24	49.71	2009	Route 96 - Dobson Road
	Southern Ave	7.91	60.07	67.98	36.44	104.42	2009	Route 61 - Southern Avenue
T46	Bell Road	0.00	12.65	12.65	46.23	58.88	2024	
T47	Broadway	0.00	28.36	28.36	31.20	59.56	2018	
T48	Buckeye Road	0.00	0.00	0.00	2.82	2.82	2031	
T49	Camelback Road	0.00	7.40	7.40	44.13	51.53	2025	
T50	Chandler Blvd.	10.43	65.53	75.96	39.75	115.70	2008	Route 156 - Chandler Boulevard
T51	Dunlap/Olive Avenue	0.00	0.00	0.00	3.15	3.15	2031	
T52	Dysart Road	0.00	0.00	0.00	4.68	4.68	2030	
T53	Elliot Road	0.00	19.07	19.07	13.26	32.32	2013	
T54	Gilbert Road	0.97	19.93	20.91	12.09	33.00	2010	Route 136 - Gilbert Road
T55	Glendale Avenue	14.26	60.85	75.10	36.91	112.01	2008	Route 70 - Glendale Avenue
T56	Greenfield Road	0.00	3.98	3.98	8.21	12.20	2022	
T57	Hayden/McClintock	0.00	18.38	18.38	31.09	49.48	2021	
T58	Indian School Road	0.00	0.00	0.00	6.30	6.30	2031	
T59	Litchfield Road	0.00	0.00	0.00	0.00	0.00	2032	
T60	Main Street	2.55	27.07	29.62	16.42	46.04	2009	Route 40 - Apache/Main Street
T61	McDowell/McKellips	0.00	51.01	51.01	38.28	89.30	2014	
T62	Peoria Ave./Shea	0.00	0.00	0.00	24.63	24.63	2030	
T63	Power Road	0.00	20.13	20.13	12.61	32.74	2011	
T64	Queen Creek Road	0.00	0.00	0.00	0.56	0.56	2031	
T65	Ray Road	0.00	2.86	2.86	7.54	10.41	2023	
T66	Scottsdale/Rural	20.71	83.77	104.48	50.81	155.29	2007	Route 72 - Scottsdale/Rural Road
T67	Tatum / 44th Street	0.00	0.00	0.00	4.31	4.31	2031	

Map Code	Route	Expenditures through FY 2010 (YOE Dollars)	Est. Future Costs: FY 2011-2026 (2010 Dollars)	Total Est. Costs: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY 2027-2031 (2010 Dollars)	Total Est. Costs: FY 2006-2031 (2010 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
T68	Thomas Road	0.00	0.00	0.00	5.53	5.53	2031	
T69	University Drive	0.00	31.41	31.41	28.03	59.44	2016	
T70	Van Buren	0.00	17.09	17.09	28.91	46.01	2021	
T71	Waddell/Thunderbird	0.00	7.16	7.16	26.19	33.35	2024	
	TOTAL	60.87	649.90	710.77	653.45	1,364.21		

TABLE C-3
TRANSIT LIFE CYCLE PROGRAM - BUS OPERATIONS: OTHERS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Route	Expenditures: through FY 2010: (YOE Dollars)	Est. Future: Costs: FY 2011- 2026 (2010: Dollars)	Total Est. Costs: FY 2006-2026: (2010 and YOE Dollars)	Est. Future: Costs: FY 2027- 2031 (2010: Dollars)	Total Est. Costs: FY 2006-2031: (2010 and YOE Dollars)	Service Start (Fiscal Year)	Other Project Information
ADA Paratransit	32.58	387.92	420.50	167.89	588.39	2006	
Regional Passenger Support Services	32.53	112.26	144.78	37.48	182.27	2006	
Existing Local Service	18.28	32.98	51.26	9.54	60.81	2006	
Existing Express Service	16.43	55.47	71.91	25.70	97.61	2006	
Rural/Non-Fixed Route Service	2.67	13.24	15.91	8.03	23.94	2006	
Vanpool Service	0.00	0.00	0.00	0.00	0.00	2006	Vanpool operations are funded entirely through fares
Safety and Security Costs	1.46	12.70	14.16	11.59	25.75	2006	
Operating Contingency	0.00	0.00	0.00	0.00	0.00	2006	Contingencies were eliminated to help balance the program
RPTA Planning and Administration	21.43	64.54	85.98	24.28	110.26	2006	Primarily funded through RPTA's allocation from Regional Area Road Fund
TOTAL	125.38	679.12	804.50	284.51	1,089.02		

TABLE C-4
TRANSIT LIFE CYCLE PROGRAM - BUS CAPITAL: FACILITIES
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Category	Expend. through FY 2010: (YOE Dollars)	Est. Future Costs: FY 2011-2026 (2010 Dollars)	Total Est. Costs: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY 2027-2031 (2010 Dollars)	Total Est. Costs: FY 2006-2031 (2010 and YOE Dollars)	No. of Units Construc./ Installed through FY 2010:	Tot. No. of Units to be Construc./ Installed through FY 2026:	Tot. No. of Units to be Construc./ Installed through FY 2031:	Other Project Information
Arterial BRT Right-of-Way and Improvements	27.17	49.62	76.79	19.25	96.05	13	39	51	
Bus Stop Pullouts/Improvements	5.80	0.00	5.80	0.00	5.80	230	230	230	Major reduction in planned bus stop improvements beginning in FY 2011 due to funding shortfall.
Dial-a-Ride and Rural Bus Maintenance Facilities	0.00	0.00	0.00	22.10	22.10	0	0	2	Rural facility was postponed beyond 2031 and 2 DAR facilities are funded
Intelligent Transportation Systems (ITS) / Vehicle Management Systems (VMS)	6.65	17.77	24.42	0.00	24.42				Funding designated for system wide radio communications; individual units originally identified are included in bus purchases.
Park & Ride Lots	31.10	51.41	82.51	15.73	98.24	1	11	13	
Standard Bus Maintenance Facilities	97.18	0.00	97.18	22.68	119.85	2	4	4	One new facility was postponed beyond 2031, while 4 projects are funded
Transit Centers (4 Bay)	0.00	2.41	2.41	10.95	13.36	0	1	6	
Transit Centers (6 Bay)	0.00	6.47	6.47	6.33	12.80	0	2	4	
Transit Centers (Major Activity Centers)	4.86	0.15	5.01	15.15	20.16	0	1	3	
Vanpool Vehicle Maintenance Facilities	0.00	0.00	0.00	0.00	0.00	0	0	0	Project was postponed indefinitely
Contingency	2.51	20.78	23.28	16.51	39.79				
TOTAL	175.26	148.62	323.88	128.69	452.57				

TABLE C-5
TRANSIT LIFE CYCLE PROGRAM - BUS CAPITAL: FLEET
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Category	Expend. through FY 2010; (YOE Dollars)	Est. Future Costs: FY2011-2026 (2010 Dollars)	Total Est. Costs: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY2027-2031 (2010 Dollars)	Total Est. Costs: FY 2006-2031 (2010 and YOE Dollars)	No. of Units to be Acquired through FY 2010	Tot. No. of Units to be Acquired through FY 2026	Tot. No. of Units to be Acquired through FY 2031	Other Project Information
Paratransit	17.25	60.02	77.27	27.81	105.08	214	939	1275	
Fixed Route	147.09	668.36	815.45	101.49	916.94	366	1662	1867	
Rural Route	0.47	2.73	3.21	0.58	3.79	7	40	47	
Vanpool	9.95	32.64	42.58	11.14	53.73	356	1381	1731	
Contingency	0.34	15.27	15.62	5.29	20.91				
TOTAL	175.10	779.02	954.13	146.32	1,100.44				

TABLE C-6
TRANSIT LIFE CYCLE PROGRAM - LIGHT RAIL TRANSIT/HIGH CAPACITY TRANSIT: SUPPORT INFRASTRUCTURE
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Facility	Expenditures: through FY 2010 (Year of Expenditure Dollars)				Est. Future Costs: FY 2011-2026 (2010 Dollars)	Tot. Costs: FY 2006- 2026 (2010 and YOE Dollars)	Est. Future Costs: FY 2027-2031 (2010 Dollars)	Tot. Costs: FY 2006- 2031 (2010 and YOE Dollars)	Target Opening Date	Project Length (Center- line Miles)	Other Project Information
	Design	R/W	Construc.	Total							
Glendale Link: 19th Ave./Bethany Home to Downtown Glendale	0.0	0.0	0.0	0.0	5.3	5.3	0.0	5.3	12 / 2026	5	AA Costs
Northwest Link Phase 1: 19th Ave/Bethany Home to 19th Ave/Dunlop	3.2	0.0	0.0	3.2	0.5	3.7	0.0	3.7	12 / 2023	3.2	Concep Eng \$3.2 Proj Devel .5
Northwest Link Phase 2: 19th Ave./Dunlop to Rose Mofford Sports Complex	0.0	0.0	0.0	0.0	1.3	1.3	0.0	1.3	12 / 2026	1.8	AA & Draft EA
CPEV Regional Reimbursements	0.0	0.0	151.0	151.0	47.8	198.8	0.0	198.8	12 / 2008	20	Segment will open in FY 2009, but reimbursements will continue through FY 2011
Systemwide Support Infrastructure	42.7	0.0	0.0	42.7	151.5	194.2	250.0	444.2	N/A		
Design Standards and System Planning	3.6	0.0	0.0	3.6	3.2	6.8	0.0	6.8	N/A		
Capital Project Development Admin.	1.1	0.0	0.0	1.1	24.0	25.1	7.5	32.6	N/A		

TABLE C-7
TRANSIT LIFE CYCLE PROGRAM - LIGHT RAIL TRANSIT/HIGH CAPACITY TRANSIT: ROUTE EXTENSIONS
EXPENDITURES AND ESTIMATED FUTURE COSTS: FY 2006-2026, FY 2027-2031
(2010 and Year of Expenditure Dollars in Millions)

Map Code	Facility	Expenditures: through FY 2010 (Year of Expenditure: Dollars)				Est. Future Costs: FY 2011-2026 (2010 Dollars)	Tot. Costs: FY 2006-2026 (2010 and YOE Dollars)	Est. Future Costs: FY 2027-2031 (2010 Dollars)	Tot. Costs: FY 2006-2031 (2010 and YOE Dollars)	Target Opening Date	Project Length (Center-line Miles)	Other Project Information
		Design	R/W	Construc.	Total							
T80	Glendale Link: 19th Ave./Bethany Home to Downtown Glendale	0.0	0.0	0.0	0.0	353.2	353.2	0.0	353.2	12 / 2026	5.0	
T81	Phoenix West Link: Washington Ave./Central Ave. to 79th Ave.	4.8	0.0	0.4	5.2	798.2	803.4	0.0	803.4	12 / 2022	11.0	
T82	Northwest Link Phase 1: 19th Ave/Bethany Home to 19th Ave/Dunlop	23.4	58.6	0.0	82.0	203.9	285.9	0.0	285.9	12 / 2023	3.2	
	Northwest Link Phase 2: 19th Ave./Dunlop to Rose Mofford Sports Complex	0.0	0.0	0.0	0.0	98.8	98.8	0.0	98.8	12 / 2026	1.8	
T83	Northeast Phoenix Link: Indian School Rd./Central Ave. to Paradise Valley Mall	0.0	0.0	0.0	0.0	153.4	153.4	543.7	697.1	12 / 2031	12.0	
T84	Tempe South Link: Main St./ Rural Rd. to Southern Ave.	4.0	0.0	0.0	4.0	136.6	140.6	0.0	140.6	12 / 2016	2.0	
T85	Central Mesa Link: Main St./Sycamore to Main St./Mesa Dr. *	5.4	0.0	0.0	5.4	210.8	216.2	0.0	216.2	12 / 2016	2.7	
	TOTAL	37.6	58.6	0.4	96.5	1,954.9	2,051.4	543.7	2,595.1			

**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 (Thousands)	Total Boardings through FY 2010 (Thousands)	Farebox Revenues through FY 2010 (YOE Dollars)	Annual Average Boardings through FY 2010 (Thousands)	Annual Average Farebox Revenues through FY 2010 (YOE Dollars)	Other Project Information
T1	Ahwatukee Connector	2031	14.7	30,010					
T2	Ahwatukee Express	2008	20.8	160,264	654.0	928,635	218.0	309,500	
T3	Anthem Express	2031	30.4	77,390					
T4	Apache Junction Express	2027	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	2031	16.6	67,700					
T8	Buckeye Express	2028	43.7	66,910					
T9	Chandler Boulevard Arterial BRT	2034	18.5	226,620					
T10	Deer Valley Express	2008	13.6	188,195	900.2	1,391,804	300.1	463,900	
T11	Desert Sky Express	2008	22.6	89,096	520.4	523,880	173.5	174,600	
T12	East Loop 101 Connector	2009	44.6	73,247	21.9	30,095	10.9	15,000	
T13	Grand Avenue Limited	2013	25.9	158,430					
T14	Loop 303 Express	2031	38.1	77,780					
T15	Main Street Arterial BRT	2009	13.0	385,140	451.9	301,065	225.9	150,500	
T16	North Glendale Express	2008	29.6	94,583	131.3	164,137	43.8	54,700	
T17	North I-17 Express	2031	34.4	87,620					
T18	North Loop 101 Connector (Surprise to Scottsdale)	2008	31.6	105,311	56.8	74,024	18.9	24,700	
T19	Papago Fwy Connector	2009	30.0	26,426	63.9	55,561	32.0	27,800	
T20	Peoria Express	2028	24.1	73,640					
T21	Pima Express	2028	35.4	72,190					
T22	Red Mountain Express	2009	32.8	54,391	70.8	73,354	35.4	36,700	
T23	Red Mountain Fwy Connector	2031	19.2	78,510					

Map Code	Route	Service Start (Fiscal Year)	Route Length (Miles)	Annual Bus Miles of Service (Thousands)	Total Boardings through FY 2010 (Thousands)	Farebox Revenues through FY 2010 (YOE Dollars)	Annual Average Boardings through FY 2010 (Thousands)	Annual Average Farebox Revenues through FY 2010 (YOE Dollars)	Other Project Information
T24	Santan Express	2031	44.9	228,910					
T25	Scottsdale/Rural Arterial BRT	2016	23.1	282,770					
T26	South Central Avenue	2015	9.4	114,800					
T27	South Central Avenue Arterial BRT	2031	23.7	120,900					
T28	SR 51 Express	2008	22.3	128,325	541.6	701,856	180.5	234,000	
T29	Superstition Fwy Connector	2027	17.5	26,830					
T30	Superstition Springs Express	2031	31.9	162,540					
T31	West Loop 101 Connector	2009	31.4	64,444	84.8	90,738	42.4	45,400	
	TOTAL				3,497.5	4,335,149	1,281.4	1,536,800	

**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 (Thousands)	Total Boardings through FY 2010 (Thousands)	Farebox Revenues through FY 2010 (YOE Dollars)	Annual Average Boardings through FY 2010 (Thousands)	Annual Average Farebox Revenues through FY 2010 (YOE Dollars)	Other Project Information
T40	59th Avenue	2014	16.2	394,240					
T41	83rd Avenue/75th Avenue	2023	21.4	542,440					
T42	99th Avenue	2031	16.5	401,300					
T43	Alma School Rd.	2018	19.1	523,450					
T44	Arizona Avenue/Country Club	2012	16.3	462,380					
T45	Baseline Road	2015	19.6	586,090					
	Dobson Road	2009	15.7	481,686	1,178.3	758,668	589.2	379,300	
	Southern Avenue	2009	28.1	961,823	3,593.8	2,587,090	1,796.9	1,293,500	
T46	Bell Road (via 303)	2024	38.1	1,138,460					
T47	Broadway	2018	27.8	776,250					
T48	Buckeye Road (Litchfield Road to Central Ave.)	2031	22.7	586,460					
T49	Camelback Road	2025	28.5	851,220					
T50	Chandler Blvd.	2008	32.7	768,500	1,089.1	914,676	363.0	304,900	
T51	Dunlap/Olive Avenue	2031	14.3	411,720					
T52	Dysart Road	2030	21.0	311,900					
T53	Elliot Road	2013	21.9	600,020					
T54	Gilbert Road	2010	20.9	519,070	176.9	120,339	176.9	120,300	
T55	Glendale Avenue	2008	32.7	965,214	6,540.4	5,047,773	2,180.1	1,682,600	
T56	Greenfield Road	2022	15.2	369,300					
T57	Hayden/McClintock	2021	29.7	826,990					
T58	Indian School Road	2031	30.4	879,050					
T59	Litchfield Road	2032	21.5	523,780					
T60	Main Street	2009	17.3	406,665	966.2	636,340	483.1	318,200	
T61	McDowell/McKellips	2014	41.8	1,250,210					
T62	Peoria Ave./Shea	2030	43.0	1,506,060					
T63	Power Road	2011	14.2	345,160					

Map Code	Route	Service Start (Fiscal Year)	Route Length (Miles)	Annual Bus Miles of Service (Thousands)	Total Boardings through FY 2010 (Thousands)	Farebox Revenues through FY 2010 (YOE Dollars)	Annual Average Boardings through FY 2010 (Thousands)	Annual Average Farebox Revenues through FY 2010 (YOE Dollars)	Other Project Information
T64	Queen Creek Road (Pecos P&R to Power Road)	2031	12.0	293,410					
T65	Ray Road	2023	18.4	447,870					
T66	Scottsdale/Rural	2007	28.9	1,192,971	6,228.7	4,232,045	1,557.2	1,058,000	
T67	Tatum / 44th Street	2031	22.8	682,180					
T68	Thomas Road	2031	26.7	770,530					
T69	University Drive (to Ellsworth Road)	2016	27.8	802,220					
T70	Van Buren	2021	23.4	711,460					
T71	Waddell/Thunderbird	2024	27.9	692,370					
	TOTAL				19,773.4	14,296,931	7,146.4	5,156,800	