February 4, 2014

TO: Members of the MAG Management Committee

FROM: Dr. Spencer Isom, City of El Mirage, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Wednesday, February 12, 2014 - 12:00 noon
MAG Office, Suite 200 - Saguaro Room
302 North 1st Avenue, Phoenix

The next Management Committee meeting will be held at the MAG offices at the time and place noted above. Members of the Management Committee may attend the meeting either in person, by videoconference or by telephone conference call. The agenda and summaries also are being transmitted to the members of the Regional Council to foster increased dialogue between members of the Management Committee and Regional Council. You are encouraged to review the supporting information enclosed. Lunch will be provided at a nominal cost.

Please park in the garage under the building, bring your ticket, parking will be validated. For those who purchased a transit ticket to attend the meeting, Valley Metro/RPTA will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Valerie Day at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

Members are reminded of the importance of attendance by yourself or a proxy. Any time that a quorum is not present, we cannot conduct the meeting. Please set aside sufficient time for the meeting, and for all matters to be reviewed and acted upon by the Management Committee. Your presence and vote count.

MAG MANAGEMENT COMMITTEE
TENTATIVE AGENDA
February 12, 2014

COMMITTEE ACTION REQUESTED

1. Call to Order

2. Pledge of Allegiance

3. Call to the Audience

   An opportunity is provided to the public to address the Management Committee ON ITEMS THAT ARE NOT ON THE AGENDA THAT ARE WITHIN THE JURISDICTION OF MAG, or non-action agenda items that are on the agenda for discussion or information only. Citizens will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Management Committee requests an exception to this limit. Please note that those wishing to comment on agenda items posted for action will be provided the opportunity at the time the item is heard.

   3. Information.

4. Resolution of Appreciation

   After almost 30 years of service to the MAG region, Charlie McClendon, Avondale City Manager, has accepted a new opportunity in California. A Resolution of Appreciation has been prepared to recognize Mr. McClendon for his numerous contributions to the MAG region.

   4. Adopt the Resolution of Appreciation for Charlie McClendon for his service to the MAG region.

5. Executive Director's Report

   The MAG Executive Director will provide a report to the Management Committee on activities of general interest.

   5. Information.

6. Approval of Consent Agenda

   Prior to action on the consent agenda, members of the audience will be provided an opportunity to comment on consent items that are being presented for action. Following the comment period, Committee members may request that an item be removed from the consent agenda. Consent items are marked with an asterisk (*).

   6. Recommend approval of the Consent Agenda.

ITEMS PROPOSED FOR CONSENT*

MINUTES

*6A. Approval of the January 8, 2014, Meeting Minutes

6A. Review and approval of the January 8, 2014, meeting minutes.

TRANSPORTATION ITEMS

*6B. MAG Federally Funded Locally Sponsored Project Development Status Report: January 2014, and Project Changes

The MAG Federal Fund Programming Guidelines and Procedures, approved by the MAG Regional Council on October 26, 2011, outlines the requirements for local agencies to submit status information on the development of their federally funded projects. This Project Development Status Report focuses mainly on projects funded with Congestion Mitigation and Air Quality Improvement (CMAQ), and Transportation Alternatives program funds that are programmed in the Fiscal Year (FY) 2011-2015 Transportation Improvement Program (TIP) as of November 2013 to authorize in federal fiscal year (FFY) 2014 and FFY 2015. The Project Development Status Workbook for each project that was sent to member agencies requires that a project development schedule be completed and allows project changes to be requested. This item was recommended by the Street Committee on January 14, 2014, and the Transportation Review Committee on January 30, 2014. Please refer to the enclosed material.

6B. Recommend approval of federal fund projects to be deferred, deleted, and changed; and of the necessary amendments and administrative modifications to the FY 2014-2018 Transportation Improvement Program, 2035 Regional Transportation Plan, and to the FY 2011-2015 Transportation Improvement Program as appropriate.

*6C. FY 2014 Road Safety Assessments and Project Assessments at Intersections and Corridors

Each year, more than 70,000 crashes occur on the local and arterial street system in the MAG region. About half of these crashes occur at intersections and they result in nearly 20,000 injuries and fatalities each year. The MAG Transportation Safety Committee has recommended the performance of Road Safety Assessments (RSAs) and Project Assessments (PAs) as a regional road safety initiative to help identify and address safety issues at locations with high crash risk. The Fiscal

6C. Recommend approval of the list of eleven (11) Road Safety Assessments and three (3) Project Assessments utilizing MAG on-call consultants at an estimated total cost of $440,000.

Year (FY) 2014 MAG Unified Work Program and Annual Budget, approved by the MAG Regional Council in May 2013, includes $300,000 for the RSA program. An additional $146,322 is also available from funds approved for the RSA program in the FY 2013 MAG Unified Work Program and Annual Budget, approved by the MAG Regional Council in May 2012. Since 2011, 23 RSAs have been successfully completed through the MAG RSA program. On January 7, 2014, the MAG Transportation Safety Committee recommended approval of a list of 11 RSAs and three PAs to be performed in FY 2014. The MAG Transportation Review Committee recommended approval of the list on January 30, 2014. Qualified MAG on-call consultants would conduct the RSAs and PAs. Please refer to the enclosed material.

*6D. Amendment to the FY 2014 MAG Unified Planning Work Program for Additional Printing of the MAG Regional Bikeways Map and Purchase of Camera for Digital Media for the On-Line Bikeways Map

In May 2012, the Regional Council approved the Fiscal Year (FY) 2013 MAG Unified Planning Work Program and Annual Budget, which included printing 100,000 copies of the MAG Regional Bikeways Map. Due to the popularity of the bike map, MAG has approximately 6,250 maps left as of January 2014. It is anticipated that the next update to the printed map will not occur until 2016. In order to meet the demand for printed bike maps between now and 2016, MAG is requesting another print run of 50,000 maps at a cost not to exceed $10,000. Additionally, MAG is requesting to purchase a GoProHERO3+ camera in an effort to enhance the MAG On-line Bikeways map. The camera will allow for photos, videos, audio recording and wayfinding instructions to be imbedded in the On-line Bikeways map. The cost for the camera equipment is approximately $550. An amendment to the FY 2014 MAG Unified Planning Work Program is requested to include printing costs for 50,000 MAG Regional Bikeways maps and the equipment purchase of a GoProHERO3+ camera for an amount not to

6D. Recommend approval to amend the FY 2014 MAG Unified Planning Work Program to include printing costs for 50,000 MAG Regional Bikeways maps and the equipment purchase of a GoProHERO3+ camera for an amount not to exceed $10,550.

exceed $10,550. Please refer to the enclosed material.

*6E. Programming of PM-2.5 Paving Unpaved Road Projects for MAG Federal Congestion Mitigation and Air Quality Improvement Funding in the FY 2014-2018 MAG Transportation Improvement Program

The MAG Regional Transportation Plan (RTP) allocates MAG Federal Congestion Mitigation and Air Quality Improvement (CMAQ) funds to specific modes. For air quality projects, the RTP and Moving Ahead for Progress in the 21st Century identify CMAQ allocations. Funding levels are still estimated and are subject to change based on the Federal Surface Transportation Authorization, ADOT apportionments, and regional distributions. The estimated total amount of PM-2.5 CMAQ funding available for programming in Federal Fiscal Year (FFY) 2014 through FFY 2017 for PM-2.5 Pave Unpaved Road Projects is $3.36 million. A Call for Projects was issued on October 23, 2013, with applications due on November 22, 2013. The PM-2.5 Paving Unpaved Road Projects were reviewed and recommended by the Street Committee on January 14, 2014. On January 23, 2014, the Air Quality Technical Advisory Committee recommended forwarding the list of projects to the Transportation Review Committee. On January 30, 2014, the Transportation Review Committee recommended approval of the list of projects. Please refer to the enclosed material.

6E. Recommend approval of the list of Fiscal Year (FY) 2014, 2015, 2016, and 2017 PM-2.5 Congestion Mitigation and Air Quality Improvement funded Paving Unpaved Road Projects to be added to the FY 2011-2015 MAG Transportation Improvement Program, the 2035 Regional Transportation Plan, and the FY 2014-2018 MAG Transportation Improvement Program as appropriate.

*6F. Project Changes - Amendment and Administrative Modification to the FY 2014-2018 MAG Transportation Improvement Program, the Regional Transportation Plan, and the FY 2011-2015 Transportation Improvement Program

On January 28, 2014, the MAG Regional Council approved the MAG Transportation Alternatives program ranked order of projects (for fiscal years 2015-2017), the Fiscal Year (FY) 2014-2018 MAG Transportation Improvement Program, and the Regional Transportation Plan. Since then, member agencies have requested general project

6F. Recommend approval of amendments and administrative modifications to the FY 2014-2018 Transportation Improvement Program, the Regional Transportation Plan, and the FY 2011-2015 Transportation Improvement Program as appropriate.

changes. Additionally, the detailed listing of work phases for the Transportation Alternatives program, and the detailed work phase listings of the proposed PM-2.5 Paving Unpaved Road Projects are included in Table B. Please refer to the enclosed material.

AIR QUALITY ITEMS

*6G. Recommendation of Prioritized List of Proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ Funding

The FY 2014 MAG Unified Planning Work Program and Annual Budget and the FY 2014-2018 MAG Transportation Improvement Program contain $900,000 in FY 2014 Congestion Mitigation and Air Quality Improvement (CMAQ) funding to encourage the purchase and utilization of PM-10 Certified Street Sweepers. An additional $330,599 in CMAQ is available from sweeper projects that have been requested to be deleted and from savings on sweepers that have cost less than anticipated, for a total amount of $1,230,599. On January 23, 2014, the MAG Air Quality Technical Advisory Committee (AQTAC) recommended a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding. Prior to the AQTAC recommendation, the MAG Street Committee reviewed the proposed street sweeper applications on December 10, 2013, and on January 14, 2014, in accordance with the MAG Federal Fund Programming Guidelines and Procedures. Please refer to the enclosed material.

6G. Recommend approval of a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding.

*6H. Conformity Consultation

The Maricopa Association of Governments is conducting consultation on a conformity assessment for an amendment and administrative modification to the FY 2014-2018 MAG Transportation Improvement Program (TIP). The amendment and administrative modification involve several projects, including the addition of several new Transportation Alternatives Program projects. The amendment includes projects that may be categorized as exempt from conformity determinations. The administrative modification

6H. Consultation.

includes minor project revisions that do not require a conformity determination. Please refer to the enclosed material.

GENERAL ITEMS

*61. Social Services Block Grant Allocation Recommendations

Through a partnership with the Arizona Department of Economic Security (DES), the MAG Human Services Coordinating Committee (HSCC) prioritizes services to receive funding with locally planned Social Services Block Grant (SSBG) dollars. Services funded by SSBG assist the most vulnerable people in the region, including four target groups of Older Adults; People with Disabilities; People with Developmental Disabilities; and Adults, Families, and Children. Each year, the MAG HSCC conducts a service ranking exercise to determine a prioritized listing of services to assist people in these four target groups. The service ranking exercise was conducted in November 2013 and the draft results were released for public comment in December 2013. The results reflect the prioritized listing of services as determined by the service ranking exercise and a 5.3 percent funding reduction required by DES. In addition to the reduction in funding, DES indicated funding for services within the Older Adults and the Adults, Families and Children target groups be held harmless. The funding reduction was applied to services within Persons with Disabilities and the Persons with Developmental Disabilities target groups. Services within these two target groups were ranked the lowest in the service ranking exercise. No services received an increase due to the 5.3 percent funding reduction indicated by DES. The MAG Human Services Technical Committee voted to recommend approval of the draft allocations on January 9, 2014. The MAG HSCC voted to recommend approval of the draft allocations on January 22, 2014. Please refer to the enclosed material.

61. Recommend approval to forward the Social Services Block Grant (SSBG) allocation recommendations for FY 2015 to the Arizona Department of Economic Security.

ITEMS PROPOSED TO BE HEARD

7. Update on the MAG 2012 Five Percent Plan for PM-10 and Exceptional Events

   On January 14, 2014, the Environmental Protection Agency (EPA) signed a notice proposing to approve the MAG 2012 Five Percent Plan for PM-10. The plan includes a wide variety of existing control measures and projects that have been implemented to reduce PM-10 and a new measure designed to reduce PM-10 during high risk conditions, including high winds. The plan demonstrated that the measures will reduce emissions by five percent per year and demonstrated attainment of the standard by December 31, 2012. EPA is also proposing to make a determination that the region has met the standard based upon three years of clean data for 2010-2012, as measured by the air quality monitors. Once the notice is published in the Federal Register, comments may be submitted for thirty days. Regarding exceptional events, EPA anticipates proposing revisions to the Exceptional Events Rule in April 2014 and finalizing them in April 2015. In 2013, there were six exceptional event days due to regional dust storms, thunderstorms and high winds. Documentation for five of the exceptional event days has been prepared and is available for public review. Please refer to the enclosed material.

7. Information and discussion.

8. Designing Transit Accessible Communities Study

   The Fiscal Year (FY) 2011 MAG Unified Planning Work Program and Annual Budget, approved by the MAG Regional Council in May 2010, included a study to help provide member agencies with additional tools and guidelines to provide better transit accessibility for pedestrians and bicyclists. The study outcome details the process of categorizing of bus stops that addresses the different needs and challenges of the existing built environment. A Designing Transit Accessible Communities tool kit was developed and includes sample policies and best practices specific to the MAG region and geography. The implementation check list is intended for use by development review planners, engineers and transit service

8. Recommend acceptance of the Designing Transit Accessible Communities Study.

planners. The Designing Transit Accessible Communities Study was recommended for acceptance by the MAG Transit Committee on January 9, 2014, and by the MAG Transportation Review Committee on January 30, 2014. Please refer to the enclosed material.

9. MAG Fiscal Balance Report

MAG recently updated the MAG Fiscal Balance Report that was originally created in 2001. The purpose of the Fiscal Balance Report is to provide background information on how different types of development impact communities from a fiscal perspective. The report is accompanied by an in-house generalized fiscal model that can be used to evaluate and estimate the impacts of different land use combinations for five size categories of cities and Maricopa and Pinal Counties. An update will be provided. Please refer to the enclosed material.

9. Information and discussion.

10. Economic Development Data and Analysis Meetings

MAG staff is conducting meetings with member agency economic development department staff to showcase datasets and analysis tools. Included in the meetings is discussion of socioeconomic data, commuting patterns and travel data, and employer database analysis. MAG staff has also developed enhanced online mapping and reporting tools (http://ims.azmag.gov/) and a regional employment cluster analysis report (http://datacenter.azmag.gov/Portals/3/documents/reports/2012_EmploymentClusterAnalysis.pdf). Staff will provide an update on the economic development data and analysis meetings along with a demonstration of the updated tools.

10. Information and discussion.

11. Discussion of the Development of the FY 2015 MAG Unified Planning Work Program and Annual Budget

Each year, the MAG Unified Planning Work Program and Annual Budget is developed in conjunction with member agency and public input. The Work Program is reviewed each year by the federal agencies in April and approved by the

11. Information and discussion.

Regional Council in May. To provide an early start in developing the Work Program and Budget, this presentation is an overview of MAG's draft proposed new projects for the FY 2015 Work Program. The updated draft budget timeline, the invitation for the Budget Webinar presentation on February 20, 2014, at 1:00 P.M. in the MAG Cottonwood Room, and estimated dues and assessments are included with the budget documents. Please refer to the enclosed material.

12. MAG Regional Transportation Survey Results

12. Information and discussion.

At the August 14, 2013, Transportation Policy Committee (TPC) meeting, an update on transportation revenues was provided. It was noted at the meeting that the current sales tax projections reflected a 40 percent decrease compared to the 2002 projections. Next steps were discussed, including conducting a public opinion survey to gauge public views and sentiment regarding needs and revenue sources. Following the TPC meeting, staff prepared a request for qualifications and interviewed polling firms. On October 15, 2013, the MAG Regional Council Executive Committee approved WestGroup Research, Inc., as the consultant for MAG public opinion quantitative and qualitative services. Working with an on-line focus group, TPC and Regional Council members in October and November 2013, a survey instrument was developed for a Regional Transportation Survey. A telephone survey was conducted from December 4-31, 2013, focusing on high efficacy voters. Survey results were analyzed, and the topline findings of the MAG Regional Transportation Survey were presented at the January 29, 2014, meetings of the Transportation Policy Committee and Regional Council. A report on the survey findings will be presented to the Management Committee. Please refer to the enclosed material.

13. Alternative Transportation Solutions for Older Adults

13. Information and discussion.

Local community engagement and research has shown transportation to be a significant concern

among people aged 65 years and more in this region. As a result, the MAG Regional Age-Friendly Network is pursuing alternatives to assist older adults in accessing viable transportation solutions. A number of different options are being developed to supplement the current transportation infrastructure through partnerships with nonprofit agencies. These options include travel training, van programs, and a new hybrid program being developed in the Northwest Valley. Benevilla and Sun Health are partnering to develop Northwest Connections, a new nonprofit agency that will provide mobility management and a membership-based transportation program. Rides will be provided by volunteers and paid drivers to older adults for a nominal fee. The project is being supported with funding from Grantmakers in Aging and the Pfizer Foundation. A presentation will be offered on plans underway to launch Northwest Connections and opportunities to replicate the program in other areas within the region.

14. Legislative Update

    An update will be provided on legislative issues of interest.

    14. Information, discussion, and possible action.

15. Request for Future Agenda Items

    Topics or issues of interest that the Management Committee would like to have considered for discussion at a future meeting will be requested.

    15. Information.

16. Comments from the Committee

    An opportunity will be provided for Management Committee members to present a brief summary of current events. The Management Committee is not allowed to propose, discuss, deliberate or take action at the meeting on any matter in the summary, unless the specific matter is properly noticed for legal action.

    16. Information.

Adjournment

MINUTES OF THE
MAG MANAGEMENT COMMITTEE MEETING
January 8, 2014
MAG Office, Saguaro Room
Phoenix, Arizona

MEMBERS ATTENDING

Dr. Spencer Isom, El Mirage, Chair
Christopher Brady, Mesa, Vice Chair
Matt Busby for George Hoffman, Apache Junction
Charlie McClendon, Avondale
* Stephen Cleveland, Buckeye
* Gary Neiss, Carefree
Rodney Glassman, Cave Creek
Patrice Kraus for Rich Dlugas, Chandler
* Charles Montoya, Florence
* Phil Dorchester, Fort McDowell Yavapai Nation
# Ken Buchanan, Fountain Hills
Rick Buss, Gila Bend
* David White, Gila River Indian Community
Marc Skocypec for Patrick Banger, Gilbert
Brent Stoddard for Brenda S. Fischer, Glendale
* Brian Dalke, Goodyear
Rosemary Arellano, Guadalupe
Darryl Crossman, Litchfield Park
* Trisha Sorensen, City of Maricopa
* Jim Bacon, Paradise Valley
Carl Swenson, Peoria
Ed Zuercher, Phoenix
Greg Stanley, Pinal County
John Kross, Queen Creek
* Bryan Meyers, Salt River Pima-Maricopa Indian Community
Brad Lundahl for Fritz Behring, Scottsdale
Chris Hillman, Surprise
Marge Zylla for Andrew Ching, Tempe
* Reyes Medrano, Tolleson
Joshua Wright, Wickenburg
Jeanne Blackman, Youngtown
Brent Cain for John Halikowski, ADOT
John Hauskins for Tom Manos, Maricopa County
John Farry for Steve Banta, Valley Metro/RPTA

* Those members neither present nor represented by proxy.
# Participated by telephone conference call. + Participated by videoconference call.

1. Call to Order

The meeting of the MAG Management Committee was called to order by Acting Chair Chris Brady, Mesa, at 12:00 p.m.

2. Pledge of Allegiance

The Pledge of Allegiance was recited.

Greg Stanley, John Kross, Ken Buchanan, and Matt Busby joined the meeting via teleconference.

Acting Chair Brady announced that public comment cards were available to members of the public who wish to comment. Parking validation for those who parked in the MAG parking garage was available from staff and transit tickets were available from Valley Metro/RPTA for those who purchased transit tickets to come to the meeting.

3. Call to the Audience

Acting Chair Brady stated that Call to the Audience provides an opportunity to the public to address the Management Committee on items that are not on the agenda that are within the jurisdiction of MAG, or non-action agenda items that are on the agenda for discussion or information only. Those wishing to comment on agenda items posted for action will be provided the opportunity at the time the item is heard. Public comments have a three minute time limit. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Committee requests an exception to this limit.

Acting Chair Brady recognized public comment from Dianne Barker, a resident of downtown Phoenix. Ms. Barker noted that she was multimodal in her trip to the Management Committee meeting. She noted that the buses are running at greater capacity than ever but service is being decreased. Ms. Barker noted that there was an error in her comments contained in the public hearing transcript; it said, "great light rail," and it should have said, "at-grade light rail." She added that she understood this is a logical mistake because many people do not know what at-grade light rail is. Ms. Barker stated that there are other ways to have rail, such as elevated rail. She said she thought elevated rail should be considered. Ms. Barker stated there have been more than 100 light rail accidents and because some people do not have insurance, difficulties are encountered in collecting damages. Acting Chair Brady thanked Ms. Barker for her comments.

Chair Spencer Isom arrived at the meeting.

Chair Isom recognized public comment from Dr. Marvin Rochelle, who encouraged doing business with Mexico and having a representative of this region located in Mexico. Dr. Rochelle stated that Mexico is an up-and-coming country that is having success in solving its problems. He also encouraged the building of Interstate 11 and said that the connection of Loop 202 to Interstate 10 needs to be farther west than 55th Avenue in order to solve the pollution problems at 43rd Avenue. Chair Isom thanked Dr. Rochelle for his comments.

4. Executive Director's Report

Dennis Smith, MAG Executive Director, reported on items of interest in the MAG region. He first called attention to the new podium in the Saguaro Room, which was built by Arizona Correctional Industries at a very reasonable price. Monique de los Rios-Urban at MAG has worked with the group and could provide contact information.

Mr. Smith stated that the regional transportation survey has been conducted. He said that the analysis is underway and will be presented at the January 29, 2014, Transportation Policy Committee and Regional Council meetings.

Mr. Smith announced that the MAG Fiscal Services Division received the Distinguished Budget Presentation Award from the Government Finance Officers Association for the 15th consecutive year. Mr. Smith added that only about three to five councils of governments in the country receive this award.

Mr. Smith noted that the call for applications for Transportation Alternatives Safe Routes to School Non-Infrastructure projects has been issued. He noted that a workshop is scheduled for January 9, 2014, at 10:00 a.m. at the MAG Office. Mr. Smith advised that the application deadline is February 6, 2014. Mr. Smith noted that $400,000 is available, with a maximum project amount of $45,000. Mr. Smith stated that examples of projects include studies, maps, events, and educational materials.

Mr. Smith displayed a photograph of the newly completed underpass in Litchfield Park. He said that this was a project that took a number of years to complete. Mr. Smith expressed appreciation to ADOT for their efforts on this project. He noted that the project is a great addition to the community.

Chair Isom thanked Mr. Smith for his report.

5. Approval of Consent Agenda

Chair Isom stated that agenda items #5A, #5B, #5C, #5D, #5E, #5F, #5G, #5H, and #5I were on the Consent Agenda.

Chair Isom recognized public comment from Ms. Barker, who noted that the minutes from the November 6, 2013, meeting accurately reflected her comments. She commented on agenda item #5F by noting that diagram ES6, transportation control measures, 82 percent goes to regional public rapid transit. Ms. Barker indicated she has been in favor of public rapid transit for years, which is the mode most competitive with cars but is the least advertised. She expressed that she thought it was time to elevate the image of buses because we have very nice buses in this region. Ms. Barker spoke of a presentation she saw regarding resurrecting the circulator bus at the Ellis Shackelford house. She stated that many buses are natural gas and do not have a bad odor. She also noted that light rail is not included as a transportation control measure. Ms. Barker encouraged seeing what we can do with flexible and less expensive buses. Chair Isom thanked Ms. Barker for her comments.

Chair Isom asked members if they had questions or requests to hear a presentation on any of the Consent Agenda items. None were noted. He asked if there were any requests to remove an item from the Consent Agenda. None were noted. Chair Isom called for a motion.

Mr. Swenson moved to recommend approval of Consent Agenda items #5A, #5B, #5C, #5D, #5E, #5F, #5G, #5H, and #5I. Mr. Crossman seconded. Chair Isom asked if there was any discussion of the motion. Being none, the vote on the motion passed unanimously.

5A. Approval of the November 6, 2013, Meeting Minutes

The MAG Management Committee, by consent, approved the November 6, 2013, meeting minutes.

5B. Recommendation of Projects for FY 2014 Traffic Signal Optimization Program

The MAG Management Committee, by consent, recommended approval of the list of Traffic Signal Optimization Program projects for Fiscal Year (FY) 2014 and deferment of the two proposed projects as shown to FY 2015. On August 9, 2013, MAG announced a request for new projects for the FY 2014 Traffic Signal Optimization Program (TSOP). The budget available for new TSOP projects is $347,000. Eleven project applications were received. Nine of the proposed TSOP projects have been recommended along with two additional projects that would involve performing and evaluation of before-and-after conditions and provide a workshop on traffic signal timing software. Two of the proposed projects, from the City of Phoenix and Maricopa County, are recommended to be deferred to the next TSOP program cycle for FY 2015. The execution of these projects would help improve freeway and arterial traffic signal coordination on parts of the I-10, Loop 303 and US-60 corridors and also on a number of local arterial streets. The total estimated cost for these projects is estimated at $335,000. All projects will be carried out using MAG on-call consultants. On November 5, 2013, the MAG ITS Committee recommended approval. On December 12, 2013, the Transportation Review Committee recommended approval.

5C. Amendment to the FY 2012 MAG Unified Planning Work Program and Annual Budget to Accept $20,000 From the Maricopa County Department of Transportation (MCDOT) for the Town of Gila Bend Small Area Transportation Study and Amendment of the Corresponding Contract With Kimley Horn and Associates

The MAG Management Committee, by consent, recommended approval of an amendment to the FY 2012 MAG Unified Planning Work Program and Annual Budget to accept $20,000 from the Maricopa Department of Transportation (MCDOT) for the Gila Bend Small Area Transportation Plan Study and amendment of the corresponding MAG contract with Kimley Horn and Associates, to reflect additional scope and budget designated for the MCDOT funding amount. The FY 2012 MAG Unified Planning Work Program and Annual Budget, approved by the MAG Regional Council in May 2011, includes $70,000 for the development of the Gila Bend Small Area Transportation Study. MAG, MCDOT and the Town of Gila Bend have established a mutual agreement for this project with shared funding (the original total funding amount for the project is $95,000, which includes $70,000 from MAG, $20,000 from MCDOT, and $5,000 from the Town of Gila Bend). This collaboration will allow MAG and partnering agencies to plan for future transportation infrastructure needs in the Gila Bend Planning Area. The project planning team has identified the need for additional analysis of key transportation corridors in the Gila Bend Planning Area, therefore, MCDOT is providing an additional $20,000 toward the study to complete the additional analysis. An amendment to the FY 2012 MAG Unified Planning Work Program and Annual Budget is needed to accept the funds and an amendment to the contract with Kimley Horn and Associates is needed to reflect the additional scope and budget.

5D. Amendment to the FY 2014 MAG Unified Planning Work Program and Annual Budget for a Bicycle/Pedestrian Associate

The MAG Management Committee, by consent, recommended approval of amending the FY 2014 MAG Unified Planning Work Program and Annual Budget for a Bicycle/Pedestrian Associate not to exceed $25,000. It is requested to amend the FY 2014 MAG Unified Planning Work Program and Annual Budget to add a MAG Associate position for bicycle/pedestrian planning in an amount not to exceed $25,000. This will allow for a transition period from the current MAG Bicycle/Pedestrian Planner to a MAG Associate position for the remainder of this fiscal year. When the new work program is prepared, the associate position will be evaluated to determine if it is to be continued in the next fiscal year.

5E. Status of Remaining MAG Approved PM-10 Certified Street Sweeper Projects That Have Not Requested Reimbursement

A status report is being provided on the remaining PM-10 certified street sweeper projects that have received approval, but have not requested reimbursement. To assist MAG in reducing the amount of obligated federal funds carried forward in the MAG Unified Planning Work Program and Annual Budget, MAG is requesting that street sweepers be purchased and reimbursement be requested by the agency within one year plus ten calendar days from the date of the MAG authorization letter.

5F. Conformity Consultation

The Maricopa Association of Governments is conducting consultation on a conformity assessment for an amendment and administrative modification to the FY 2011-2015 MAG Transportation Improvement Program and Regional Transportation Plan 2010 Update. The amendment and administrative modification involve several projects, including changes to Arterial Life Cycle Program projects. The amendment includes projects that may be categorized as exempt from conformity determinations. The administrative modification includes minor project revisions that do not require a conformity determination.

5G. Finding of Conformity for the Draft FY 2014-2018 MAG Transportation Improvement Program and Draft 2035 MAG Regional Transportation Plan

The MAG Management Committee, by consent, recommended approval of the Finding of Conformity for the Draft FY 2014-2018 MAG Transportation Improvement Program and Draft 2035 MAG Regional Transportation Plan. The Draft 2014 MAG Conformity Analysis concludes that the Draft FY 2014-2018 MAG Transportation Improvement Program (TIP) and the Draft 2035 MAG Regional Transportation Plan meet all applicable federal conformity requirements and are in conformance with applicable air quality plans. On November 25, 2013, a public hearing was conducted on the Draft TIP, Draft 2035 Regional Transportation Plan, and Draft 2014 MAG Conformity Analysis. On December 3, 2013, the MAG Air Quality Technical Advisory Committee recommended approval of the Draft 2014 MAG Conformity Analysis for the Draft TIP and Draft 2035 Regional Transportation Plan. Approval of the conformity finding by the Regional Council is required for MAG adoption of the TIP and Regional Transportation Plan.

5H. On-Call Consulting List for the MAG Consultant Support for AZ-SMART Enhancement On-Call Project

The MAG Management Committee, by consent, recommended approval of the list of on-call consultants for Area of Expertise A (Research, Data Collection, Demographic and Economic Analysis): Applied Economics, Elliot D. Pollack and Company, Planning Technologies LLC, Synthicity Inc., and University of Arizona Economic and Business Research Center; Area of Expertise B (Application Development, Geographic Information Systems, Database Management, and Socioeconomic Modeling) Planning Technologies LLC, Synthicity Inc., TerraSystems Southwest Inc., and University of Arizona Economic and Business Research Center; Area of Expertise C (Regional Economic Modeling and Economic Impact Analysis): Planning Technologies LLC, Regional Economic Models Inc., Synthicity Inc., and University of Arizona Economic and Business Research Center; for the MAG Consultant Support for AZ-SMART Enhancement On-Call Project. The FY 2014 MAG Unified Planning Work Program and Annual Budget, approved by the MAG Regional Council in May 2013, lists the MAG Consultant Support for AZ-SMART Enhancement On-Call Project in the amount of $425,000. The purpose of the project is to enable MAG to solicit specialized consulting services in the area of socioeconomic modeling, data, reporting, and research. MAG issued a Request for Qualifications to create an on-call consulting list in three areas of expertise for the project and received seven Statements of Qualifications (SOQs). A multi-agency evaluation team reviewed the SOQs and unanimously recommended to MAG that the following firms be included on a MAG on-call consulting list for the MAG Consultant Support for AZ-SMART Enhancement On-Call Project: Applied Economics, Elliot D. Pollack and Company, Planning Technologies LLC, Regional Economic Models Inc., Synthicity Inc., TerraSystems Southwest Inc., and University of Arizona Economic and Business Research Center.

5I. Status Update on the June 30, 2013 Single Audit and Management Letter Comments, MAG's Comprehensive Annual Financial Report and OMB Circular A-133 Reports (i.e., "Single Audit") for the Fiscal Year Ended June 30, 2013

The MAG Management Committee, by consent, recommended acceptance of the audit opinion issued on the MAG Comprehensive Annual Financial Report and Single Audit Report for the year ended June 30, 2013. The accounting firm of CliftonLarsonAllen LLP has completed the audit of MAG's Comprehensive Annual Financial Report (CAFR) and Single Audit for the fiscal year ended June 30, 2013. An unqualified audit opinion was issued on November 18, 2013, on the financial statements of governmental activities, the aggregate discretely presented component units, each major fund and the aggregate remaining fund information. The independent auditors' report on compliance with the requirements applicable to major federal award programs, expressed an unqualified opinion on the Single Audit. The Single Audit report indicated there were no reportable conditions in MAG's internal control over financial reporting considered to be material weaknesses, no instances of noncompliance considered to be material and no questioned costs. The Single Audit report had no new or repeat findings. The CAFR financial statements and related footnotes were prepared in accordance with the Government Finance Officers Association's (GFOA) standards for the Certificate of Achievement for Excellence in Financial Reporting awards program. Management intends to submit the June 30, 2013, CAFR to the GFOA

awards program for review. If awarded the certificate for the June 30, 2013, CAFR, this would be the agency's 16th consecutive award.

6A. FY 2014 MAG Final Phase Public Input Opportunity

Chair Isom stated that there would be a presentation and a question and answer period for each of the agenda items 6A, 6B and 6C. This would be followed by a public comment period and a motion.

Jason Stephens, MAG staff, reported on the input received during the Final Phase Input Opportunity. This was input received during the final opportunity for comment on the FY 2014-2018 Draft Transportation Improvement Program, the 2035 Regional Transportation Plan, and the 2014 Conformity Analysis. Mr. Stephens stated that the Final Phase is summarized in the Final Phase Report, which was included in the agenda packet.

Mr. Stephens stated that MAG has a four-phase public involvement process, which is part of the public participation plan adopted by the MAG Regional Council in 2006. He noted that the Final Phase provides residents with their final opportunity to provide input into draft plans and programs before MAG policy committees take action.

Mr. Stephens stated that the public is notified of the public meeting to solicit input on the updated TIP and Plan, through postcards and display advertisements in the Arizona Republic, Arizona Informant and Prensa Hispana newspapers.

Mr. Stephens displayed a summary of comments received and said that all comments received a formal written response. Chair Isom thanked Mr. Stephens for his report. No questions from the Committee were noted.

6B. Approval of the Draft FY 2014-2018 MAG Transportation Improvement Program

Teri Kennedy, MAG staff, reported that the Draft FY 2014-2018 MAG Transportation Improvement Program (TIP) has been under development since March 2012 in coordination with the Federal Highway Administration, Federal Transit Administration, the Arizona Department of Transportation, and member agencies. She advised that the TIP incorporates the criteria of MAP-21 federal transportation legislation. Ms. Kennedy stated that the TIP includes all projects programmed with federal funds and all regionally significant transportation projects that are funded with federal and non-federal funds for the next five years.

Ms. Kennedy displayed a map of the MAG planning boundaries, expanded in May 2013. She pointed out that MAG has been working with the new Sun Corridor Metropolitan Planning Organization, which was designated in May 2013.

Ms. Kennedy displayed a summary of the 782 projects contained in the FY 2014-2018 TIP, totaling approximately $4.43 billion. She noted that almost two-thirds of the funding goes toward highway projects. Ms. Kennedy then provided a summary of projected revenues and costs.

Ms. Kennedy stated that the TIP will be considered for approval by the MAG Regional Council on January 29, 2014. The approved TIP will then be submitted to Federal Highway Administration, Federal Transit Administration, the Arizona Department of Transportation, and Environmental Protection Agency for review and approval of various areas of the TIP, RTP and Air Quality Conformity Analysis. Ms. Kennedy noted that completion of this process could take up to two months. She added that an Errata Sheet was included in the agenda packet and she advised members to contact MAG staff if they notice any corrections that need to be incorporated.

Ms. Kennedy stated that current programming activities include the FY 2014-17 Highway Safety Improvement Program, FY 2015-17 Transportation Alternatives infrastructure projects, FY 2014 PM-10 CMAQ street sweepers, and FY 2013-17 PM-2.5 CMAQ Paving Unpaved Roads. Future programming includes ADOT Competitive Transit Section 5307 and 5339, Transportation Alternatives Non-Infrastructure projects, Pinal County STP (currently is partially programmed), and the MAG Unified Planning Work Program (Traffic Signal Optimization Program, Design Assistance Program, and street sweepers).

Chair Isom thanked Ms. Kennedy for her report. No questions from the Committee were noted.

6C. Approval of the Draft 2035 MAG Regional Transportation Plan

Roger Herzog, MAG staff, stated that a regional transportation plan is required to maintain eligibility for federal transportation funding and must be updated at least every four years. He noted that MAG's draft Plan extends through Fiscal Year 2035 and continues the established plans, priorities and policies contained in the current adopted Plan.

Mr. Herzog stated that the Plan is a comprehensive document, reviewing the status and strategies for a range of transportation activities in the MAG area. He stated that the Plan identifies the freeway/highway system, the arterial street network, the bus service network, the light rail transit/high capacity transit system, and a number of other transportation activities in the MAG region.

Mr. Herzog stated that activities for review of the draft Plan include opportunities for public input, such as early phase, mid phase, and final phase input opportunities, public meetings and hearings, and committee meetings. He reported that actions to conduct an air quality conformity analysis on the Draft 2035 MAG Regional Transportation Plan were taken previously by the Transportation Review Committee, Management Committee, Transportation Policy Committee, and Regional Council. Mr. Herzog stated that the air quality conformity analysis has been successfully completed and demonstrated conformity. He said that a public hearing was held on November 25, 2013, and the MAG Air Quality Technical Advisory Committee recommended approval on December 3, 2013. Mr. Herzog advised that the Transportation Review Committee recommended approval of the Draft 2035 Plan on December 12, 2013.

Chair Isom thanked Mr. Herzog for his report. No questions from the Committee were noted. No public comment cards were received.

Mr. Buss moved to recommend (6A) acceptance of the FY 2014 MAG Final Phase Public Input Opportunity, (6B) approval of the Draft FY 2014-2018 MAG Transportation Improvement Program (TIP) with the included errata sheet and table correction updates, contingent on a finding of conformity of the Draft TIP and 2035 Regional Transportation Plan with applicable air quality implementation plans, and (6C) approval of the Draft 2035 MAG Regional Transportation Plan (RTP), contingent upon a finding of conformity of the FY 2014-2018 MAG Transportation Improvement Program and the 2035 RTP with applicable air quality plans. Mr. Swenson seconded, and the motion passed unanimously.

7. Recommendation of Projects for the MAG Transportation Alternatives Program

Eileen Yazzie, MAG staff, reported that the Transportation Alternatives Program, a new federal program under MAP-21, consolidated three programs previously in place: Transportation Enhancements, Safe Routes to School, and Recreational Trails, and changed program management to MAG. Ms. Yazzie noted that MAP-21 has a more performance-based focus than previous transportation legislation.

Ms. Yazzie stated that the goals and objectives for the Transportation Alternatives Program were developed over the summer of 2013 and were approved by the MAG Regional Council on September 25, 2013. Ms. Yazzie noted that the application was developed and projects evaluated based on the approved goals and objectives. She said that key words in evaluating projects include accessibility, safety and connectivity. Ms. Yazzie stated that the project evaluation team reflected the multimodal aspects of the program and included members of the MAG Bicycle and Pedestrian, Safety, Transit, and Street Committees, and representatives from the Federal Highway Administration and the Arizona Department of Transportation.

Ms. Yazzie stated that there are not enough funds available to fund all of the projects that were submitted. She noted that 33 applications for a total of $24 million were submitted for the $12 million that is available for fiscal years 2015, 2016, and 2017. Ms. Yazzie reported on the evaluation process. She explained there was the quantitative process, which came directly from the data submitted in the application. Ms. Yazzie stated that there was the qualitative process, where the evaluation team ranked the projects based on criteria. This was followed by a presentation process where the applicants presented their project to the evaluation team. Ms. Yazzie stated that from the processes, the evaluation team developed a ranked list of projects, which was included in the agenda material.

Ms. Yazzie noted that due to funding limitations, the top 13 projects were recommended for funding for fiscal years 2015, 2016, and 2017. She stated that the MAG Transportation Review Committee, at its December 2013 meeting, modified the ranked list by removing the Phoenix project (Third Street Promenade: Roosevelt Street to Thomas Road, ranked 14) and the Mesa project (Consolidated Shared-Use Pathway – P2 Lighting, ranked 15), so that all other projects move up in ranking. If additional funds become available (e.g., a project does not obligate), projects will be funded in rank order.

Chair Isom thanked Ms. Yazzie for her report. No public comment cards were received. He asked if members had any questions.

Mr. Skocypec expressed appreciation to MAG staff for the process and the cities of Phoenix and Mesa for their decisions to modify the ranked priorities. He expressed the support of the Town of Gilbert for this item going forward.

Mr. Crossman referenced that 40 percent of the ranking is based on the presentation. He remarked that this is a heavy weight for someone to explain their project in three minutes. Mr. Crossman asked the criteria used in the ranking.

Ms. Yazzie replied that this question was raised at the Transportation Review Committee meeting. She explained that the TA ranking process mirrored the CMAQ ranking process that has been used by the Bicycle and Pedestrian Committee for years. Ms. Yazzie noted that the TA team evaluated if the project was responsive to the goals and objectives, such as connectivity and safety, Safe Routes to School and populations of concern. She said that in preparation for FY 2018 programming, staff is planning a debriefing on how this evaluation process went and to see what modifications might be warranted.

Mr. Crossman expressed that he appreciated the idea of having a debriefing because he thought the process gave too much weight to a three-minute presentation that includes no audio/visual aids or letters of support.

Mr. Glassman echoed the comments by Mr. Skocypec and he thanked the leadership at the Cities of Phoenix and Mesa for allowing the Town of Cave Creek to move up and participate in this valuable process.

With no further questions, Chair Isom called for a motion. Mr. McClendon moved to recommend approval of the modified ranked list of projects for Transportation Alternatives funding for FY 2015-2017; amendment of the FY 2011-2015 MAG Transportation Improvement Program; and addition of projects to the Draft FY 2014-2018 MAG Transportation Improvement Program. Mr. Glassman seconded, and the motion passed unanimously.

8. Arterial Life Cycle Program Status Report - May 2013 Through November 2013

John Bullen, MAG staff, reported that the Arterial Life Cycle Program (ALCP) Status Report serves as the financial management tool for the arterial component of the Regional Transportation Plan. He said that the ALCP contains 198 projects across 13 jurisdictions. Mr. Bullen stated that the program is guided by the ALCP Policies and Procedures, which require that a status report is provided to MAG committee members. He noted that the ALCP report is traditionally done on a semi-annual basis and this report is for the period between May 2013 and November 2013.

Mr. Bullen stated that approximately $36 million was collected in ALCP Regional Area Road Fund revenue during FY 2013. He noted that this amount represents an increase of about 5.5 percent from FY 2012 and is on target with the projections. Mr. Bullen stated that approximately $15 million has been collected to date in FY 2014, an increase of approximately seven percent.

Mr. Bullen stated that member agency staff have done a tremendous job meeting the FY 2014 ALCP project requirements. He explained that 39 of the scheduled 46 project overviews, which

acts as a scoping document, were received. Mr. Bullen said that 33 of the scheduled 47 project agreements, which are the funding agreements between MAG and a member agency, have been executed. He stated that more than $24 million of $49 million in RARF has been reimbursed so far, and $700,000 out of $29 million in federal reimbursements have been made, which is on target with the anticipated schedule.

Mr. Bullen then reported on the status of FY 2014 ALCP projects. He said that of the 48 projects scheduled for work and/or reimbursement, 11 are in the design phase, 13 are in the right-of-way phase, and 24 are in the construction phase. Mr. Bullen stated that it is expected that 10 projects are or will be completed and open to traffic by the end of this fiscal year.

Mr. Bullen stated that work on the FY 2015 ALCP update will begin in February. He noted that workbooks will be sent to all of the member agencies. The Managers Working Group would consult if any rebalancing of the ALCP is needed. Mr. Bullen reported that the ALCP Working Group continues to work on revisions to the ALCP Policies and Procedures, which they anticipate will be complete in February, and will be considered through the Managers Working Group and the MAG committee process for approval.

Chair Isom thanked Mr. Bullen for his report. No questions from the Committee were noted.

9. Project Changes - Amendment and Administrative Modification to the FY 2011-2015 MAG Transportation Improvement Program, FY 2014 Arterial Life Cycle Program, the Regional Transportation Plan 2010 Update, and as Necessary, the Draft FY 2014-2018 Transportation Improvement Program

Teri Kennedy, MAG staff, reported that amendments to the FY 2011-2015 MAG Transportation Improvement Program (TIP) and Draft FY 2014-2018 Transportation Improvement Program for project changes were being requested. She advised that many of the projects affect 2013 funding for transit.

Ms. Kennedy stated that Table D contains amendments to the Highway Safety Improvement Program (HSIP). She requested that member agencies review Table D closely and in the Notes section, if their project is listed as "contingent upon a finding of eligibility," they should contact ADOT to ensure that all of their required project information has been submitted for the projects to move forward. Ms. Kennedy added that ADOT has indicated it is very close to making all of the eligibility determinations, but there are a couple of agencies that might require some follow up.

Chair Isom thanked Ms. Kennedy for her report. No requests for public comment were received. No questions from the Committee were noted.

Mr. Hauskins moved to recommend approval of amendments and administrative modifications to the FY 2011-2015 MAG Transportation Improvement Program, Arterial Life Cycle Program, and as appropriate, to the Regional Transportation Plan 2010 Update and draft FY 2014-2018 Transportation Improvement Program. Mr. Swenson seconded, and the motion passed unanimously.

10. Discussion of the Development of the FY 2015 MAG Unified Planning Work Program and Annual Budget

Becky Kimbrough, MAG staff, reported that each year, the draft Unified Planning Work Program and Annual Budget is presented from January through May, when it is submitted for approval by the MAG Regional Council. She noted that this allows sufficient time for input into the development of the Work Program. Ms. Kimbrough stated that the production timeline and draft Dues and Assessments were included in the agenda packet.

Ms. Kimbrough explained that due to the uncertainty of economic conditions, a fifty-percent reduction to the members' Dues and Assessments for FY 2009 was approved beginning with the FY 2010 budget. Dues and Assessments continued to be maintained at the 50 percent level each year through FY 2014. Ms. Kimbrough explained that during the time MAG Dues and Assessments were reduced, these additional costs have been covered using MAG reserve funds. On May 22, 2013, the Regional Council approved that member Dues and Assessments would continue at the 50 percent rate for FY 2014 with the understanding that the Dues and Assessments rate would be increased to 100 percent for FY 2015. Ms. Kimbrough stated that the CPI-U average for the last calendar year will be applied to the draft MAG Dues and Assessments. She noted that the CPI-U for December 2013 will be announced on January 16, 2014, and the adjusted final draft Dues and Assessments will be presented in February. Ms. Kimbrough advised very little change to the CPI-U is anticipated as the result of incorporating the December 2013 number.

Chair Isom thanked Ms. Kimbrough for her report. No questions from the Committee were noted.

11. Solar Ready II

Scott Wilken, MAG staff, reported that the Solar Ready II project is part of the U.S. Department of Energy SunShot Initiative Rooftop Solar Challenge, which has a goal of reducing regulatory hurdles for residential solar, and to make it faster, easier and cheaper for households to go solar. He noted that the Solar Ready II project is a $75,000 grant with an 18-month timeframe (October 2013 to March 2015).

Mr. Wilken stated that leads on the project are the Mid-America Regional Council, the National Association of Regional Councils, and the Meister Consultant Group out of Boston, MA. He added that MAG and eight other councils of governments are participating in the initiative. Mr. Wilken stated that the program's goal is to expand local solar by reducing non-hardware costs, such as installation labor, financing costs, permitting and inspection fees, etc.

Mr. Wilken stated that a solar stakeholders group will be assembled and he will be sending out an invitation later this week to member agency building officials, planning directors, and sustainability staff, and to utility companies and solar installation companies. He stated that the Sierra Club has expressed interest and the Governor's Office of Energy Policy has been involved in this project in the past. Mr. Wilken stated that the stakeholder group will set the direction and assistance will be provided by the National Association of Regional Councils and the consultant. He added that the first meeting of the stakeholder group is anticipated for February.

Chair Isom thanked Mr. Wilken for his report. He asked if the recent changes to residential solar have resulted in impacts to school districts or cities that have been utilizing solar power purchasing agreements. Mr. Wilken asked for clarification if Chair Isom was referencing net metering. Chair Isom replied that was correct. Mr. Wilken replied that he was not sure if there was yet a definitive answer to that question. He stated that those who supported the change likely say there is no impact and those who opposed the change likely say there will be a great impact. Mr. Wilken added that he understood the change was not major and he did not anticipate a huge effect.

12. Legislative Update

Nathan Pryor, MAG staff, provided an update on legislative issues of interest. Mr. Pryor stated that for some time, MAG has been reporting on declining regional, state, federal transportation revenues. He indicated that the focus of his presentation today is the Highway User Revenue Fund (HURF).

Mr. Pryor stated that over the past decade, the HURF has been subject to more than $1 billion in sweeps by the state. He said that recently, a number of cities, towns, and other organizations have taken positions opposing HURF sweeps, and MAG staff is suggesting taking a position to stop the HURF sweeps and keeping the statutory limit for transfers to $20 million annually. Mr. Pryor stated that $126 million was swept in FY 2014 and $234 million in FY 2013. He stated that he would be presenting this item to the Transportation Policy Committee and Regional Council later this month for their input. Mr. Pryor stated that one option might be a letter to the Governor signed by the Regional Council.

Chair Isom thanked Mr. Pryor for his report and asked if there were any questions.

Mr. Smith stated that he and MAG Transportation Director Eric Anderson participate in the Resource Allocation Advisory Committee at ADOT, where one of the topics of discussion is ADOT's Five Year Capital Program. Mr. Smith said that when they discussed the amount that might come to each region, he asked what was the assumption for the amount that might be swept. He stated that $20 million per year is the amount allowed to be swept statutorily, however, in the current ADOT Five Year Capital Program, the amount is projected to be $125 million per year – a total of half a billion over five years. Mr. Smith stated that Speaker Tobin, who presented at the Economic Development Committee meeting, said that he did not anticipate a sweep happening, however, the budget shows sweeps. Mr. Smith expressed hope that the sweeps could be kept to the $20 million per year statutory limit.

Mr. Hauskins stated that HURF sweeps have been occurring for many years. He recalled that the sweeps began shortly after ADOT separated from the Department of Public Safety in 1983 or so. Mr. Hauskins said that he thought the reasoning was that DPS was eligible for HURF funding when it was the same agency as ADOT.

13. Request for Future Agenda Items

Topics or issues of interest that the Management Committee would like to have considered for discussion at a future meeting were requested.

No requests were noted.

14. Comments from the Committee

An opportunity was provided for Management Committee members to present a brief summary of current events. The Management Committee is not allowed to propose, discuss, deliberate or take action at the meeting on any matter in the summary, unless the specific matter is properly noticed for legal action.

No announcements were noted.

Adjournment

There being no further business, the meeting was adjourned at 1:00 p.m.

_____
Chair

_____
Secretary

Agenda Item #6B

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
MAG Federally Funded Locally Sponsored Project Development Status Report: January 2014, and Project Changes

SUMMARY:
The MAG Federal Fund Programming Guidelines and Procedures, approved by the MAG Regional Council on October 26, 2011, outline the requirements for local agencies to submit status information on the development of their federally funded projects. A Project Development Status Report is produced twice each year, and project changes are completed quarterly or as needed. Monitoring of member agency project schedules and the assurance by each agency that their project(s) will obligate federal funds as noted in the federally approved Transportation Improvement Program (TIP) listing, ensures that the regional suballocation of federal funds will be utilized and not swept from the region. Please note that if an agency cannot make the the Arizona Department of Transportation (ADOT) June 30, 2014, deadline to obligate their project(s) as listed in the MAG TIP for fiscal year 2014, the federal funding may be swept from the project. Project changes to the TIP that relate directly to the Status Report are included in Table A.

The Project Development Status Report, January 2014, focuses mainly on projects funded with Congestion Mitigation and Air Quality Improvement (CMAQ) funds that are programmed to authorize in Federal Fiscal Year (FFY) 2014 and FFY 2015. The Project Development Status Workbook (Workbook) that was sent to member agencies required that a project development schedule be completed and project changes could be requested. Workbooks were also sent to agencies that have Transportation Alternatives Program (TA-MAG) funds programmed in the FY 2011-2015 TIP as of November 2013. Based on information submitted by local agencies, information at times was cross checked with the ADOT Local Government section for feasibility, and further inquiries were made by MAG staff as appropriate.

The Project Development Status Report notes that of the 28 CMAQ projects and seven TA-MAG projects programmed to obligate in FY 2014, two projects are requesting a deferral to a later year, three are requesting a second deferral or to be deleted, and 30 projects are expected to obligate in FY 2014 based on the schedules submitted, or if the schedules submitted are modified based on notes in the January 2014 Project Development Status Report.

The Project Development Status Report notes that of the 32 CMAQ projects and one TA-MAG project programmed to obligate in FY 2015, none of the projects are requesting a deferral to a later year, zero projects are requesting a second deferral or to be deleted, and 33 projects are expected to obligate in FY 2015 based on the schedules submitted.

Included in Table A, are the requested project changes to the TIP as they relate to the Project Development Status Report, January 2014.

PUBLIC INPUT:
None has been received.

PROS & CONS:
PROS: Approval of this Project Development Status Report will allow the projects to proceed in a timely manner in the year that best fits their project development schedule and will complete Tier 1 of the Federal Project Development Process & Dynamic TIP Process for Nov13/Jan 2014. Approval of this amendment will allow the Tier 2, Dynamic TIP Process to proceed next month (see Tier 2 attachment for requirements) if funding is available.

CONS: There is no guarantee that sufficient funds will be available in the following fiscal year to cover any or all of the deferred projects should congress fail to authorize a funding level of obligation authority that can meet programming levels.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: The Project Development Status Report aids the region in making decisions to keep projects in the current year, defer, advance, or delete them from the program. The action for this item includes the necessary amendments or administrative adjustments to the FY 2011-2015 MAG TIP, and to the FY 2014-2018 TIP as appropriate, and Regional Transportation Plan as appropriate to allow the projects to proceed. As the FY 2014-2018 TIP has been submitted for federal final approval, in the event of delay, staff is requesting amendments to the current federally approved FY 2011-2015 TIP, and to the FY 2014-2018 TIP pending federal approval. If this item is approved, this item will be included in the first request to modify the FY 2014-2018 MAG Transportation Improvement Program submitted to ADOT.

POLICY: This Status Report follows the process explained in the approved MAG Federal Fund Programming Guidelines.

ACTION NEEDED:
Recommend approval of federal fund projects to be deferred, deleted, and changed; and of the necessary amendments and administrative modifications to the FY 2014-2018 Transportation Improvement Program, 2035 Regional Transportation Plan, and to the FY 2011-2015 Transportation Improvement Program as appropriate.

PRIOR COMMITTEE ACTIONS:
This item was presented at the January 30, 2014, Transportation Review Committee. The committee recommended approval.

MEMBERS ATTENDING

Avondale: David Fitzhugh, Chair
Phoenix: Rick Naimark, Vice Chair
ADOT: Kwi-Sung Kang for Floyd Roehrich
* Buckeye: Scott Lowe
* Cave Creek: Ian Cordwell
Chandler: Dan Cook
El Mirage: Bryce Christo for Jorge Gastelum
* Fountain Hills: Randy Harrel
Gila Bend: Ernie Rubi
Gila River: Tim Oliver
Gilbert: Leah Hubbard
Glendale: Debbie Albert
Goodyear: Cato Esquivel
Litchfield Park: Woody Scoutten
Maricopa (City): David Maestas for Paul Jepson
Maricopa County: John Hauskins
Mesa: Jeff Martin for Scott Butler

* Paradise Valley: Jim Shano
Peoria: Andrew Granger
Queen Creek: Mohamed Youssef
Scottsdale: Paul Basha
Surprise: Dick McKinley
Tempe: Shelly Seyler
Valley Metro: John Farry
Wickenburg: Vince Lorefice
Youngtown: Grant Anderson

EX-OFFICIO MEMBERS ATTENDING

* Street Committee: Charles Andrews, Avondale
* ITS Committee: Catherine Hollow, Tempe
* FHWA: Ed Stillings
* Bicycle/Pedestrian Committee: Denise Lacey, Maricopa County
* Transportation Safety Committee: Renate Ehm, Mesa

* Members neither present nor represented by proxy. + Attended by Videoconference
# Attended by Audioconference

This item was presented at the January 14, 2014, Street Committee for review and to comment on by January 17, 2014. No additional comments were received from the committee members.

MEMBERS ATTENDING

Dana Owsiany, Phoenix, Chair Woman
Patrick Stone for Steve Beasley ADOT
Charles Andrews, Avondale
* Jose Heredia, Buckeye
Dan Cook, Chandler
Jorge Gastelum, El Mirage
* Aryan Lirange, FHWA
Wayne Costa, Florence
Tim Oliver, Gila River Indian Community
* Michael Gillespie, Gilbert
Bob Darr, Glendale
Luke Albert for Hugh Bigalk, Goodyear
David Gu for Darryl Crossman, Litchfield Park
Bill Fay, Maricopa City
*
Jack M. Lorbeer, Maricopa County
Maria Angelica Deeb, Mesa
* James Shano, Paradise Valley
Scott Bender, Pinal County
Dab Nissen for Ben Wilson, Peoria
Janet Martin, Queen Creek
* Elaine Cabrera, Salt River Pima-Maricopa Indian Community
Phil Kercher, Scottsdale
Suneel Garg, Surprise
Isaac Chivera, Tempe
* Jason Earp, Tolleson
Grant Anderson, Youngtown

* Those members neither present nor represented by proxy.
#Participated by telephone conference call. + Participated by videoconference call.

CONTACT PERSON:

Teri Kennedy, Transportation Improvement Program Manager, or Stephen Tate (602) 254-6300.

MARICOPA ASSOCIATION of GOVERNMENTS

302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003
Phone (602) 254-6300 ▲ FAX (602) 254-6490
Email: mag@mag.maricopa.gov ▲ Website: www.mag.maricopa.gov

February 4, 2014

TO: Members of the MAG Management Committee

FROM: Teri Kennedy, Transportation Improvement Program Manager

SUBJECT: TIER 2 - FEDERAL FISCAL YEAR 2014 DYNAMIC TIP PROCESS

On July 6, 2012, a new surface transportation authorization act was signed: Moving Ahead for Progress in the Twenty-first Century (MAP-21). Under MAP-21 many programs and funding levels changed. MAG staff postponed the summer closeout of Federal Fiscal Year (FFY) 2014 Congestion Mitigation and Air Quality Improvement (CMAQ) projects until clarification of funding levels was published by the Arizona Department of Transportation (ADOT) and the Federal Highway Administration (FHWA). MAG has received preliminary estimated FHWA funding projections. Currently, we are over programmed based on the estimates. MAG will accept Tier 2 requests at this time in the event additional revenues become available. If MAG receives final apportionment amounts that are higher than estimated, we may be able to move forward with FFY 2014 CMAQ Tier 2 and Tier 3 Dynamic TIP Process.

The MAG Regional Council approved the MAG Federal Fund Programming Guidelines and Procedures on October 26, 2011. Requirements of the 500.3- Step 5: Federal Project Development Process and Dynamic TIP Process. Tier 2 of the process is as follows:

- Tier 2 – CMAQ projects programmed in the TIP that are in a future fiscal year and could be advanced to obligate in the (current) fiscal year Fiscal Year (FY) 2014, have second priority overall. Priority in the category will be based on completed milestones.

    a. For construction projects (currently programmed in FY 2015 or FY 2016) to be advanced into the current fiscal year FY 2014, it is required that three milestones are met:

        i. Environmental clearance approved if the project is federally funded, otherwise the environmental clearance has been submitted (to ADOT).

        ii. Completed 60 percent Design/Engineering plans.

        iii. For right-of-way purchases, properties are inventoried and appraisals are completed.

b. For procurement projects to be included in Tier 2, it is required that the environmental, right-of-way and project scoping documents needed to obtain the related clearance have been submitted.

c. The project sponsor **is required to submit a letter signed by the sponsor agency engineer** for construction projects that design plans are at 60 percent, the date that the environmental clearance was approved or submitted depending on the funding used to design the project, and a letter that certifies that the right-of-way (if applicable) is underway with properties inventoried. For procurement projects the letter is to identify the dates that submittals were made for the scoping document, the environmental clearance document and the right-of-way clearances document. This information **is due to MAG by February 13, 2014** (for summation and evaluation) at the February Transportation Review Committee (TRC) meeting.

    i. At the February TRC meeting, if requests have been submitted, project milestone information will be presented, discussed to move Tier 2 projects into the current federal fiscal year of the Transportation Improvement Program (TIP).

    ii. If recommendations from TRC move forward, they will be included in the March agendas of the Management Committee and Regional Council.

The request to advance FFY 2015 and FFY 2016 project(s) to FFY 2014 is to be printed on member agency letterhead and signed by the sponsor agency engineer. MAG staff is available to help with information and questions regarding the Federal Fund Project Commitment Letter Requirements. Please contact Steve Tate at state@azmag.gov or (602) 254-6300.

Table A. Project Change Requests from Workbook Report to the Fiscal Year 2014-2018 MAG Transportation Improvement Program, and as appropriate to the FY 2011-2015 MAG Transportation Improvement Program

HIGHWAY

1/23/2014

TIP #	Agency	MAG ID	Project Location	Project Description	Work Year	Est. Date Open	Length (miles)	Lanes Before	Lanes After	Fund Type	Local Cost	Federal Cost	Regional Cost	Total Cost	Requested Change
~~GLB12-809~~	~~Gilbert~~		~~Town of Gilbert~~	~~Design and construct bicycle crossings~~	~~2014~~		~~0~~	4	~~0~~	~~CMAQ~~	~~$ 210,000~~	~~$ 490,000~~	~~$ -~~	~~$ 700,000~~	Amend: Delete Project from the TIP. Project cannot make current schedule and has been previously deferred.
~~GLB13-902~~	~~Gilbert~~		~~Consolidated/Ray, Eastern/Williams Field, Powerline/McQueen, Powerline/Val Vista, Powerline/Greenfield, Powerline/Recker~~	~~Gilbert Bicycle Crossing Safety and improvement demonstration Phase II Project~~	~~2014~~		~~22.5~~	~~6~~	~~6~~	~~CMAQ~~	~~$ 255,000~~	~~$ 583,000~~	~~$ -~~	~~$ 838,000~~	Amend: Delete Project from the TIP. Project cannot make current schedule and has been previously deferred.
MES11-111C2	Mesa	150	Porter Park Pathway: Mesa Drive and 8th Street near the vicinity of Kino Junior High	Construct paved shared use path	2015	2016	1.1	0	0	TA-MAG	$ 82,106	$ 1,358,348	$ -	$ 1,440,454	Amend: Defer project from FY 2014 to FY 2015. Project has not previously deferred. Funding for project includes FY 2012 and 2013 SRTS funding. Total project cost is $1,647,159.
~~SCT14-104~~	~~Scottsdale~~	~~14796~~	~~Arizona Canal from Chaparral to Indian Bend Wash~~	~~Design and Construct multi-use path~~	~~2014~~	~~2016~~	~~2~~	~~0~~	~~0~~	~~CMAQ~~	~~$ 1,911,700~~	~~$ 1,600,000~~	~~$ -~~	~~$ 3,511,700~~	Amend: Delete Project from the TIP. Project cannot make current schedule and has been previously deferred. AGENCY HAS requested Second Deferral and will present to Bike/Ped Committee, 2-11-2014.
YTN14-101	Youngtown	29762	Grand Avenue and 111th Avenue to Olive Avenue and Agua Fria Parkway (Approximately 117th Avenue).	Multiuse Path and Peoria Ave straightening to accommodate multiuse path: Construction phase	2015	2016	5	2	2	CMAQ	$ 157,200	$ 292,800	$ -	$ 450,000	Amend: Defer project from FY 2014 to FY 2015. Project has not previously deferred. Project to align with other city/roadway improvements.

Changes to the TIP in red

Changes since Management Committee are tinted in yellow

PROJECT STATUS REPORT January 2014

Maricopa Association of Governments
302 N. 1st Ave., Suite 300
Phoenix, AZ 85003
Phone: 602-254-6300

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Purpose and Scope

This report was developed pursuant to the MAG Federal Programming Guidelines as approved on October 26, 2011 by the MAG Regional Council. It is required that project sponsors provide MAG with schedules that show clearly when key milestones are to be achieved and an overall project timeline with periodic reporting that demonstrates that the sponsoring agency is making progress in achieving these milestones.

These requirements apply to a two year moving window of projects in the MAG Transportation Improvement Program that are outside the three 20-year life-cycle programs and that are funded with federal Congestion Mitigation Air Quality (CMAQ) or sub allocated urbanized area Surface Transportation Program (MAG-STP) funds. The June/July report contains current fiscal year follow up information for the end of year closeout.

The data for this report was collected in May/June, 2013 and is the fourth round collected under the Guidelines. It includes only CMAQ and STP-TEA funded projects that were programmed in federal fiscal years 2014, and 2015. It also contains final reports on FY2013 projects. No freeway, transit or arterial life-cycle program projects are included in this report.

Project Milestones and Project Deferrals

The implementation of the Guidelines was phased in during the October 2011 data collection for the January Report, and an extensive effort to reprogram projects was completed. As a result of this, many of the project schedules that were modified are now on track and the Maricopa County region has greatly reduced the number of deferrals. Because of this, the project schedules shown in this report include very few cases of projects failing to meet key deadlines. On May 9, 2013 the Governor signed the request to expand the MAG boundaries to include parts of Pinal County, the City of Maricopa, the Town of Florence and the Pinal County portion of the Gila River Indian Community. Data collection efforts are currently underway for Pinal County projects. It is anticipated that for the December 2013 data collection effort that all project schedules will be reviewed and updated in the expanded area boundaries to meet key milestones per the MAG Federal Programing Guidelines.

Data Descriptions

Project Information Columns:

1. First Column: This column identifies the project sponsor, the identification number in the MAG Transportation Improvement Program of the project and the Federal Fiscal Year the project is programmed.
2. Location Cell: The location of the project as it appears in the MAG Transportation Improvement Program.
3. Work Cell: The work to be performed for the project as defined in the MAG Transportation Improvement Program.
4. Project Type Cell: This is the type of work to be performed by the projects. These types include: Design, Right-of-Way, Construction and Procurement.

5. Design Process Cell: This indicates whether the design is funded from federal sources. If design is federally funded, a project may not proceed beyond 30 percent plans without an environmental clearance. If the design is locally funded, it may proceed beyond 30 percent plans without an environmental clearance, but may risk substantial revision due to mitigation measures identified in the environmental clearance.
6. Environmental Clearance Cell: The type of environmental clearance anticipated for the project. The actual type of environmental clearance required is determined in the early stages of the design process.
7. CMAQ Cell: The amount of CMAQ funds programmed in the MAG Transportation Improvement Program for the project.
8. Total Cell: The total local and federal funds programmed for the project in the MAG Transportation Improvement Program.

Project Scheduling Information Columns:

1. Design Columns:
    a. Start Column: The date that design work on the project is to begin.
    b. 60% Plans Started Column: The date that work on "60 percent plans" began or is anticipated to begin. This field is not applicable for Right-of-Way, procurement or design projects.
    c. PS&E Completed Column: This is the final plans for the project. For procurement projects this amounts to the specifications, estimates and deployment plan needed to procure equipment and services using federal funds. This is not applicable for design projects.

2. Environmental Columns:
    a. Tech Docs Started Column: This refers to the date work on the technical documents (hazardous materials, cultural and biological surveys) for the environmental clearance has begun or is expected to begin. This is not applicable for design and procurement projects as this level of analysis is not needed for the environmental clearance. In most cases, it is also not required for right-of-way projects as these studies are completed as part of the design for the overall project.
    b. Clearance Approved Column: The date the environmental clearance for the project is expected to be approved.

3. Right-of-Way Columns:
    a. Inventory Started Column: This is the date that right-of-way inventory began or is expected to begin. This field is not applicable for procurement and design projects and some construction projects that require no right-of-way.
    b. Clearance Approved: The date that the right-of-way clearance was approved or expected to be approved.

4. IGA Approval Column:
   The date that the IGA was approved or is expected to be approved for the project. This is not applicable for agencies that are self-certified to manage the federal design and construction process. These agencies include the Cities of Chandler, Phoenix, Scottsdale and Tempe, and Maricopa County.

5. FHWA Authorization Column:
   The date that a federal funding for a project was or is expected to be approved by the Federal Highway Administration. No work performed on a project is eligible for federal reimbursement prior to the date of authorization.

Notes Colum: The cells in this column contain a note about the project.

Target Dates Row:

The cells in this row identify key dates that are to be achieved for the project to continue in the MAG Transportation Improvement Program and to receive federal funding. They vary by project type (e.g. construction, procurement, etc.), the year the project is programmed and the work activity identified for the column they are located in.

Agency Schedule Rows:

1. Initial Row: The dates provided for the initial status report for the project.
2. Current Row: The dates provided for the most recent information provided for this report.

Schedule Status Rows:

1. Months Ahead Row: The number of months that the current schedule is ahead of the initial schedule provided.
2. Months Behind Row: The number of months that the current schedule is behind the initial schedule provided.
3. Expected Date Row: The date the project is expected to achieve a milestone.
4. Will Meet Target Dates Row: This indicates whether the milestone is expected to meet target deadlines. A checkmark indicates that it is expected to meet the target deadline.

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Apache Junction	Location	City of Apache Junction	Target Dates			NA	NA	NA	NA	NA	NA	NA	9/30/15	**None**
	Work	Completion of an ITS Stategic Plan	Agency Schedule	Initial	NA	NA	NA	NA	NA	NA	NA	6/30/15	9/15/15	
APJ15-461	Project Type	Design		Current	NA	NA	NA	NA	NA	NA	NA	6/30/15	9/15/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
(FFY 2015)	Environmental Clearance	Not Applicable		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	141,450		Expected Date	NA	NA	NA	NA	NA	NA	NA	6/30/15	9/15/15	
	Total	160,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Avondale	Location	Central Avenue (in Avondale): Van Buren Street south to Western Avenue	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**Technical documents for the environmental clearance and the right-of-way inventory for the project have been completed. It is anticipated that draft 60 percent plans will have been submitted by the the time this report is reviewed by the Regional Council.**
	Work	Construct multiuse path	Agency Schedule	Initial	12/1/12	4/30/13	12/26/13	1/30/13	7/30/13	6/30/13	3/28/13	8/29/13	2/24/14	
AVN14-107	Project Type	Construction		Current	12/1/12	1/30/14	6/30/14	6/30/13	2/28/14	6/30/13	6/30/14	8/5/13	8/27/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	
(FFY 2014)	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	10.0	7.0	6.0	8.0	0.0	16.0	0.0	7.0	
	CMAQ	1,077,405		Expected Date	12/1/12	1/30/14	6/30/14	6/30/13	2/28/14	6/30/13	6/30/14	8/5/13	8/27/14	
	Total	3,327,405		**Meets Target**	**NA**	✗	✓	✗	✓	✗	✓	✓	✓	
Avondale	Location	I-10 and the Agua Fria	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct asphalt path and underpass	Agency Schedule	Initial	12/30	11/29/13	5/28/14	1/28/14	2/27/14	1/28/14	4/28/14	5/8/14	9/5/14	
AVN15-441C	Project Type	Construction		Current	12/30	4/29/14	5/1/15	3/30/14	10/1/14	1/30/14	5/1/15	5/1/15	8/27/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
(FFY 2015)	Environmental Clearance	Not Determined at this time		Months Behind	0.0	6.0	12.0	2.0	8.0	0.0	13.0	13.0	13.0	
	CMAQ	1,264,427		Expected Date	12/30/13	4/29/14	5/1/15	3/30/14	10/1/14	1/30/14	5/1/15	5/1/15	8/27/15	
	Total	1,340,856		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
						Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Avondale **AVN15-461** **(FFY 2015)**	Location	Dysart Road - Rancho Santa Fe to Indian School Road	Target Dates				NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	**None**
	Work	Procure, construct and install ITS components	Agency Schedule		Initial	12/30	NA	NA	NA	NA	NA	NA	NA	NA	
	Project Type	Procurement			Current	12/30	4/29/14	5/1/15	3/30/14	10/1/14	1/30/14	5/1/15	5/1/15	8/27/15	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion			Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	508,579			Expected Date	12/30/13	4/29/14	5/1/15	3/30/14	10/1/14	1/30/14	5/1/15	5/1/15	8/27/15	
	Total	539,320			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Buckeye **BKY10-801** **(FFY 2014)**	Location	Miller Rd: Hazen Rd to I-10 and Monroe Rd (MC-85): Miller Rd to Apache Rd	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Interconnect traffic signals	Agency Schedule		Initial	6/30/13	6/17/13	5/20/14	3/15/13	3/30/14	9/15/12	1/30/14	10/16/13	6/1/14	
	Project Type	Construction			Current	6/30/13	12/21/13	6/30/14	9/15/13	3/21/14	11/15/13	1/30/14	8/20/13	6/1/14	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion			Months Behind	0.0	7.0	2.0	7.0	0.0	15.0	0.0	0.0	0.0	
	CMAQ	210,000			Expected Date	6/30/13	12/21/13	6/30/14	9/15/13	3/21/14	11/15/13	1/30/14	8/20/13	6/1/14	
	Total	300,000			**Meets Target**	**NA**	✗	✓	✗	✓	✗	✓	✓	✓	
Buckeye **BKY13-101** **(FFY 2014)**	Location	7th St: Norton Dr from Beloat Rd	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Construct pave unpaved road project	Agency Schedule		Initial	11/7/11	6/7/12	6/28/13	11/7/11	5/14/13	11/7/11	5/23/12	10/1/11	8/1/13	
	Project Type	Construction			Current	11/7/11	6/7/12	7/31/13	11/7/11	5/14/13	11/7/11	5/23/12	10/1/11	10/24/13	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion			Months Behind	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0	
	CMAQ	233,226			Expected Date	11/7/11	6/7/12	7/31/13	11/7/11	5/14/13	11/7/11	5/23/12	10/1/11	10/24/13	
	Total	489,785			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Buckeye **BKY13-901** **(FFY 2014)**	Location	Town of Buckeye	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Alarcon Blvd and Kino Place Pedestrian Corridor Project	Agency Schedule	Initial	6/30/13	9/16/13	6/30/14	9/15/13	1/30/14	9/15/13	3/21/14	8/20/13	9/30/14	
	Project Type	Construction		Current	6/30/13	9/16/13	6/30/14	9/15/13	1/30/14	9/15/13	3/21/14	8/20/13	9/30/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	400,000		Expected Date	6/30/13	9/16/13	6/30/14	9/15/13	1/30/14	9/15/13	3/21/14	8/20/13	9/30/14	
	Total	574,572		**Meets Target**	**NA**	✗	✓	✗	✓	✗	✓	✓	✓	
Buckeye **BKY15-431C** **(FFY 2015)**	Location	Watson Road (650' north of Van Buren to McDowell) PM-10 Paving	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Pave dirt road	Agency Schedule	Initial	9/1/13	NA	6/30/15	NA	6/30/14	NA	6/30/15	6/30/15	9/15/15	
	Project Type	Construction		Current	9/1/13	NA	6/30/15	NA	6/30/14	NA	6/30/15	6/30/15	9/15/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	964,532		Expected Date	9/1/13	NA	6/30/15	NA	6/30/14	NA	6/30/15	6/30/15	9/15/15	
	Total	1,049,130		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Cave Creek **CVK15-441C** **(FFY 2015)**	Location	Cave Creek Rd: Carefree Hwy to Pima Rd	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct bike lanes	Agency Schedule	Initial	10/1/13	NA	6/30/15	NA	6/30/14	NA	6/30/15	6/30/15	9/15/15	
	Project Type	Construction		Current	10/1/13	NA	6/30/15	NA	6/30/14	NA	6/30/15	6/30/15	9/15/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	2,938,480		Expected Date	10/1/13	NA	6/30/15	NA	6/30/14	NA	6/30/15	6/30/15	9/15/15	
	Total	3,229,420		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Chandler	Location	City of Chandler	Target Dates			NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	
CHN15-461	Work	Procure and install 201 traffic signal controllers	Agency Schedule	Initial	NA	NA	9/1/14	6/1/14	9/30/14	6/1/14	9/30/14	NA	10/1/15	
(FFY 2015)	Project Type	Procurement		Current	NA	NA	9/1/14	6/1/14	9/30/14	6/1/14	9/30/14	NA	10/1/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**None**
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	511,766		Expected Date	NA	NA	9/1/14	6/1/14	9/30/14	6/1/14	9/30/14	NA	10/1/15	
	Total	542,700		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
El Mirage	Location	Various Arterial Traffic Signals within City of El Mirage	Target Dates			NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	
ELM14-101	Work	Construct arterial traffic signal enhancements	Agency Schedule	Initial	NA	NA	6/30/15	NA	6/30/15	NA	6/30/15	6/30/15	9/15/15	
(FFY 2015)	Project Type	Procurement		Current	NA	NA	6/2/14	9/25/13	3/17/14	9/25/13	4/4/14	6/30/14	9/15/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	14.0	0.0	17.0	0.0	16.0	13.0	0.0	**None**
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	383,495		Expected Date	NA	NA	6/2/14	9/25/13	3/17/14	9/25/13	4/4/14	6/30/14	9/15/15	
	Total	485,300		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Fountain Hills	Location	Shea Blvd. and Downtown Area.	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	
FTH14-101	Work	Construct initial deployment of ITS for traffic signals and provide monitoring/control sites at Town Hall and the Street Yard.	Agency Schedule	Initial	NA	NA	NA	NA	NA	NA	NA	NA	NA	
(FFY 2015)	Project Type	Construction		Current	NA	NA	6/30/15	NA	6/30/15	NA	6/30/15	6/30/15	9/15/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**None**
	Environmental Clearance			Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	922,616		Expected Date	NA	NA	6/30/15	NA	6/30/15	NA	6/30/15	6/30/15	9/15/15	
	Total	1,212,023		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Fountain Hills FTH14-102 (FFY 2014)	Location	Fountain Hills Blvd, Segundo Dr to Pinto Dr	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Construct/Pave Dirt Shoulders	Agency Schedule	Initial	NA	NA	7/1/14	NA	7/1/13	NA	7/1/14	7/1/14	9/30/14	
	Project Type	Construction		Current	NA	NA	7/1/14	NA	7/1/13	NA	7/1/14	7/1/14	9/30/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance			Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	255,364		Expected Date	NA	NA	7/1/14	NA	7/1/13	NA	7/1/14	7/1/14	9/30/14	
	Total	270,800		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Gilbert GLB13-904 (FFY 2015)	Location	Pecos Rd.-Greenfield to Power Rd, Power Rd-Pecos to Queen Creek Rd, Germann Rd-Power to Sossaman Rd	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Install approx. 5 mi. of fiber optic cable and communications equip. to connection the Traffic Operations Centers in Gilbert and Queen Creek.	Agency Schedule	Initial	4/1/14	NA	12/31/14	1/1/14	10/1/14	6/30/15	6/30/15	NA	1/1/15	
	Project Type	Construction		Current	4/1/14	NA	12/31/14	4/1/14	10/1/14	6/30/15	6/30/15	1/1/15	1/1/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Not Determined at this time		Months Behind	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	137,690		Expected Date	4/1/14	NA	12/31/14	4/1/14	10/1/14	6/30/15	6/30/15	1/1/15	1/1/15	
	Total	196,700		**Meets Target**	**NA**	✓	✓	✓	✓	✗	✓	✓	✓	
Gilbert GLB14-102 (FFY 2014)	Location	Seven intersections near Baseline Road & Val Vista Drive (approximately three miles)	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Install fiber optic communication lines in existing conduits and add new CCTV cameras, traffic signal video detection, and controllers	Agency Schedule	Initial	10/15	1/1/14	3/1/14	10/15/13	4/1/14	10/15/13	4/1/14	6/30/13	9/1/14	
	Project Type	Construction		Current	10/15	1/1/14	3/1/14	10/15/13	4/1/14	10/15/13	4/1/14	6/30/13	9/1/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Environmental Assessment		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	292,582		Expected Date	10/15/13	1/1/14	3/1/14	10/15/13	4/1/14	10/15/13	4/1/14	6/30/13	9/1/14	
	Total	373,779		**Meets Target**	**NA**	✗	✓	✗	✓	✗	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
						Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Gilbert **GLB12-809** **(FFY 2014)**	Location	Town of Gilbert	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**The sponsoring agency has indicated that it cannot obligate the project in FY 2014 and will either request to defer or abandon the project.**
	Work	Design and construct bicycle crossings	Agency Schedule	Initial		9/15/14	12/2/13	6/1/14	9/2/13	1/15/14	9/2/13	1/15/14	2/15/14	7/1/14	
	Project Type	Construction		Current		9/15/14	12/2/14	6/1/15	9/2/14	1/15/15	9/2/14	1/15/15	2/15/15	6/30/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind		0.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	
	CMAQ	490,000		Expected Date		9/15/14	12/2/14	6/1/15	9/2/14	1/15/15	9/2/14	1/15/15	2/15/15	6/30/15	
	Total	700,000		**Meets Target**		**NA**	✗	✗	✗	✗	✗	✗	✓	✗	
Gilbert **GLB13-902** **(FFY 2014)**	Location	Consolidated/Ray, Eastern/Williams Field, Powerline/McQueen, Powerline/Val Vista, Powerline/Greenfield, Powerline/Recker	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**The sponsoring agency has indicated that it cannot obligate the project in FY 2014 and will either request to defer or abandon the project.**
	Work	Gilbert Bicycle Crossing Safety and improvement demonstration Phase II Project	Agency Schedule	Initial		9/15/14	12/2/13	6/1/14	9/2/13	1/15/14	9/2/13	1/15/14	2/15/14	7/1/14	
	Project Type	Construction		Current		9/15/14	12/2/14	6/1/15	9/2/14	1/15/15	9/2/14	1/15/15	2/15/15	7/1/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind		0.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	
	CMAQ	583,000		Expected Date		9/15/14	12/2/14	6/1/15	9/2/14	1/15/15	9/2/14	1/15/15	2/15/15	7/1/15	
	Total	838,000		**Meets Target**		**NA**	✗	✗	✗	✗	✗	✗	✓	✗	
Gilbert **GLB13-907C** **(FFY 2015)**	Location	Various Mid Block: Consolidated Canal at Baseline Rd, Eastern Canal at Baseline Rd, SRP Powerline at Guadalupe Rd, SRP Powerl	Target Dates				6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct Pedestrian and Bicycle Mid-Block Crossings	Agency Schedule	Initial		9/15/13	4/1/14	3/31/14	9/15/13	11/30/13	9/15/13	4/30/14	4/1/14	11/30/14	
	Project Type	Construction		Current		9/15/13	2/15/14	1/13/15	9/15/13	10/10/14	5/14/14	9/30/14	4/1/14	3/31/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead		0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind		0.0	0.0	10.0	0.0	11.0	9.0	6.0	0.0	4.0	
	STP-TEA	551,970		Expected Date		9/15/13	2/15/14	1/13/15	9/15/13	10/10/14	5/14/14	9/30/14	4/1/14	3/31/15	
	Total	585,334		**Meets Target**		**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
						Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Glendale GLN09-610R (FFY 2014)	Location	Glendale Ave to Glenn Dr and 58th Ave to 57th Ave.	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Construct Pedestrian Improvements	Agency Schedule		Initial	1/10/11	5/14/11	3/17/14	7/9/11	3/30/14	5/14/11	9/30/11	6/11/12	10/1/14	
	Project Type	Construction			Current	1/10/11	5/14/11	3/17/14	7/9/11	10/14/13	5/14/11	9/30/11	6/11/12	9/15/14	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion			Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	315,721			Expected Date	1/10/11	5/14/11	3/17/14	7/9/11	10/14/13	5/14/11	9/30/11	6/11/12	9/15/14	
	Total	553,480			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Glendale GLN08-802C2 (FFY 2014)	Location	Grand Canal in west Glendale, from Loop 101 to New River	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**Development of draft plans and other documents were delayed due to the FHWA/ADOT decision to to not allow self administration. The agency currently has in house 60 perecent draft plans and expects to authorize the project in FY 2014.**
	Work	Construct multi-use pathway	Agency Schedule		Initial	2/26/09	5/30/11	9/30/13	10/17/09	5/23/11	3/21/10	9/30/13	2/5/14	3/30/14	
	Project Type	Construction			Current	2/26/09	10/24/13	5/16/14	10/17/09	5/23/11	3/21/10	4/11/14	2/5/14	9/15/14	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion			Months Behind	0.0	32.0	8.0	0.0	0.0	0.0	7.0	0.0	6.0	
	TA-MAG	132,222			Expected Date	2/26/09	10/24/13	5/16/14	10/17/09	5/23/11	3/21/10	4/11/14	2/5/14	9/15/14	
	Total	140,214			**Meets Target**	**NA**	✗	✓	✓	✓	✓	✓	✓	✓	
Glendale GLN12-102D (FFY 2014)	Location	Myrtle Avenue	Target Dates				NA	NA	NA	NA	NA	NA	NA	9/30/14	**None**
	Work	Design Sidewalk Improvements	Agency Schedule		Initial	12/1/12	12/30/13	9/30/14	6/30/13	6/30/14	6/30/13	6/30/14	12/30/14	9/30/14	
	Project Type	Design			Current	12/1/12	4/30/14	9/30/14	1/2/14	6/30/14	6/30/13	6/30/14	12/1/13	9/15/14	
	Design Process	Federally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	
	Environmental Clearance	None			Months Behind	0.0	4.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	
	TA-MAG	137,018			Expected Date	12/1/12	4/30/14	9/30/14	1/2/14	6/30/14	6/30/13	6/30/14	12/1/13	9/15/14	
	Total	145,300			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Glendale GLN11-704 (FFY 2014)	Location	Maryland Avenue: 67th-69th & 79th-83rd Avenues	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**Development of draft plans and other documents were delayed due to the FHWA/ADOT decision to to not allow self administration. The agency currently has in house 60 perecent draft plans and expects to authorize the project in FY 2014.**
	Work	Spot Improvements on Maryland Avenue for Bike Lanes	Agency Schedule	Initial	5/5/10	10/24/13	4/30/14	6/6/11	2/27/12	6/30/10	9/30/13	2/5/14	6/30/14	
	Project Type	Construction		Current	5/5/10	10/24/13	4/30/14	6/6/11	2/27/12	6/30/10	9/30/13	2/5/14	6/30/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	STP-TEA	369,276		Expected Date	5/5/10	10/24/13	4/30/14	6/6/11	2/27/12	6/30/10	9/30/13	2/5/14	6/30/14	
	Total	391,597		**Meets Target**	**NA**	✗	✓	✓	✓	✓	✓	✓	✓	
Goodyear GDY12-801 (FFY 2014)	Location	McDowell Rd: Citrus Rd to PebbleCreek Parkway, and Cotton Lane intersections with Van Buren Street, the I-10 eastbound front	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Design and construct fiber-optic interconnection for traffic signals and video	Agency Schedule	Initial	3/1/12	7/1/13	2/1/14	7/3/12	7/1/13	5/11/12	2/1/14	10/1/13	NA	
	Project Type	Construction		Current	3/1/12	10/30/13	2/2/14	7/3/12	1/1/14	5/11/12	12/2/13	10/9/13	NA	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	4.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	
	CMAQ	588,809		Expected Date	3/1/12	10/30/13	2/2/14	7/3/12	1/1/14	5/11/12	12/2/13	10/9/13	NA	
	Total	624,400		**Meets Target**	**NA**	✗	✓	✓	✓	✓	✓	✓	✓	
Goodyear GDY13-901 (FFY 2014)	Location	Citywide	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Design and construction of fiber optic interconnect in existing conduit for traffic management through video surveillance and data collection	Agency Schedule	Initial	12/1/12	8/30/13	6/1/14	2/1/13	12/1/13	2/1/13	3/1/14	10/30/13	8/1/14	
	Project Type	Construction		Current	12/1/12	1/2/14	3/5/14	2/1/13	10/30/13	2/1/13	2/2/14	10/9/13	8/1/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	3.0	0.0	1.0	0.0	1.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion		Months Behind	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	700,000		Expected Date	12/1/12	1/2/14	3/5/14	2/1/13	10/30/13	2/1/13	2/2/14	10/9/13	8/1/14	
	Total	742,000		**Meets Target**	**NA**	✗	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
						Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Goodyear GDY14-101 (FFY 2015)	Location	Van Buren Street - Estrella Parkway to Cotton Lane	Target Dates				6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct traffic signal connection to three existing and one future traffic signal and install CCTV cameras	Agency Schedule		Initial	1/1/13	2/15/15	6/20/15	7/1/14	2/1/15	12/1/13	12/1/14	10/30/14	NA	
	Project Type	Construction			Current	1/1/13	2/15/15	6/20/15	7/1/14	2/1/15	12/1/13	12/1/14	6/1/14	NA	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion			Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	749,164			Expected Date	1/1/13	2/15/15	6/20/15	7/1/14	2/1/15	12/1/13	12/1/14	6/1/14	NA	
	Total	1,000,027			**Meets Target**	**NA**	✗	✓	✗	✓	✓	✓	✓	✓	
Goodyear GDY15-461 (FFY 2015)	Location	SR303: McDowell Rd to Camelback	Target Dates				NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	**None**
	Work	Procure and install fiber and switch hardware	Agency Schedule		Initial	1/1/14	6/1/14	12/1/14	4/1/14	6/1/14	1/1/14	5/1/14	10/30/14	NA	
	Project Type	Procurement			Current	1/1/14	6/1/14	12/1/14	4/1/14	6/1/14	1/1/14	5/1/14	6/1/14	NA	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion			Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	219,876			Expected Date	1/1/14	6/1/14	12/1/14	4/1/14	6/1/14	1/1/14	5/1/14	6/1/14	NA	
	Total	233,167			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Maricopa County MMA14-101 (FFY 2014)	Location	Associated with AZTech Center-to-Center traffic management system located primarily at ADOT and MCDOT	Target Dates				NA	6/30/14	NA	6/30/14	NA	NA	NA	9/30/14	**None**
	Work	Upgrade the Regional Archive Data Center Equipment and Systems to enhance archiving capacity and the utility of real time traffic data.	Agency Schedule		Initial	NA	NA	4/20/14	10/1/13	3/31/14	NA	12/31/13	NA	6/30/14	
	Project Type	Procurement			Current	NA	NA	4/20/14	1/1/14	3/31/14	NA	3/31/14	NA	6/30/14	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion			Months Behind	0.0	0.0	0.0	4.0	0.0	0.0	3.0	0.0	0.0	
	CMAQ	125,937			Expected Date	NA	NA	4/20/14	1/1/14	3/31/14	NA	3/31/14	NA	6/30/14	
	Total	184,437			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
						Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Maricopa County MMA14-102 (FFY 2014)	Location	Various locations along MC85 from Aqua Fria Bridge West Terminal to 75th Ave	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Construct/Install ITS traffic management capabilities along MC 85	Agency Schedule		Initial	3/1/12	1/2/13	6/30/14	7/1/13	12/31/13	10/1/12	6/30/14	NA	6/30/14	
	Project Type	Construction			Current	3/1/12	1/2/13	6/30/14	7/1/13	5/1/14	10/1/12	6/30/14	NA	6/30/14	
	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Not Determined at this time			Months Behind	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	
	CMAQ	781,456			Expected Date	3/1/12	1/2/13	6/30/14	7/1/13	5/1/14	10/1/12	6/30/14	NA	6/30/14	
	Total	1,144,456			**Meets Target**	**NA**	✓	✓	✗	✓	✓	✓	✓	✓	
Maricopa County MMA14-103 (FFY 2015)	Location	Various Low Volume Roads	Target Dates				6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct/Pave Dirt Roads	Agency Schedule		Initial	NA	6/20/13	10/17/14	6/20/13	1/31/14	6/20/13	6/1/15	NA	6/30/15	
	Project Type	Construction			Current	NA	6/20/13	10/17/14	6/20/13	1/31/14	6/20/13	6/1/15	NA	9/1/15	
	Design Process	Federally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance				Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	
	CMAQ	1,117,455			Expected Date	NA	6/20/13	10/17/14	6/20/13	1/31/14	6/20/13	6/1/15	NA	9/1/15	
	Total	1,185,000			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Maricopa County MMA15-434C (FFY 2015)	Location	New River Area	Target Dates				6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Pave seven locations (Phase I)	Agency Schedule		Initial	NA	6/20/13	10/17/14	6/20/13	1/31/14	6/20/13	6/1/15	NA	6/30/15	
	Project Type	Construction			Current	NA	6/20/13	10/17/14	6/20/13	4/28/14	6/20/13	6/1/15	NA	6/30/15	
	Design Process	Federally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Not Determined at this time			Months Behind	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	
	CMAQ	1,072,645			Expected Date	NA	6/20/13	10/17/14	6/20/13	4/28/14	6/20/13	6/1/15	NA	6/30/15	
	Total	1,137,481			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Maricopa County MMA15-436C (FFY 2015)	Location	Rockaway Hills Drive, beginning of Maintenance to End of Maintenance	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Pave dirt road	Agency Schedule	Initial	NA	6/20/13	10/17/14	6/20/13	1/31/14	6/20/13	6/1/15	NA	6/30/15	
	Project Type	Construction		Current	NA	6/20/13	10/17/14	6/20/13	4/28/14	6/20/13	6/1/15	NA	6/30/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Not Determined at this time		Months Behind	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	
	CMAQ	235,750		Expected Date	NA	6/20/13	10/17/14	6/20/13	4/28/14	6/20/13	6/1/15	NA	6/30/15	
	Total	250,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Maricopa County MMA15-441C (FFY 2015)	Location	McDowell Rd: 76th St to Usery Pass Rd	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct bike lanes	Agency Schedule	Initial	NA	3/22/12	2/7/14	9/30/13	3/30/14	4/12/13	7/27/14	NA	10/30/14	
	Project Type	Construction		Current	NA	3/22/12	2/7/14	9/30/13	3/30/14	4/12/13	7/27/14	NA	10/30/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Not Determined at this time		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	556,747		Expected Date	NA	3/22/12	2/7/14	9/30/13	3/30/14	4/12/13	7/27/14	NA	10/30/14	
	Total	628,667		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Maricopa County MMA15-461 (FFY 2015)	Location	Bell Road	Target Dates			NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	**None**
	Work	Bell Road Adaptive Signal Control Technology (ASCT) Deployment	Agency Schedule	Initial	NA	NA	3/31/15	12/2/13	6/30/14	7/1/13	2/27/15	NA	4/30/15	
	Project Type	Procurement		Current	NA	NA	3/31/15	12/2/13	6/30/14	7/1/13	2/27/15	NA	6/30/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	
	CMAQ	2,315,065		Expected Date	NA	NA	3/31/15	12/2/13	6/30/14	7/1/13	2/27/15	NA	6/30/15	
	Total	2,455,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Category		Project Scheduling Information: Start	Design: 60% Plans Started	Design: PS&E Completed	Environmental: Tech Docs Started	Environmental: Clearance Approved	Right-of-Way: Inventory Started	Right-of-Way: Clearance Approved	IGA Approved	FHWA Author-ization	Notes
Mesa MES12-814 (FFY 2014)	Location	Fiesta Paseo Nodes on Southern Avenue between Alma School and Dobson Road	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	None
	Work	Construct pedestrian refuge and shelters for the Fiesta Pathway	Agency Schedule	Initial	NA	7/1/12	5/5/14	1/1/14	8/30/13	7/1/12	1/1/14	NA	6/1/14	
	Project Type	Construction		Current	NA	6/19/12	5/5/14	7/15/13	8/23/13	6/19/13	5/5/14	NA	6/1/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	13.0	4.0	0.0	0.0	
	CMAQ	998,870		Expected Date	NA	6/19/12	5/5/14	7/15/13	8/23/13	6/19/13	5/5/14	NA	6/1/14	
	Total	1,426,957		**Meets Target**	**NA**	✓	✓	✗	✓	✗	✓	✓	✓	
Mesa MES11-111C2 (FFY 2014)	Location	Porter Park Pathway: Mesa Drive and 8th Street near the vicinity of Kino Junior High	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	The sponsoring agency has requested to defer the project to FY 2015. The project has not previously been deferred.
	Work	Construct paved shared use path	Agency Schedule	Initial	1/31/11	8/21/13	5/5/14	7/3/13	2/15/13	6/12/13	5/5/14	NA	6/1/14	
	Project Type	Construction		Current	1/31/11	8/6/13	7/25/14	2/3/14	4/18/14	6/12/13	5/30/14	NA	8/29/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	3.0	8.0	16.0	0.0	1.0	0.0	3.0	
	TA-MAG	1,358,348		Expected Date	1/31/11	8/6/13	7/25/14	2/3/14	4/18/14	6/12/13	5/30/14	NA	8/29/14	
	Total	1,440,454		**Meets Target**	**NA**	✗	✗	✗	✓	✗	✓	✓	✓	
Mesa MES15-441C (FFY 2015)	Location	Rio Salado Pathway Segment 3	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	None
	Work	Construct multi-use pathway	Agency Schedule	Initial	12/16	9/23/13	5/31/14	9/23/13	4/16/14	NA	4/25/14	3/31/14	6/30/14	
	Project Type	Construction		Current	12/16	5/12/14	9/30/14	2/3/14	3/24/14	12/16/13	3/10/14	8/29/14	10/15/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	1.0	0.0	2.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	8.0	4.0	5.0	0.0	0.0	0.0	6.0	4.0	
	CMAQ	999,999		Expected Date	12/16/13	5/12/14	9/30/14	2/3/14	3/24/14	12/16/13	3/10/14	8/29/14	10/15/14	
	Total	1,199,594		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Mesa	Location	City of Mesa (Citywide)	Target Dates			NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	
	Work	Procure: Radio Communications Upgrade	Agency Schedule	Initial	NA	NA	5/18/15	10/13/14	3/2/15	NA	6/30/15	NA	6/1/15	
MES15-461	Project Type	Procurement		Current	NA	NA	5/18/15	6/1/14	10/1/14	1/15/14	10/1/14	NA	12/31/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	5.0	5.0	0.0	10.0	0.0	5.0	**None**
(FFY 2015)	Environmental Clearance	Group 1, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	233,864		Expected Date	NA	NA	5/18/15	6/1/14	10/1/14	1/15/14	10/1/14	NA	12/31/14	
	Total	248,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Peoria	Location	Lake Pleasant Parkway: L303 to SR74	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	
	Work	Pave Unpaved Shoulders	Agency Schedule	Initial	7/1/12	5/1/14	3/1/15	8/30/13	5/1/14	6/1/12	3/1/14	10/1/13	6/2/14	
PEO13-102	Project Type	Construction		Current	7/1/12	12/1/14	4/1/15	8/30/13	12/1/14	6/1/12	12/1/14	4/1/14	6/2/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**None**
(FFY 2015)	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	7.0	1.0	0.0	7.0	0.0	7.0	7.0	12.0	
	CMAQ	401,983		Expected Date	7/1/12	12/1/14	4/1/15	8/30/13	12/1/14	6/1/12	12/1/14	4/1/14	6/2/15	
	Total	426,281		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Peoria	Location	83rd Ave: Lone Cactus and continuing north to Jomax Rd	Target Dates			NA	6/30/14	NA	6/30/14	NA	NA	NA	9/30/14	
	Work	Install conduit, pull boxes, fiber, and CCTV cameras	Agency Schedule	Initial	9/1/12	3/1/13	9/1/13	1/1/13	1/1/14	9/1/13	5/1/14	8/1/13	7/1/14	
PEO13-901	Project Type	Procurement		Current	9/1/12	3/1/13	9/1/13	1/1/13	1/1/14	9/1/13	5/1/14	8/1/13	7/1/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**None**
(FFY 2014)	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	700,000		Expected Date	9/1/12	11/1/13	4/1/14	1/1/13	4/1/14	9/1/13	5/1/14	4/1/13	7/1/14	
	Total	1,000,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Peoria PEO13-902 (FFY 2014)	Location	New River Pathway, Northern Ave and Olive Ave	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Construct Olive to Northern multi-use path with extension to connect to Glendale path at Northern	Agency Schedule	Initial	6/25/12	4/29/13	1/27/14	7/30/12	7/31/13	NA	11/20/13	5/1/12	3/31/14	
	Project Type	Construction	Agency Schedule	Current	6/25/12	4/29/13	1/27/14	7/30/12	7/31/13	NA	11/20/13	5/1/12	3/31/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion	Schedule Status	Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	700,000	Schedule Status	Expected Date	6/25/12	10/1/13	4/1/14	7/30/12	3/1/14	NA	3/1/14	6/1/12	6/1/14	
	Total	742,312	Schedule Status	**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Peoria PEO14-101 (FFY 2014)	Location	Three Corridors: Peoria Ave, Northern Ave, and Olive Ave	Target Dates			NA	6/30/14	NA	6/30/14	NA	NA	NA	9/30/14	**None**
	Work	Upgrade the existing cabinets, traffic controllers, existing loop detection to video detection, and hardware and software	Agency Schedule	Initial	NA	NA	7/1/13	9/1/12	9/1/13	5/1/13	10/1/13	10/1/13	7/1/14	
	Project Type	Procurement	Agency Schedule	Current	NA	NA	7/1/13	9/1/12	9/1/13	5/1/13	10/1/13	10/1/13	7/1/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion	Schedule Status	Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	645,831	Schedule Status	Expected Date	8/1/13	NA	4/1/14	8/1/13	4/1/14	8/1/14	4/1/14	1/1/13	7/1/14	
	Total	859,616	Schedule Status	**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Peoria PEO13-903C2 (FFY 2014)	Location	New River Pathway, Northern Ave and Olive Ave	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	6/1/12	9/30/14	**None**
	Work	Construct multi-use path	Agency Schedule	Initial	6/25/12	4/29/13	1/27/14	7/30/12	7/31/13	NA	11/20/13	6/1/12	3/31/14	
	Project Type	Construction	Agency Schedule	Current	6/25/12	4/29/13	1/27/14	7/30/12	7/31/13	NA	11/20/13	NA	3/31/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	None	Schedule Status	Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	TA-MAG	188,600	Schedule Status	Expected Date	6/25/12	10/1/13	4/1/14	7/30/12	3/1/14	NA	3/1/14	6/1/12	6/1/14	
	Total	200,000	Schedule Status	**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Peoria **PEO13-902c2** **(FFY 2014)**	Location	New River Pathway, Northern Ave and Olive Ave	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Construct Olive to Northern multi-use path with extension to connect to Glendale path at Northern	Agency Schedule	Initial	6/25/12	4/29/13	1/27/14	7/30/12	7/31/13	NA	11/20/13	5/1/12	3/31/14	
	Project Type	Construction		Current	6/25/12	4/29/13	1/27/14	7/30/12	7/31/13	NA	11/20/13	5/1/12	3/31/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	STP-TEA	250,000		Expected Date	6/25/12	10/1/13	4/1/14	7/30/12	7/31/13	NA	3/1/14	6/1/12	6/1/14	
	Total	442,577		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix **PHX13-901** **(FFY 2015)**	Location	Nevitt Park and Western Canal (northwest of 46th St and Vineyard Rd)	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Nevitt park Bicycle & Pedestrian Bridge Crossing: Construction Phase	Agency Schedule	Initial	10/1/12	5/1/13	6/30/15	10/1/13	6/30/14	3/1/13	6/30/15	NA	9/15/15	
	Project Type	Construction		Current	10/1/12	5/1/13	6/30/15	10/1/13	6/30/14	3/1/13	6/30/15	NA	9/15/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	300,395		Expected Date	10/1/12	5/1/13	6/30/15	10/1/13	6/30/14	3/1/13	6/30/15	NA	9/15/15	
	Total	478,500		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix **PHX14-101** **(FFY 2015)**	Location	Indian School Road: Grand Canal to 16th Street	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct a 10' wide multi-use pathway; and a pre-fabricated multi-use bridge over the Grand Canal.	Agency Schedule	Initial	5/1/12	9/27/13	10/1/14	7/29/13	3/1/14	3/1/14	10/1/14	NA	2/1/15	
	Project Type	Construction		Current	5/1/12	9/27/13	10/1/14	7/29/13	3/1/14	3/1/14	10/1/14	NA	2/1/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	873,422		Expected Date	5/1/12	9/27/13	10/1/14	7/29/13	3/1/14	3/1/14	10/1/14	NA	2/1/15	
	Total	1,043,746		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Phoenix PHX14-103 (FFY 2014)	Location	Fiber Optic Backbone Expansion Phase B	Target Dates			NA	6/30/14	NA	6/30/14	NA	NA	NA	9/30/14	**None**
	Work	To extend Phase B Fiber Optic Backbone, To provide Traffic Signal interconnect to the City of Phoenix TMC	Agency Schedule	Initial	10/1/13	8/1/13	4/30/14	12/1/13	7/17/12	NA	6/30/14	NA	6/30/14	
	Project Type	Procurement		Current	10/1/13	1/6/14	6/30/14	12/1/13	7/17/12	NA	3/21/14	NA	9/15/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	6.0	2.0	0.0	0.0	0.0	0.0	0.0	3.0	
	CMAQ	754,700		Expected Date	10/1/13	1/6/14	6/30/14	12/1/13	7/17/12	NA	3/21/14	NA	9/15/14	
	Total	978,143		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix PHX14-104 (FFY 2014)	Location	Various Alleys	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**The environmental clearance for this project has been streamlined and uses a Condensed Environmental Clearance**
	Work	Construct/Pave Dirt Alleys	Agency Schedule	Initial	1/1/14	NA	7/1/14	NA	5/1/14	2/12/12	6/1/14	NA	8/1/14	
	Project Type	Construction		Current	1/1/14	NA	7/1/14	NA	5/1/14	2/12/12	6/1/14	NA	8/1/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	1,033,934		Expected Date	1/1/14	NA	7/1/14	NA	5/1/14	2/12/12	6/1/14	NA	8/1/14	
	Total	1,633,934		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix PHX13-901D (FFY 2014)	Location	Nevitt Park and Western Canal (northwest of 46th St and Vineyard Rd)	Target Dates			NA	NA	NA	NA	NA	NA	NA	9/30/14	**None**
	Work	Nevitt park Bicycle & Pedestrian Bridge Crossing: Design Phase.	Agency Schedule	Initial	NA	NA	NA	NA	NA	NA	NA	NA	10/15/13	
	Project Type	Design		Current	NA	NA	NA	NA	NA	NA	NA	NA	6/1/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Not Applicable		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	
	CMAQ	188,600		Expected Date	NA	NA	NA	NA	NA	NA	NA	NA	6/1/14	
	Total	235,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Phoenix	Location	Nevitt Park and Western Canal (northwest of 46th St and Vineyard Rd)	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	
	Work	Nevitt park Bicycle & Pedestrian Bridge Crossing: ROW Phase	Agency Schedule	Initial	10/1/12	5/1/13	6/30/15	10/1/13	6/30/14	3/1/13	6/30/15	NA	9/15/15	
PHX13-901RW	Project Type	Construction		Current	10/1/12	5/1/13	6/30/15	10/1/13	6/30/14	3/1/13	6/30/15	NA	9/15/15	
(FFY 2015)	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**None**
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	26,826		Expected Date	10/1/12	5/1/13	6/30/15	10/1/13	6/30/14	3/1/13	6/30/15	NA	9/15/15	
	Total	46,075		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix	Location	Phoenix Citywide Alleys	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	
	Work	Dust-Proof Unstabilized Alleys	Agency Schedule	Initial	1/1/14	NA	6/30/15	1/30/14	6/30/15	1/30/14	6/30/15	NA	9/15/15	
PHX15-431C	Project Type	Construction		Current	1/1/14	NA	6/30/15	1/30/14	6/1/15	1/30/14	6/15/15	NA	8/1/15	
(FFY 2015)	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	2.0	**None**
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	1,232,662		Expected Date	1/1/14	NA	6/30/15	1/30/14	6/1/15	1/30/14	6/15/15	NA	8/1/15	
	Total	1,472,662		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix	Location	Roosevelt Street	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	
	Work	Construct bike and pedestrian improvements.	Agency Schedule	Initial	1/1/14	3/15/14	6/1/15	5/2/14	3/1/15	6/30/14	6/15/15	NA	6/25/15	
PHX15-441C	Project Type	Construction		Current	1/1/14	NA	8/1/14	1/1/14	6/30/14	NA	10/1/14	NA	10/1/14	
(FFY 2015)	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	11.0	4.0	8.0	0.0	9.0	0.0	10.0	**None**
	Environmental Clearance	Not Determined at this time		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	750,260		Expected Date	1/1/14	NA	8/1/14	1/1/14	6/30/14	NA	10/1/14	NA	10/1/14	
	Total	795,610		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Phoenix PHX15-446C (FFY 2015)	Location	Regional Bike Share	Target Dates			NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	**None**
	Work	Implementation of Regional Bike Share	Agency Schedule	Initial	10/1/14	NA	5/1/15	5/1/14	1/1/15	6/30/14	5/15/15	NA	6/15/15	
	Project Type	Procurement		Current	10/1/14	NA	3/30/15	2/1/14	6/15/13	6/15/14	6/30/15	NA	7/1/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	1.0	3.0	20.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Not Determined at this time		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	
	CMAQ	1,414,500		Expected Date	10/1/14	NA	3/30/15	2/1/14	6/15/13	6/15/14	6/30/15	NA	7/1/15	
	Total	1,500,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix PHX15-461 (FFY 2015)	Location	Phoenix (Various)	Target Dates			NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	**None**
	Work	Procure and install Dynamic Message Signs - 7th Ave, Camelback Road, McDowell Road	Agency Schedule	Initial	1/6/14	12/31/13	6/30/14	9/30/13	6/30/14	NA	6/30/14	NA	6/30/15	
	Project Type	Procurement		Current	1/6/14	5/12/14	1/9/15	1/6/14	6/30/14	NA	6/30/14	NA	6/30/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion		Months Behind	0.0	5.0	7.0	4.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	854,811		Expected Date	1/6/14	5/12/14	1/9/15	1/6/14	6/30/14	NA	6/30/14	NA	6/30/15	
	Total	906,481		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Phoenix PHX15-463 (FFY 2015)	Location	City of Phoenix (Various)	Target Dates			NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	**None**
	Work	Procure, install, and provision traffic monitoring cameras	Agency Schedule	Initial	1/6/14	1/1/14	7/31/14	9/15/13	6/30/15	NA	9/1/14	NA	6/30/15	
	Project Type	Procurement		Current	1/6/14	5/12/14	1/9/15	1/6/14	6/30/14	NA	6/30/14	NA	6/30/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	13.0	0.0	2.0	0.0	0.0	
	Environmental Clearance	Group 1, Categorical Exclusion		Months Behind	0.0	5.0	6.0	4.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	730,891		Expected Date	1/6/14	5/12/14	1/9/15	1/6/14	6/30/14	NA	6/30/14	NA	6/30/15	
	Total	776,379		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Queen Creek QNC13-901C (FFY 2014)	Location	Ellsworth Rd and Queen Creek Wash to Chandler Heights Blvd. and Queen Creek Wash.	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Queen Creek Wash and South Bank Paved Path	Agency Schedule	Initial	7/1/12	1/1/14	5/1/14	11/15/12	1/1/14	11/15/12	9/1/14	1/1/13	6/30/14	
	Project Type	Construction		Current	7/1/12	1/1/14	5/1/14	11/15/12	1/1/14	11/15/12	9/1/14	1/1/13	6/30/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	525,000		Expected Date	7/1/12	1/1/14	5/1/14	11/15/12	1/1/14	11/15/12	9/1/14	1/1/13	6/30/14	
	Total	635,000		**Meets Target**	**NA**	✗	✓	✓	✓	✓	✗	✓	✓	
Queen Creek QNC12-100 (FFY 2014)	Location	North Bank Queen Creek Wash: Hawes Rd and Ellsworth	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**None**
	Work	Contruct a one mile 8' wide multi-use path	Agency Schedule	Initial	8/1/13	8/1/13	NA	1/1/14	NA	NA	NA	NA	NA	
	Project Type	Construction		Current	8/1/13	1/1/14	6/30/14	8/1/13	2/1/14	NA	NA	NA	NA	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	STP-TEA	486,926		Expected Date	8/1/13	1/1/14	6/30/14	8/1/13	2/1/14	NA	NA	NA	NA	
	Total	516,358		**Meets Target**	**NA**	✗	✓	✗	✓	✓	✓	✓	✓	
Salt River Pima-Maricopa Indian Community SRP12-801C (FFY 2015)	Location	Pave Dirt Roads: Center Rd, Mesa Dr, McDonald, and Alma School	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct: Pave Unpaved Road	Agency Schedule	Initial	11/15	7/1/13	8/1/14	8/1/12	6/30/13	7/28/11	7/1/15	12/1/11	7/1/15	
	Project Type	Construction		Current	11/15	7/1/13	10/1/14	8/1/12	6/30/13	7/28/11	6/30/15	6/30/15	7/1/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	2.0	0.0	0.0	0.0	0.0	47.0	0.0	
	CMAQ	1,589,595		Expected Date	11/15/11	7/1/13	10/1/14	8/1/12	6/30/13	7/28/11	6/30/15	6/30/15	7/1/15	
	Total	4,099,312		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Scottsdale SCT15-401 (FFY 2015)	Location	Shea Blvd: 142nd St to Eagle Mountain Pkwy	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct 12-ft multi-use path (Scottsdale section) and 8-ft sidewalk (Fountain Hills section)	Agency Schedule	Initial	9/1/13	4/1/14	3/1/14	3/1/14	6/1/14	NA	6/1/14	NA	6/30/15	
	Project Type	Construction		Current	9/1/13	6/1/14	2/1/15	4/1/14	9/1/14	NA	9/1/14	NA	2/1/15	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	2.0	12.0	1.0	4.0	0.0	4.0	0.0	0.0	
	CMAQ	273,000		Expected Date	9/1/13	6/1/14	2/1/15	4/1/14	9/1/14	NA	9/1/14	NA	2/1/15	
	Total	390,000		**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Scottsdale SCT14-103 (FFY 2014)	Location	Various Dirt Roads: Via Dona Rd: Scottsdale to Pima Rd, Hayden Rd: Dynamite to Via Dona, Pinnacle Vista Dr: 64th St to 69th S	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	
	Work	Construct/Pave Dirt Roads	Agency Schedule	Initial	2/1/13	7/1/13	5/1/14	2/1/13	7/29/13	8/1/13	10/31/13	NA	1/1/14	
	Project Type	Construction		Current	2/1/13	7/1/13	5/1/14	2/1/13	1/15/14	2/15/14	4/15/14	NA	6/30/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	6.0	7.0	6.0	0.0	6.0	
	CMAQ	1,267,904		Expected Date	2/1/13	7/1/13	5/1/14	2/1/13	1/15/14	2/15/14	4/15/14	NA	6/30/14	
	Total	1,344,543		**Meets Target**	**NA**	✗	✓	✓	✓	✗	✓	✓	✓	
Scottsdale SCT14-104 (FFY 2014)	Location	Arizona Canal from Chaparral to Indian Bend Wash	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**The project required extensive public involvement. The schedule assumes the project will be deferred to 2015** **The project has previously been deferred and will be processed throught the MAG committee process.**
	Work	Design and Construct multi-use path	Agency Schedule	Initial	10/1	2/1/12	10/2/12	6/1/11	4/12/12	NA	4/2/12	NA	6/27/12	
	Project Type	Construction		Current	10/1/12	7/30/14	2/1/15	2/1/15	2/1/15	NA	2/1/15	NA	6/30/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	NA	0.0	NA	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	26.0	24.0	38.0	29.0	NA	30.0	NA	21.0	
	CMAQ	1,600,000		Expected Date	10/1/12	7/30/14	2/1/15	2/1/15	2/1/15	NA	2/1/15	NA	6/30/14	
	Total	3,511,700		**Meets Target**	**NA**	✗	✗	✗	✗	✓	✗	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
						Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Scottsdale	Location	Scottsdale (Various)	Target Dates				NA	6/30/15	NA	6/30/15	NA	NA	NA	9/30/15	
	Work	Highway advisory radio deployment	Agency Schedule		Initial	6/1/13	12/1/13	6/30/15	10/1/13	2/28/15	10/1/13	6/30/15	NA	9/15/15	
SCT15-463	Project Type	Procurement			Current	6/1/13	12/1/13	6/30/15	10/1/13	6/30/14	NA	6/30/15	NA	12/1/14	
(FFY 2015)	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	10.0	**None**
	Environmental Clearance	Group 1, Categorical Exclusion			Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	380,040			Expected Date	6/1/13	12/1/13	6/30/15	10/1/13	6/30/14	NA	6/30/15	NA	12/1/14	
	Total	418,040			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Surprise	Location	Dove Valley Rd: 187th Ave to 203rd Ave	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	
	Work	Pave Unpaved Road	Agency Schedule		Initial	1/1/11	3/27/12	3/1/14	2/28/12	2/28/12	4/15/12	1/1/14	NA	NA	
SUR12-801C	Project Type	Construction			Current	1/1/11	3/27/12	3/1/14	2/28/12	2/28/12	4/15/12	1/1/14	NA	NA	
(FFY 2014)	Design Process	Federally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**The dates are approximate. Design and righ-of-way for the project has authorized.**
	Environmental Clearance	Group 2, Categorical Exclusion			Months Behind	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	872,275			Expected Date	1/1/11	3/27/12	3/1/14	2/28/12	2/28/12	4/15/12	1/1/14	NA	NA	
	Total	930,000			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Tempe	Location	Broadway Rd: Rural Rd to Mill Ave	Target Dates				6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	
	Work	Acquire right-of-way and construct pedestrian and bicycle facilities improvements	Agency Schedule		Initial	6/1/09	1/15/11	3/1/14	1/15/11	5/1/14	5/1/11	1/1/14	NA	9/15/14	
TMP10-620	Project Type	Construction			Current	6/1/09	1/15/11	6/1/14	1/15/11	5/1/14	5/1/11	1/1/14	NA	9/15/14	
(FFY 2014)	Design Process	Locally Funded	Schedule Status		Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**None**
	Environmental Clearance	Group 2, Categorical Exclusion			Months Behind	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	3,857,670			Expected Date	6/1/09	1/15/11	6/1/14	1/15/11	5/1/14	5/1/11	1/1/14	NA	9/15/14	
	Total	5,143,560			**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category			Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Tempe TMP14-101 (FFY 2014)	Location	Rural Road to Kiwanis Park	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**The sponsoring agency indicates that the project will authorize in FY 2014**
	Work	Construct multiuse path	Agency Schedule	Initial	9/1/13	5/1/14	7/1/14	12/1/13	7/1/14	12/1/13	7/1/14	NA	9/30/14	
	Project Type	Construction		Current	9/1/13	5/1/14	7/1/14	12/1/13	7/1/14	12/1/13	7/1/14	NA	9/30/14	
	Design Process	Locally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	1,323,000		Expected Date	9/1/13	5/1/14	7/1/14	12/1/13	7/1/14	12/1/13	7/1/14	NA	9/30/14	
	Total	1,501,400		**Meets Target**	**NA**	✗	✓	✗	✓	✗	✓	✓	✓	
Tempe TMP14-102 (FFY 2015)	Location	Corridors of Elliot/Guadalupe/ Warner	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Construct/Install fiber optic communication to the signals and install wireless radios with CCTVs monitors	Agency Schedule	Initial	12/2/13	5/31/14	6/30/15	5/31/14	12/1/14	NA	11/1/14	NA	9/1/15	
	Project Type	Construction		Current	12/2/13	3/4/14	6/29/15	6/27/14	6/29/15	6/2/14	6/29/15	NA	9/1/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	1.0	8.0	0.0	9.0	0.0	0.0	
	CMAQ	383,333		Expected Date	12/2/13	3/4/14	6/29/15	6/27/14	6/29/15	6/2/14	6/29/15	NA	9/1/15	
	Total	547,619		**Meets Target**	**NA**	✓	✓	✗	✓	✓	✓	✓	✓	
Tempe TMP15-461 (FFY 2015)	Location	City of Tempe (Various)	Target Dates			6/1/14	6/30/15	6/1/14	6/30/15	6/1/14	6/30/15	NA	9/30/15	**None**
	Work	Fiber Optic Interconnection at Broadway/I-10 and Rio Salado/Loop 101	Agency Schedule	Initial	12/2/13	3/4/14	6/29/15	6/27/14	6/29/15	6/2/14	6/29/15	NA	9/1/15	
	Project Type	Construction		Current	12/2/13	3/4/14	6/29/15	6/27/14	6/29/15	6/2/14	6/29/15	NA	9/1/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion		Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CMAQ	287,751		Expected Date	12/2/13	3/4/14	6/29/15	6/27/14	6/29/15	6/2/14	6/29/15	NA	9/1/15	
	Total	305,145		**Meets Target**	**NA**	✓	✓	✗	✓	✓	✓	✓	✓	

Project Status Report (Sorted by Agency, Year and Project Type)

Project Information			Project Scheduling Information										Notes
			Category		Design			Environmental		Right-of-Way		IGA Approved	FHWA Author-ization	
					Start	60% Plans Started	PS&E Completed	Tech Docs Started	Clearance Approved	Inventory Started	Clearance Approved			
Wickenburg **WKN10-801** **(FFY 2014)**	Location	US93 Bypass at Hassayampa River	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/13	NA	9/30/14	**Draft 60 percent plans have been developed for the project**
	Work	Construct Wickenburg Pedestrian and Bicycle Bridge	Agency Schedule	Initial	NA	6/24/11	6/30/14	3/31/11	8/31/12	6/11/12	6/30/13	10/1/13	9/15/14	
	Project Type	Construction	Agency Schedule	Current	NA	6/24/11	6/30/14	3/31/11	8/31/12	6/11/12	6/30/13	10/1/13	9/15/14	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion	Schedule Status	Months Behind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	STP-TEA	483,279	Schedule Status	Expected Date	NA	6/24/11	6/30/14	3/31/11	8/31/12	6/11/12	6/30/13	10/1/13	9/15/14	
	Total	512,491	Schedule Status	**Meets Target**	**NA**	✓	✓	✓	✓	✓	✓	✓	✓	
Youngtown **YTN14-101** **(FFY 2014)**	Location	Grand Avenue and 111th Avenue to Olive Avenue and Agua Fria Parkway (Approximately 117th Avenue).	Target Dates			6/1/13	6/30/14	6/1/13	6/30/14	6/1/13	6/30/14	NA	9/30/14	**The Agency has indicated that it will defer the prject**
	Work	Multiuse Path and Peoria Ave straightening to accomodate multiuse path: Construction phase	Agency Schedule	Initial	NA	4/20/12	6/30/14	12/1/13	3/30/14	3/30/14	6/30/14	6/30/14	9/30/14	
	Project Type	Construction	Agency Schedule	Current	NA	4/20/13	7/30/14	4/20/13	5/15/14	NA	8/15/14	2/1/15	5/1/15	
	Design Process	Federally Funded	Schedule Status	Months Ahead	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	
	Environmental Clearance	Group 2, Categorical Exclusion	Schedule Status	Months Behind	0.0	13.0	1.0	0.0	2.0	0.0	2.0	8.0	8.0	
	CMAQ	292,800	Schedule Status	Expected Date	NA	4/20/13	7/30/14	4/20/13	5/15/14	NA	8/15/14	2/1/15	5/1/15	
	Total	450,000	Schedule Status	**Meets Target**	**NA**	✓	✗	✓	✓	✓	✗	✓	✗	

Agenda Item #6C

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
FY 2014 Road Safety Assessments and Project Assessments at Intersections and Corridors

SUMMARY:
Each year more than 70,000 crashes occur on the local and arterial street system in the MAG region. About half of these crashes occur at intersections. They result in a total of nearly 20,000 injuries and fatalities each year. The MAG Transportation Safety Committee has recommended Road Safety Assessments (RSAs) as a regional road safety initiative to help identify and address safety issues at locations with characteristics of high crash risk. The FY 2014 MAG Unified Work Program and Annual Budget, approved by the MAG Regional Council in May 2013, includes $300,000 for the Road Safety Assessment (RSA) program. An additional $146,322 is also available from funds approved for the RSA program in the FY 2013 MAG Unified Work Program and Annual Budget, approved by the MAG Regional Council in May 2012.

The 2005 MAG Strategic Transportation Safety Plan recommended the introduction of RSAs in the region. The Arizona Department of Transportation (ADOT) established an RSA program in 2008 and began performing RSAs across the state, including a few in the MAG region. In 2011, MAG developed the RSA program in partnership with ADOT and the Federal Highway Administration.

Since October 2011, 26 RSAs have been successfully completed by MAG utilizing qualified on-call consultants. In 2013, the Transportation Safety Committee recommended expanding the RSA program to include development of Project Assessments (PAs), based on the recommendations from a previous RSA or other similar study. The PAs would further analyze recommended roadway safety improvements and develop design documents up to 15 percent completion. Having these design documents completed would help these projects to effectively compete for Highway Safety Improvement Program or other safety funds for completion of the remaining design tasks and construction of the project.

A total of $446,322 is currently available from the FY 2014 MAG Work Program for conducting Road Safety and Project Assessments, utilizing qualified on-call consultants. A total of eleven (11) RSA sites and development of PA's at three (3) sites have been recommended as FY 2014 projects based on the response to a MAG call for projects announced in November 2013. This includes one RSA in the City of Avondale that was recommended in FY 2013 but could not be performed due to road construction activity at the site. The RSAs and PAs will be carried out by ten (10) qualified MAG on-call consultants that are currently under contract with MAG.

PUBLIC INPUT:
None has been received.

PROS & CONS:
PROS: The RSAs provide recommendations in a final report that can lead to safety improvements that range from low cost improvements to major infrastructure changes. Projects that involve major infrastructure changes would require additional investigations such as Project Assessments or

Design Concept Reports. Local agencies could also utilize RSA findings to support their applications to ADOT for statewide Highway Safety Improvement Program funds. RSA's are considered a proactive step toward addressing road safety issues. Inclusion of the development of PA's in this program takes the recommendations of an RSA to the next step. Development of PA's will provide the minimum amount of further investigation necessary to proceed with seeking funding or programming roadway safety improvements.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The RSAs are performed by a multi-disciplinary team that consists of MAG on-call consultant staff, MAG staff and volunteers from local agencies. The program relies on the participation of volunteers with law enforcement and traffic safety expertise. The RSA program is helping develop RSA expertise among local agency staff. The development of PA's is a new project activity for MAG and will be closely coordinated with the Arizona DOT.

POLICY: Upon completion of each RSA, a final report is provided by MAG to each affected local agency with the recommendation that the agency prepare and keep on file a response to each recommendation in the RSA final report along with a planned timeline for implementation and potential funding sources. The documents generated from a PA will provide more detailed information and refinement of recommendations of an RSA or other study conducted by the local agency for prioritization and planning purposes and possible generation of infrastructure projects in the local agency capital improvement program.

ACTION NEEDED:

Recommend approval of the list of eleven (11) Road Safety Assessments and three (3) Project Assessments utilizing MAG on-call consultants at an estimated total cost of $440,000.

PRIOR COMMITTEE ACTIONS:

On January 29, 2014, the MAG Transportation Review Committee recommended approval of the list of eleven (11) RSAs and three (3) PAs.

MEMBERS ATTENDING

Avondale: David Fitzhugh, Chair
Phoenix: Rick Naimark, Vice Chair
ADOT: Kwi-Sung Kang for Floyd Roehrich
* Buckeye: Scott Lowe
* Cave Creek: Ian Cordwell
Chandler:Dan Cook
El Mirage: Bryce Christo for Jorge Gastelum
* Fountain Hills: Randy Harrel
Gila Bend: Ernie Rubi
Gila River: Tim Oliver
Gilbert: Leah Hubbard
Glendale: Debbie Albert
Goodyear: Cato Esquivel
Litchfield Park: Woody Scoutten
Maricopa (City): David Maestas for Paul Jepson
Maricopa County: John Hauskins
Mesa: Jeff Martin for Scott Butler
* Paradise Valley: Jim Shano
Peoria: Andrew Granger
Queen Creek: Mohamed Youssef
Scottsdale: Paul Basha
Surprise: Dick McKinley
Tempe: Shelly Seyler
Valley Metro: John Farry
* Wickenburg: Vince Lorefice
Youngtown: Grant Anderson

EX-OFFICIO MEMBERS ATTENDING

* Street Committee: Charles Andrews, Avondale
* Bicycle/Pedestrian Committee: Denise Lacey, Maricopa County
* ITS Committee: Catherine Hollow, Tempe
FHWA: Ed Stillings
* Transportation Safety Committee: Renate Ehm, City of Mesa

* Those members neither present nor represented by proxy.
\# Participated by telephone conference call. + Participated by videoconference call.

On January 7, 2014, the MAG Transportation Safety Committee reviewed the list of candidate RSA and PA project applications and recommended eleven (11) RSAs and three (3) PAs projects with an estimated total cost of $440,000. One proposed RSA was withdrawn by the City of Phoenix. The recommended list of projects includes one RSA in the City of Avondale that was deferred to FY2014 from FY2013.

1) One intersection RSA project deferred from FY 2013, and one intersection PA project in the City of Avondale (listed at #1 and 2 in the attached handout) - estimated at $30,000 each,
2) One intersection RSA projects in the Town of Gilbert (listed as #3) - estimated at $30,000,
3) Two intersection RSA projects in the City of Glendale (listed as #4 and 5) - estimated at $30,000 each,
4) One corridor RSA project in the Town of Guadalupe (listed as #6) - estimated at $50,000,
5) Four intersection RSA projects and one intersection PA in the City of Phoenix (listed as #7,8,9,11 and 12 with #10 being removed for consideration by Phoenix) - estimated at $30,000 each,
6) One intersection PA in the City of Tempe (listed as #13) - estimated at $30,000,
7) Two RSAs in Tempe on the light rail route requested by Valley Metro (listed as # 14 and 15) - estimated at $30,000 each.

The measure was voted on at the January 7, 2014, special meeting and passed unanimously.

MEMBERS ATTENDING

Mesa: Renate Ehm (Chair)
AAA Arizona: Michael Duhame for Linda Gorman
AARP: Tom Burch
ADOT: Kohinoor Kar
Apache Junction: Shane Kiesow
Avondale: Dana Chamberlin
\+ Buckeye: David Gue for Thomas Chlebanowski
Chandler: Martin Johnson
El Mirage: Bob Senita
FHWA: Kelly LaRosa
* Gilbert: Erik Guderian for Mike Gillespie
Glendale: Kiran Guntupalli for Chris Lemka
* GOHS: Alberto Gutier
\+ Goodyear: Hugh Bigalk
Maricopa County: Mazen Muradvich for Nicolaas Swart
* Paradise Valley: Jeremy Knapp
\+ Peoria: Mannar Tamirisa for Jamal Rahimi
Phoenix: Kerry Wilcoxon
* Scottsdale: George Williams
\+ Surprise: Nuning Lemka for Jason Mahkovtz
Tempe: Julian Dresang
Valley Metro: Sam Diggins for Gardner Tabon

* Those members neither present nor represented by proxy.
\+ Participated by telephone conference call. # Participated by videoconference call.

CONTACT PERSON:

Sarath Joshua, MAG, (602) 254-6300.

NOTE: MAG Intersection Rank for Crash Risk is based on crash statistics for the period 2010 - 2012

Summary of Road Safety Assessment/Project Assessment Applications 2014

	Agency	MAG Rank	Intersection Cross Streets	Crash History (2010-2012)			Project Type	Estimated RSA/PA Cost
				Fatal Crashes	Injury Crashes	All Crashes		
1	Avondale	756	Dysart Rd & Van Buren Rd.	0	15	66	**RSA**	$ 30,000
2	Avondale	397	Rancho Santa Fe Boulevard & Dysart Rd.	0	2	72	**PA**	$ 30,000
3	Gilbert	37	Val Vista Drive & Elliot Road	1	4	59	**RSA**	$ 30,000
4	Glendale	11	59th Avenue & Thunderbird Road	0	5	84	**RSA**	$ 30,000
5	Glendale	10	67th Avenue & Glendale Avenue	0	4	50	**RSA**	$ 30,000
6	Guadalupe	563	Avenida del Yaqui from Baseline to Mineral Road	0	6	57	**RSA**	$ 50,000
7	Phoenix	8	Thomas Road & 67th Avenue	0	5	118	**PA**	$ 30,000
8	Phoenix	24	Baseline Road & 51st Avenue	0	6	92	**RSA**	$ 30,000
9	Phoenix	17	Greenway Road & 32nd Street	2	1	99	**RSA**	$ 30,000
~~10~~	~~Phoenix~~	~~23~~	~~Indian School Road & 19th Avenue~~	~~1~~	~~3~~	~~88~~	~~**RSA**~~	~~$ 30,000~~
11	Phoenix	6	McDowell Road & 44th Street	1	2	113	**RSA**	$ 30,000
12	Phoenix	27	Thunderbird Road & I-17 Interchange	0	4	150	**RSA**	$ 30,000
13	Tempe	2	Rural Road & Southern Avenue	1	7	118	**PA**	$ 30,000
14	Valley Metro	399	Apache Boulevard & McClintock	0	3	78	**RSA**	$ 30,000
15	Valley Metro	1115	Apache Boulevard & Price Freeway Interchange	0	3	59	**RSA**	$ 30,000

Estimated Total Cost **$ 440,000**

Available Funds **$ 446,322**

Agenda Item #6D

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Amendment to the FY 2014 MAG Unified Planning Work Program for Additional Printing of the MAG Regional Bikeways Map and Purchase of Camera for Digital Media for the On-Line Bikeways Map

SUMMARY:
In May 2012, the Regional Council approved the Fiscal Year (FY) 2013 MAG Unified Planning Work Program and Annual Budget, which included printing 100,000 copies of the MAG Regional Bikeways map. In August 2012, 100,000 maps were printed, of which 61,250 maps were directly delivered to MAG member agencies, and the remainder distributed by MAG per other requests. The Coalition of Arizona Bicyclists works with MAG to deliver Regional Bikeways maps to all the bike shops in the region. The Regional Bikeways map is very popular with both tourists and residents. As of January 2014, MAG has approximately 6,250 maps left, having distributed approximately 2,500 maps per month. It is anticipated that the next update to the printed map will occur in 2016 illustrating new projects that will be constructed in the next few years. In order to meet the demand for printed bike maps between now and 2016, MAG is requesting another print run of 50,000 maps at a cost not to exceed $10,000.

In addition, in an effort to enhance the MAG On-line Bikeways map, MAG is requesting to purchase a GoProHERO3+ camera. The camera will allow for photos, videos, audio recording and wayfinding instructions to be imbedded in the On-line Bikeways map. The initial phase of the digital media collection will focus on a representative sample of on-street and off-street bikeways throughout the region. MAG staff will work with MAG member agencies to complete the initial phase through the MAG Bicycle and Pedestrian Committee. The cost for the camera equipment and the accident protection plan is approximately $550.

PUBLIC INPUT:
No public input has been received concerning this specific request.

PROS & CONS:
PROS: The increased funds will be used to print 50,000 MAG Regional Bikeway maps. This map promotes economic development as tourists come to this region for its multitude of outdoor activities. The camera will enable MAG to create digital media files enhancing the information available for all users.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: The additional Regional Bikeways maps will provide information on the 3,520 miles of bicycle facilities in the Valley for both residents and tourists. The camera will allow the incorporation of digital media to enhance the effectiveness of the On-line Bikeways map.

POLICY: None.

ACTION NEEDED:
Recommend approval to amend the FY 2014 MAG Unified Planning Work Program to include printing costs for 50,000 MAG Regional Bikeways maps and the equipment purchase of a GoProHERO3+ camera for an amount not to exceed $10,550.

PRIOR COMMITTEE ACTIONS:
None.

CONTACT PERSON:
Alex Oreschak, MAG, (602) 254-6300.

Agenda Item #6E

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Programming of PM-2.5 Paving Unpaved Road Projects for MAG Federal Congestion Mitigation and Air Quality Improvement Funding in the FY 2014-2018 MAG Transportation Improvement Program

SUMMARY:
The MAG Regional Transportation Plan (RTP) allocates MAG federal CMAQ funds to specific modes, and in some cases, identifies specific projects for the funds. The proposed PM-2.5 Paving Unpaved Road Projects for years 2014, 2015, 2016, and 2017 is $3,360,860 including carry forward from Fiscal Year (FY) 2013. MAG relies on its competitive application process to program these funds. Applications were made available October 23, 2013, with a due date of November 22, 2013. There were three complete project applications submitted on time, and one agency requested project funding for design. Additionally during this open call for projects, FY 2014 PM-10 Street Sweeper applications were requested regionwide and are listed as a separate agenda item.

On December 10, 2013, and January 14, 2014, the Street Committee conducted technical evaluations and review of the project applications. On January 14th the Street Committee reviewed the programming scenario and recommended the projects. On January 23, 2014, the Air Quality Technical Advisory Committee made a recommendation on the proposed PM-2.5 Paving Unpaved Road Projects for FY 2014, 2015, 2016, and 2017 CMAQ funding to forward to the MAG Transportation Review Committee. On January 30, 2014, the Transportation Review Committee recommended the projects and the suggested programming.

The attachments include a memorandum from the Chair of the MAG Air Quality Technical Advisory Committee that details the evaluation process used for the list of projects, and the project costs with recommended programming for paving projects. The current estimated level of funding, funds all three paving projects.

PUBLIC INPUT:
None.

PROS & CONS:
PROS: Approval of the funding and programming for these projects will enable their inclusion in the Transportation Improvement Program (TIP) and will allow jurisdictions to develop their projects in a timely and integrated manner.

CONS: If these projects are not approved, the time to develop projects will be limited. Timely development of projects is needed to ensure that MAG federal funds are fully utilized each year, and to enhance opportunities for additional federal funds if available.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The Paving Unpaved Road Projects will reduce particulate matter or emissions near air quality monitors in the West Central Pinal PM-2.5 Nonattainment Area and West Pinal PM-10 Nonattainment area. Projects that wish to utilize transportation federal funds need to be shown in the TIP in the year that they expect to commence and may need to undergo an air quality conformity analysis or consultation. As the FY 2014-2018 TIP has been submitted for federal final approval, in the event of delay, staff is requesting amendments to the current federally approved FY 2011-2015 TIP, and to the FY 2014-2018 TIP pending federal approval. If this item is approved, this item will be included in the first request to modify the FY 2014-2018 MAG Transportation Improvement Program submitted to ADOT.

POLICY: The MAG federally funded program has been developed in accord with federal regulations and MAG policies. This process follows the MAG Federal Fund Programming Principles approved by the MAG Regional Council in October 2011. Air Quality Emission Reduction scores were presented at the modal committees and the program is fiscally balanced. The funding for the projects is based on a reasonable expectation that MAP-21 will be continued and/or extended through Federal Fiscal Year 2017, or that another surface transportation authorization will be enacted that continues the CMAQ program eligible activities.

ACTION NEEDED:

Recommend approval of the list of Fiscal Year (FY) 2014, 2015, 2016, and 2017 PM-2.5 Congestion Mitigation and Air Quality Improvement funded Paving Unpaved Road Projects to be added to the FY 2011-2015 MAG Transportation Improvement Program, the 2035 Regional Transportation Plan, and the FY 2014-2018 MAG Transportation Improvement Program as appropriate.

PRIOR COMMITTEE ACTIONS:

This item was presented at the January 30, 2014, Transportation Review Committee meeting. The Committee recommended approval.

MEMBERS ATTENDING

Avondale: David Fitzhugh, Chair
Phoenix: Rick Naimark, Vice Chair
ADOT: Kwi-Sung Kang for Floyd Roehrich
* Buckeye: Scott Lowe
* Cave Creek: Ian Cordwell
Chandler: Dan Cook
El Mirage: Bryce Christo for Jorge Gastelum
* Fountain Hills: Randy Harrel
Gila Bend: Ernie Rubi
Gila River: Tim Oliver
Gilbert: Leah Hubbard
Glendale: Debbie Albert
Goodyear: Cato Esquivel
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Maricopa County: John Hauskins
Mesa: Jeff Martin for Scott Butler
* Paradise Valley: Jim Shano
Peoria: Andrew Granger
Queen Creek: Mohamed Youssef
Scottsdale: Paul Basha
Surprise: Dick McKinley
Tempe: Shelly Seyler
Valley Metro: John Farry
\# Wickenburg: Vince Lorefice
Youngtown: Grant Anderson

EX-OFFICIO MEMBERS ATTENDING

* Street Committee: Charles Andrews, Avondale
* ITS Committee: Catherine Hollow, Tempe
* FHWA: Ed Stillings
* Bicycle/Pedestrian Committee: Denise Lacey, Maricopa County
* Transportation Safety Committee: Renate Ehm, Mesa

* Members neither present nor represented by proxy. + Attended by Videoconference
# Attended by Audioconference

Air Quality Technical Advisory Committee (AQTAC): On January 22, 2014, the AQTAC recommended forwarding a ranked list of paving projects to the MAG Transportation Review Committee.

MEMBERS ATTENDING

Philip McNeely, Phoenix, Chairman
William Mattingly, Peoria, Vice Chair
* Daniel Culotta, Avondale
John Minear, Buckeye
Jim Weiss, Chandler
Jamie McCullough, El Mirage
* Jessica Koberna, Gilbert
Megan Sheldon, Glendale
* Cato Esquivel, Goodyear
Kazi Haque, Maricopa
Greg Edwards for Scott Bouchie, Mesa
Tim Conner, Scottsdale
Antonio DeLaCruz, Surprise
Oddvar Tveit, Tempe
* Youngtown
Ramona Simpson, Queen Creek
Walter Bouchard, American Lung Association of Arizona
Kristin Watt, Salt River Project
Rebecca Hudson, Southwest Gas Corporation
Ann Carlton, APS
Gina Grey, Western States Petroleum Association
Robert Forrest, Valley Metro/RPTA
* Dave Berry, Arizona Motor Transport Association
Jeannette Fish, Maricopa County Farm Bureau
Steve Trussell, Arizona Rock Products Association
* Claudia Whitehead, Greater Phoenix Chamber of Commerce
* Amanda McGennis, Associated General Contractors
* Spencer Kamps, Homebuilders Association of Central Arizona
# Mannie Carpenter, Valley Forward
# Kai Umeda, University of Arizona Cooperative Extension
Joonwon Joo for Beverly Chenausky, Arizona Department of Transportation
Diane Arnst, Arizona Department of Environmental Quality
* Environmental Protection Agency
Thomas Ekren, Maricopa County Air Quality Department
Scott DiBiase, Pinal County
Michelle Wilson, Arizona Department of Weights and Measures
Ed Stillings, Federal Highway Administration
* Judi Nelson, Arizona State University
Stan Belone, Salt River Pima-Maricopa Indian Community

* Members neither present nor represented by proxy.
# Participated via telephone conference call.
+ Participated via video conference call.

MAG Street Committee: The MAG Street Committee met on January 14, 2014, and completed the review of paving projects and street sweeper applications submitted for CMAQ funding. The committee recommended the PM-2.5 Paving Unpaved Road projects.

MEMBERS ATTENDING

Dana Owsiany, Phoenix, Chair
Patrick Stone for Steve Beasley ADOT
Charles Andrews, Avondale
* Jose Heredia, Buckeye
Dan Cook, Chandler
Jorge Gastelum, El Mirage
* Aryan Lirange, FHWA
Wayne Costa, Florence
Tim Oliver, Gila River Indian Community
* Michael Gillespie, Gilbert
Bob Darr, Glendale
Luke Albert for Hugh Bigalk, Goodyear
David Gu for Darryl Crossman, Litchfield Park
Bill Fay, Maricopa City
* Jack M. Lorbeer, Maricopa County
Maria Angelica Deeb, Mesa
* James Shano, Paradise Valley
Scott Bender, Pinal County
Dab Nissen for Ben Wilson, Peoria
Janet Martin, Queen Creek
* Elaine Cabrera, Salt River Pima-Maricopa Indian Community
Phil Kercher, Scottsdale
Suneel Garg, Surprise
Isaac Chivera, Tempe
* Jason Earp, Tolleson
Grant Anderson, Youngtown

* Members neither present nor represented by Proxy
# Participated via telephone conference call.
+ Participated via video conference call.

CONTACT PERSON:
Teri Kennedy or Stephen Tate, (602) 254-6300

MARICOPA ASSOCIATION of GOVERNMENTS
302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003
Phone (602) 254-6300 ▲ FAX (602) 254-6490
E-mail: mag@azmag.gov ▲ Web site: www.azmag.gov

January 24, 2014

TO: Members of the MAG Transportation Review Committee

FROM: Philip McNeely, Phoenix, Chair of the MAG Air Quality Technical Advisory Committee

SUBJECT: MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION ON PROPOSED PAVING UNPAVED ROAD PROJECTS IN THE PINAL PM-2.5 NONATTAINMENT AREA FOR FISCAL YEARS 2014, 2015, 2016, AND 2017 CMAQ FUNDING

On January 23, 2014, the MAG Air Quality Technical Advisory Committee made a recommendation to forward the Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for FY 2014, 2015, 2016, and 2017 CMAQ funding to the MAG Transportation Review Committee (see attachment). Only one project was submitted for each year and funding is available to program all four projects. It is anticipated that the MAG Transportation Review Committee may make a recommendation to amend these projects into the FY 2014-2018 MAG Transportation Improvement Program.

The Moving Ahead for Progress in the 21st Century (MAP-21) legislation calls for States that have PM-2.5 nonattainment and maintenance areas to use a portion of its CMAQ funds for projects that reduce PM-2.5 in those areas. The Arizona Department of Transportation has allocated approximately $672,000 in PM-2.5 CMAQ funding to MAG for programming projects that reduce PM-2.5 in portions of the Pinal PM-2.5 nonattainment area located within the planning boundaries of both MAG and the Sun Corridor Metropolitan Planning Organization. Jurisdictions in the Pinal PM-2.5 nonattainment area that could apply included the City of Maricopa and Pinal County as well as Pinal County as the lead agency for the City of Casa Grande. In fiscal years 2014-2017, $3.36 million in CMAQ is estimated to be available. The estimated CMAQ amount is subject to change based on final funding levels from MAP-21. Project applications were due by November 22, 2013.

On December 10, 2013, the MAG Street Committee conducted a review of the applications for the Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for FY 2014, 2015, 2016, and 2017 CMAQ funding. On January 14, 2014, the Street Committee also considered the applications.

MAG staff conducted an evaluation of the proposed projects, including any revised information from the Street Committee, for the estimated emission reductions and corresponding cost-effectiveness, based on the September 30, 2011 CMAQ Methodologies. Federal CMAQ guidance requires that the estimated emission reductions for each project submitted for CMAQ funding be considered during project selection.

The estimated emission reductions and cost-effectiveness of the proposed fiscal year 2014, 2015, 2016, and 2017 Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for each funding year are provided in the attachment. In total, four Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area requesting approximately $3.33 million in CMAQ funds were evaluated.

If you have any questions, please contact Dean Giles, MAG, at (602) 254-6300.

Attachment

JANUARY 23, 2014 MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION

Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2014 CMAQ Funding Listed in Order of Cost-Effectiveness
$1,344,000 available in FY 2014 (with FY 2013 Carryforward)

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness ($/met.ton)	CMAQ Funds Requested
Pinal County	Barnes Rd. from White & Parker Rd. to Fuqua Rd and Fuqua Rd. from Barnes Rd. to Lealand Rd.	Design Pave Dirt Road	2014	2.5	0.00	0.00	276.17	276.17	$1,083	$264,040
									Subtotal	**$264,040**
									Amount Available	**$1,344,000**
									Balance	**$1,079,960**

Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2015 CMAQ Funding Listed in Order of Cost-Effectiveness
$672,000 available in FY 2015

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness ($/met.ton)	CMAQ Funds Requested
City of Maricopa	Hartman Rd. from Maricopa-Casa Grande Hwy. to 1.5 miles north	Construct Pave Dirt Road	2015	1.5	0.00	0.00	80.16	80.16	$2,122	$529,522
									Subtotal	**$529,522**
									Amount Available	**$672,000**
									Balance	**$142,478**

Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2016 CMAQ Funding Listed in Order of Cost-Effectiveness
$672,000 available in FY 2016

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness ($/met.ton)	CMAQ Funds Requested
Pinal County	Barnes Rd. from White & Parker Rd. to Fuqua Rd and Fuqua Rd. from Barnes Rd. to Lealand Rd.	Construct Pave Dirt Road	2016	2.5	0.00	0.00	276.17	276.17	$1,083	$1,360,119
									Subtotal	**$1,360,119**
									Amount Available	**$672,000**
									Balance	**-$688,119**

Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2017 CMAQ Funding Listed in Order of Cost-Effectiveness
$672,000 available in FY 2017

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness ($/met.ton)	CMAQ Funds Requested
Pinal County - City of Casa Grande	S. Midway Rd. from W. Clayton Rd. to Casa Grande city limits and from Gila Bend Hwy. to W. Clayton Rd.	Construct Pave Dirt Road	2017	1.5	0.00	0.00	18.38	18.38	$11,808	$1,178,750
									Subtotal	**$1,178,750**
									Amount Available	**$672,000**
									Balance	**-$506,750**

Estimated Programming Costs for PM 2.5 Area Paving Projects

CMAQ PM2.5 Paving COSTS					
Work Phases	**2014**	**2015**	**2016**	**2017**	**Grand Total**
11. Design	264,040	-			264,040
12. Right of way and Utilities		-			-
13. Construction		529,522	1,360,119	1,178,750	3,068,391
Grand Total	**264,040**	**529,522**	**1,360,119**	**1,178,750**	**3,332,431**

Scenario A: Recommened Programming for PM-2.5 Paving of Unpaved Dirt Roads

Estimates	**2014**	**2015**	**2016**	**2017**		**2018**
Carry forward	672,136	1,080,232	1,222,846	534,863		28,249
Revenues/Apportionments	672,136	672,136	672,136	672,136		672,136
Costs	*264,040*	*529,522*	*1,360,119*	*1,178,750*		
Balance	**1,080,232**	**1,222,846**	**534,863**	**28,249**	**-**	**700,385**

Agenda Item #6F

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Project Changes - Amendment and Administrative Modification to the FY 2014-2018 MAG Transportation Improvement Program, the Regional Transportation Plan, and the FY 2011-2015 Transportation Improvement Program

SUMMARY:
On January 28, 2014, the MAG Regional Council approved the MAG Transportation Alternatives program ranked order of projects (for fiscal years 2015-2017), the Fiscal Year (FY) 2014-2018 MAG Transportation Improvement Program (TIP), and the Regional Transportation Plan (RTP). Since then, member agencies have requested general project changes. Additionally, the detailed listing of work phases for the Transportation Alternatives program, and the detailed work phase listings of the proposed PM-2.5 Paving Unpaved Road Projects are included in Table B.

PUBLIC INPUT:
None has been received.

PROS & CONS:
PROS: Approval will allow the projects to proceed in a timely manner.

CONS: There is no guarantee that sufficient funds will be available in the following fiscal year to cover any or all of the deferred projects should congress fail to authorize a funding level of obligation authority that can meet programming levels.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: Projects that wish to utilize transportation federal funds need to be shown in the TIP in the year that they expect to commence and may need to undergo an air quality conformity analysis or consultation. As the FY 2014-2018 TIP has been submitted for federal final approval, in the event of delay, staff is requesting amendments to the current federally approved FY 2011-2015 TIP, and to the FY 2014-2018 TIP pending federal approval. If this item is approved, this item will be included in the first request to modify the FY 2014-2018 MAG Transportation Improvement Program submitted to ADOT.

POLICY: This amendment and administrative modification request is in accordance with MAG guidelines.

ACTION NEEDED:
Recommend approval of amendments and administrative modifications to the FY 2014-2018 Transportation Improvement Program, the Regional Transportation Plan, and the FY 2011-2015 Transportation Improvement Program as appropriate.

PRIOR COMMITTEE ACTIONS:

The ranked list of projects for Transportation Alternatives funding for FY 2015-2017 was approved on January 29, 2014, by the Regional Council.

MEMBERS ATTENDING

Mayor Scott Smith, Mesa, Chair
Mayor Michael LeVault, Youngtown, Vice Chair
Vice Mayor Robin Barker, Apache Junction
Mayor Marie Lopez Rogers, Avondale
Mayor Jackie Meck, Buckeye
Councilmember Mike Farrar, Carefree
* Councilmember Reginald Monachino, Cave Creek
# Mayor Jay Tibshraeny, Chandler
# Mayor Lana Mook, El Mirage
* Mayor Tom Rankin, Florence
* President Ruben Balderas, Fort McDowell Yavapai Nation
Mayor Linda Kavanagh, Fountain Hills
Mayor Steven Holt, Gila Bend
* Governor Gregory Mendoza, Gila River Indian Community
Mayor John Lewis, Gilbert
Mayor Jerry Weiers, Glendale
Mayor Georgia Lord, Goodyear
Mayor Rebecca Jimenez, Guadalupe
Mayor Thomas Schoaf, Litchfield Park
Mayor Christian Price, City of Maricopa
* Supervisor Steve Chucri, Maricopa County
* Mayor Scott LeMarr, Paradise Valley
Councilmember Cathy Carlat, Peoria
Mayor Greg Stanton, Phoenix
Supervisor Todd House, Pinal County
Mayor Gail Barney, Queen Creek
* President Diane Enos, Salt River Pima-Maricopa Indian Community
Mayor W. J. "Jim" Lane, Scottsdale
Mayor Sharon Wolcott, Surprise
Mayor Mark Mitchell, Tempe
* Mayor Adolfo Gamez, Tolleson
Mayor John Cook, Wickenburg
Victor Flores, State Transportation Board
Joseph La Rue, State Transportation Board
Roc Arnett, Citizens Transportation Oversight Committee

* Those members neither present nor represented by proxy.
# Attended by telephone conference call. + Attended by videoconference

CONTACT PERSON:

Teri Kennedy, Transportation Improvement Program Manager, or Stephen Tate (602) 254-6300.

Maricopa Association of Governments

Table B. Non-ALCP Project Changes, New Transportation Alternatives, and New PM-2.5 Paving Projects to the Fiscal Year 2014-2018 MAG Transportation Improvement Program, and as appropriate to the FY 2011-2015 MAG Transportation Improvement Program

HIGHWAY 1/28/2014

Agency	Section	Year	TIP ID	MAG ID	Location	Work	Miles	Lanes Before	Lanes After	ALI	In ALCP	TRACS	MAG Mode	Funding	Federal	Regional	Local	Total	Note
ADOT	Highway	2016	DOT09-964	2574	10: SR101L (Aqua Fria) to I-17	Uilities Relocation - Construction	9	10	10	------	FLCP	------	Highway	RARF-HURF	$ -	$ 13,400,000	$ -	$ 13,400,000	Amend: Defer project from FY2015 to FY2016
Avondale	Highway	2014	AVN14-401	New	Dysart Rd from Van Buren St to MC85 (Buckeye Rd).	Design ADA compliant sidewalks, ramps, bicycle facilities, pedestrian lighting and rider friendly bus-stop facilities.	1	4	4	------	No	------	Bicycle	Local	$ -	$ -	$ 166,730	$ 166,730	Amend: Add Project to TIP
Avondale	Highway	2015	AVN16-402	New	Dysart Rd from Van Buren St to MC85 (Buckeye Rd).	Install ADA compliant sidewalks, ramps, bicycle facilities, pedestrian lighting and rider friendly bus-stop facilities.	1	4	4	------	No	------	Bicycle	TA-MAG	$ 840,685	$ -	$ 100,816	$ 941,500	Amend: Add Project to TIP
Avondale	Highway	2016	PHX16-410	New	Van Buren St from the Agua Fria River to 113th Ave.	Design multi use path with lighting, landscaping, water fountains, and other pedestrian and bicycle amenities.	1.7	4	4	------	No	------	Bicycle	Local	$ -	$ -	$ 364,965	$ 364,965	Amend: Add Project to TIP
Avondale	Highway	2017	PHX17-406	New	Van Buren St from the Agua Fria River to 113th Ave.	Construct multi use path with lighting, landscaping, water fountains, and other pedestrian and bicycle amenities.	1.7	4	4	------	No	------	Bicycle	TA-MAG	$ 2,011,664	$ -	$ 171,596	$ 2,183,260	Amend: Add Project to TIP
Chandler	Highway	2015	CHN15-401	New	Ray Rd, west of 101L; Price Rd, north of Loop 202 interchange; Frye Rd at Dobson (1/8 mile in each direction on Frye); Frye Road at Alma School (1/8 mile in each direction on Frye); Frye Rd between Paseo Canal and Cooper Rd.	Design portions of three different bike lanes on Ray Rd, Frye Rd, Price Rd and related improvements. Add multi-use path to connect Frye Rd. bike route to Cooper Rd.	0	0	0	------	No	------	Bicycle	Local	$ -	$ -	$ 70,000	$ 70,000	Amend: Add Project to TIP
Chandler	Highway	2016	CHN16-4404	New	Ray Rd, west of 101L; Price Rd, north of Loop 202 interchange; Frye Rd at Dobson (1/8 mile in each direction on Frye); Frye Road at Alma School (1/8 mile in each direction on Frye); Frye Rd between Paseo Canal and Cooper Rd.	Construct portions of three different bike lanes on Ray Rd, Frye Rd, Price Rd and related improvements. Add multi-use path to connect Frye Rd. bike route to Cooper Rd.	0	0	0	------	No	------	Bicycle	TA-MAG	$ 231,290	$ -	$ 28,980	$ 260,270	Amend: Add Project to TIP
Glendale	Highway	2015	GLN15-401	New	65TH Ave and Bethany Home Rd.	Design HAWK related improvements -accessible ramps, countdown pedestrian signals, street lighting, and striping.	0.1	4	4	------	No	------	Pedestrian	Local	$ -	$ -	$ 135,000	$ 135,000	Amend: Add Project to TIP
Glendale	Highway	2017	GLN17-401	New	65TH Ave and Bethany Home Rd.	Construct HAWK related improvements -accessible ramps, countdown pedestrian signals, street lighting, and striping.	0.1	4	4	------	No	------	Pedestrian	TA-MAG	$ 278,110	$ -	$ 22,810	$ 300,920	Amend: Add Project to TIP
Maricopa City	Highway	2014	MAR14-407	New	Hartman Road from Maricopa Casa Grande Highway to approximately 1.5 miles north.	Design Roadway Paving.	1.5	2	2	------	No	------	Street	Local	0	$ -	$ 82,303	$ 82,303	Amend: Add new project to TIP.
Maricopa City	Highway	2015	MAR15-407	New	Hartman Road from Maricopa Casa Grande Highway to approximately 1.5 miles north.	Pave Unpaved Roadway.	1.5	2	2	------	No	------	Street	CMAQ-2.5	$ 529,522	$ -	$ 8,623	$ 538,145	Amend: Add new project to TIP.

Maricopa Association of Governments

Table B. Non-ALCP Project Changes, New Transportation Alternatives, and New PM-2.5 Paving Projects to the Fiscal Year 2014-2018 MAG Transportation Improvement Program, and as appropriate to the FY 2011-2015 MAG Transportation Improvement Program

HIGHWAY 1/28/2014

Agency	Section	Year	TIP ID	MAG ID	Location	Work	Miles	Lanes Before	Lanes After	ALI	In ALCP	TRACS	MAG Mode	Funding	Federal	Regional	Local	Total	Note
Mesa	Highway	2014	MES14-404	New	On the Salt River from 202L Red Mtn Frwy, Mile Post 9 to Dobson Road at Loop 202 Red Mtn Frwy, MP 8.	Design multi use path.	0.67	0	0	------	No	------	Bicycle	Local	$ -	$ -	$ 145,915	$ 145,915	Amend: Add Project to TIP
Mesa	Highway	2016	MES16-404	New	On the Salt River from 202L Red Mtn Frwy, Mile Post 9 to Dobson Road at Loop 202 Red Mtn Frwy, MP 8.	Construct multi use path.	0.67	0	0	------	No	------	Bicycle	TA-MAG	$ 1,585,674	$ -	$ 188,475	$ 1,774,149	Amend: Add Project to TIP
Phoenix	Highway	2015	PHX15-406	New	200' east and west of the Thomas Road and Grand Canal intersection, and approximately 200' north and south along the Grand Canal.	Design and right-of-way for multi use path segments.	0.1	0	0	------	No	------	Bicycle	Local	$ -	$ -	$ 180,000	$ 180,000	Amend: Add Project to TIP
Phoenix	Highway	2016	PHX16-421	New	200' east and west of the Thomas Road and Grand Canal intersection, and approximately 200' north and south along the Grand Canal.	Construct multi use path segments.	0.1	0	0	------	No	------	Bicycle	TA-MAG	$ 320,988	$ -	$ 19,402	$ 340,390	Amend: Add Project to TIP
Phoenix	Highway	2014	PHX16-414D	New	32nd Street Bike Lanes: SR51 to Reach 11.	Design: new bike lanes via pavement stripping improvements.	7	5	4	------	No	-----	Bike/Ped	LOCAL	$ -	$ -	$ 97,493	$ 97,493	Amend: Add design phase into the TIP. Construction project is PHX16-414.
Phoenix	Highway	2014	PHX14-405	New	Desert Foothills Parkway 0.09 mi. north of Thistle Landing Dr; and Central Avenue at Olympic .	Design two HAWKs.	0	0	0	------	No	------	Pedestrian	Local	$ -	$ -	$ 145,000	$ 145,000	Amend: Add Project to TIP
Phoenix	Highway	2015	PHX15-407	New	Desert Foothills Parkway 0.09 mi. north of Thistle Landing Dr; and Central Avenue at Olympic .	Construct two HAWKs.	0	0	0	------	No	------	Pedestrian	TA-MAG	$ 499,771	$ -	$ 75,584	$ 575,355	Amend: Add Project to TIP
Phoenix	Highway	2015	PHX15-405	New	First Street: McKinley St to Moreland St.	Design and right-of-way to reduce roadway width, increase sidewalk width and add parking, landscaping, ramps, benches, trash receptacles, bike racks and pedestrian lighting.	0.5	2	2	------	No	------	Pedestrian	Local	$ -	$ -	$ 715,806	$ 715,806	Amend: Add Project to TIP. The Roosevelt to Moreland and the Roosevelt to McKinley projects have been combined in this TIP listing.
Phoenix	Highway	2016	PHX16-420	New	First Street: McKinley St to Moreland St.	Construct and right-of-way to reduce roadway width, increase sidewalk width and add parking, landscaping, ramps, benches, trash receptacles, bike racks and pedestrian lighting.	0.5	2	2	------	No	------	Pedestrian	TA-MAG	$ 2,008,873	$ -	$ 121,427	$ 2,130,300	Amend: Add Project to TIP. The Roosevelt to Moreland and the Roosevelt to McKinley projects have been combined in this TIP listing.
Phoenix	Highway	2015	PHX15-404	New	Palm Lane 35th to 37th Avenues and 36th Avenue Palm Lane to McDowell Road; HAWK Project 35th Avenue between Palm Lane and Granada Road.	Design and right-of-way to install missing sidewalk on Palm Lane and HAWK pedestrian signal on 35th Ave.	0.25	0	0	------	No	------	Pedestrian	Local	$ -	$ -	$ 185,050	$ 185,050	Amend: Add Project to TIP
Phoenix	Highway	2016	PHX17-409	New	Palm Lane 35th to 37th Avenues and 36th Avenue Palm Lane to McDowell Road; HAWK Project 35th Avenue between Palm Lane and Granada Road.	Install missing sidewalk on Palm Lane and HAWK pedestrian signal on 35th Ave.	0.25	0	0	------	No	------	Pedestrian	TA-MAG	$ 620,447	$ -	$ 37,503	$ 657,950	Amend: Add Project to TIP

Maricopa Association of Governments

Table B. Non-ALCP Project Changes, New Transportation Alternatives, and New PM-2.5 Paving Projects to the Fiscal Year 2014-2018 MAG Transportation Improvement Program, and as appropriate to the FY 2011-2015 MAG Transportation Improvement Program

HIGHWAY 1/28/2014

Agency	Section	Year	TIP ID	MAG ID	Location	Work	Miles	Lanes Before	Lanes After	ALI	In ALCP	TRACS	MAG Mode	Funding	Federal	Regional	Local	Total	Note
Pinal County	Highway	2014	PNL14-409	New	Barnes Road from White & Parker Road to Fuqua Road; Fuqua Road from Barnes Road to Lealand Road.	Design Roadway Paving.	2.5	2	2	------	No	------	Street	Local	$ -	$ -	$ 15,960	$ 15,960	Amend: Add new project to TIP.
Pinal County	Highway	2015	PNL15-409	New	Barnes Road from White & Parker Road to Fuqua Road; Fuqua Road from Barnes Road to Lealand Road.	Pave Unpaved Roadway.	2.5	2	2	------	No	------	Street	CMAQ-2.5	$ 1,360,119	$ -	$ 82,213	$ 1,442,332	Amend: Add new project to TIP.
Pinal County	Highway	2014	PLN14-410	New	Midway Rd from Gila Bend Highway to Casa Grande City limits.	Design Roadway Paving.	1.5	2	2	------	No	------	Street	Local	$ -	$ -	$ 115,000	$ 115,000	Amend: add new project to TIP. This project is sponsored by Pinal County on behalf of the City of Casa Grande. Funding for the local match is being provided by the City.
Pinal County	Highway	2015	PLN15-410	New	Midway Rd from Gila Bend Highway to Casa Grande City limits.	Pave Unpaved Roadway.	1.5	2	2	------	No	------	Street	CMAQ-2.5	$ 1,178,750	$ -	$ 112,200	$ 1,290,950	Amend: add new project to TIP. This project is sponsored by Pinal County on behalf of the City of Casa Grande. Funding for the local match is being provided by the City.
Scottsdale	Highway	2015	SCT15-401	New	Crosscut Canal and alleys, between McDowell Rd and Culver St, west of 66th Pl .	Design multi use path and bridge over the Crosscut Canal and related paths and access from two alleys.	0	0	0	------	No	------	Bicycle	Local	$ -	$ -	$ 122,000	$ 122,000	Amend: Add Project to TIP
Scottsdale	Highway	2016	SCT16-403	New	Crosscut Canal and alleys, between McDowell Rd and Culver St, west of 66th Pl .	Construct multi use path and bridge over the Crosscut Canal and related paths and access from two alleys.	0	0	0	------	No	------	Bicycle	TA-MAG	$ 445,407	$ -	$ 64,923	$ 510,330	Amend: Add Project to TIP
Tempe	Highway	2014	TMP14-402	New	Highline Canal from east of Priest Drive/Avenida Del Yaqui south approximately 2.5 miles.	Design and Right of way for multi use path and associated features such as way-finding signs, lighting, signalized crossings and bike amenities including bike racks.	2.5	0	0	------	No	------	Bicycle	Local	$ -		$ 225,695	$ 225,695	Amend: Add Project to TIP
Tempe	Highway	2016	TMP16-402	New	Highline Canal from east of Priest Drive/Avenida Del Yaqui south approximately 2.5 miles.	Construct multi use path and associated features such as way-finding signs, lighting, signalized crossings and bike amenities including bike racks.	2.5	0	0	------	No	------	Bicycle	TA-MAG	$ 1,366,661	$ -	$ 100,608	$ 1,467,269	Amend: Add Project to TIP
Tempe	Highway	2015	TMP15-402	New	Highline Canal from east of Priest Drive/Avenida Del Yaqui south approximately 2.5 miles.	Design ADA compliant street crossing treatments, bridges, landscaping, lighting and concrete path.	1.5	0	0	------	No	------	Bicycle	Local	$ -	$ -	$ 330,736	$ 330,736	Amend: Add Project to TIP
Tempe	Highway	2017	TMP17-404	New	Highline Canal from Auto Drive in the City of Tempe to Chandler City limits.	Construct ADA compliant street crossing treatments, bridges, landscaping, lighting and concrete path.	1.5	0	0	------	No	------	Bicycle	TA-MAG	$ 1,866,956	$ -	$ 124,849	$ 1,991,805	Amend: Add Project to TIP

Agenda Item #6G

MARICOPA ASSOCIATION OF GOVERNMENTS INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Recommendation of Prioritized List of Proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ Funding

SUMMARY:
The purchase of PM-10 Certified Street Sweepers supports a committed control measure made in regional air quality plans to reduce particulate matter that becomes airborne from vehicle travel on paved roads. The Fiscal Year (FY) 2014 MAG Unified Planning Work Program and Annual Budget and the FY 2014-2018 MAG Transportation Improvement Program contain $900,000 in FY 2014 Congestion Mitigation and Air Quality Improvement (CMAQ) funding to encourage the purchase and utilization of PM-10 Certified Street Sweepers. An additional $330,599 in CMAQ is available from sweeper projects that have been requested to be deleted and from savings on sweepers that have cost less than anticipated, for a total amount of $1,230,599. On January 23, 2014, the MAG Air Quality Technical Advisory Committee recommended a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding.

Since the January 23, 2014 MAG Air Quality Technical Advisory Committee meeting, Tempe informed MAG that it is withdrawing the FY 2014 CMAQ funding application for a street sweeper. The attached prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding and evaluation summary has been revised to reflect the withdrawal of the Tempe project.

Consistent with federal CMAQ guidance, MAG staff evaluated the sweeper projects for estimated emission reductions and cost-effectiveness based on federal funds requested. In addition, the Committee considered other data such as emission reductions, proximity to PM-10 monitors, frequency of sweeping, geographical area to be swept, expansion of areas to be swept, and number of certified street sweepers already purchased.

According to the MAG Federal Fund Programming Guidelines and Procedures, project applications are to be reviewed by the MAG Street Committee. On December 10, 2013, the Street Committee conducted a review of the PM-10 Certified Street Sweeper project applications. On January 14, 2014, the MAG Street Committee also discussed the projects.

PUBLIC INPUT:
An opportunity for public comment was provided at the MAG Air Quality Technical Advisory Committee meeting. No public comments were received.

PROS & CONS:
PROS: The purchase of PM-10 certified street sweeper projects supports the measure "PM-10 Efficient Street Sweepers" in the Revised MAG 1999 Serious Area Particulate Plan for PM-10. In addition, the MAG 2012 Five Percent Plan for PM-10 includes PM-10 Certified Street Sweepers.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The Serious Area PM-10 Plan contains the committed measure "PM-10 Efficient Street Sweepers".

POLICY: Using CMAQ funding for the member agency purchase of PM-10 Certified Street Sweepers will assist in the reduction of PM-10 emissions in the Maricopa County PM-10 Nonattainment Area.

ACTION NEEDED:

Recommend approval of a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding.

PRIOR COMMITTEE ACTIONS:

Air Quality Technical Advisory Committee: On January 23, 2014, the MAG Air Quality Technical Advisory Committee recommended a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding.

MEMBERS ATTENDING

Philip McNeely, Phoenix, Chairman
William Mattingly, Peoria, Vice Chair
* Daniel Culotta, Avondale
John Minear, Buckeye
Jim Weiss, Chandler
Jamie McCullough, El Mirage
* Jessica Koberna, Gilbert
Megan Sheldon, Glendale
* Cato Esquivel, Goodyear
Kazi Haque, Maricopa
Greg Edwards for Scott Bouchie, Mesa
Tim Conner, Scottsdale
Antonio DeLaCruz, Surprise
Oddvar Tveit, Tempe
* Youngtown
Ramona Simpson, Queen Creek
Walter Bouchard, American Lung Association of Arizona
Kristin Watt, Salt River Project
Rebecca Hudson, Southwest Gas Corporation
Ann Carlton, Arizona Public Service Company
Gina Grey, Western States Petroleum Association
Robert Forrest, Valley Metro/RPTA
* Dave Berry, Arizona Motor Transport Association
* Jeannette Fish, Maricopa County Farm Bureau
Steve Trussell, Arizona Rock Products Association
* Claudia Whitehead, Greater Phoenix Chamber of Commerce
* Amanda McGennis, Associated General Contractors
* Spencer Kamps, Homebuilders Association of Central Arizona
# Mannie Carpenter, Valley Forward
# Kai Umeda, University of Arizona Cooperative Extension
Joonwon Joo for Beverly Chenausky, Arizona Department of Transportation
Diane Arnst, Arizona Department of Environmental Quality
* Environmental Protection Agency
Thomas Ekren, Maricopa County Air Quality Department
Scott DiBiase, Pinal County
Michelle Wilson, Arizona Department of Weights and Measures
Ed Stillings, Federal Highway Administration
* Judi Nelson, Arizona State University
Stan Belone, Salt River Pima-Maricopa Indian Community

*Members neither present nor represented by proxy.
#Participated via telephone conference call.
+Participated via video conference call.

Street Committee: On January 14, 2014, the MAG Street Committee reviewed and discussed PM-10 Certified Street Sweeper Project Applications. This item was on the agenda for information and discussion, there was no committee action.

MEMBERS ATTENDING

Dana Owsiany, Phoenix, Chair Woman
Patrick Stone for Steve Beasley ADOT
Charles Andrews, Avondale
* Jose Heredia, Buckeye
Dan Cook, Chandler
Jorge Gastelum, El Mirage
* Aryan Lirange, FHWA
Wayne Costa, Florence
Tim Oliver, Gila River Indian Community
* Michael Gillespie, Gilbert
Bob Darr, Glendale
Luke Albert for Hugh Bigalk, Goodyear
David Gu for Darryl Crossman, Litchfield Park
Bill Fay, Maricopa City
* Jack M. Lorbeer, Maricopa County
Maria Angelica Deeb, Mesa
* James Shano, Paradise Valley
Scott Bender, Pinal County
Dab Nissen for Ben Wilson, Peoria
Janet Martin, Queen Creek
* Elaine Cabrera, Salt River Pima-Maricopa Indian Community
Phil Kercher, Scottsdale
Suneel Garg, Surprise
Isaac Chivera, Tempe
* Jason Earp, Tolleson
Grant Anderson, Youngtown

* Those members neither present nor represented by proxy.
# Participated by telephone conference call.
+ Participated by videoconference call.

Street Committee: On December 10, 2013, the MAG Street Committee reviewed and discussed PM-10 Certified Street Sweeper Project Applications. This item was on the agenda for information and discussion, there was no committee action.

MEMBERS ATTENDING

* Charles Andrews, Avondale, Chairman
Patrick Stone for Steve Beasley ADOT
* Jose Heredia, Buckeye
Dan Cook, Chandler
* Bob Senita, El Mirage
* Wayne Costa, Florence
* Tim Oliver, Gila River Indian Community
Tom Condit for Michael Gillespie, Gilbert
Bob Darr, Glendale
Luke Albert for Hugh Bigalk, Goodyear
Jules Diogenes for Darryl Crossman, Litchfield Park
* David Maestas for Bill Fay, Maricopa City
* Jack M. Lorbeer, Maricopa County
Maria Deeb, Mesa
* James Shano, Paradise Valley
Scott Bender, Pinal County
Ben Wilson, Peoria
Dana Owsiany, Phoenix
Janet Martin for Tracy Coreman, Queen Creek
* Elaine Cabrera, Salt River Pima-Maricopa Indian Community
* Phil Kercher, Scottsdale
Suneel Garg, Surprise
Isaac Chivera, Tempe
* Jason Earp, Tolleson
Grant Anderson, Youngtown

* Members neither present nor represented by Proxy

CONTACT PERSON:
Dean Giles, Air Quality Planning Program Specialist, (602) 254-6300.

February 4, 2014

Revised
MAG Air Quality Technical Advisory Committee Recommendation
Prioritized List of Proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ Funding

$1,230,599 in CMAQ Funding is Available for Sweeper Projects

										Supplemental Information			
Agency	Federal Cost	Local Cost	Total Cost*	Daily Emission Reduction (Kilograms/ day)	Cost-Effectiveness (CMAQ dollar cost per annual metric ton reduced)	The requested certified street sweeper will:				Have local resources been committed for additional staff or equipment to support the sweeper project?		Please indicate in what geographical area(s) the requested certified street sweeper will operate	Number of certified street sweepers owned and operated by your agency. ++
						Replace non-certified sweeper	Expand	Increase Frequency	Replace older certified sweeper	Yes	No		
Phoenix #2 +	$224,193	$13,551	$237,744	124	$708				✔	✔		Area within city bounded by 111th Ave. to 1st Ave., W. Bethany Home Rd. to W. Pecos Rd.	34
El Mirage +	$166,840	$10,085	$176,925	74	$882				✔		✔	Northern Ave. north to Thompson Ranch Rd.; Dysart Rd. to the Agua Fria river bed	2
Queen Creek +	$178,472	$10,788	$189,260	70	$998				✔		✔	Major and minor arterial routes townwide from Power Rd. to Meridian Rd., and from Germann Rd. to Empire Rd.	4
Surprise #2 +	$191,190	$11,557	$202,747	69	$1,082				✔	✔		Citywide	8
Surprise #1 +	$191,190	$11,557	$202,747	69	$1,082				✔	✔		Citywide	8
Phoenix #1 +	$224,193	$13,551	$237,744	62	$1,407				✔		✔	Area within city bounded by 111th Ave. to 1st Ave., W. Bethany Home Rd. to W. Pecos Rd.	34
Goodyear	$229,717	$13,885	$243,602	43	$2,080				✔	✔		Dysart Rd. to Perryville Rd. from Camelback Rd. to Riggs Rd.	4
Subtotal	$1,405,795												
Amount Available	$1,230,599												
Balance	$-175,196												
Pinal County +	$225,784	$13,648	$239,432	20	$4,381	✔					✔	Thompson Rd. to Quail Run Ln.; Bella Vista Rd. to Germann Rd.	3
Florence	$177,496	$10,729	$188,225	7	$10,270	✔	✔	✔			✔	Will operate in an area bounded by Arizona Farms Rd., East-West Hunt Hwy., Felix Rd., and North-South Hunt Hwy.	1
Mesa #1 +	$241,720	$14,611	$256,331	9	$10,967				✔		✔	Price Rd. to Signal Butte Rd. and Baseline Rd. to Thomas Rd.	7
Mesa #2 +	$241,720	$14,611	$256,331	9	$10,967				✔		✔	Price Rd. to Signal Butte Rd. and Baseline Rd. to Thomas Rd.	7
Litchfield Park	$225,516	$13,631	$239,147	7	$12,763		✔	✔		✔		Entire city	1
Total	$2,518,031												

* Total cost for the CMAQ eligible portion of the project, excludes ineligible equipment.
+ Proposed sweeper projects for Phoenix #2, El Mirage, Queen Creek, Surprise #2, Surprise #1, Phoenix #1, Pinal County, Mesa #1, and Mesa #2 indicate sweeping within four miles of a PM-10 monitor.
++ The total number of certified street sweepers owned and operated by the agency, regardless of funding source.
Note: On January 30, 2014, Tempe informed MAG that it is withdrawing the FY 2014 CMAQ funding application for a street sweeper.

Agenda Item #6H

MARICOPA ASSOCIATION OF GOVERNMENTS INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Conformity Consultation

SUMMARY:
The Maricopa Association of Governments is conducting consultation on a conformity assessment for an amendment and administrative modification to the FY 2014-2018 MAG Transportation Improvement Program (TIP). The amendment and administrative modification involve several projects, including the addition of several new Transportation Alternatives Program projects. The amendment includes projects that may be categorized as exempt from conformity determinations. The administrative modification includes minor project revisions that do not require a conformity determination. A description of the projects is provided in the attached interagency consultation memorandum. Comments on the conformity assessment are requested by February 21, 2014.

PUBLIC INPUT:
Copies of the conformity assessment have been distributed for consultation to the Federal Transit Administration, Federal Highway Administration, Arizona Department of Transportation, Arizona Department of Environmental Quality, City of Phoenix Public Transit Department, Valley Metro/RPTA, Maricopa County Air Quality Department, Central Arizona Governments, Pinal County Air Quality Control District, Sun Corridor Metropolitan Planning Organization, U.S. Environmental Protection Agency and other interested parties including members of the public.

PROS & CONS:
PROS: Interagency consultation for the amendment and administrative modification notifies the planning agencies of project modifications to the TIP.

CONS: The review of the conformity assessment requires additional time in the project approval process.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: The amendment and administrative modification may not be considered until the consultation process for the conformity assessment is completed.

POLICY: Federal transportation conformity regulations require interagency consultation on development of the transportation plan, TIP, and associated conformity determinations to include a process involving the Metropolitan Planning Organization, State and local air quality planning agencies, State and local transportation agencies, Environmental Protection Agency, Federal Highway Administration, and the Federal Transit Administration. Consultation on the conformity assessment has been conducted in accordance with federal regulations, MAG Conformity Consultation Processes adopted by the Regional Council in February 1996 and MAG Transportation

Conformity Guidance and Procedures adopted by the Regional Council in March 1996. In addition, federal guidance is followed in response to court rulings regarding transportation conformity.

ACTION NEEDED:
Consultation.

PRIOR COMMITTEE ACTIONS:
None.

CONTACT PERSON:
Dean Giles, Air Quality Planning Program Specialist, (602) 254-6300.

MARICOPA ASSOCIATION of GOVERNMENTS
302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003
Phone (602) 254-6300 ▲ FAX (602) 254-6490
E-mail: mag@azmag.gov ▲ Web site: www.azmag.gov

February 4, 2014

TO: Leslie Rogers, Federal Transit Administration
Karla Petty, Federal Highway Administration
John Halikowski, Arizona Department of Transportation
Henry Darwin, Arizona Department of Environmental Quality
Maria Hyatt, City of Phoenix Public Transit Department
Stephen Banta, Valley Metro/RPTA
William Wiley, Maricopa County Air Quality Department
Kenneth Hall, Central Arizona Governments
Michael Sundblom, Pinal County Air Quality Control District
Duane Eitel, Sun Corridor Metropolitan Planning Organization
Gregory Nudd, U.S. Environmental Protection Agency, Region IX
Other Interested Parties

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: CONSULTATION ON A CONFORMITY ASSESSMENT FOR A PROPOSED AMENDMENT AND ADMINISTRATIVE MODIFICATION TO THE FY 2014-2018 MAG TRANSPORTATION IMPROVEMENT PROGRAM

The Maricopa Association of Governments is conducting consultation on a conformity assessment for an amendment and administrative modification to the FY 2014-2018 MAG Transportation Improvement Program (TIP). The amendment and administrative modification involve several projects, including the addition of several new Transportation Alternatives Program projects. Comments on the conformity assessment are requested by February 21, 2014.

MAG has reviewed the projects for compliance with the federal conformity rule and has found that consultation is required on the conformity assessment. The amendment includes projects that may be categorized as exempt from conformity determinations. The administrative modification includes minor project revisions that do not require a conformity determination. On January 29, 2014, the MAG Regional Council approved the TIP, 2035 MAG Regional Transportation Plan, and associated conformity analysis. The amendment and administrative modification does not impact the conformity analysis for the TIP and the associated 2035 Regional Transportation Plan. The conformity assessment is being transmitted for consultation to the agencies listed above and other interested parties. If you have any questions or comments, please contact me at (602) 254-6300.

Attachment

cc: Eric Massey, Arizona Department of Environmental Quality
Scott Omer, Arizona Department of Transportation

ATTACHMENT

CONFORMITY ASSESSMENT FOR A PROPOSED AMENDMENT AND ADMINISTRATIVE MODIFICATION TO THE FY 2014-2018 MAG TRANSPORTATION IMPROVEMENT PROGRAM

The federal transportation conformity rule (40 CFR 93.105) requires interagency consultation when making changes to a Transportation Improvement Program (TIP) and Transportation Plan. The consultation processes are also provided in the Arizona Conformity Rule (R18-2-1405). This information is provided for consultation as outlined in the MAG Conformity Consultation Processes document adopted by the MAG Regional Council on February 28, 1996. In addition, federal guidance is followed in response to court rulings regarding transportation conformity.

The amendment includes projects that may be categorized as exempt from conformity determinations. Types of projects considered exempt are defined in the federal transportation conformity rule at 40 CFR 93.126. The administrative modification includes minor project revisions that do not require a conformity determination. Examples of minor project revisions include schedule, funding source, and funding amount changes. The proposed amendment and administrative modification to the FY 2014-2018 MAG Transportation Improvement Program includes the projects on the attached table. The project number, agency, and description is provided, followed by the conformity assessment.

MAG has reviewed the projects for compliance with the federal conformity rule and consultation is required on the conformity assessment. The projects are not expected to create adverse emission impacts or interfere with Transportation Control Measure implementation. On January 29, 2014, the MAG Regional Council approved the TIP, 2035 MAG Regional Transportation Plan, and associated conformity analysis. The amendment and administrative modification does not impact the conformity analysis for the TIP and the associated 2035 Regional Transportation Plan.

Amendment and Administrative Modification to the FY 2014-2018 MAG Transportation Improvement Program

TIP #	Agency	Project Location	Project Description	Work Year	Fund Type	Local Cost	Federal Cost	Regional Cost	Total Cost	Requested Change	Conformity Assessment
GLB12-809	Gilbert	Town of Gilbert	Design and construct bicycle crossings	2014	CMAQ	$ 210,000	$ 490,000	$ -	$ 700,000	Amend: Delete Project from the TIP. Project cannot make current schedule and has been previously deferred.	The deleted project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
GLB13-902	Gilbert	Consolidated/Ray, Eastern/Williams Field, Powerline/McQueen, Powerline/Val Vista, Powerline/Greenfield, Powerline/Recker	Gilbert Bicycle Crossing Safety and improvement demonstration Phase II Project	2014	CMAQ	$ 255,000	$ 583,000	$ -	$ 838,000	Amend: Delete Project from the TIP. Project cannot make current schedule and has been previously deferred.	The deleted project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
MES11-111C2	Mesa	Porter Park Pathway: Mesa Drive and 8th Street near the vicinity of Kino Junior High	Construct paved shared use path	2015	Transportation Alternatives (TA)-MAG	$ 82,106	$ 1,358,348	$ -	$ 1,440,454	Amend: Defer project from FY 2014 to FY 2015. Project has not previously deferred. Funding for project includes FY 2012 and 2013 SRTS funding. Total project cost is $1,647,159.	A minor project revision is needed to defer project to FY 2015. The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
SCT14-104	Scottsdale	Arizona Canal from Chaparral to Indian Bend Wash	Design and Construct multi-use path	2014	CMAQ	$ 1,911,700	$ 1,600,000	$ -	$ 3,511,700	Amend: Delete Project from the TIP. Project cannot make current schedule and has been previously deferred. AGENCY HAS requested Second Deferral and will present to Bike/Ped Committee, 2-11-2014.	The deleted project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
YTN14-101	Youngtown	Grand Avenue and 111th Avenue to Olive Avenue and Agua Fria Parkway (Approximately 117th Avenue).	Multiuse Path and Peoria Ave straightening to accommodate multiuse path: Construction phase	2015	CMAQ	$ 157,200	$ 292,800	$ -	$ 450,000	Amend: Defer project from FY 2014 to FY 2015. Project has not previously deferred. Project to align with other city/roadway improvements.	A minor project revision is needed to defer project to FY 2015. The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.

Agency	Year	TIP ID	Location	Work	Funding	Federal	Regional	Local	Total	Note	Conformity Assessment
ADOT	2016	DOT09-964	10: SR101L (Aqua Fira) to I-17	Uilities Relocation - Construction	RARF-HURF	$ -	$ 13,400,000	$ -	$ 13,400,000	Amend: Defer project from FY2015 to FY2016	A minor project revision is needed to defer project to FY 2016. The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Avondale	2014	AVN14-401	Dysart Rd from Van Buren St to MC85 (Buckeye Rd).	Design ADA compliant sidewalks, ramps, bicycle facilities, pedestrian lighting and rider friendly bus-stop facilities.	Local	$ -	$ -	$ 166,730	$ 166,730	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Avondale	2015	AVN16-402	Dysart Rd from Van Buren St to MC85 (Buckeye Rd).	Install ADA compliant sidewalks, ramps, bicycle facilities, pedestrian lighting and rider friendly bus-stop facilities.	TA-MAG	$ 840,685	$ -	$ 100,816	$ 941,500	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Avondale	2016	PHX16-410	Van Buren St from the Agua Fria River to 113th Ave.	Design multi use path with lighting, landscaping, water fountains, and other pedestrian and bicycle amenities.	Local	$ -	$ -	$ 364,965	$ 364,965	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Avondale	2017	PHX17-406	Van Buren St from the Agua Fria River to 113th Ave.	Construct multi use path with lighting, landscaping, water fountains, and other pedestrian and bicycle amenities.	TA-MAG	$ 2,011,664	$ -	$ 171,596	$ 2,183,260	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Chandler	2015	CHN15-401	Ray Rd, west of 101L; Price Rd, north of Loop 202 interchange; Frye Rd at Dobson (1/8 mile in each direction on Frye); Frye Road at Alma School (1/8 mile in each direction on Frye); Frye Rd between Paseo Canal and Cooper Rd.	Design portions of three different bike lanes on Ray Rd, Frye Rd, Price Rd and related improvements. Add multi-use path to connect Frye Rd. bike route to Cooper Rd.	Local	$ -	$ -	$ 70,000	$ 70,000	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Chandler	2016	CHN16-4404	Ray Rd, west of 101L; Price Rd, north of Loop 202 interchange; Frye Rd at Dobson (1/8 mile in each direction on Frye); Frye Road at Alma School (1/8 mile in each direction on Frye); Frye Rd between Paseo Canal and Cooper Rd.	Construct portions of three different bike lanes on Ray Rd, Frye Rd, Price Rd and related improvements. Add multi-use path to connect Frye Rd. bike route to Cooper Rd.	TA-MAG	$ 231,290	$ -	$ 28,980	$ 260,270	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.

Agency	Year	TIP ID	Location	Work	Funding	Federal	Regional	Local	Total	Note	Conformity Assessment
Glendale	2015	GLN15-401	65TH Ave and Bethany Home Rd.	Design HAWK relatd improvements -accessible ramps, countdown pedestrian signals, streetlighting, and striping.	Local	$ -	$ -	$ 135,000	$ 135,000	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Glendale	2017	GLN17-401	65TH Ave and Bethany Home Rd.	Construct HAWK relatd improvements -accessible ramps, countdown pedestrian signals, streetlighting, and striping.	TA-MAG	$ 278,110	$ -	$ 22,810	$ 300,920	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Maricopa City	2014	MAR14-407	Hartman Road from Maricopa Casa Grande Highway to approximately 1.5 miles north.	Design Roadway Paving.	Local	0	$ -	$ 82,303	$ 82,303	Amend: Add new project to TIP.	The new project is considered exempt under the category "Pavement resurfacing and/or rehabilitation." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Maricopa City	2015	MAR15-407	Hartman Road from Maricopa Casa Grande Highway to approximately 1.5 miles north.	Pave Unpaved Roadway.	CMAQ-2.5	$ 529,522	$ -	$ 8,623	$ 538,145	Amend: Add new project to TIP.	The new project is considered exempt under the category "Pavement resurfacing and/or rehabilitation." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Mesa	2014	MES14-404	On the Salt River from 202L Red Mtn Frwy, Mile Post 9 to Dobson Road at Loop 202 Red Mtn Frwy, MP 8.	Design multi use path.	Local	$ -	$ -	$ 145,915	$ 145,915	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Mesa	2016	MES16-404	On the Salt River from 202L Red Mtn Frwy, Mile Post 9 to Dobson Road at Loop 202 Red Mtn Frwy, MP 8.	Construct multi use path.	TA-MAG	$ 1,585,674	$ -	$ 188,475	$ 1,774,149	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2015	PHX15-406	200' east and west of the Thomas Road and Grand Canal intersection, and approximately 200' north and south along the Grand Canal.	Design and right-of-way for multi use path segments.	Local	$ -	$ -	$ 180,000	$ 180,000	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2016	PHX16-421	200' east and west of the Thomas Road and Grand Canal intersection, and approximately 200' north and south along the Grand Canal.	Construct multi use path segments.	TA-MAG	$ 320,988	$ -	$ 19,402	$ 340,390	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.

Agency	Year	TIP ID	Location	Work	Funding	Federal	Regional	Local	Total	Note	Conformity Assessment
Phoenix	2014	PHX16-414D	32nd Street Bike Lanes: SR51 to Reach 11.	Design: new bike lanes via pavement stripping improvements.	LOCAL	$ -	$ -	$ 97,493	$ 97,493	Amend: Add design phase into the TIP. Construction project is PHX16-414.	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2014	PHX14-405	Desert Foothills Parkway 0.09 mi. north of Thistle Landing Dr; and Central Avenue at Olympic .	Design two HAWKs.	Local	$ -	$ -	$ 145,000	$ 145,000	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2015	PHX15-407	Desert Foothills Parkway 0.09 mi. north of Thistle Landing Dr; and Central Avenue at Olympic .	Construct two HAWKs.	TA-MAG	$ 499,771	$ -	$ 75,584	$ 575,355	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2015	PHX15-405	First Street: McKinley St to Moreland St.	Design and right-of-way to reduce roadway width, increase sidewalk width and add parking, landscaping, ramps, benches, trash receptacles, bike racks and pedestrian lighting.	Local	$ -	$ -	$ 715,806	$ 715,806	Amend: Add Project to TIP. The Roosevelt to Moreland and the Roosevelt to McKinley projects have been combined in this TIP listing.	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2016	PHX16-420	First Street: McKinley St to Moreland St.	Construct and right-of-way to reduce roadway width, increase sidewalk width and add parking, landscaping, ramps, benches, trash receptacles, bike racks and pedestrian lighting.	TA-MAG	$ 2,008,873	$ -	$ 121,427	$ 2,130,300	Amend: Add Project to TIP. The Roosevelt to Moreland and the Roosevelt to McKinley projects have been combined in this TIP listing.	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2015	PHX15-404	Palm Lane 35th to 37th Avenues and 36th Avenue Palm Lane to McDowell Road; HAWK Project 35th Avenue between Palm Lane and Granada Road.	Design and right-of-way to install missing sidewalk on Palm Lane and HAWK pedestrian signal on 35th Ave.	Local	$ -	$ -	$ 185,050	$ 185,050	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Phoenix	2016	PHX17-409	Palm Lane 35th to 37th Avenues and 36th Avenue Palm Lane to McDowell Road; HAWK Project 35th Avenue between Palm Lane and Granada Road.	Install missing sidewalk on Palm Lane and HAWK pedestrian signal on 35th Ave.	TA-MAG	$ 620,447	$ -	$ 37,503	$ 657,950	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Pinal County	2014	PNL14-409	Barnes Road from White & Parker Road to Fuqua Road; Fuqua Road from Barnes Road to Lealand Road.	Design Roadway Paving.	Local	$ -	$ -	$ 15,960	$ 15,960	Amend: Add new project to TIP.	The new project is considered exempt under the category "Pavement resurfacing and/or rehabilitation." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.

Agency	Year	TIP ID	Location	Work	Funding	Federal	Regional	Local	Total	Note	Conformity Assessment
Pinal County	2015	PNL15-409	Barnes Road from White & Parker Road to Fuqua Road; Fuqua Road from Barnes Road to Lealand Road.	Pave Unpaved Roadway.	CMAQ-2.5	$ 1,360,119	$ -	$ 82,213	$ 1,442,332	Amend: Add new project to TIP.	The new project is considered exempt under the category "Pavement resurfacing and/or rehabilitation." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Pinal County	2014	PLN14-410	Midway Rd from Gila Bend Highway to Casa Grande City limits.	Design Roadway Paving.	Local	$ -	$ -	$ 115,000	$ 115,000	Amend: add new project to TIP. This project is sponsored by Pinal County on behalf of the City of Casa Grande. Funding for the local match is being provided by the City.	The new project is considered exempt under the category "Pavement resurfacing and/or rehabilitation." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Pinal County	2015	PLN15-410	Midway Rd from Gila Bend Highway to Casa Grande City limits.	Pave Unpaved Roadway.	CMAQ-2.5	$ 1,178,750	$ -	$ 112,200	$ 1,290,950	Amend: add new project to TIP. This project is sponsored by Pinal County on behalf of the City of Casa Grande. Funding for the local match is being provided by the City.	The new project is considered exempt under the category "Pavement resurfacing and/or rehabilitation." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Scottsdale	2015	SCT15-401	Crosscut Canal and alleys, between McDowell Rd and Culver St, west of 66th Pl .	Design multi use path and bridge over the Crosscut Canal and related paths and access from two alleys.	Local	$ -	$ -	$ 122,000	$ 122,000	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Scottsdale	2016	SCT16-403	Crosscut Canal and alleys, between McDowell Rd and Culver St, west of 66th Pl .	Construct multi use path and bridge over the Crosscut Canal and related paths and access from two alleys.	TA-MAG	$ 445,407	$ -	$ 64,923	$ 510,330	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Tempe	2014	TMP14-402	Highline Canal from east of Priest Drive/Avenida Del Yaqui south approximately 2.5 miles.	Design and Right of way for multi use path and assocated features such as way-finding signs, lighting, signalized crossings and bike amenities including bike racks.	Local	$ -		$ 225,695	$ 225,695	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Tempe	2016	TMP16-402	Highline Canal from east of Priest Drive/Avenida Del Yaqui south approximately 2.5 miles.	Construct multi use path and assocated features such as way-finding signs, lighting, signalized crossings and bike amenities including bike racks.	TA-MAG	$ 1,366,661	$ -	$ 100,608	$ 1,467,269	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.

Agency	Year	TIP ID	Location	Work	Funding	Federal	Regional	Local	Total	Note	Conformity Assessment
Tempe	2015	TMP15-402	Highline Canal from east of Priest Drive/Avenida Del Yaqui south approximately 2.5 miles.	Design ADA compliant street crossing treatments, bridges, landscaping, lighting and concrete path.	Local	$ -	$ -	$ 330,736	$ 330,736	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.
Tempe	2017	TMP17-404	Highline Canal from Auto Drive in the City of Tempe to Chandler City limits.	Construct ADA compliant street crossing treatments, bridges, landscaping, lighting and concrete path.	TA-MAG	$ 1,866,956	$ -	$ 124,849	$ 1,991,805	Amend: Add Project to TIP	The new project is considered exempt under the category "Bicycle and pedestrian facilities." The conformity analysis for the TIP and Regional Transportation Plan would remain unchanged.

Agenda Item #6I

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Social Services Block Grant Allocation Recommendations

SUMMARY:
Through a partnership with the Arizona Department of Economic Security (DES), the MAG Human Services Coordinating Committee (HSCC) prioritizes services to receive funding with locally planned Social Services Block Grant (SSBG) dollars. Services funded by SSBG assist the most vulnerable people in the region, including four target groups of Older Adults; People with Disabilities; People with Developmental Disabilities; and Adults, Families, and Children. Each year, HSCC conducts a service ranking exercise to determine a prioritized listing of services to assist people in these four target groups. The service ranking exercise was conducted in November 2013 and the draft results were released for public comment in December 2013. The results reflect the prioritized listing of services as determined by the service ranking exercise and a 5.3 percent funding reduction required by DES. In addition to the reduction in funding, DES indicated funding for services within the Older Adults and the Adults, Families and Children target groups be held harmless. The funding reduction was applied to services within Persons with Disabilities and the Persons with Developmental Disabilities target groups. Services within these two target groups were ranked the lowest in the service ranking exercise. No services received an increase due to the 5.3 percent funding reduction indicated by DES. The MAG Human Services Technical Committee voted to recommend approval of the draft allocations on January 9, 2014. The HSCC voted to recommend approval of the draft allocations on January 22, 2014.

PUBLIC INPUT:
Twenty-nine members of the public participated in the service ranking exercise. Additional opportunities for public input were made available at the November and December MAG Human Services Technical Committee meetings and the January MAG Human Services Technical and Coordinating Committee meetings. The draft allocations were distributed for public comment and no comments were received.

PROS & CONS:
PROS: Given the funding reduction and increased need for services, this strategic process of allocating funding for the most effective services is more important than ever. The service ranking exercise offers a transparent, inclusive, and credible process for prioritizing the best approach to meet human services needs in the region through the Social Services Block Grant.

CONS: None are anticipated.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: The MAG Human Services Coordinating Committee and MAG Human Services Technical Committee conduct extensive research into the four target groups of Older Adults; People with Disabilities; People with Developmental Disabilities; and Adults, Families, and Children. This research is complemented by the expertise of local nonprofit agencies that provide human services. Community input is an important part of the process to develop the allocation recommendations. Historically, the service ranking exercise results inform a funding formula that increases funding for the highest ranked services and reduces funding for the lowest ranked services. The services were listed in the order determined by the service ranking exercise but funding was not increased or decreased according to the funding formula. The

funding was not changed because of the funding reduction required by DES. The lowest ranked services received the full 5.3 percent funding reduction that was based on the full SSBG budget for locally planned funding. This approach is consistent with the request from DES not to reduce funding for services within the Elderly or Adults, Families, and Children target groups which ranked higher.

POLICY: The service ranking exercise is a useful way to ensure limited resources are strategically targeted for the services that are most in demand. Completing the exercise annually makes the process more responsive to dynamic changes. The process also provides the local conduit for community input as requested by the Arizona Department of Economic Security. The data generated by the Committees' research is also used by other agencies and entities for their planning purposes.

ACTION NEEDED:
Recommend approval to forward the Social Services Block Grant (SSBG) allocation recommendations for FY 2015 to the Arizona Department of Economic Security.

PRIOR COMMITTEE ACTIONS:
On January 22, 2014, the MAG Human Services Coordinating Committee voted unanimously to recommend approval of the MAG FY 2015 Social Services Block Grant allocation recommendations.

MEMBERS ATTENDING

Councilmember Trinity Donovan, Chandler
* Councilmember Chris Glover, Mesa, Vice Chair
Councilmember Skip Hall, Surprise
Councilmember Michelle Hess, Buckeye
Councilmember Diane Landis, Litchfield Park
Councilmember Joanne Osborne, Goodyear, Chair
Councilmember Frank Scott, Avondale
Councilmember Jared Taylor, Gilbert
* Councilmember Woody Wilson, Tempe
Community Council
Councilmember Corey Woods, Tempe
Councilmember Manuel Martinez, Glendale
* Councilmember Michael Nowakowski, Phoenix

*Neither present nor represented by proxy.
#Attended by telephone conference call. +Attended by videoconference

On January 9, 2014, the MAG Human Services Technical Committee voted unanimously to recommend approval of the MAG FY 2015 Social Services Block Grant allocation recommendations.

MEMBERS ATTENDING

* Mary Berumen, Mesa
# Kyle Bogdon, DES/ACYF
Jan Cameron, Scottsdale
* Michael Celaya, Surprise
* Krista Cornish, Buckeye
Naomi Farrell, Tempe, Chair
Jessica Fierro, Gilbert
Donna Bleyle for Laura Guild, Arizona Department of Economic Security
Ilene Herberg, Arizona Department of Economic Security / Division of Developmental Disabilities
Jeffrey Jamison, Phoenix
Michael Hughes for Deanna Jonovich, Phoenix
Jim Knaut, Area Agency on Aging
* Margarita Leyvas, Maricopa County
Joyce Lopez-Powell, Valley of the Sun United Way
Steven MacFarlane, Phoenix
Caterina Mena, Tempe Community Council
Christina Plante, Goodyear
Leah Powell, City of Chandler
Cindy Saverino, Arizona Department of Economic Security
Stephanie Small, Avondale, Vice Chair

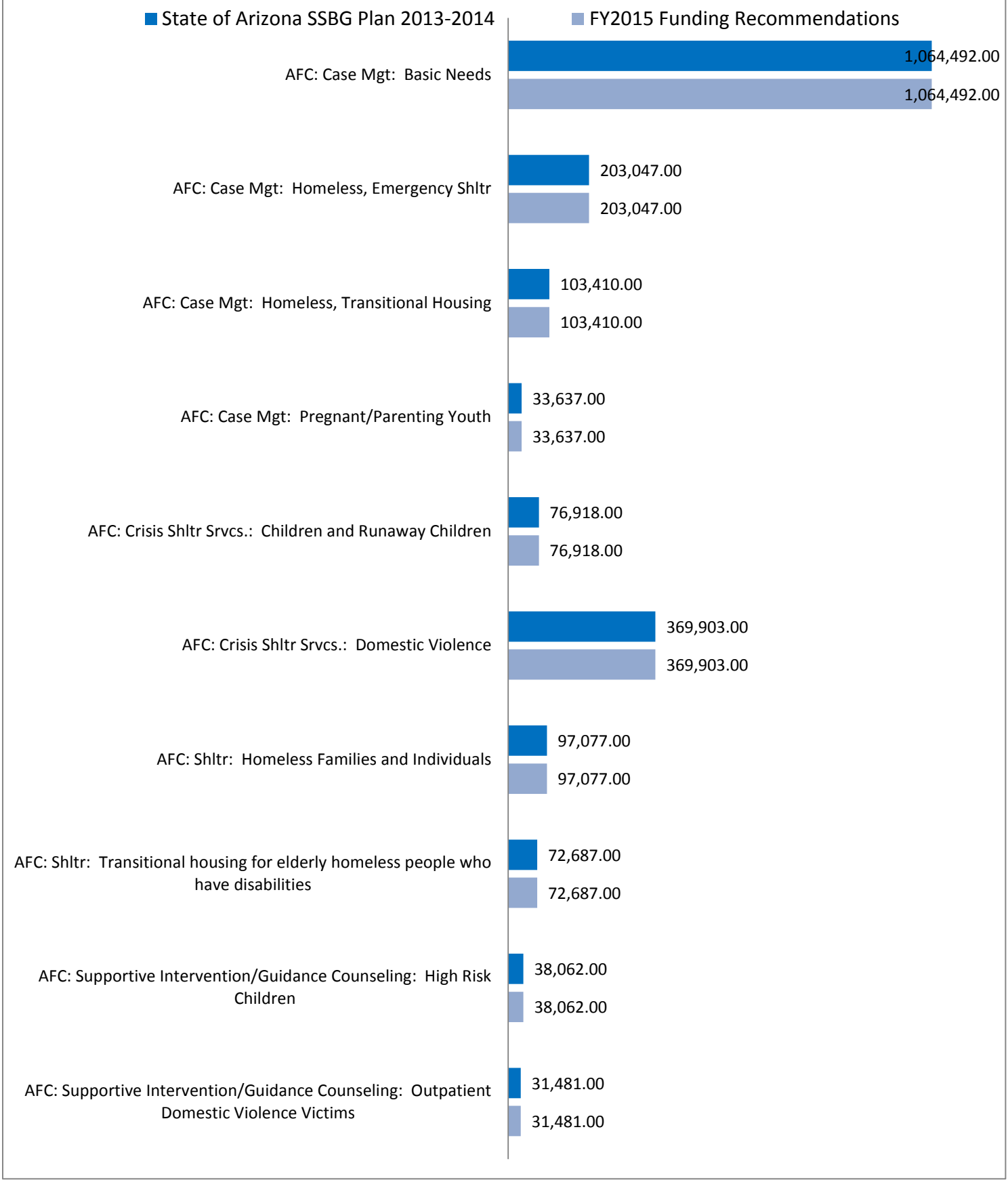
*Neither present nor represented by proxy.
#Attended by telephone conference call. +Attended by videoconference.

CONTACT PERSON:
Amy St. Peter, MAG Human Services Manager, (602) 254-6300

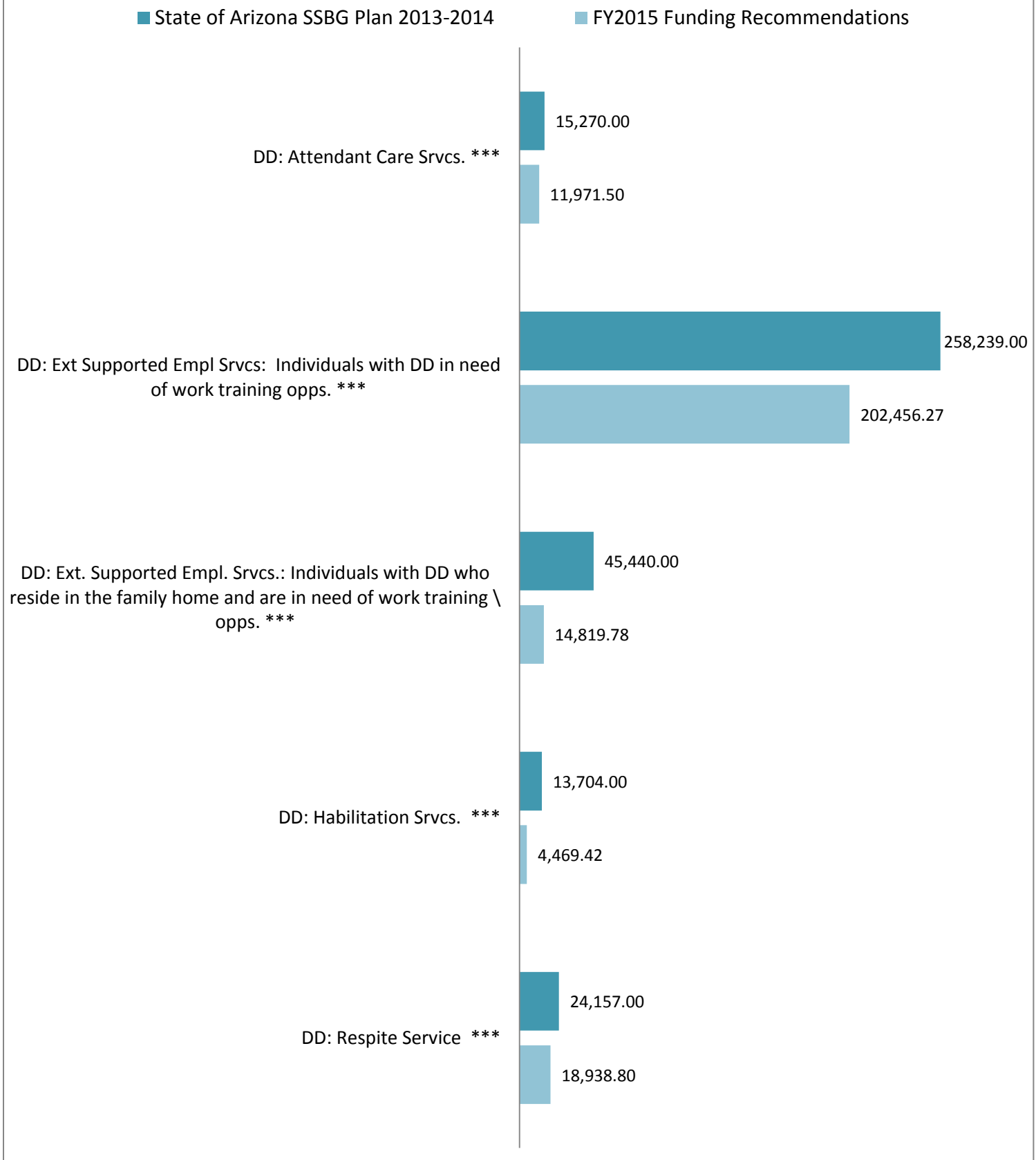
Social Services Block Grant
DRAFT FY 2015 Funding Recommendations
December 12, 2013

	Target Group	Service Rank	Magnitude of Change	Service Title & Service Ranking Across Target Group	State of Arizona SSBG Plan 2013-2014		% of target groups	Amount of Change	FY2015 Funding Recommendations	DES requests no reductions to services funded through DCYF or DAAS
1	AFC	A	++	AFC: Case Mgt: Basic Needs	1,064,492.00				1,064,492.00	DAAS
5	AFC	A	++	AFC: Crisis Shltr Srvcs.: Children and Runaway Children	76,918.00				76,918.00	DCYF
6	AFC	A	++	AFC: Crisis Shltr Srvcs.: Domestic Violence	369,903.00				369,903.00	DAAS
7	AFC	A	++	**AFC: Shltr: Homeless Families and Individuals**	**97,077.00**				97,077.00	DAAS
8	AFC	A	++	**AFC: Shltr: Transitional housing for elderly homeless people who have disabilities**	**72,687.00**				72,687.00	DAAS
18	ELD	A	++	ELD: Home Delivered Meals	466,875.00				466,875.00	DAAS
					2,147,952.00				**2,147,952.00**	
2	AFC	B	+	**AFC: Case Mgt: Homeless, Emergency Shltr**	**203,047.00**				203,047.00	DAAS
3	AFC	B	+	**AFC: Case Mgt: Homeless, Transitional Housing**	**103,410.00**				103,410.00	DAAS
16	ELD	B	+	ELD: Adult Day Care/Adult Day Health Care: Homeless, Emergency Shltr	195,930.00				195,930.00	DAAS
17	ELD	B	+	ELD: Home Care: HK/HM, Chore, Home Health Aid, Personal Care, Respite and Nursing Srvcs.	341,621.00				341,621.00	DAAS
					844,008.00				**844,008.00**	
4	AFC	C	+/-	AFC: Case Mgt: Pregnant/Parenting Youth	33,637.00				33,637.00	DCYF
9	AFC	C	+/-	AFC: Supportive Intervention/Guidance Counseling: High Risk Children	38,062.00				38,062.00	DCYF
10	AFC	C	+/-	AFC: Supportive Intervention/Guidance Counseling: Outpatient Domestic Violence Victims	31,481.00				31,481.00	DAAS
20	PwD	C	+/-	PwD: Adult Day Care/Adult Day Health Care	8,208.00				8,208.00	DAAS
21	PwD	C	+/-	PwD: Congregate Meals	11,144.00				11,144.00	DAAS
22	PwD	C	+/-	PwD: Home Care	26,371.00				26,371.00	DAAS
23	PwD	C	+/-	PwD: Home Delivered Meals	19,655.00				19,655.00	DAAS
					168,558.00				**168,558.00**	
11	DD	D	-	DD: Attendant Care Srvcs. ***	15,270.00		-5%	-3,298.50	11,971.50	DD
12	DD	D	-	DD: Ext Supported Empl Srvcs: Individuals with DD in need of work training opps. ***	258,239.00	1/3	-87%	-55,782.73	202,456.27	DD
15	DD	D	-	DD: Respite Service ***	24,157.00		-8%	-5,218.20	18,938.80	DD
					297,666.00	**64,299.43**			**233,366.57**	
13	DD	E	- -	DD: Ext. Supported Empl. Srvcs.: Individuals with DD who reside in the family home and are in need of work training \ opps. ***	45,440.00		-24%	-30,620.22	14,819.78	DD
14	DD	E	- -	DD: Habilitation Srvcs. ***	13,704.00	2/3	-7%	-9,234.58	4,469.42	DD
19	PwD	E	- -	PwD: Adaptive Aids/Devices ***	6,880.00		-4%	-4,636.16	2,243.84	RSA
24	PwD	E	- -	PwD: Rehabilitation Instructional Srvcs. ***	7,185.00		-4%	-4,841.69	2,343.31	RSA
25	PwD	E	- -	PwD: Supported Empl., Ext. ***	117,630.00		-62%	-79,266.21	38,363.79	RSA
					190,839.00	**128,598.87**			**62,240.13**	
					$3,649,023				**$3,456,124.70**	
						192,898.30		5.3%	192,898.30	
								Target amount	**$3,456,124.70**	

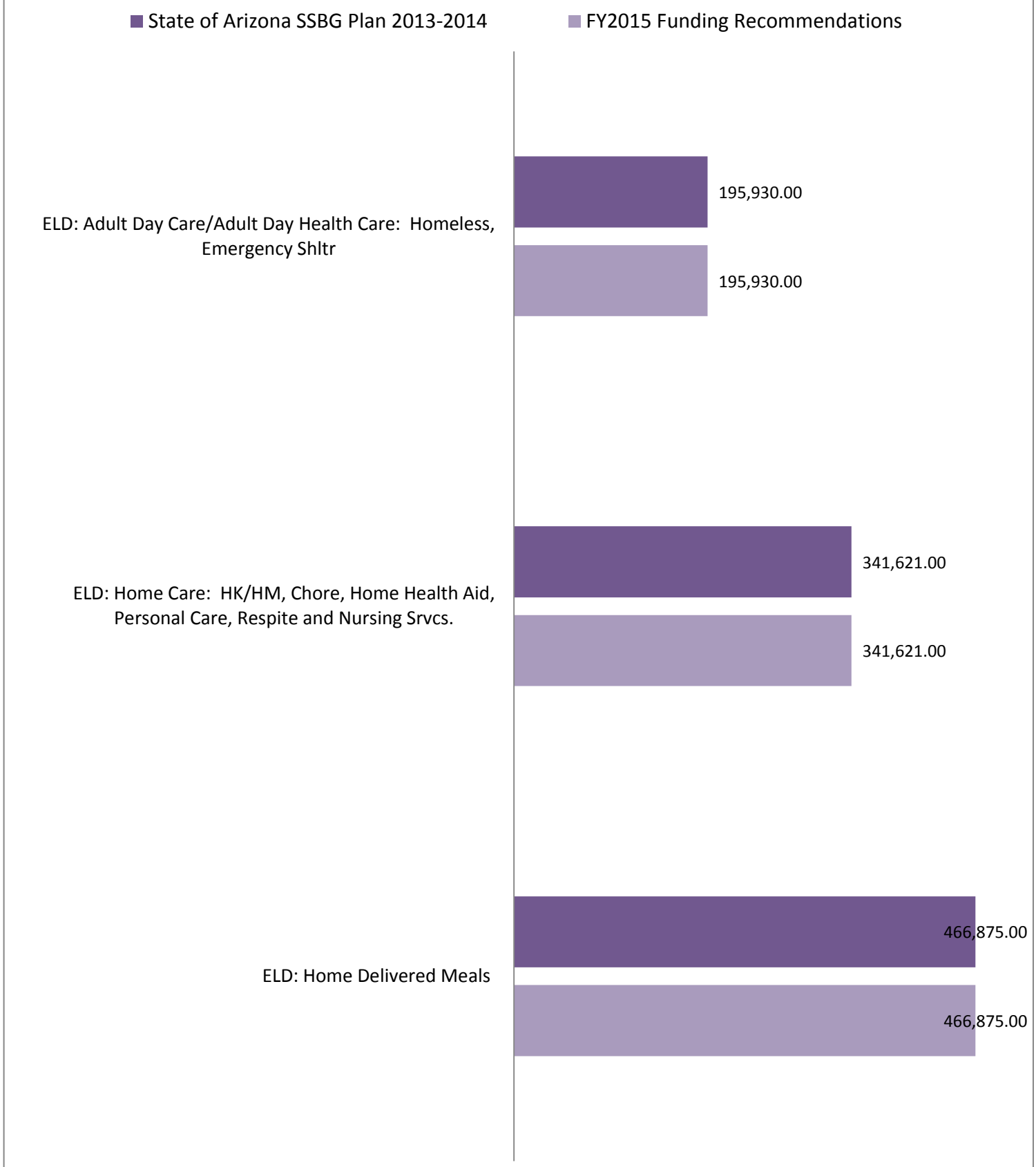
Social Services Block Grant - Option B
Funding Recommendations - Adults, Families & Children
December 12, 2013



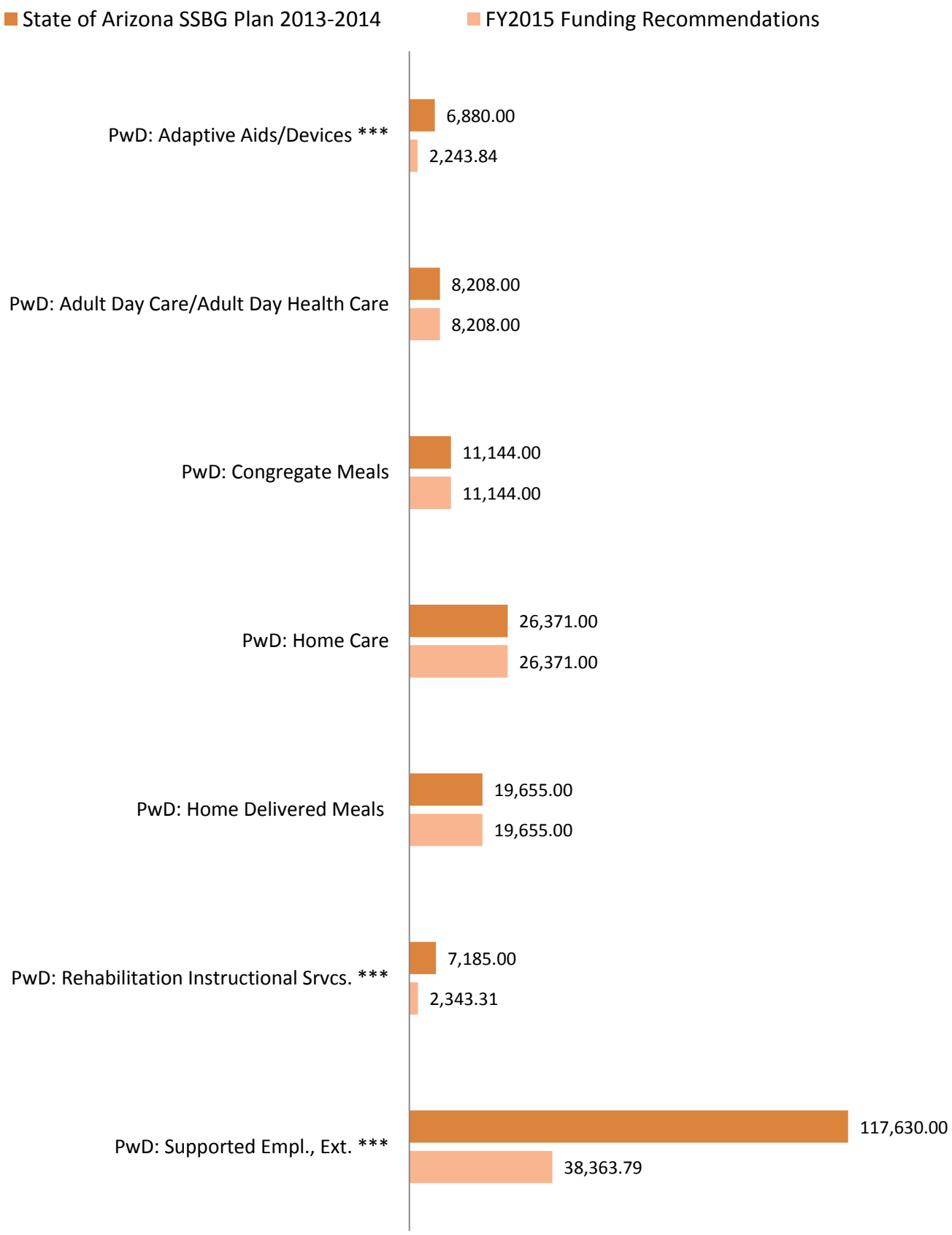
Social Services Block Grant - Option B
Funding Recommendations - Developmental Disabilities
December 12, 2013



Social Services Block Grant - Option B
Funding Recommendations - Elderly
December 12, 2013



Social Services Block Grant - Option B
Funding Recommendations - Persons with Disabilities
December 12, 2013



U.S. EPA FACT SHEET

EPA Proposes to Approve the 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area

January 14, 2013

Summary

- EPA is proposing to approve the 2012 Five Percent Plan for the Maricopa County Nonattainment Area because the plan shows annual reductions of PM-10 emissions of at least 5% between 2007 and 2012 and demonstrates attainment of the PM -10 National Ambient Air Quality Standard (PM-10 NAAQS) by December 31, 2012.

- Today's proposal recognizes continued air quality improvement in Arizona accomplished through the efforts of the Arizona Department of Environmental Quality (ADEQ), the Maricopa County Air Quality Department, the Maricopa Association of Governments, multiple industry, business and agricultural stakeholders, and EPA to protect public health.

Background

- The nonattainment area is located in the eastern portion of Maricopa County and encompasses the cities of Phoenix, Mesa, Scottsdale, Tempe, Chandler, Glendale, as well as the other jurisdictions that comprise the Phoenix metropolitan area. The nonattainment area also includes the town of Apache Junction in Pinal County.
- The State of Arizona was required to submit a 5% PM-10 Plan (also known as a 189(d) plan) after the Maricopa County nonattainment area failed to attain the PM-10 NAAQS by the required attainment date of December 31, 2006.
- The failure to attain triggered the requirements of section 189(d) of the Clean Air Act (CAA), which requires a PM-10 reduction of 5% per year until attainment.
- The State of Arizona originally submitted a 5% Plan to EPA on December 21, 2007, which EPA proposed to partially disapprove due to issues with the attainment demonstration and the emissions inventory.
- The State of Arizona subsequently withdrew the 2007 5% Plan and resubmitted a revised plan on May 25, 2012. This is the plan that EPA is proposing action on today.
- EPA is required by the terms of a consent decree with the Arizona Center for Law in the Public Interest (ACLPI) to propose action on the plan by January 14, 2014, and finalize action by June 2, 2014.

Particulate Matter and Public Health

- Reducing PM10 levels is essential because airborne particles are a serious threat to human health. Major concerns include effects on breathing and respiratory systems, damage to lung tissue, cancer, and premature death. The elderly, children, and people with chronic lung disease and asthma are especially sensitive to the effects of particulate matter.
- A study released in 2009 by Arizona State University showed that when levels of PM-10 in central Phoenix were high, there was a significant increase in asthma incidents in children.

Next Steps

- Today's proposal will be published in the Federal Register in approximately two to three weeks. EPA will accept public comment for 30 days after publication.

For More Information:

http://www.epa.gov/region9/air/actions/az.html

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2013-0762; FRL-]

Approval and Promulgation of Implementation Plans – Maricopa County (Phoenix) PM-10 Nonattainment Area; Serious Area Plan for Attainment of the 24-Hour PM-10 Standard; Clean Air Act Section 189(d)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

EPA is proposing to approve a state implementation plan (SIP) revision submitted by the State of Arizona to meet Clean Air Act (CAA) requirements applicable to the Maricopa County (Phoenix) PM-10 Nonattainment Area. The Maricopa County PM-10 Nonattainment Area is located in the eastern portion of Maricopa County and encompasses the cities of Phoenix, Mesa, Scottsdale, Tempe, Chandler, Glendale, several other smaller jurisdictions, unincorporated County lands, as well as the town of Apache Junction in Pinal County. The Maricopa County PM-10 Nonattainment Area is designated as a serious nonattainment area for the national ambient air quality standards (NAAQS) for particulate matter of ten microns or less (PM-10). The submitted SIP revision is the *Maricopa Association of Governments Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area* (2012 Five Percent Plan). Arizona's obligation to submit the 2012 Five Percent Plan was triggered by EPA's June 6, 2007 finding that the Maricopa PM-10 Nonattainment Area had failed to meet its December 31, 2006 deadline to attain the PM-10 NAAQS. CAA section 189(d) requires a serious PM-10 nonattainment area

that fails to meet its attainment deadline to submit a plan providing for attainment of the PM-10 NAAQS and for an annual emission reduction in PM-10 or PM-10 precursors of not less than five percent until attainment. EPA is proposing to approve the 2012 Five Percent Plan as meeting all relevant statutory and regulatory requirements.

DATES: Any comments must arrive by [Insert date 30 days from the date of publication in the Federal Register].

ADDRESSES: Submit comments, identified by docket number EPA-R09-OAR-2013-0762, by one of the following methods:

1. Federal eRulemaking Portal: www.regulations.gov. Follow the on-line instructions.

2. E-mail: nudd.gregory@epa.gov.

3. Mail or deliver: Gregory Nudd (Air-2), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901.

Instructions: All comments will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through www.regulations.gov or e-mail. www.regulations.gov is an "anonymous access" system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. If EPA cannot read your comment due to technical

difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

Docket: The index to the docket for this action is available electronically at www.regulations.gov and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Gregory Nudd, U.S. EPA Region 9, 415-947-4107, nudd.gregory@epa.gov or www.epa.gov/region09/air/actions.

SUPPLEMENTARY INFORMATION: Throughout this document, the terms "we," "us," and "our" mean U.S. EPA.

Table of Contents

I. PM-10 Air Quality Planning in the Maricopa PM-10 Non-Attainment Area.

The NAAQS are standards for certain ambient air pollutants set by EPA to protect public health and welfare. PM-10 is among the ambient air pollutants for which EPA has established health-based standards. PM-10 causes adverse health effects by penetrating deep in the lungs, aggravating the cardiopulmonary system. Children, the elderly, and people with asthma and heart conditions are the most vulnerable.

On July 1, 1987 EPA revised the health-based national ambient air quality standards, replacing the standards for total suspended particulates with new standards applying only to particulate matter up to ten microns in diameter (PM-10). 52 FR 24672. At that time, EPA established two PM-10 standards, annual and 24-hour. Effective December 18, 2006, EPA revoked the annual PM-10 standard but retained the 24-hour PM-10 standard. 71 FR 61144 (October 17, 2006). The 24-hour PM-10 standard of 150 micrograms per cubic meter ($\mu g/m^3$) is attained when the expected number of days with a 24-hour average concentration above 150 $\mu g/m^3$ per calendar year averaged over a three year period, as determined in accordance with appendix K to 40 CFR part 50, is equal to or less than one. 40 CFR 50.6 and 40 CFR part 50, appendix K.

On the date of enactment of the 1990 Clean Air Act Amendments (CAA or the Act), many areas, including the Maricopa PM-10 Nonattainment Area, meeting the qualifications of section 107(d)(4)(B) of the amended Act were designated nonattainment by operation of law. 56 FR 11101 (March 15, 1991). The Maricopa PM-10 Nonattainment Area is located in the eastern portion of Maricopa County and encompasses the cities of Phoenix, Mesa, Scottsdale, Tempe, Chandler, Glendale, as well as 15 other jurisdictions, four tribes and unincorporated County lands. The nonattainment area also includes the town of Apache Junction in Pinal County. EPA codified the boundaries of the Maricopa PM-10 Nonattainment Area at 40 CFR 81.303.

Once an area is designated nonattainment for PM-10, section 188 of the CAA outlines the process for classifying the area as moderate or serious and establishes the area's attainment deadline. In accordance with section 188(a), at the time of designation, all PM-10 nonattainment areas, including the Maricopa PM-10 Nonattainment Area, were initially classified as moderate.

A moderate PM-10 nonattainment area must be reclassified to serious PM-10 nonattainment by operation of law if EPA determines after the applicable attainment date that, based on air quality, the area failed to attain by that date. CAA sections 179(c) and 188(b)(2). On May 10, 1996, EPA reclassified the Maricopa PM-10 Nonattainment Area as a serious PM-10 nonattainment area. 61 FR 21372.

As a serious PM-10 nonattainment area, the area acquired a new attainment deadline of no later than December 31, 2001. CAA section 188(c)(2). However, CAA section 188(e) authorizes EPA to grant up to a 5-year extension of that attainment deadline if certain conditions are met by the state. In order to obtain the extension, the state must make a SIP submission showing that: (1) attainment by the applicable attainment date would be impracticable; (2) the state complied with all requirements and commitments pertaining to the area in the implementation plan for the area; and (3) the plan for the area includes the most stringent measures (MSM) that are included in the implementation plan of any state or are achieved in practice in any state, and can feasibly be implemented in the specific area. Arizona requested an attainment date extension under CAA section 188(e) for the Maricopa PM-10 Nonattainment Area from December 31, 2001 to December 31, 2006.

On July 25, 2002, EPA approved the serious area PM-10 plan for the Maricopa PM-10 Nonattainment Area as meeting the requirements for such areas in CAA sections 189(b) and (c), including the requirements for implementation of best available control measures (BACM) in

section 189(b)(1)(B) and MSM in section 188(e). In the same action, EPA approved the submission with respect to the requirements of section 188(e) and granted Arizona's request to extend the attainment date for the area to December 31, 2006. 67 FR 48718. This final action, as well as the two proposals preceding it, provide a more detailed discussion of the history of PM-10 planning in the Maricopa PM-10 Nonattainment Area. *See* 67 FR 48718 (July 25, 2002); 65 FR 19964 (April 13, 2000); and 66 FR 50252 (October 2, 2001).

On June 6, 2007, EPA found that the Maricopa PM-10 Nonattainment Area failed to attain the 24-hour PM-10 NAAQS by the applicable attainment date of December 31, 2006 (72 FR 31183). Accordingly, the state was required to submit a new plan meeting the requirements of section 189(d) by December 31, 2007.

On December 19, 2007, the Maricopa Association of Governments (MAG) adopted the "MAG 2007 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area" (2007 Five Percent Plan).[1] On December 21, 2007 the Arizona Department of Environmental Quality (ADEQ) submitted the 2007 Five Percent Plan and two Pinal County resolutions. EPA proposed to partially disapprove this plan on September 9, 2010. 75 FR 54806. On January 25, 2011, prior to EPA's final action on the 2007 Five Percent Plan, Arizona withdrew the plan from the Agency's consideration. As a result of the withdrawal of the 2007 Five Percent Plan, on February 14, 2011, EPA made a finding of failure to make a required SIP submittal. 76 FR 8300. This finding of failure to submit obligated EPA to promulgate a federal implementation plan (FIP) within two years after that date, unless the state submits and EPA approves a SIP submission meeting the requirements of section 189(d) by such date. CAA section 110(c).

[1] MAG has responsibility for air quality and transportation planning in the metropolitan Phoenix region. MAG develops air quality plans in coordination with ADEQ, the Arizona Department of Transportation, and the Maricopa County Air Quality Department. *See* 2012 Five Percent Plan at ES-1; Appendix E., Exh. 2 (Resolution to Adopt the MAG 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area).

Because EPA's evaluation of the 2012 Five Percent Plan indicates that it meets the requirements of section 189(d), EPA is proposing to approve the submission in today's action.

The 2012 Five Percent Plan was adopted by MAG on May 23, 2012 and submitted to EPA by ADEQ on May 25, 2012.[2] MAG adopted and ADEQ submitted the 2012 Five Percent Plan specifically to address the CAA requirements in section 189(d) for the Maricopa PM-10 Nonattainment Area. EPA reviewed the submission and found it to be complete on July 20, 2012.[3] EPA is proposing approval of the submission as meeting the requirements of section 189(d) in today's action.

II. Overview of Applicable CAA Requirements

As a serious PM-10 nonattainment area that failed to meet its applicable attainment date, December 31, 2006, the Maricopa PM-10 Nonattainment Area is subject to CAA section 189(d). Section 189(d) provides that the state shall "submit within 12 months after the applicable attainment date, plan revisions which provide for attainment of the PM-10 air quality standard and, from the date of such submission until attainment, for an annual reduction of PM-10 or PM-10 precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for the area."

The general planning and control requirements for all nonattainment plans are found in CAA sections 110 and 172. More specific planning and control requirements relevant to the PM-10 NAAQS are found in Part D, Subpart 4, in CAA sections 188 and 189. EPA has issued a

[2] Also on May 25, 2012, Arizona submitted several Arizona statutes, Maricopa County rules, a Maricopa County ordinance, and related appendices for approval into the Arizona SIP. By letter dated May 21, 2013, Arizona submitted redacted materials to clarify its May 25, 2012 submittal. By letter dated September 26, 2013, Arizona withdrew its May 21, 2013 submittal and submitted a table and redacted materials as a supplement to the May 25, 2012 submittal to clarify the materials it is requesting EPA to approve into the Arizona SIP.

[3] Letter from Deborah Jordan, Director, Air Division, USEPA Region 9 to Henry Darwin, Director, Arizona Department of Environmental Quality dated July 20, 2012.

General Preamble[4] and Addendum to the General Preamble[5] to provide guidance to states for meeting the CAA's requirements for the PM-10 NAAQS. The General Preamble mainly addresses the requirements for moderate nonattainment areas and the Addendum addresses the requirements for serious nonattainment areas. EPA has also issued other guidance documents related to PM-10 plans which are discussed and cited below. The specific PM-10 plan requirements addressed by this proposed action are summarized below.

A. Emissions Inventories

CAA section 172(c)(3) requires that an attainment plan include a comprehensive, accurate, and current inventory of actual emissions from all sources of the relevant pollutants.

B. Section 189(d) Attainment Demonstration and Five Percent Requirement

For serious PM-10 nonattainment areas that do not attain the PM-10 NAAQS by the applicable attainment date, CAA section 189(d) requires the state to submit plan revisions that provide for attainment of the NAAQS (i.e., an attainment demonstration) and provide for an annual five percent reduction in PM-10 or PM-10 precursor emissions for each year from the date of submission until attainment.[6] Section 189(d) specifies that the state must submit these plan revisions within 12 months of the applicable attainment date that the area failed to meet.

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[4] "State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 57 FR 13498 (April 16, 1992) (General Preamble) and 57 FR 18070 (April 28, 1992).

[5] "State Implementation Plans for Serious PM-10 Nonattainment Areas, and Attainment Date Waivers for PM-10 Nonattainment Areas Generally; Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 59 FR 41998 (August 16, 1994) (Addendum).

[6] EPA has previously determined that PM-10 precursors are not significant contributors to PM-10 levels in the Maricopa County PM-10 Nonattainment Area. See 65 FR 19971 (April 13, 2000); 67 FR 48718 (July 25, 2002). In those rulemaking notices, EPA specifically determined that the contribution from major stationary sources of PM-10 precursors was less than 0.5 percent of the annual PM-10 NAAQS. *See e.g.*, 65 FR 19971. Subsequent technical studies confirm that ambient PM-10 levels in the nonattainment area are primarily from crustal material and are not derived from organic compounds, nitrates or sulfates. *See e.g.*, "PM-10 Source Attribution and Deposition Study," prepared by Sierra Research, Inc. for Maricopa Association of Governments (March 2008) at pg. 2 ("Local monitoring by co-located PM-10 and PM-2.5 monitors confirms that PM-2.5 on high PM-10 days is a small fraction

C. Reasonable Further Progress and Quantitative Milestones

CAA section 172(c)(2) requires that implementation plans demonstrate reasonable further progress (RFP) as defined in section 171(1). Section 171(1) defines RFP as "such annual incremental reductions in emissions of the relevant air pollutant as are required by this part [part D of title I] or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date." The general RFP requirement of section 172(c)(2) applies to SIP submissions necessary to meet CAA section 189(d) for the PM-10 NAAQS.

In addition, CAA section 189(c)(1) specifically applicable to the PM-10 NAAQS requires that an implementation plan contain quantitative milestones which will be achieved every 3 years and which will demonstrate that RFP is being met.

D. Contingency Measures

CAA section 172(c)(9) requires that implementation plans provide for "the implementation of specific measures to be undertaken if the area fails to make reasonable further progress, or to attain the NAAQS by the attainment date applicable under this part [part D of title I]. Such measures are to take effect in any such case without further action by the State or the Administrator." The contingency measure requirement of CAA section 179(c)(9) applies to the SIP submissions necessary to meet CAA section 189(d) for the PM-10 NAAQS.

E. Transportation Conformity and Motor Vehicle Emissions Budgets

Transportation conformity is required by CAA section 176(c). Our conformity rule (40 CFR part 93, subpart A) requires that transportation plans, programs, and projects conform to state air quality implementation plans and establishes the criteria and procedures for determining

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of the PM-10 concentrations. Therefore, the PM-10 problem in the Maricopa County nonattainment area is largely attributable to coarse particles, comprised primarily of geologic material."); *see also, id*. at Chapter 3.

whether or not they do so. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS or any interim milestone. Once a SIP that contains motor vehicle emissions budgets (MVEBs) has been submitted to EPA, and EPA has found them adequate, these budgets are used for determining conformity: emissions from planned transportation activities must be less than or equal to the budgets.

F. Adequate Authority

CAA section 110(a)(2)(E)(i) requires that implementation plans provide necessary assurances that the state (or the general purpose local government or regional agency designated by the state for this purpose) will have adequate personnel, funding and authority under state law to carry out the requirements of such plan. Requirements for legal authority are further defined in 40 CFR part 51, subpart L (51.230-51.232) and for resources in 40 CFR 51.280. States and responsible local agencies must also demonstrate that they have the legal authority to adopt and enforce provisions of the SIP and to obtain information necessary to determine compliance.

III. Evaluation of the 2012 Five Percent Plan's Compliance with CAA Requirements

A. Emissions Inventories

CAA section 172(c)(3) requires all nonattainment area plans to include a comprehensive, accurate, and current inventory of actual emissions from all sources of the relevant pollutant or pollutants in the area at issue. Our policies require that the inventory be fully documented. The 2012 Five Percent Plan uses the comprehensive "2008 PM-10 Periodic Emissions Inventory for Maricopa County, Revised 2011" (2008 PM-10 Inventory) as a starting point in the analysis.[7]

[7] The 2008 PM-10 Inventory is included as Appendix A, Exhibit 1 to the 2012 Five Percent Plan. The 2008 PM-10 Inventory includes revisions made by MAG in 2011 to incorporate more recent vehicle registration data, and updated models and planning assumptions. *See* 2012 Five Percent Plan, Appendix B, Exh. 1, at II-10 to II-17.

The 2008 PM-10 Inventory was developed by the Maricopa County Air Quality Department (MCAQD) and the Maricopa Association of Governments (MAG) -- MCAQD prepared emission estimates for point sources and most area and nonroad mobile sources, and MAG prepared emission estimates for onroad mobile, biogenic and certain area and nonroad mobile sources. 2012 Five Percent Plan, Appendix A, Exhibit 1. The 2008 PM-10 Inventory was adjusted by MAG for economic and population changes to provide projected emissions inventories for 2007 through 2012. 2012 Five Percent Plan at p. 3-2; Appendix B, Exh. 1, Section II.

The 2008 PM-10 Inventory describes annual emissions from point, area, nonroad, on-road, and nonanthropogenic sources in the Maricopa County and the Pinal County portion of the nonattainment area.[8,9] The 2008 PM-10 Inventory shows that the most significant sources of emissions in the Maricopa County Nonattainment Area are unpaved roads and alleys (21 percent), construction-related fugitive dust (17 percent), paved road dust (17 percent) and windblown dust (9 percent). 2012 Five Percent Plan, Table 5–3. The 2008 PM-10 Inventory and related inventories for 2007 through 2012 are well documented by documentation meeting our guidance criteria. *See* "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations", EPA, August 2005 (2005 EI Guidance).

[8] The 2008 PM-10 Inventory notes that Maricopa County is approximately 9,223 square miles, whereas the Maricopa County PM-10 Nonattainment Area is approximately 2,888 square miles. *See* 2012 Five Percent Plan at p. 3-2.

[9] The 2008 PM-10 Inventory also references "typical daily emissions." The 2012 Five Percent Plan does not rely on "typical daily emissions" for the attainment demonstration or the five percent reduction in annual emissions; therefore, we did not comprehensively analyze these values in connection with today's proposed action.

The base year, 2008, is a reasonably current year, considering the length of time needed to develop an inventory, perform the modeling, develop and adopt control measures, and hold public hearings on such a large and technically-complex plan.

The MAG plan inventories are sufficiently comprehensive, covering all sources of PM-10 that have been found to be important sources of relevant emissions in this and other PM-10 nonattainment areas. The 2008 PM-10 Inventory includes emissions for certain PM-10 precursors (nitrogen oxides, sulfur dioxide, and ammonia). The 2007 – 2012 projected inventories based on the 2008 PM-10 Inventory do not include emissions of PM-10 precursors; however, EPA has previously determined that these precursors do not play a significant part in the PM-10 problems in the Maricopa County PM-10 Nonattainment Area. *See* 65 FR 19971 (April 13, 2000); *see also*, note 6. EPA proposes to find again that precursors still do not play a significant part in PM-10 problems in the Maricopa County PM-10 Nonattainment Area.

In developing the inventory, MAG and MCAQD followed EPA's 2005 guidance and recommendations regarding the use of emission factors, activity estimates, and control factors, and the other source specific emission estimation methodologies. The relative accuracy of each estimate underwent the prescribed quality assurance procedures, documented in the 2008 PM-10 Inventory, Sections 2.7, 3.7, 4.14 and 5.5, to minimize possible errors. MCAQD used reasonable and accurate methods to calculate rule effectiveness.

Rule effectiveness is the estimate of the extent to which a state rule in the SIP is achieving the intended reductions. A rule is 100 percent effective only if every impacted source is in compliance at all times. Often, rules are not 100 percent effective, and this aspect must be considered when calculating the emissions reductions from the rule. The 2008 PM-10 Inventory

generally complies with EPA's guidance on calculating rule effectiveness found in Appendix B of EPA's 2005 EI Guidance.

EPA's analysis indicates the inventory is sufficiently accurate for the purposes of the 2012 Five Percent Plan. Because we find that the inventory is current, comprehensive, and accurate, we propose to approve the 2008 PM-10 Inventory and the adjusted inventories for 2007, 2009, 2010, 2011 and 2012 under CAA section 172(c)(3).

B. Attainment Demonstration

EPA determines whether an area's air quality is meeting the PM-10 NAAQS based on complete, quality assured, and certified data collected at state and local air monitoring stations (SLAMS) in the nonattainment area. Attainment of the 24-hour PM-10 standard is determined by calculating the average number of expected exceedances of the standard over a three-year period. Specifically, the 24-hour PM-10 standard is attained when the expected number of exceedances averaged over a three-year period is less than or equal to one at each monitoring site within the nonattainment area.[10] In the case of a monitor that collects daily data, and has a full three years worth of adequate data, that monitor should show no more than one exceedance of the standard in a three year period. If all of the monitors in the nonattainment area meet the standard for the requisite period reflecting the form of the 24 hour PM-10 NAAQS, then the area has attained the standard. This point is discussed in more detail in our technical support document (TSD).[11]

1. Attainment Deadline

The 2012 Five Percent Plan predicts attainment of the PM-10 NAAQS by December 31, 2012. For an area determined by EPA to have failed to attain by the applicable attainment date

[10] 40 CFR 50.6(a); 40 CFR part 50, Appendix K.
[11] Technical Support Document for EPA's Action on the 2012 Five Percent Plan, U.S. EPA Region 9, January 14, 2014, Section III.

for a serious PM-10 nonattainment area, CAA sections 172(a)(2) and 179(d)(3) specify that the new attainment date is as soon as practicable, but no later than 5 years from the date of publication of the nonattainment finding in the *Federal Register*. Pursuant to these provisions, the attainment date for the Maricopa PM-10 Nonattainment Area would be as expeditiously as practicable, but not later than June 6, 2012.[12] CAA section 172(a)(2), however, authorizes EPA to extend the attainment deadline to the extent it deems appropriate for a period no greater than 10 years from the publication of the nonattainment finding, "considering the severity of nonattainment and the availability and feasibility of pollution control measures." EPA believes such an extension to December 31, 2012, is warranted, based on various factors, including the following.

First, EPA notes that the PM-10 NAAQS is an calendar-based standard, which makes setting a mid-year attainment deadline (such as June 6) less appropriate than setting an end of calendar year date that would include the entire year of monitored data for comparison against the NAAQS. In addition, the 2012 Five Percent Plan explains that an extension is reasonable because modeled attainment of the PM-10 NAAQS requires implementation of a new measure, the Dust Action General Permit. *See* 2012 Five Percent Plan at p. 6-45 through 6-47. The Dust Action General Permit is a new measure developed by ADEQ and MAG following EPA's identification of approvability issues in the 2007 Five Percent Plan, including flaws in the emissions inventory. These flaws required Arizona and MAG to develop a new emissions inventory and new attainment demonstration and to convene technical and stakeholder groups for appropriate input. One result of these processes was the Dust Action General Permit, which identifies a series of Best Management Practices (BMPs) for specific dust generating operations. When ADEQ's Maricopa County Dust Control Forecast predicts that a day is at high risk for

[12] *See* 72 FR 31183 (June 6, 2007).

dust generation, those dust generating operations that are not already required to control dust through a permit issued by the Arizona Department of Environmental Quality (ADEQ) or the Maricopa County Air Quality Department (MCAQD) are expected to choose and implement at least one BMP to reduce or prevent PM-10 emissions. The Dust Action General Permit required action by the Arizona Legislature and was not finalized until December 30, 2011.[13] ADEQ and MAG estimate that the Dust Action General Permit will increase the rule effectiveness of Rule 310.01 by one percent on high wind days, or 190 tons on an annual basis. 2012 Five Percent Plan at p. 5-4 and p. 6-45. ADEQ and MAG also state that modeled attainment cannot be shown without the reductions attributable to the Dust Action General Permit. It was necessary to extend the attainment date until December 2012 in order for the Dust Action General Permit to be adopted and implemented.

For these reasons, EPA concurs that an extension of the attainment deadline to December 31, 2012 is warranted.

2. Modeled Attainment Demonstration

The 2012 Five Percent Plan shows attainment of the PM-10 NAAQS through modeled attainment demonstrations for the area near the Salt River in central Phoenix, (including the West 43rd Avenue monitor which recorded the most PM-10 exceedances during high wind conditions for the period 2005 - 2010) and for the entire Maricopa County PM-10 Nonattainment Area. *See generally,* 2012 Five Percent Plan, Chapter 6. MAG conducted modeling for two design days: May 4, 2007 (based on data from the West 43rd Avenue monitor), and June 6, 2007 (based on data from the Higley and West 43rd Avenue monitors). In consultation with ADEQ and EPA, MAG selected the design days and locations based on the fact that, for the past few years,

[13] Arizona House Bill 2208, which added ARS 49-457.05 and authorized creation of the Dust Action General Permit, was enacted in April 2011.

measured exceedances of the PM-10 NAAQS have been associated with elevated winds. MAG's selected design days were not days that would be likely to be considered a high wind exceptional event (i.e., the geographic extent of the exceedances did not suggest the occurrence of an area-wide storm event). EPA's detailed analysis of the modeling can be found in Section IV of the TSD for this action. The modeling was conducted in a way that was consistent with EPA guidance and the input of EPA technical experts. The modeling indicates that the emission reductions in the plan should result in PM-10 levels that are consistent with the NAAQS by December 31. 2012. This attainment modeling was confirmed by the monitoring data as described in the next section of this proposal. Therefore, EPA proposes to find that the 2012 Five Percent Plan's attainment demonstration provides sufficient assurance that the control measures implemented in the nonattainment area will be sufficient to ensure ongoing compliance with the PM-10 standard in the Maricopa County PM-10 Nonattainment Area.

3. Monitoring Data Showing Attainment

EPA is also taking into account the fact that monitoring data recorded at air quality monitors throughout the Maricopa County PM-10 Nonattainment Area show that the area in fact reached attainment of the PM-10 NAAQS by December 31, 2012. Attainment of the 24-hour PM-10 standard is determined by calculating the average number of expected exceedances of the standard over a three-year period. Specifically, the 24-hour PM-10 standard is attained when the expected number of exceedances averaged over a three-year period is less than or equal to one at each monitoring site within the nonattainment area. During the 2010-2012 time period, MCAQD operated fifteen PM-10 monitors, while ADEQ and the Pinal County Air Quality Control District (PCAQCD) operated an additional three PM-10 monitoring stations in the area. EPA's analysis

indicates that all of these monitors have an expected exceedance of less than one for the years 2010-2012.

EPA's review of monitoring data for the 24-hour PM-10 NAAQS for the Maricopa County PM-10 Nonattainment Area includes exceedances of the standard recorded during the 2010 – 2012 time period. However, EPA does not consider these exceedances of the NAAQS to be violations because they were the result of exceptional events. ADEQ submitted three packages containing demonstrations for high wind PM-10 exceptional events covering a total of one hundred thirty-three measured exceedances occurring over twenty-seven days in the years 2011 and 2012 at monitors within the Maricopa County PM-10 Nonattainment Area. EPA reviewed the documentation that ADEQ provided to demonstrate that the exceedances on these days meet the criteria for an exceptional event in EPA's Exceptional Events Rule (EER).[14] EPA concurred with ADEQ's requests for exceptional event determinations, based on the weight of evidence, that one hundred thirty-one of the one hundred thirty-three exceedances were caused by high wind exceptional events.[15] Accordingly EPA has determined that the monitored exceedances associated with these exceptional events should not be used for regulatory purposes, including for evaluation of the CAA section 189(d) plan submission. Excluding these exceedances caused predominantly by uncontrollable emissions, EPA proposes to determine that the Maricopa County PM-10 Nonattainment Area has attained the 24-hour PM-10 NAAQS based on the monitors operated by ADEQ, MCAQD and PCAQD. This is consistent with attainment of the standard projected by the state in the 2012 Five Percent Plan.

Monitors operated by tribal governments in the nonattainment area also provide data that can be considered to evaluate attainment. The Salt River Pima-Maricopa Indian Community

[14] 40 CFR §§50.1(j), (k), (l); 50.14; 51.930.

[15] *See* Letters from Jared Blumenthal, Regional Administrator, EPA Region 9, to Eric Massey, Director, Air Division, ADEQ, dated September 6, 2012, May 6, 2013, and July 1, 2013.

operates three PM-10 monitoring stations on tribal land within the Maricopa County PM-10 Nonattainment Area that meet the requirements of 40 CFR part 58 and are therefore appropriate to consider when determining if the area has attained the standard. As our analysis in Section III of the TSD indicates, these monitors show exceedances of the standard on three days during the 2010-2012 time period. Two of those exceedances (both on July 8, 2011) were during area-wide storms that resulted in exceedances at the non-tribal monitors that EPA has already determined were caused by exceptional events. EPA TSD Section III. The third exceedance (on July 2, 2011) appears to be related to local sources rather than an exceptional event. Pursuant to 40 CFR 49.10, however, EPA cannot disapprove a state SIP submittal because of the "failure to address air resources within the exterior boundaries of an Indian Reservation or other areas within the jurisdiction of an Indian tribe." Therefore, we did not further consider these exceedances as part of this proposed action to approve the 2012 Five Percent Plan.

The plan submitted by the state projected that the Maricopa County PM-10 Nonattainment Area would attain by December 31, 2012, because that was the most expeditious attainment date practicable considering the severity of nonattainment and the availability of controls in the area. Monitoring data for the years 2010-2012, taking into account EPA's determinations with respect to exceptional events during that period, indicate that the area attained the standard as of December 31, 2012.[16]

EPA proposes to find that the 2012 Five Percent Plan meets the requirement to demonstrate attainment by the appropriate attainment date. This proposed finding is based on our

[16] Additional exceedances of the PM-10 NAAQS occurred on six days between April and October 2013. Arizona has indicated its intent to submit documentation regarding these exceedances to EPA and to request that EPA concur with the state's determination that they qualify as exceptional events. EPA will evaluate the state's submissions and requests consistent with the EER and relevant guidance.

analysis of the modeling described in the plan and analysis of the monitoring data for the years 2010-2012.

C. Five Percent Requirement

CAA section 189(d) requires a state with a serious PM-10 nonattainment area that fails to attain the PM-10 NAAQS by the applicable attainment deadlines to submit within 12 months after the applicable attainment date plan revisions which provide an annual five percent reduction in emissions of PM-10 or PM-10 precursors in the area from the date of the submission until attainment, based on the most recent inventory.

The 2012 Five Percent Plan's demonstration of annual five percent reductions is found in Chapter 5. Arizona and MAG used the 2008 PM-10 Inventory as the "most recent inventory" and derived emissions levels for years 2007-2012 based upon the 2008 PM-10 Inventory. *See* Five Percent Plan at p. 5-4. The demonstration of annual five percent reductions uses 2007 as the baseline from which the five percent reductions are calculated and as point at which the reductions should start.[17] The 2012 Five Percent Plan's demonstration is summarized in Table 1, below.

Table 1: 2012 Five Percent Plan Emissions by Year

Year	2007	2008	2009	2010	2011	2012

[17] EPA believes Arizona's use of 2007 as the baseline for five percent reductions is reasonable and consistent with Congress' intent. Section 189(d) states that plans are due *within 12 months of the missed attainment deadline* and that the plans should provide for annual five percent reductions *from the date of the submission until attainment*. Arizona's attainment deadline was December 31, 2006. 67 FR 48718 (July 25, 2002). Accordingly, a submittal to fulfill section 189(d) was due by December 31, 2007, and reductions should have begun to occur as of that date. *See* 72 FR 31183 (June 6, 2007). The decline in emissions from 2007 to 2008 shows that reductions did, in fact, begin to occur within that time frame. *See* Table 1. Arguably, these reductions occurred outside the literal time frame specified by Congress (i.e., "the date of the submission" of the plan) because the 2012 Five Percent Plan was not submitted until May 26, 2012. We note that Arizona had submitted the 2007 Five Percent Plan on December 21, 2007 (although it withdrew the plan on January 25, 2011). EPA believes that it is appropriate and consistent with Congress's intent for expeditious attainment of the NAAQS that we consider reductions that occurred prior to the submittal of the 2012 Five Percent Plan.

Baseline Inventory[18]	59,218	56,681	52,123	50,497	49,743	49,673
Controlled Inventory[19]	59,218	49,231	45,600	44,062	43,438	43,130
Annual Reduction		9,987	3,631	1,538	624	308
Cumulative Reduction		9,987	13,618	15,156	15,780	16,088
Target Reduction		2,961	5,922	8,883	11,844	14,805

The "baseline inventory" values are derived from the 2008 PM-10 Inventory as adjusted by population and economic growth factors from the University of Arizona. *See* 2012 Five Percent Plan, at p. 5-4 and p. 5-5, Table 5-2. The "controlled inventory" values show emission levels after taking into account reductions attributable to adopted control measures, specifically, Rules 310, 310.01 and 316, and the Dust Action General Permit. *See* 2012 Five Percent Plan at p. 5-1 through 5-6; *see also,* p. 5-7, Table 5-3. "Annual reduction" is the mathematical difference between the prior year controlled inventory and the current year controlled inventory. "Cumulative reduction" is the running total of actual reductions starting with 2007 and continuing to the attainment year of 2012. The target required reduction is five percent of the base year (2007) inventory (2,961 tons per year) for the first year (2008), and additional reductions of five percent per year, until the attainment year of 2012.

The "controlled inventory" values reflect emission reductions due to improved compliance with Maricopa County Rules 310 (Fugitive Dust from Dust-Generating Operations), 310.01 (Fugitive Dust from Non-Traditional Sources of Fugitive Dust) and 316 (Nonmetallic Mineral Processing) as well as the benefits of the Dust Action General Permit in 2012.[20]

[18] Table 5-2

[19] Table 5-3

[20] EPA has approved Rules 310, 310.01 and 316 into the Arizona SIP. 75 FR 78167 (Dec. 15, 2010); 74 FR 58554 (Nov. 13, 2009). EPA has also approved Arizona statutory provisions related to the Dust Action General Permit. 78 FR 72579 (Dec. 3, 2013). EPA intends to propose action on the Dust Action General Permit in the near future.

Maricopa County has been inspecting sources subject to these rules and tracking the extent to which the sources are complying with the regulations. Based on these data, MCAQD calculated rule effectiveness values for each rule. *See* 2012 Five Percent Plan, Appendix B, Chapter 3.

The 2012 Five Percent Plan demonstrates compliance with the five percent reduction requirement by comparing the cumulative reductions from the Dust Action General Permit and increased effectiveness of the Maricopa County rules against the total five percent reductions each year. Most of the required reductions were achieved in the early years of the plan. EPA encourages this approach as it accelerates the environmental benefits of the reductions.[21]

D. Reasonable Further Progress and Quantitative Milestones

Pursuant to sections 172 (c)(3) and 189(c)(1), the state must demonstrate RFP in the 2012 Five Percent Plan. We have explained in guidance that for areas such as the Maricopa County PM-10 Nonattainment Area where "the nonattainment problem is attributed to area type sources (e.g., fugitive dust, residential wood combustion, etc.), RFP should be met by showing annual incremental emission reductions sufficient generally to maintain linear progress towards attainment. Total PM-10 emissions should not remain constant or increase from 1 year to the next in such an area." Addendum at 42015. Further, we have stated that, "in reviewing the SIP, EPA will determine whether the annual incremental emission reductions to be achieved are reasonable in light of the statutory objective to ensure timely attainment of the PM-10 NAAQS." *Id.* at 42016.

CAA section 189(c) further requires PM-10 attainment plans to contain quantitative milestones that are to be achieved every three years and that are consistent with RFP for the area. These quantitative milestones should consist of elements that allow RFP to be quantified or

[21] This approach is consistent with the approach taken in a previous section 189(d) plan for the San Joaquin Valley. *See* 69 FR 5411 (Feb. 4, 2004) and 69 FR 30006 (May 25, 2004).

measured objectively. Specifically, states should identify and submit quantitative milestones that allow for evaluation of whether the plan is obtaining emission reductions adequate to achieve the NAAQS by the applicable attainment date. *Id*. at 42016.

The 2012 Five Percent Plan provides a reasonable further progress (RFP) demonstration in Chapter 6. *See* 2012 Five Percent Plan at 6-34 through 6-36. This analysis uses the controlled inventory totals by year as shown in Table 1 of this proposal. Specifically, the 2012 Five Percent Plan shows the following levels of PM-10, which decline between 2007 and 2012:

2007 -- 59,218 tons

2008 – 49,231 tons

2009 – 45,600 tons

2010 -- 44,062 tons

2011 – 43,438 tons

2012 -- 43,130 tons

The analysis required for the five percent demonstration provides annual emission targets between the base year of 2007 and the attainment year of 2012. These annual totals show a steady downward trend in emissions that fulfills the milestone requirement of every three years. *See* 2012 Five Percent Plan at 6-36, Fig. 6-6. The trend is more sharply downward in the initial years because most of the improvements in rule effectiveness occurred in 2008. *Id* at 35-36. EPA proposes to find that the 2012 Five Percent Plan has demonstrated reasonable further progress and that by setting annual target emission levels, the plan has exceeded the requirement to provide for milestones every three years.

E. Contingency Measures

CAA section 172(c)(9) requires that attainment plans provide for the implementation of specific measures to be undertaken if the area fails to meet RFP requirements or fails to attain the PM-10 standard as projected in the plan. That section further requires that such measures are to take effect in any such case without further action by the state or EPA. The CAA does not specify how many contingency measures are necessary nor does it specify the level of emission reductions they must produce.

In guidance we have explained that the purpose of contingency measures is to ensure that additional emission reductions beyond those relied on in the attainment and RFP demonstrations are available immediately if there is a failure to meet RFP requirements or a failure to attain by the applicable statutory date. Addendum at 42014-42015. Contingency measures must consist of measures that the state is not otherwise relying on to meet other attainment plan requirements in the area. Thus, these additional emission reductions that will be achieved by the contingency measures ensure continued progress towards attainment while the state is revising the SIP to correct the failure to meet RFP or to attain. To that end, we recommend that contingency measures for PM-10 nonattainment areas provide emission reductions equivalent to one year's average increment of RFP. *Id*.

In interpreting the requirement that the contingency measures must "take effect without further action by the State or the Administrator," the General Preamble provides the following general guidance: "[s]tates must show that their contingency measures can be implemented with minimal further action on their part and with no additional rulemaking actions such as public hearings or legislative review." General Preamble at 13512.[22] Further, "[i]n general, EPA will

[22] EPA elaborated on its interpretation of this language in section 172(c)(9) in the General Preamble in the context of the ozone standard: "The EPA recognizes that certain actions, such as notification of sources, modification of permits, etc., would probably be needed before a measure could be implemented effectively." General Preamble at 13512.

expect all actions needed to affect full implementation of the measures to occur within 60 days after EPA notifies the State of its failure." *Id*. The Addendum at 42015 reiterates this interpretation.

We have also interpreted section 172(c)(9) to allow states to implement contingency measures before they are triggered by a failure of RFP or attainment as long as those measures are intended to achieve emission reductions over and beyond those relied on in the attainment and RFP demonstrations. *Id*.; *see also*, *LEAN v. EPA*, 382 F.3d 575 (5th Cir. 2004).
The 2012 Five Percent Plan calculated the target for contingency measure reductions by subtracting the attainment year 2012 emissions (43,130 tons) from the 2007 baseline emissions (59,218 tons) and dividing by five years, yielding a target of 3,218 tons per year. 2012 Five Percent Plan at 6-37. EPA proposes to find that this method of calculating the target for contingency measure reductions is consistent with CAA requirements and EPA guidance and we propose to approve this target value for contingency measures.

The contingency measures are shown in Table 6-22 of the 2012 Five Percent Plan and are composed of various methods to reduce fugitive dust emissions from roads. The most significant reductions are from paving dirt roads and alleys; other reductions result from street sweeping of freeways, ramps and frontage roads, lower speed limits on dirt roads and alleys, and paving and stabilizing of unpaved shoulders. The measures were implemented in the years 2008 through 2012. These contingency measures are surplus to the measures used to demonstrate five percent reductions, RFP, and attainment. The method used to estimate emissions reductions from these contingency measures are consistent with EPA recommended calculation methods for such measures and the total reductions exceed the target of one year of RFP. EPA proposes to approve the contingency measures described in the 2012 Five Percent Plan.

F. Transportation Conformity and Motor Vehicle Emissions Budgets

Transportation conformity is required by CAA section 176(c). Our conformity rule (40 CFR part 93, subpart A) requires that transportation plans, programs, and projects conform to state air quality implementation plans and establishes the criteria and procedures for determining whether or not they do so. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS or the timely achievement of interim milestones.

The 2012 Five Percent Plan specifies the maximum transportation-related PM-10 emissions allowed in the proposed attainment year, 2012, i.e., the MVEB of 54.9 metric tons per day (mtpd). 2012 Five Percent Plan at p. 6-43. This budget includes emissions from road construction, vehicle exhaust, tire and brake wear, dust generated from unpaved roads and re-entrained dust from vehicles traveling on paved roads. This budget is based on the 2012 emissions inventory that was projected from the 2008 PM-10 Inventory and reflects emission reductions that the plan expects will result from the control measures. The budget is consistent with the attainment, five percent and RFP demonstrations in the Plan.

On September 12, 2013, we announced receipt of the 2012 Five Percent Plan on the Internet and requested public comment on the adequacy of the MVEB by October 15, 2013. We did not receive any comments during the comment period. During that time we reviewed the MVEB and preliminarily determined that it met the adequacy criteria in 40 CFR 93.118(e)(4) and (5). We sent a letter to ADEQ and MAG dated November 22, 2013 stating that the 2012 motor vehicle PM-10 emissions budget for the Maricopa area in the submitted plan was adequate. Our finding was published in the *Federal Register* on December 5, 2013, effective December 20, 2013. 78 FR 73188.

Now that EPA has thoroughly reviewed the submitted SIP, we are proposing to approve the MVEB for 2012 as part of our approval of the 2012 Five Percent Plan. EPA has determined that the MVEB emission target is consistent with emission control measures in the SIP and the attainment demonstration, five percent demonstration and RFP demonstration. The details of EPA's evaluation of the MVEB for compliance with the budget adequacy criteria of 40 CFR 93.118(e) is provided in a separate document included in the docket of this rulemaking.[23]

G. Adequate Legal Authority

Section 110(a)(2)(E)(i) of the Clean Air Act requires that implementation plans provide necessary assurances that the state (or the general purpose local government) will have adequate personnel, funding and authority under state law. Requirements for legal authority are further defined in 40 CFR part 51, subpart L (section 51.230-232) and for resources in 40 CFR 51.280.

States and responsible local agencies must demonstrate that they have the legal authority to adopt and enforce provisions of the SIP and to obtain information necessary to determine compliance. These requirements are addressed in cover letters and submittal package for the 2012 Five Percent Plan.[24]

MAG derives its authority to develop and adopt air quality plans, including the 2012 Five Percent Plan, from ARS 49-406 and from a February 7, 1978 letter from the Governor of Arizona designating MAG as responsible for those tasks.[25] ADEQ is authorized to adopt and submit the 2012 Five Percent Plan by ARS 49-404 and ARS 49-406. MCAQD implements air

[23] *See* "Transportation Conformity Adequacy Review" by Greg Nudd, EPA Region 9, November 11, 2013.
[24] *See* Completeness Determination Checklist (EPA, July 2, 2012) for details on the location of the documentation of authority.
[25] Letter from Wesley Bolin, Governor of Arizona, to Douglas M. Costle, Administrator of EPA, February 7, 1978. 2012 Five Percent Plan, Appendix E, Exh. 2.

quality programs within Maricopa County. Pinal County Air Quality Control District implements air quality programs within Pinal County.

For the reasons discussed above, we propose to find that the requirements of section 110(a)(2)(E) and related regulations have been met with respect to legal authority.

IV. Summary of Proposed Actions

EPA is proposing to approve the 189(d) plan for the Maricopa County (Phoenix) PM-10 nonattainment area. Specifically, we propose to approve the following:

(A) the 2008 baseline emissions inventory and the 2007, 2009, 2010, 2011 and 2012 projected emission inventories as meeting the requirements of CAA sections 172(c)(3);

(B) the attainment demonstration as meeting the requirements of CAA sections 189(d) and 179(d)(3);

(C) the 5% demonstration as meeting the requirements of CAA section 189(d);

(D) the reasonable further progress and quantitative milestone demonstrations as meeting the requirements of CAA section 172(c)(2) and 189(c);

(E) the contingency measures as meeting the requirements of CAA sections 172(c)(9); and

(F) the Motor Vehicle Emissions Budget as compliant with the budget adequacy requirements of 40 CFR 93.118(e).

V. Statutory and Executive Order Reviews

A. Executive Order 12866, Regulatory Planning and Review

The Office of Management and Budget (OMB) has exempted this regulatory action from

Executive Order 12866, entitled "Regulatory Planning and Review."

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* Burden is defined at 5 CFR 1320.3(b).

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

This rule will not have a significant impact on a substantial number of small entities because SIP approvals or disapprovals under section 110 and subchapter I, part D of the Clean Air Act do not create any new requirements but simply approve or disapprove requirements that the State is already imposing. Therefore, because the proposed Federal approval of the SIP does not create any new requirements, I certify that this action will not have a significant economic impact on a substantial number of small entities.

Moreover, due to the nature of the Federal-State relationship under the Clean Air Act, preparation of flexibility analysis would constitute Federal inquiry into the economic reasonableness of state action. The Clean Air Act forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co.,* v. *U.S. EPA,* 427 U.S. 246, 255-66 (1976); 42 U.S.C. 7410(a)(2).

D. Unfunded Mandates Reform Act

Under sections 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded

Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector, of $100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the proposed approval action does not include a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This Federal action proposes to approve pre-existing requirements under State or local law, and imposes no new requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

E. Executive Order 13132, Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental Partnership). Executive Order 13132 requires EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.” Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and

that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely proposes to approve a State rule implementing a federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

F. Executive Order 13175, Coordination With Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." This proposed rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. Thus, Executive Order 13175 does not apply to this rule. However, even though EPA is acting on a State plan, and that plan does not apply in Indian Country, there are four tribes located within the PM-10 nonattainment area, several of which have imposed particulate control measures of their own in order to reduce PM-10 concentrations. EPA informed tribal

environmental staff regarding the proposed approval so that the tribes could inform their leadership and participate in the public comment process if desired.

EPA specifically solicits additional comment on this proposed rule from tribal officials.

G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. This rule is not subject to Executive Order 13045, because it approves a state rule implementing a Federal standard.

H. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations in the United States. The Executive Order has informed the development and implementation of EPA's environmental justice program and policies. Consistent with the Executive Order and the associated Presidential Memorandum, the Agency's environmental justice policies promote environmental protection by focusing attention and Agency efforts on

addressing the types of environmental harms and risks that are prevalent among minority, low-income and Tribal populations.

This action will not have disproportionately high and adverse human health or environmental effects on minority, low-income or Tribal populations because the action proposed increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population.

I. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing a new regulation. To comply with NTTAA, EPA must consider and use "voluntary consensus standards" (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical.

EPA believes that VCS are inapplicable to this action. Today's action does not require the public to perform activities conducive to the use of VCS.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

_____ _____

Dated: Jared Blumenfeld,
Regional Administrator,
Region IX.

Agenda Item #8

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Designing Transit Accessible Communities Study

SUMMARY:
The Fiscal Year (FY) 2011 Unified Planning Work Program and Annual Budget, approved by the MAG Regional Council in May 2010, included a study to help provide member agencies with additional tools and guidelines to provide better transit accessibility for pedestrians and bicyclists. The study's goal was to better understand the critical needs and explore opportunities to improve the experience of transit users in the MAG region.

The study outcome details the process of categorizing of bus stops that addresses the different needs and challenges of the existing built environment. A Designing Transit Accessible Communities tool kit includes sample policies and best practices specific to the MAG region and geography. The implementation check list is intended for use by development review planners, engineers and transit service planners.

PUBLIC INPUT:
The study methodology included intercept surveys and two stakeholder meetings. Intercept surveys were conducted at five locations in the valley during morning and afternoon peak transit hours. The stakeholder discussion included individuals from advocacy groups and non-profit organizations. The study was presented and made available for public input at MAG Transit, Safety, Bicycle and Pedestrian, and Streets committees. No public input was received at the committee meetings.

PROS & CONS:
PROS: Acceptance of the Designing Transit Accessible Communities Study provides MAG member agencies the information and tools by which to improve access for their transit dependent customers and those who rely on the system to employment, health services, and mobility.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: Each issue addressed was cited as critical to the transit user through the public outreach process. The study final report includes a tool kit that provides policy and planning options to address user's concerns and a implementation check list for technical staff.

POLICY: While the document does not recommend a regional policy, it includes examples of policies that have been successfully implemented in the MAG region. It may also be utilized as a regional planning tool.

ACTION NEEDED:
Recommend acceptance of the Designing Transit Accessible Communities Study.

PRIOR COMMITTEE ACTIONS:
On January 30, 2014, the Transportation Review Committee recommended acceptance of the Designing Transit Accessible Communities Study.

MEMBERS ATTENDING

Avondale: David Fitzhugh, Chair
Phoenix: Rick Naimark, Vice Chair
ADOT: Kwi-Sung Kang for Floyd Roehrich
* Buckeye: Scott Lowe
* Cave Creek: Ian Cordwell
Chandler: Dan Cook
El Mirage: Bryce Christo for Jorge Gastelum
* Fountain Hills: Randy Harrel
Gila Bend: Ernie Rubi
Gila River: Tim Oliver
Gilbert: Leah Hubbard
Glendale: Debbie Albert
Goodyear: Cato Esquivel
Litchfield Park: Woody Scoutten
Maricopa (City): David Maestas for Paul Jepson
Maricopa County: John Hauskins
Mesa: Jeff Martin for Scott Butler
* Paradise Valley: Jim Shano
Peoria: Andrew Granger
Queen Creek: Mohamed Youssef
Scottsdale: Paul Basha
Surprise: Dick McKinley
Tempe: Shelly Seyler
Valley Metro: John Farry
Wickenburg: Vince Lorefice
Youngtown: Grant Anderson

EX-OFFICIO MEMBERS ATTENDING

*Street Committee: Charles Andrews, Avondale
*ITS Committee: Catherine Hollow, Tempe
* FHWA: Ed Stillings
* Bicycle/Pedestrian Committee: Denise Lacey, Maricopa County
* Transportation Safety Committee: Renate Ehm, Mesa

* Members neither present nor represented by proxy. + Attended by Videoconference
# Attended by Audioconference

On January 9, 2014, the Transit Committee recommended acceptance of the Designing Transit Accessible Communities Study.

MEMBERS ATTENDING

* ADOT: Nicole Patrick
Avondale: Kristen Sexton for Rogene Hill
* Buckeye: Andrea Marquez
Chandler: Dan Cook for RJ Zeder
El Mirage: Bryce Christo for Sue McDermott
Gilbert: Leslie Bubke
Glendale: Matthew Dudley for Cathy Colbath
* Goodyear: Cato Esquivel
#Maricopa: David Maestas
Maricopa County DOT: Mitch Wagner
Mesa: Jeff Martin for Jodi Sorrell
* Paradise Valley: Jeremy Knapp
* Peoria: Maher Hazine
Phoenix: Maria Hyatt
Queen Creek: Muhamed Youssef for Chris Anaradian
Scottsdale: Madeline Clemann, Chair
Surprise: David Kohlbeck
* Tempe: Robert Yabes
* Tolleson: Chris Hagen
Valley Metro: Ben Limmer for Wulf Grote
Youngtown: Grant Anderson

*Members neither present nor represented by proxy. + - Attended by Videoconference
- Attended by Audioconference

CONTACT PERSONS:
Alice Chen, Transportation Planner III or Teri Kennedy, Transportation Programming Manager, (602) 254-6300.

DESIGNING TRANSIT ACCESSIBLE COMMUNITIES study

June, 2013

Final Report

MARICOPA ASSOCIATION of GOVERNMENTS

MARICOPA ASSOCIATION of GOVERNMENTS

DESIGNING TRANSIT ACCESSIBLE COMMUNITIES study

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Acknowledgements

MARICOPA ASSOCIATION of GOVERNMENTS

Project Manager:
Maricopa Association of Governments
Alice Chen

Consultant Team:

WILSON & COMPANY ENGINEERS & ARCHITECTS
410 North 44th Street, Suite 460
Phoenix, Arizona 85008

CHEN RYAN
PO Box 1062
La Jolla, California 92038

FEHR & PEERS
201 Santa Monica Blvd, Suite 500
Santa Monica, California 90401

KITTELSON & ASSOCIATES, INC. TRANSPORTATION ENGINEERING/PLANNING
4600 E Washington St, Suite 366
Phoenix, Arizona 85034

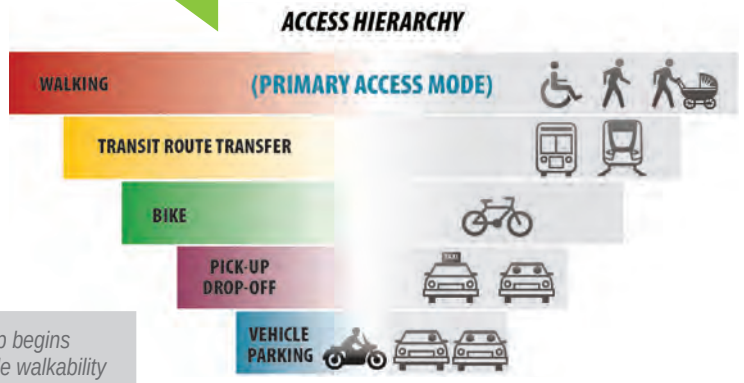
1.0 Introduction

Currently in the Maricopa Association of Governments (MAG) region, approximately 97 percent of all transit users approach the transit system by walking, biking, carpooling, or via kiss-and-ride; the remaining three percent drive alone and park in designated lots. Of all transit users, about 90 percent of them approach the system strictly by walking or bicycling. Regardless of the initial approach to transit, all connecting trips at the destination are made at the pedestrian level. Therefore, while there should be efforts to balance accessibility for all users, pedestrian connectivity should be addressed for all modes. Accessibility, for this study, is not defined as the ability to access transit service generally, but rather eliminating barriers transit patrons face as they access transit stops.

Typically, the average transit user is willing to walk one-quarter (¼) mile to a station or stop, although external factors can affect this distance. There are both soft and hard factors that affect the experience of the pedestrian transit user. Hard factors include the street design, land use, and frequency of transit service. Soft factors include weather protection, landscaping, social experience, and personal safety. MAG and its partners have conducted various previous studies related to transit user needs and transit facilities. Key studies include the Sustainable Transportation and Land Use Integration Study, the Regional Transit Framework Study, Regional Public Transit Authority (RPTA) Bus Stop Handbook (1993), Complete Streets Guide (2011), and the MAG Pedestrian Policies and Design Guidelines. The Designing Transit Accessible Communities Study (DTAC) is intended to augment findings and recommendations of these previous studies to provide guidance that can be utilized by agencies in the MAG region to improve the safety, comfort, and experience of pedestrians and bicyclists accessing transit.

"Transit Accessibility is... the segment of an individual trip that occurs between an origin or destination point and the transit system."

-Source: American Public Transit Association



"With rare exceptions, every transit trip begins and ends with a walk. As a result, while walkability benefits from good transit, good transit relies absolutely on walkability."

"These fixes simply give pedestrians a fighting chance, while also embracing bikes, enhancing transit, and making [downtown] living attractive to a broader range of people. Most are not expensive – some require little more than yellow paint. Each one individually makes a difference; collectively, they can transform a city and the lives of its residents."

- Source: Walkable City: How Downtown Can Save America, One Step at a Time, Jeff Speck, 2012

Jeff Speck outlines ten steps to walkability:

1. *Put cars in their place*
2. *Mix the uses*
3. *Get the parking right*
4. *Let transit work*
5. *Protect the pedestrian*
6. *Welcome bikes*
7. *Shape the spaces*
8. *Plant trees*
9. *Make friendly and unique building faces*
10. *Pick your winners*

An intercept survey was conducted at five case study locations during this project. Of those surveyed, 88% arrived via:

- walking (61%),
- bicycle (22%), or
- public transit (5%).

Important factors affecting transit accessibility are addresssed in this study and include:

- lighting
- information signage
- wayfinding
- seating
- shelter
- shading
- adjacent land use
- bicycle access
- bicycle parking
- pedestrian crossing
- sidewalk

1.1 Purpose of Study

Transit stops are the gateways to public transportation. Each one welcomes riders into the system and provides a transition point of entry into the community. The Valley Metro Fact Sheet (Issue 6, July 2009 – June 2010) indicates there are over 7,000 bus stops serving over 55.5 million bus boardings annually. Therefore, it is important that the bus stops provide a consistent, safe, and accessible environment. Currently, bus stops in the MAG region give riders mixed messages, depending on accessibility and how safe each stop feels. MAG and its partners understand that safe and accessible transit stops are an integral part of the public transit system. As such, MAG has initiated this study to furnish member agencies with additional tools and guidance to promote and sustain better planning associated with improving existing deficiencies and deploying future stops that are more accessible and supportive of adjacent neighborhood needs. Despite how transit patrons primarily arrive at a stop, in the end all are pedestrians. Thus, this study will focus on challenges faced by pedestrians and bicyclists as they access transit at the stop level. Goals of the study include:

- identify challenges faced by users getting to transit;
- recommend improvement concepts, polices, and guidelines to enhance transit accessibility;
- provide a toolkit of measures and strategies for local governments to create transit accessible and livable neighborhoods; and
- identify options and provide a regional framework for applying for federal grants.

1.2 Local & Regional Implementation Strategies

The resulting deliverable of this study is a regionally significant toolkit that provides guidance on best practices for designing transit accessible communities (see Chapter 6). The following list provides an overview of implementation strategies for local and regional agencies. These strategies should be considered when implementing multi-modal improvements in transit catchment areas and when addressing transit accessibility issues in future and existing programs. The strategies are divided into four primary categories: Prioritize, Outreach, Funding, and Policy and Guidance.

TABLE 1: Local & Regional Implementation Strategies

Local	Prioritize	*Identify the projects/locations that have the great need and put them in a plan. In the event that regional or federal grants are made available, it puts your agency in a greater position of competing for gaining funding when it is in a plan.*
		Identify gaps in the system. Accessibility is only as good as the weakest link.
		Start with "low hanging fruit" that can be implemented at a low nominal cost. Signs and paint can provide a great deal of utility to the transit user at a nominal cost.
	Outreach	*Talk to your clients. They are the individuals on the street waiting for transit. Conduct your outreach at the ground level. Be willing to experience transit as the local transit user.*
		Work with advocacy groups and businesses to understand the economic, social and health benefits of Transit Accessible Communities.
		Talk to your partners. Communicate with all those involved in the decision making process in order to maximize everyone's expertise.
	Funding	*Identify discretionary funding sources to utilize in joint projects when they do occur. Improvements are less costly when done at the time of the retrofit and redevelopment, even if the agency has to pay for the cost. A small budget can go a long way in those situations.*
	Policy and Guidelines	*Incorporate guidelines or codes that can leverage improvements from new or redevelopments such as additional easements or right-of-way.*
		Review, analyze and update codes to support livable communities (DTAC, Complete Streets, Transportation Master Plan, etc.)
Regional	Prioritize	*Prioritize regional transit accessibility corridors and neighborhoods.*
		Incorporate strategies and projects into the Regional Transportation Plan.
		Identify conflicts between current policies and transit accessibility design concepts.
	Outreach	*Continue regional best practices workshop discussions and outreach efforts.*
		Coordinate with agency staff and leaders to align local policies with transit accessible design concepts.
	Funding	*Include funding for Transit Accessibility and Complete Streets in future regional funding priorities and Regional Transportation Plans.*
	Policy and Guidelines	*Identify elements that can be incorporated into the MAG Specs and Details guidebook.*

1.3 Outreach

Stakeholder Outreach

Stakeholder outreach was designed to gain knowledge and address concerns to interested parties throughout the region. MAG identified 38 stakeholders to participate in the study that represented four primary groups: Special Needs, Facilities, Human Services, and Transportation. Techniques used to engage the stakeholders included committees, workshops, and interviews. From the stakeholder information, communication techniques and MAG review/ acceptance processes were followed to incorporate the findings of these meetings into the plan. The stakeholders met at key milestones in the process as determined by the project team and the Technical Working Group (TWG).

Technical Working Groups

The Technical Working Groups (TWG) consisted of members from 6 different MAG committees: Bike and Pedestrian, POPTAC, Transit, Street, Elderly and Disability, and Safety. The role of the TWG was to provide technical guidance to the study team during the conduct of the study. Initially, the TWG provided input on the project goals and objectives that fed into the technical work of categorizing the metropolitan area bus stops. From there the TWG directed the study team efforts for the case studies, stop field reviews and transit user survey. Towards the conclusion of the project, the TWG provided key input on the Transit Accessibility Toolkit elements including lighting, signage, wayfinding, seating, shelters, shade, adjacent land use, bicycle access, bicycle parking, pedestrian crossings, and sidewalk considerations.

Stakeholder Involvement Techniques

MAG Committees: The committees were used to inform and solicit input from various MAG committees as needed including Transit, Bicycle and Pedestrian, Human Services, Street, Population Technical Advisory (POPTAC), Transportation Review, Transportation Policy, Management, and Regional Council.

Workshops: The purposes of the workshops are to solicit or address specific issues or concerns. The goal for participants was to work cooperatively to find innovative solutions to an issue(s) in a setting where quick, open and candid discussion is encouraged.

Workshop 1

MAG identified key stakeholders from the region to actively participate in a study workshop. The first stakeholder workshop was convened February 7, 2012, to solicit input and expertise from largely local agency staff. Workshop 1 provided an overview of the study to the group to establish a familiarity with project goals and objectives. The larger group was then divided into four smaller groups to better engage each member. Approximately 35 participants attended the workshop. They were assembled into focus group settings, where they were asked to engage in a facilitated discussion about several key topics related to accessing bus stops.

The stakeholder workshop yielded significant insights into issues related to accessing bus transit by a variety of groups, including the general population, the elderly, and the disabled. Issues identified during the stakeholder workshop provided a framework for exploring the characteristics and qualities of access to bus stops during the case study process. The key issues or topic areas identified during the stakeholder workshop include the following:

- American with Disabilities Act (ADA)
- Bicycle Facilities
- Sidewalk/Walkability
- Street Crossings
- Funding
- Policy
- Environment
- Information Systems
- Transit Systems
- Bus Stop Areas

Following the general session, each stakeholder group reconvened in a separate room with a designated Group Facilitator and a DTAC Study Team member to discuss various transit accessibility issues. Group participants were encouraged to provide input to the study at this time. To help foster discussion among the group members, a list of questions was provided to focus their comments (Table 2). However, each Group Facilitator was free to explore other pertinent issues as they arose. Each group provided a series of comments, issues, and concerns that were recorded by the Group Facilitator; these responses are summarized in Table 3.

TABLE 2: Focus Group Topic for Discussion

Project Goal	Question
1. Identify the challenges faced by users getting to transit.	What are transit users' challenges in accessing transit?
	How can these challenges be addressed?
2. Recommend improvements, polices and guidelines to enhance transit accessibility.	What type of bicycle and pedestrian facilities should be provided near transit stops in the MAG region?
	What does ADA not address when considering bus/transit stops?
3. Provide measures and strategies helpful in creating transit accessible neighborhoods.	What obstacles do communities face in planning and implementing transit accessibility improvements?
	What ideas do you have to help communities better plan and implement improvements for transit accessibility?
4. Provide a cost analysis and framework for funding options and prioritization of improvements.	If the region were to invest in transit accessibility improvements, what would you list as the most important criteria in prioritizing improvements and why?
	What are the challenges in funding accessibility improvements and how can we overcome them?




TABLE 3: Summary of Workshop 1 Breakout Sessions

Issue	Facilities	Human Services	Special Needs	Transportation
Americans with Disabilities Act (ADA)	• Accessible path of travel – someone with disabilities. • Provide ample areas for those maneuvering onto the bus with wheelchairs or mobility devices. • Provide a pad for convenient waiting. • Improve "stop" network, minimize specialized ADA transport. • Recent stops are of higher standard, need to retrofit and agree on one uniform standard.	• No safe place to accommodate a transfer of paratransit users to fixed route bus (i.e. Hospital and Sun City Route 106) • ¾ mile is the limit those with disability can traverse, when there are no other fixed routes in the area. • The larger metro areas around the light rail transit (LRT) get better transit amenities than those outside the area. • Mobility Center is good, lessens anxiety for those accessing transit with special needs.	• Those with special needs take longer to access transit. It seems a long distance to travel. • Dial-A-Ride is not reliable to arrive on time. • Not all stops are ADA compliant. • Have volunteers help those with disabilities access transit. • If federal government classifies someone as disabled, they should qualify for transit assistance and not just rely on the Mobility Center for training. • Increase ADA compliance in areas with significant amounts of older populations.	• Dial-A-Ride provides a safety net. • Access for wheel chairs • Gated communities have green belts to access bus stops more easily; however, these are not always ADA accessible.
Bicycle	• Have bike lanes linked to bus stops -collector/ arterial. • Local streets are bikeable. • Need racks installed at bus stops in case bus rack is full and bike must be secured.	• Racks on busses are desirable and fill up fast. • Lack of bike paths near bus stops and transit in general.		• LRT is crowded with bikes. • Bike racks on transit vehicles often are full. • Bike to transit is an issue especially for transit dependent; design to increase bike storage capacity. • Bike sharing program. • Bike lockers. • More frequent service can reduce crowding and capacity issues.

Issue	Facilities	Human Services	Special Needs	Transportation
Sidewalk/ Walkability	• Improve safety of sidewalks (8th most dangerous for pedestrians in USA). • Too spread out and too many traffic lanes (not walkable). • Streetscape Scottsdale has high standards, calling for 10 foot sidewalks; five-foot categories give a pleasant and safe feel. • Provide wider and smoother sidewalks. • Avoid rough spots (i.e. decorative or excessively winding).	• Continuous sidewalk is missing in many areas. • Distance too long between stops. • Lack of trails near bus stops. • Improve transitions from areas without sidewalk to sidewalks with smooth surfaces.	• Stray animals make pedestrians and those with disabilities feel uncomfortable walking to transit. • Differences in the terrain surrounding the area (i.e. gravel, grass, incomplete sidewalks).	• More density increases need for pedestrian access. • Lack of accessible sidewalks. • Master planned communities lack interconnectivity. • Historical areas want to remain rural (bridal paths, no sidewalk improvements, etc), but they are in the heart of the city. • Difficult to cross streets (especially seniors and disabled). • Short signal phases. • Wide, car focused streets. • Road construction detours pedestrians. • Obstacles in public right-of-way.
Street Crossing	• High intensity Activated crosswalk (HAWK) signaling system is safer than mid-block crossings. • Too many lanes to cross at wide arterials and collectors. • Too few mid-block crossings.	• Few mid-block stops have crosswalks or have safe crossing areas nearby, particularly along arterials and wider streets. • Utilize HAWK signaling system at mid-block crossings to create higher awareness. • Crossing time at traffic signals not long enough for seniors.	• Mid-block stops tend to not be close to a signal or safe crossing. • Pedestrians are forced to cross wide, multi-lane arterials, particularly at mid block crossing, where traffic signals do not exist. • Transfer times are too short when crossing wide arterials. • Motorists are inattentive to transit patrons crossing unsignalized crosswalks. • Wide streets are a barrier to pedestrians and those with disabilities.	• Signal timing for pedestrians. • Engineers must be more aware of pedestrians. • Traffic calming to reduce vehicle speeds. • HAWK – rethink need to move pedestrian crossings.
Funding	• Mesa prepared a “Bus Stop Improvement Plan,” but Congestion Management and Air Quality (CMAQ) Improvement Program will not fund ADA only plans. • Bus stop improvements have a point system or warrant for Phoenix area. Does a project meet the warrant (criteria)? Is it worthwhile to try for federal grants for highest priority projects or wait for major street or land use projects?	• Funding tends to go to the population centers and leaves the outskirts without sufficient improvement funding.	• Funding for stops. • Operational cost to maintain is high, especially if trash containers, water fountains were added.	• Adopt a Bus Program. • Gasoline money/use of Highway User Revenue Fund (HURF). • Next Prop 400 bus improvements. • Need for flexible funding programs. • Currently tough economic times. • Address: Better shelter design, pedestrian focused design guidelines, education of users and officials, change people’s perspective (buses aren’t just a social service). • Consider stop location early on, collaboration between all parties. • Funding has been traditionally auto-focused - distribute more money to transit.

Issue	Facilities	Human Services	Special Needs	Transportation
Policy	• ADA ramp compliance issues. • Stop shading. • No region wide standard. • Need to prioritize: safety, communication, shade, lighting, benches, distance between stops, land use design and transit stop locations, and smooth continuous sidewalk.	• Unincorporated areas may be lower priority for stop improvements.	• Encourage policy makers to talk with and take into account the needs of transit users. • Develop regional level policy for stop design and placement. • Need standardized regional policy for stop placement. • Include mobility issues in conversation.	• Promote implementation of the "Complete Streets" concept to benefit all users. • Bike racks on transit vehicles (i.e. bikes on board program).
Environment		• Weather protection is needed at stops. • Shelters and shading are important to those using medication with sun exposure and heat exposure side effects.	• Have volunteers provide water at stops frequented by those with special needs or seniors. • Better shade needed around stops. • Extreme temperatures can be fatal for persons with a disability.	• Misters to deal with the heat. • Shade needed.
Information System	• Develop a master database of bus stops that are ADA accessible. • Stop locator needs to include interactive web based map to look at each site not just list the stop. • The system needs to add attributes of the stops. • Each city needs to maintain its own database. • Transit accessible communities should be identified, (not all communities are served by transit). • NEXT STOP is good, gives real time arrival of next bus.		• Have drivers and others assist those with special needs or disabilities in understanding how to use the bus.	• Remove mystery; make transit service information more accessible.
Transit System	• Get feedback from users.	• Too far between stops. Consider making more mid block stops to shorten distance to nearest stop.	• Not enough transit connectivity to outlying unserved communities. • No transit service to Sun City. • Not enough options for transit in the Northwest Valley and the outlining areas of the region. • Coordinate route timetables with adjoining cities – some neighboring cities have differing headways on same street making transfers more difficult. • Consider placement of transfers points, both ADA and non-ADA, across jurisdictional boundaries. • Explore "same as" models.	• More density increases need for enhanced pedestrian access. • More frequent service reduces crowding and capacity issues. • Way finding challenges. • Infrequent service. • Car focused transportation system. • Need for "complete" streets, transit friendly. • "Road diet" to reduce street size and lower speeds in neighborhoods to increase safety.

Issue	Facilities	Human Services	Special Needs	Transportation
Stops	• Shade stops only every mile or transfer point. • Standardize color of stops, tan structures, blue signs. Some stops don't look like stops. • Encourage cities to improve stops during general plan updates. • Local communities should upgrade stops. • Encourage private partnerships to build stops. • Every area has different stop designs which make it difficult to look unified. • When upgrading stops consider; location wait time, number of boardings, if it is a transfer stop, and maintenance costs. • If art shelters are built they should be mobile so that they can be relocated if the stop becomes obsolete.	• Need covered seating to get out of sun or inclement weather. • Lighting should be provided at stops. • Too far between stops. Consider making more mid block stops to shorten distance to nearest stop.	• Poor shelter design does not block the sun. • Make sure all stops are ADA accessible (improved or otherwise). • Place stops closer to entrances to medical facilities to shorten walking distance for those with special needs. • Optimize the distance between stops to increase travel time and improve efficiency. • Place stops at large activity centers. • Inventory all stops to document what amenities they have, and the usage. • Seating is important to the elderly and those with special needs. • Revisit usage of stops – demographic change. • Standardize stops to assist with maintenance.	• Material/composition can be uncomfortable; metal heats up. • Braille at bus stops. • Provide misters to deal with the heat. • Orient amenities to provide shelter and shade. • Some locations don't have the space in the ROW for a bus stop. • Somewhere to sit is important.

Workshop 2

Workshop 2 was held at the MAG offices on April 11, 2013. The goal of this workshop was to conduct a charrette-style exercise where participants would identify transit accessibility improvements at the case study locations while considering the constraints of a limited budget. The stakeholder participants were divided into smaller groups to conduct this exercise. Groups were provided an aerial print of the case study catchment area, case study location survey results and photographs, a table with case study characteristics and constraints, a budget sheet, a laptop to use Google Earth for additional information gathering and calculate their budget, stickers with symbols representing improvements, and the Transit Accessibility Toolkit. Figures 1-5 illustrates the results of this workshop exercise.

FIGURE 1: 16th Street & Thomas Road Workshop Results (Urban Core)

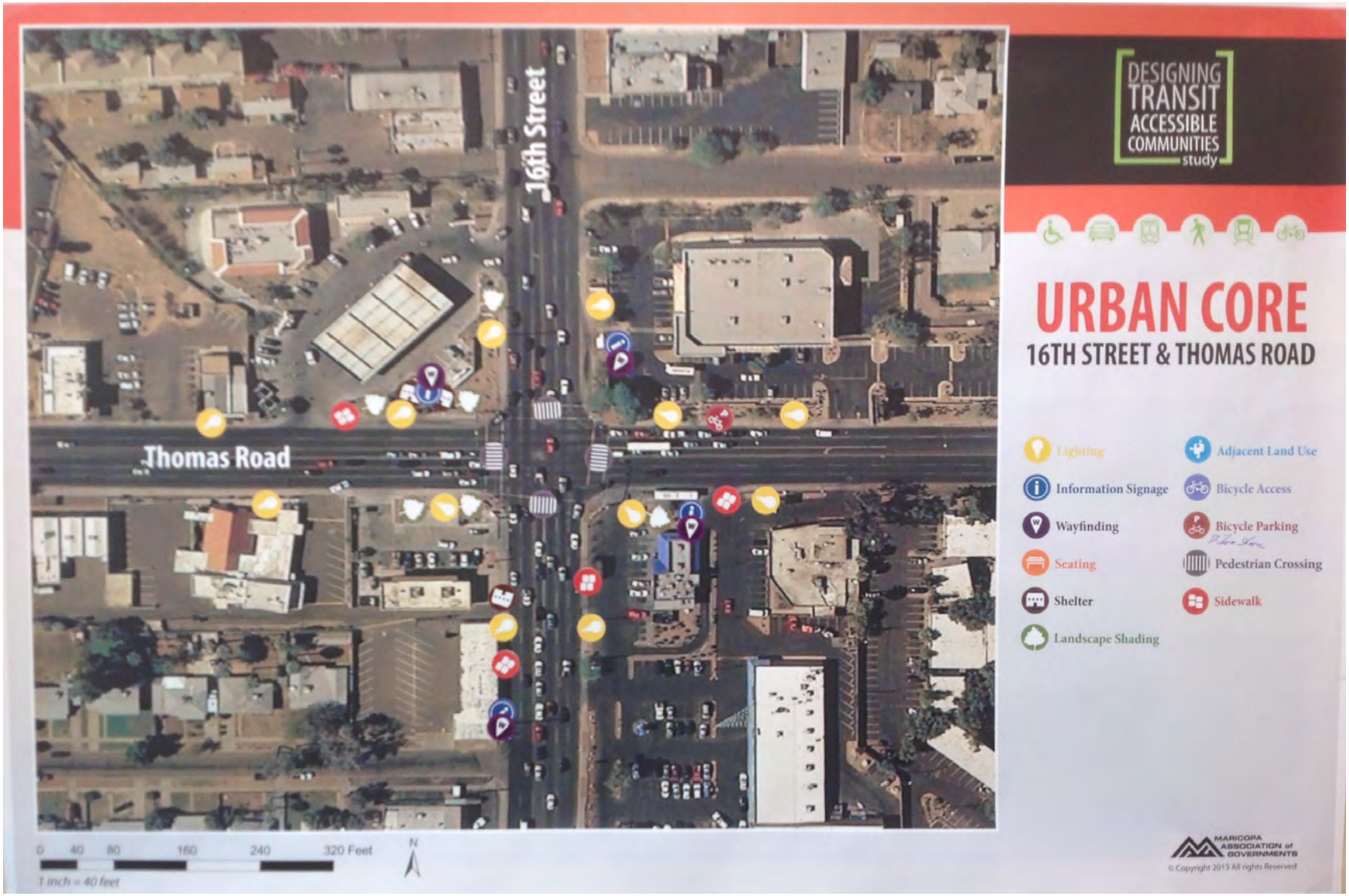
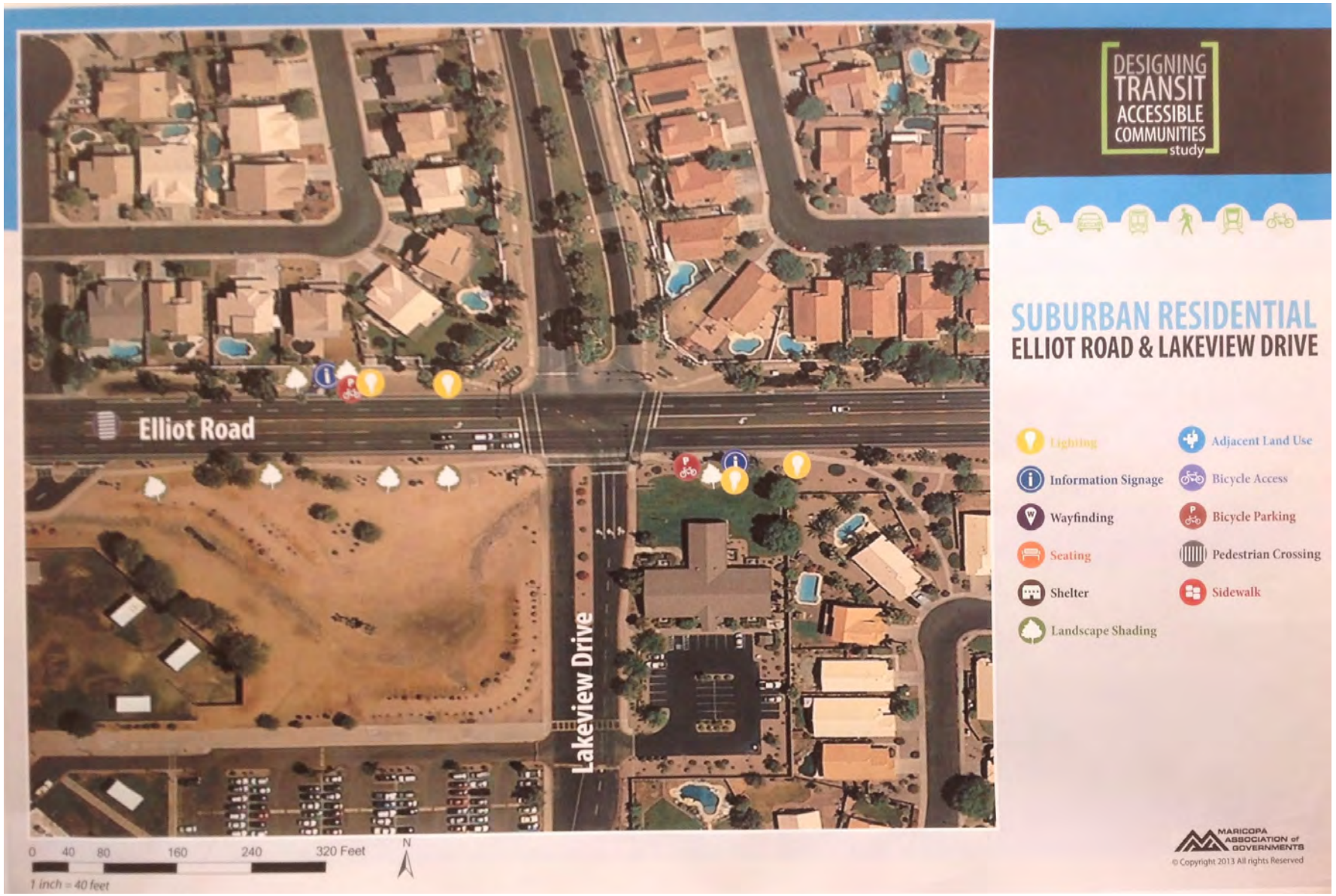


FIGURE 2: 90th Street & Shea Boulevard Workshop Results (Urban Retail)

FIGURE 3: 19th Street & Southern Avenue Workshop Results (Urban Residential)

FIGURE 4: 75th Street & Bell Road Workshop Results (Suburban Retail)

FIGURE 5: Elliot Road & Lakeview Drive Workshop Results (Suburban Residential)



Intercept Surveys

In addition to obtaining input from local agency stakeholders, an intercept survey was developed and administered in person at the five case study bus stop locations. The survey primarily was focused on asking bus riders about their experience accessing – both arriving to and departing from – bus stops. The survey questions generally fell into the following topic areas:

- Mode of access to the bus stop
- Trip purpose
- Trip origin/destination
- Estimated travel distance and time to the bus stop
- Desired improvements for the route to/from the bus stop
- Level of comfort and safety while traveling to/from the bus stop
- Demographic information

Table 4 summarizes the total number of surveys collected by case study location. As shown, a total of 221 surveys were collected, with 188 "Arriving To" surveys and 33 "Departing From" surveys. A majority of the surveys, or 109 surveys, were collected at the 16th Street and Thomas Road case study location, with the next highest rate of survey collection, 55 surveys, occurring at the 19th Avenue and Southern Avenue case study location.

TABLE 4: Number of Surveys Collected by Case Study Location

Case Study Location	Number of "Arriving To" Surveys	Number of "Departing From" Surveys	Total Surveys
16th Street & Thomas Road	101	8	109
19th Avenue & Southern Avenue	45	10	55
90th Street at Scottsdale Fiesta *(south of Shea Boulevard)*	9	6	15
75th Avenue & Bell Road	26	8	34
Elliot Road & Lakeview Drive *(alternative locations at 46th & Broadway and 67th & Baywood)*	7	1	8
TOTAL SURVEYS	188	33	221

Source: Chen Ryan Associates; July 2012.

Table 5 presents survey respondent's ranking of bicycle and pedestrian enhancement types by bus stop category. The percentage value reflects the portion of total survey respondents who agreed that the specific enhancement type would "likely" or "very likely" influence more frequent walking or cycling to bus transit stops. For each bus stop category, the proposed bicycle/pedestrian elements are presented in order of decreasing influence.

TABLE 5: Transit Rider Survey Results: Bicycle/Pedestrian Element Rankings by Bus Stop Category

Urban Core		Urban Residential		Urban Retail		Suburban Retail		Suburban Residential	
Shade Trees	57%	Streetlights	70%	Shade Trees	89%	Bus schedule Information	41%	Shade Trees	72%
Bus Schedule Information	52%	Bus Schedule Information	69%	Streetlights	78%	Shade Trees	37%	Bus Schedule Information	72%
Streetlights	42%	Shade Trees	65%	Bus Schedule Information	56%	Bicycle Lanes	34%	Streetlights	57%
Bicycle Parking	39%	Bicycle Lanes	53%	Medians	56%	Bicycle Parking	30%	Landscaping	43%
Bicycle Lanes	39%	Landscaping	49%	Bicycle Lanes	56%	Curb Extensions	26%	Curb Extensions	43%
Landscaping	38%	Curb Extensions	47%	Bicycle Parking	56%	Streetlights	19%	Art	29%
Curb Extensions	37%	Bicycle Parking	42%	Landscaping	44%	Landscaping	19%	Bicycle Parking	29%
Decorative Pavement	29%	Decorative Pavement	40%	Decorative Pavement	33%	Art	15%	Bicycle Lanes	29%
Art	28%	Art	31%	Curb Extensions	22%	Decorative Pavement	11%	Decorative Pavement	29%
Medians	28%	Medians	31%	Art	11%	Medians	7%	Medians	29%

Source: Chen Ryan Associates; October 2012.

2.0 Existing Conditions Summary *(Working Paper 1)*

In 1985, the Arizona Legislature passed a law enabling the citizens of Maricopa County to vote on a sales tax increase to fund regional transportation improvements. The law also provided for creation of the Regional Public Transportation Authority (RPTA), now known as Valley Metro/RPTA. Elected officials from local governments comprise the RPTA Board of Directors. Public transportation in the Valley now includes several different modes of travel and services provided under the Valley Metro brand, including:

- METRO light rail;
- Valley Metro LINK;
- RAPID service;
- Express Bus;
- Local-limited stop service;
- local route service;
- neighborhood circulators; and
- rural connectors.

There are 54 park-and-ride lots and more than 7,000 transit stops throughout the metro area that support commuting patterns throughout the valley, providing linkages for more than 69,600,000 boardings per year (July 1, 2009 – June 30, 2010). In addition, there are other transportation and mobility opportunities that have been devised to accommodate the segment of the traveling public with special needs. Dial a Ride systems provide special access/mobility options for those without vehicles or who are significantly disadvantaged, handicapped or disabled, and are unable to provide for their own transportation. Working Paper 1 discusses the importance of pedestrian connectivity for all transportation modes. In the MAG region approximately 90% of all transit users approach the system by walking or biking. Regardless of how transit users approach a system, all connecting trips are made at a pedestrian level. Street design, land use, transit frequency, weather, landscaping, social factors, and safety play a significant role in pedestrian comfort. Transit stops are the gateways to public transportation. To enhance transit riders' experience, bus stops should welcome and transition riders into a community; they should provide a convenient, safe, and accessible environment to all users.

The focus of this paper is on safe and accessible transit stops which are an integral part of the public transit system. The paper documents existing transit conditions, organizes data for analysis, and sets the foundation for pursuing categorization of bus stops with case studies.

3.0 Bus Stop Categorization *(Working Paper 2)*

Working Paper 2 defines bus stop categorizations so groupings of bus stop areas can be established for the MAG region. The categorizations are intended to create prototypical pedestrian and bicycle improvement concepts that could be developed and recommended. This working paper describes the methodology employed to develop categorizations of bus stops in local jurisdictions within the MAG region. The paper is divided into three sections: Previous Studies, Methodology, and Analysis Results. These sections summarize related studies and techniques and describe the methodology to present new categories and information found during the analysis and selection process. Table 6 summarizes the variables used to categorize the bus stops in the valley. Figures 6-13 displays each of the categorization input variables for the MAG region. A summary interpretation of each figure follows.

Figure 6 shows the density of the 2010 population by census block group. As shown in Table 2, population density in the MAG region ranges from 0 to 32.1 persons per acre by census block group, with a mean density of 7.8 persons per acre. The eight data ranges were defined using the Natural Breaks classification method in ArcEditor.

Figure 7 shows the density of 2009 employment by census block group. Employment density in the MAG region ranges from 0 to 93.8 jobs per acre, with a mean density of 5.7 jobs per acre. The eight data ranges in Figure 2 were defined using the Natural Breaks classification method in Arc Editor 10.

Figure 8 shows the presence of retail land use across the MAG region in 2009. Presence of retail in the quarter-mile buffer was included as a dichotomous variable in the cluster analysis, i.e., as "yes" (1) or "no" (0) retail within the buffer.

Figure 9 shows the density of zero-vehicle households (HHs) in 2010 by census block group. The density of zero vehicle households in the MAG region ranges from 0 to 4.1 HHs per acre, with a mean density of 0.32 HHs per acre. A value of zero for this variable means that all households in the census block group have at least one vehicle.

TABLE 6: Bus Stop Categorization Variables

Project Goal	Question	
Transit/Bike/ Pedestrian Demand	1. 2010 Population per Acre by Census Block Group	American Community Survey -- US Census
	2. 2009 Employment per Acre by Census Block Group	Longitudinal Employer-Household Dynamics (LEHD) Program -- US Census
	3. Sum of Population and Employment by Census Block Group	(see above)
	4. Presence of Retail	MAG Land Use
	5. 2010 Density of Zero-Vehicle Households by Census Block Group	American Community Survey -- US Census
Bus Service Quality	6. Number of Routes per Bus Stop Area	MAG GIS
	7. Location of Bus Stop at Arterial-Arterial Intersection	MAG GIS
	8. Frequency of Bus Service at Bus Stop Area for all Routes	MAG Transit Frequency

Source: Chen Ryan Associates; May 2012.

The eight data ranges in Figure 2 were defined using the Natural Breaks classification method in ArcEditor 10.

Figure 10 shows the density of population and employment by census block group. This variable was used to reflect transit "trip end" potential. In other words, the location of a person's residence or work place is a good approximation of the majority of potential transit trip origins and destinations that might occur across the region. The density of the sum of population and employment ranges from 0 to about 101 persons and jobs per acre by census block group. The seven data ranges in Figure 5 were defined using the Natural Breaks classification method in ArcEditor 10.

Figure 11 shows the number of routes by bus stop across the MAG region. This variable is a measure of transit service quality, assuming that a greater number of routes serving a given bus stop would provide higher levels of system connectivity. The number of routes by bus stop ranges from 1 to 12 routes, with a mean of 1.2.

Figure 12 shows those bus stops across the MAG region situated at arterial-arterial intersection locations. This was used as a measure of the quality of bus transit service. Like the presence of retail land use, the presence of a route or routes at an arterial arterial intersection was included as a dichotomous variable in the cluster analysis, i.e., as "yes" (1) or "no" (0) route serving the intersection.

F**igure 13** shows the frequency of service by bus stop. For purposes of this study, high frequency bus service was defined as an operating headway of 20 minute or less at the bus stop. Routes passing bus stops were classified into four operational categories, including: Multiple All Day, High Frequency Routes; a Single All Day, High Frequency Routes; High Frequency Service during the Peak Periods Only; and No High Frequency Routes.

FIGURE 6: 2010 Population Densities By Census Block Group

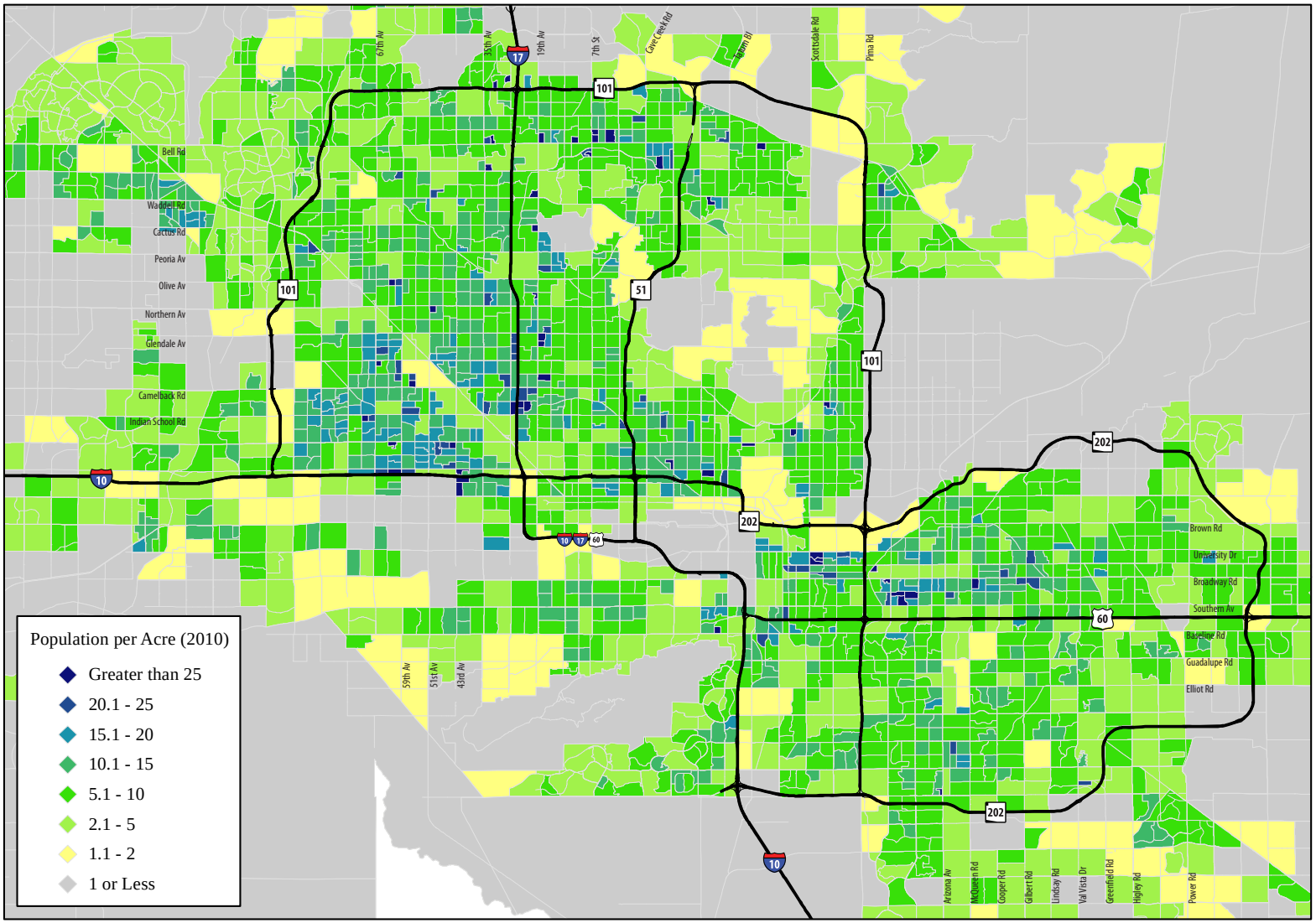


FIGURE 7: 2009 Employment Densities by Census Block Group

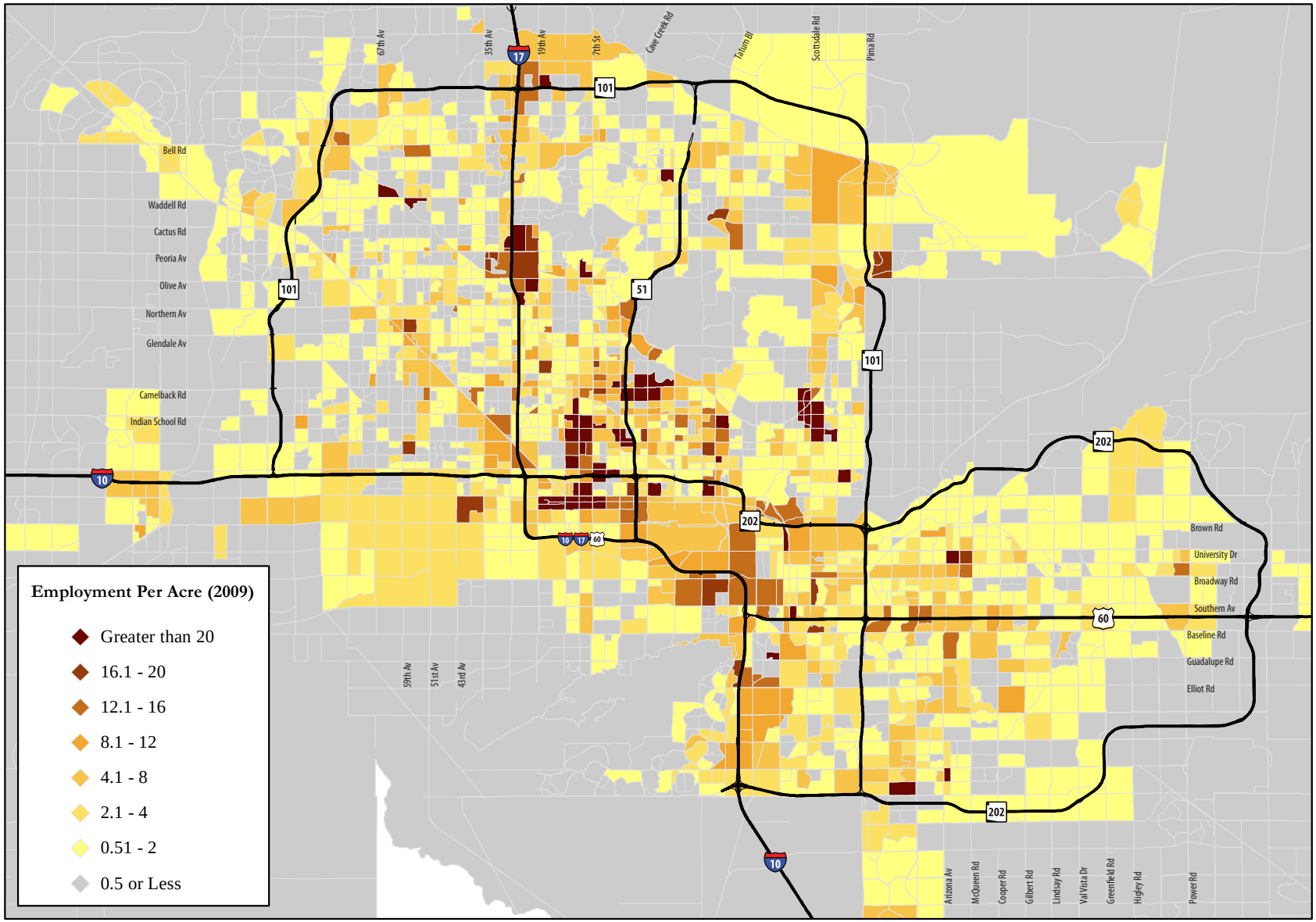


FIGURE 8: 2009 Retail Land Use

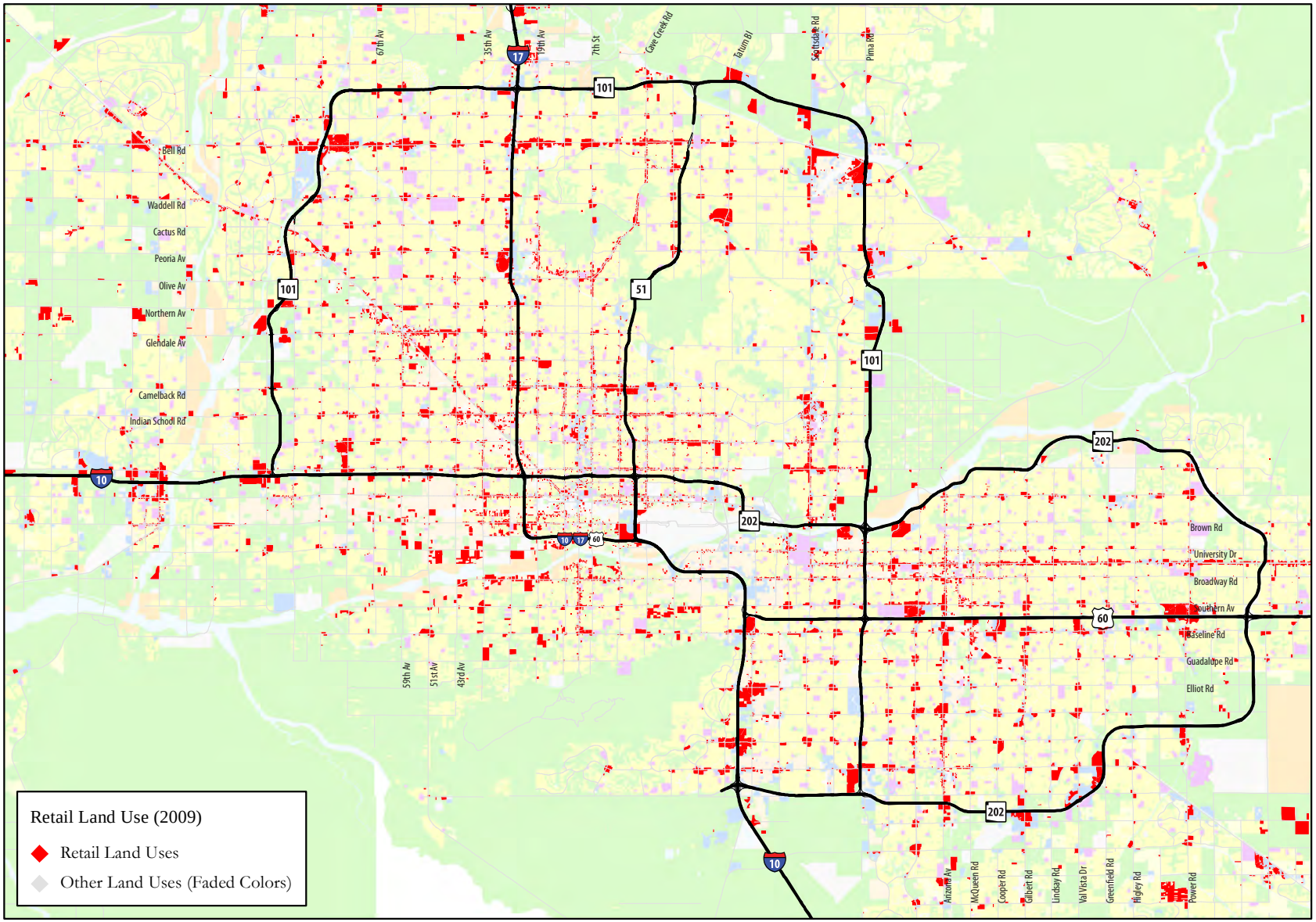


FIGURE 9: 2010 Density of Zero Vehicle Households by Census Block Group

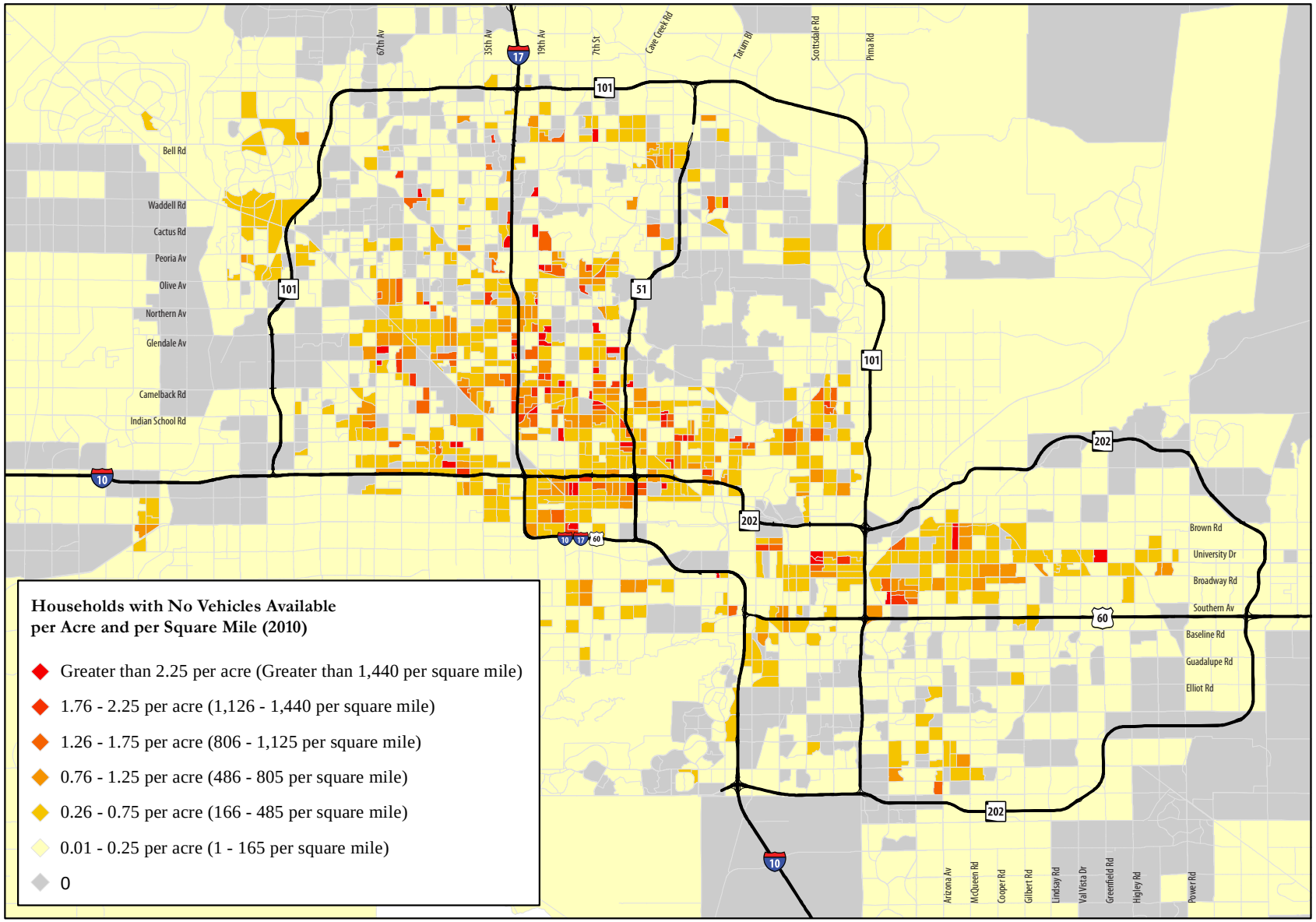


FIGURE 10: Total Sum of Population and Employment by Census Block Group

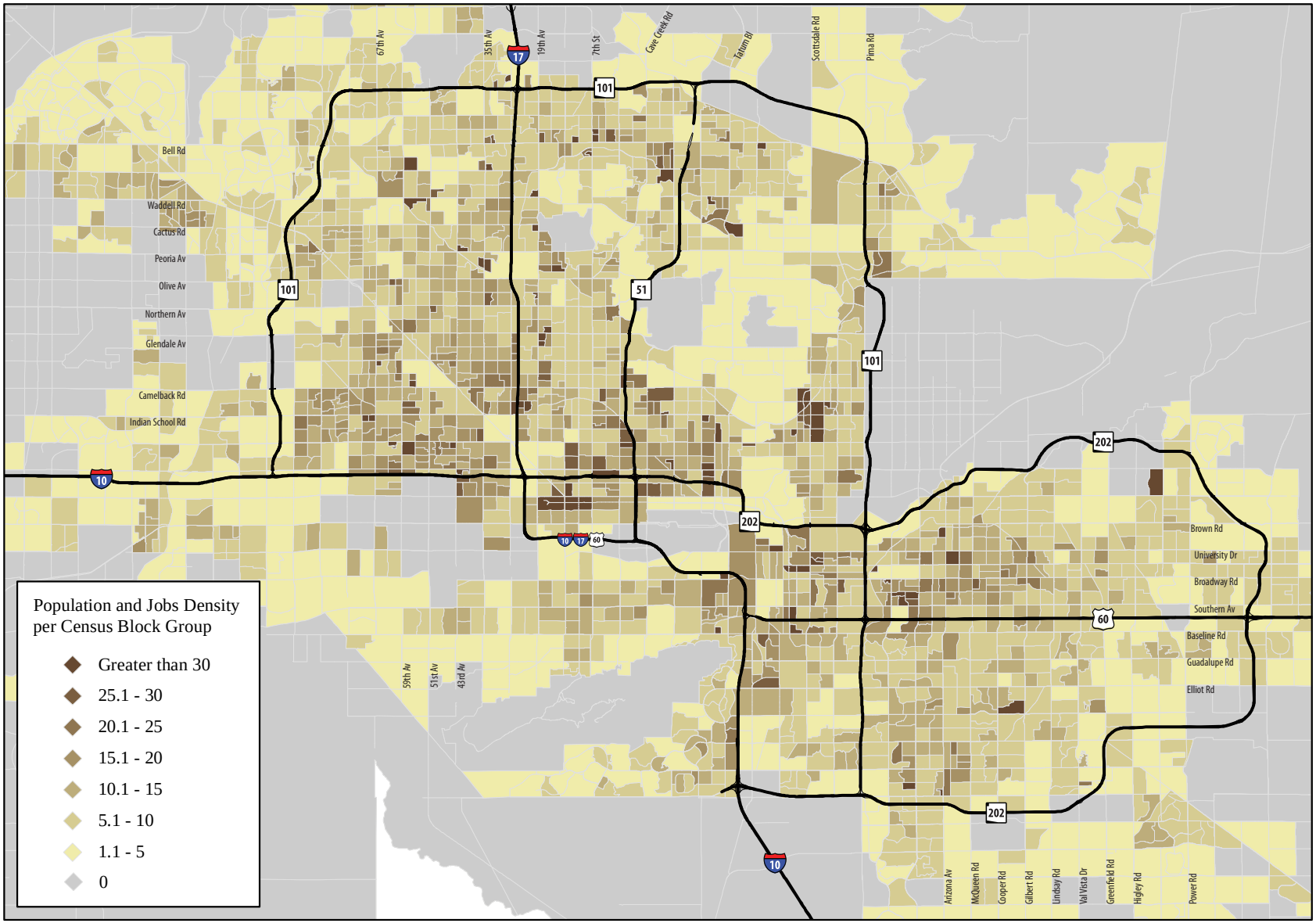


FIGURE 11: Number of Routes Per Bus Stop Area

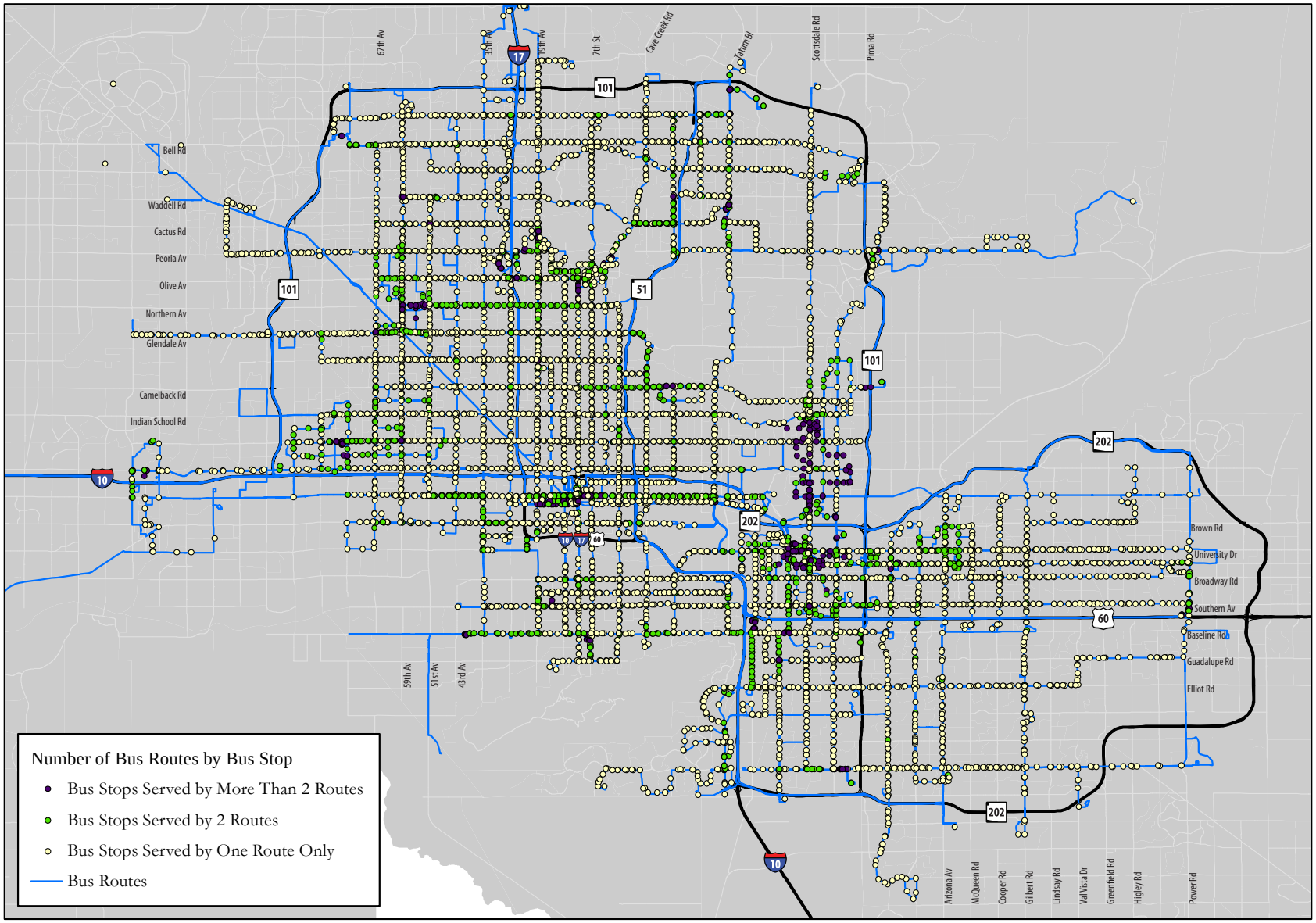


FIGURE 12: Locations of Bus Stop Areas At Arterial-Arterial Intersections

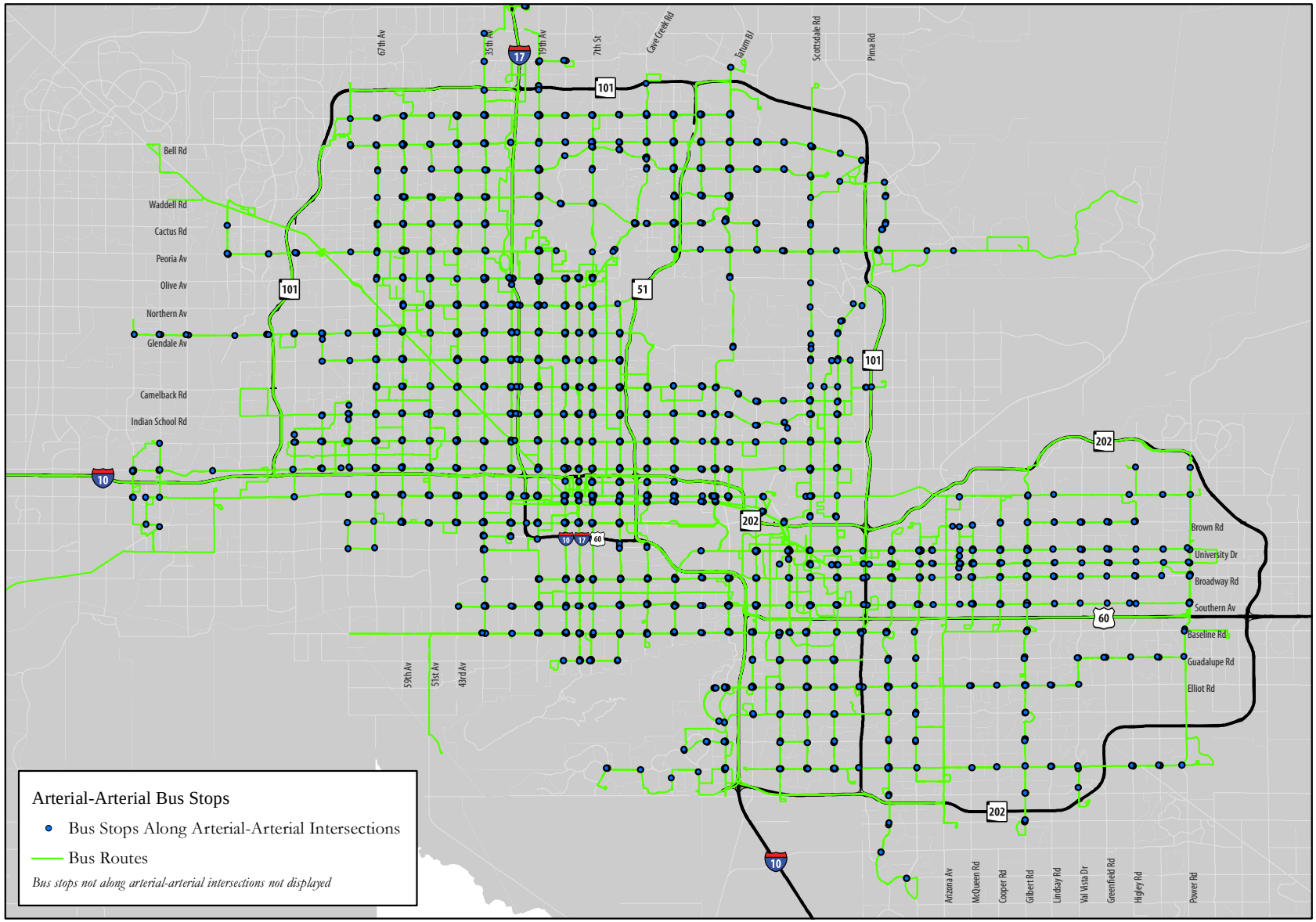
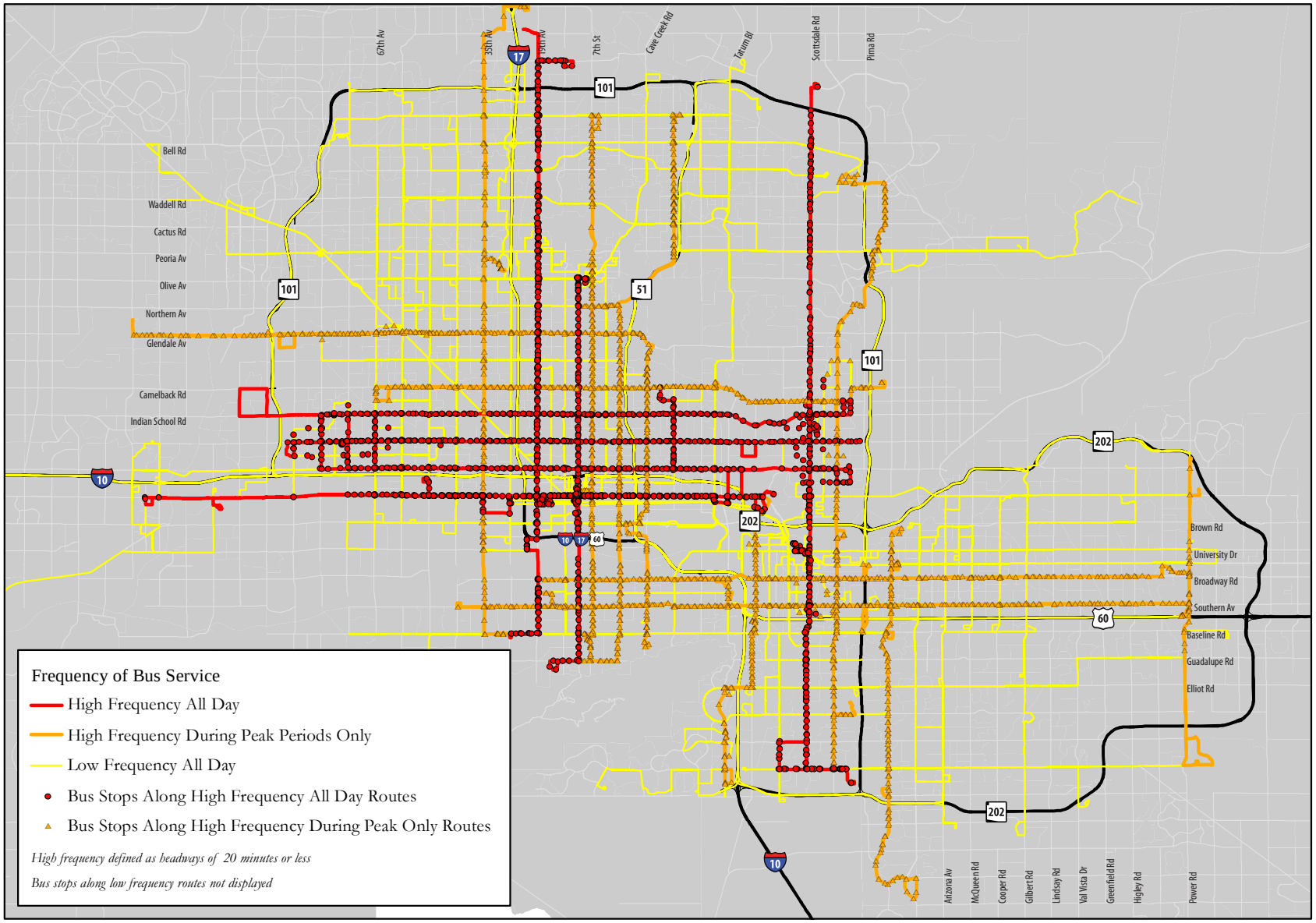


FIGURE 13: Frequency of Bus Transit Route Service at Bus Stop Areas



Given the broad geographic scope and the sheer number of locations considered (over 7,000 bus stop areas across the MAG region), a statistical cluster analysis was considered to be the most appropriate method for identifying categories of bus stop areas.

Table 7 shows how each model run performed relative to two key factors used to assess the reliability of cluster analysis output, namely: the number of clusters and the silhouette measure. Number of clusters provides an indication of how many natural or meaningful groupings can be identified within the database. The MAG DTAC study team looked for approximately five to 10 clusters or categories of bus stops to support development of a reasonable number of prototypes to characterize the different bus stop areas. The silhouette measure, as calculated with the statistical software SPSS, provides an indication of the cohesion or strength within groupings and the degree of separation between groupings, e.g., bus stops A D in Group 1 are very similar and differ notably from bus stops H-M in Group 5. The value of the silhouette measure ranges from 0 to 1: '1' represents perfect clustering and '0' represents no clustering.

Table 7 presents these output measures as a way to support the assessment of each model run and determine which provides the most reliable representation of similarities and differences among and between groups of bus stops. As shown in Table 7, a total of ten model runs were performed to identify two runs that provided both a desirable number of clusters and a high silhouette measure. Model Run #10 was selected as the cluster model for use in defining transit bus stop area categories.

Resulting from Model Run #10 was a breakdown of seven initial categories which were later simplified into five categories. A brief interpretation of each of the seven bus stop categories is provided below, and summarized in Table 8. Figure 14 depicts how each bus stop included in this analysis was categorized.

TABLE 7: Demand, Transit System Service, and Combined Variables for Cluster Model Runs #1--#10 with Number of Clusters and Silhouette Measure

Run #	Pop. Den.	Emp. Den.	Zero VEH HH Den	Retail	Pop. + Emp. Den	# of Routes	Freq.	Art. - Art.	# of Clusters	Silhouette Measure *(cohesion & separation)*
	Demand			Transit System					Cluster Assessment	
1	✓	✓	✓	✓					2	Good (0.7)
2	✓	✓	✓						2	Fair (0.5)
3			✓		✓				2	Good (0.7)
4			✓	✓	✓				3	Good (0.8)
5						✓	✓	✓	10	Good (0.8)
6			✓	✓	✓	✓	✓	✓	2	Fair (0.5)
7			✓	✓	✓	✓	✓		5	Fair (0.4)
8			✓		✓		✓		3	Good (0.7)
9					✓		✓		4	Good (0.8)
10				✓	✓		✓		7	Very Good (0.9)

Source: Chen Ryan Associates; May 2012.

TABLE 8: Hierarchy of Bus Stop Area Categories

Category Ranking	Category Name	Defining Characteristics	# of Stops	% of Total
1	Metropolitan Core	Some Retail; Very High Employment; Multiple High Frequency Transit	223	4%
2	Urban Transit Corridors	Retail; High Frequency Transit; High Population and Employment	675	12%
3	Suburban Transit Corridors	No Retail; High Frequency Transit; Medium Population and Employment	456	8%
4	Suburban Peak Hour Transit Corridors	Retail; Limited High Frequency Transit; High Population and Employment	865	15%
5	Suburban Transit Connectors	Retail; No High Frequency Transit; Medium Population and Employment	1,302	22%
6	Low Suburban Peak Hour Transit Corridors	Retail; No High Frequency Transit; Low Population and Employment	653	11%
7	Low Suburban Transit Connectors	No Retail; No High Frequency Transit; Low Population and Employment	1,648	28%

Source: Chen Ryan Associates; May 2012.

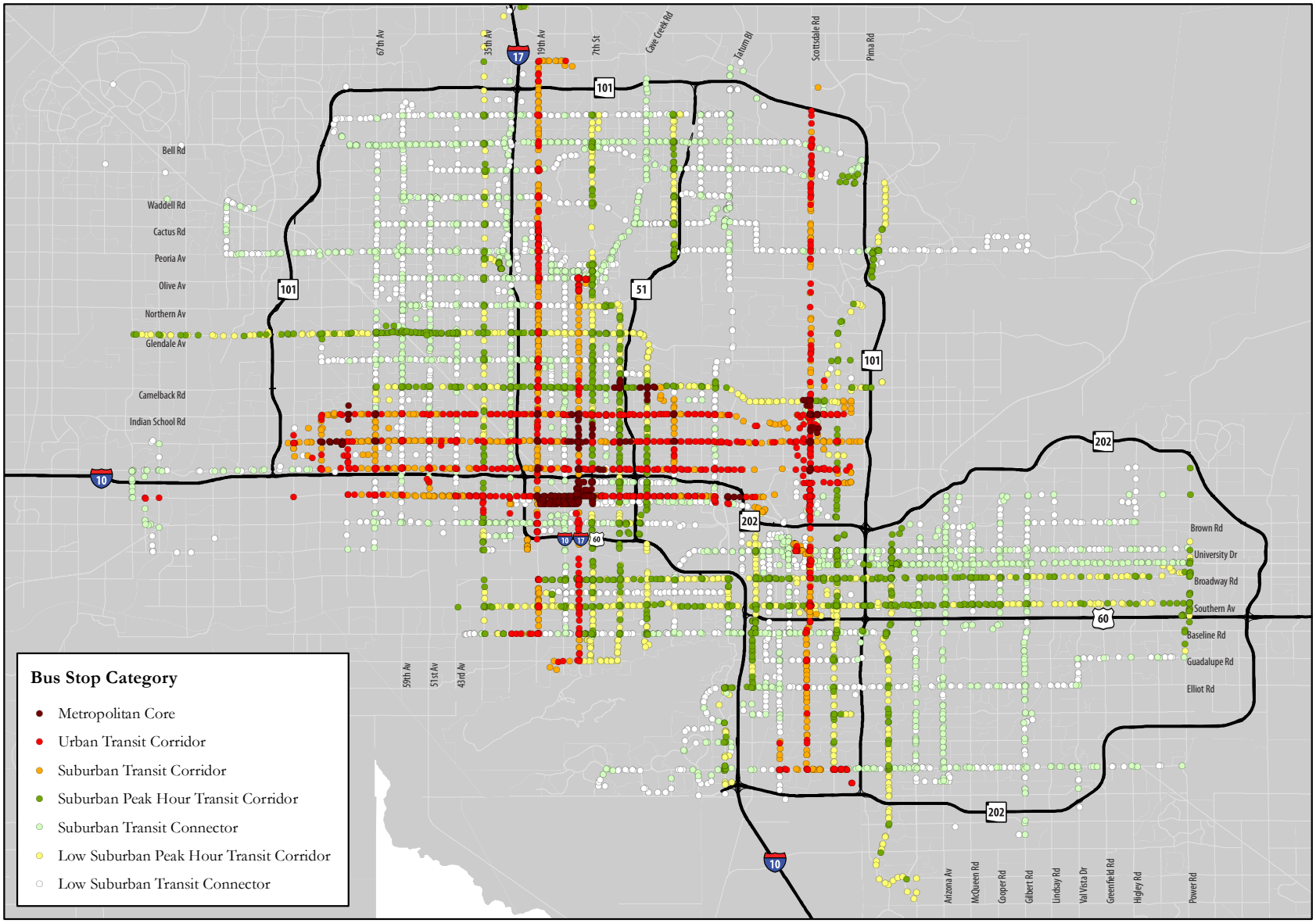
- **Metropolitan Core:** Bus stop areas have some retail land use, along with very high employment (ranging from 0.5 jobs per acre to 94 jobs per acre) and multiple all-day, high frequency transit routes. Four percent of the bus stop areas across the MAG region fall into this category.
- **Urban Transit Corridor:** Bus stop areas have retail land uses, at least one all day, high frequency transit route service, and a relatively high density of population and employment (ranging from 2 persons + jobs per acre to 36 persons + jobs per acre). This category accounts for 12 percent of all bus stop areas.
- **Suburban Transit Corridor**: Bus stop areas in this category are similar to those related to the Urban Transit Corridor, except there is no retail land use present, and the mean density of population and employment is lower than for a Urban Transit Corridor (12 persons + jobs per acre versus 13 persons + jobs per acre). Eight percent of all bus stop areas fall into this category.
- **Suburban Peak Hour Transit Corridor:** Bus stop areas have retail land use present, high frequency transit route service confined to peak periods only, and high population and employment density. This category accounts for 15 percent of all bus stop areas in the MAG region.
- **Suburban Transit Connectors:** Bus stop areas in this category have retail land use present and medium population and employment density; however, there are no high frequency transit routes serving these locations. This type of bus stop area accounts for the second highest share – 22 percent – of all bus stop areas in the MAG region.
- **Low Suburban Peak Hour Transit Corridor:** Bus stop areas have no retail land use present, high frequency transit route service limited to the peak period, and, importantly, low population and employment density (ranging from 0.5 to 23 persons + jobs per acre, with a mean value of 11). Eleven percent of all bus stop areas fall into this bus stop area category.
- **Low Suburban Transit Connector:** Bus stop areas have no retail land use present, no high frequency transit route service, and low population and employment density. This category is the most common type of bus stop area, accounting for the greatest share of bus stop areas in the MAG region. Twenty eight percent, or 1,648 bus stop areas, fall within this category.

After the categories were reviewed by the TWG and the DTAC study team, some of categories were collapsed. Additionally, all categories were renamed to better reflect the built environment of the bus stop's catchment area. In particular, the Metropolitan Core and Urban Transit Corridor categories were collapsed into one category and renamed Urban Core. Also, the Suburban Transit Connector and Low Suburban Transit Connector were collapsed and renamed Suburban Residential. Subsequent to consolidation of bus stop area categories, five locations were selected as case study locations to be field-checked for reasonableness. Table 9 displays the final typology of bus stop area categories and locations selected for case study analysis.

TABLE 9: Final Case Study Locations

Category Ranking	Category Name	Location
1	Urban Core	16th Street & Thomas Road, Phoenix
2	Urban Retail	90th Street, South of Shea Boulevard, Scottsdale
3	Urban Residential	19th Avenue & Southern Avenue, Phoenix
4	Suburban Retail	75th Avenue & Bell Road, Glendale
5	Suburban Residential	Elliot Road & Lakeview Drive, Gilbert

FIGURE 14: Summary of Bus Stop Categorization Process



4.0 Case Studies *(Working Paper 3)*

One of the initial tasks for this project was to create an inventory of available digital data types, including socio-economic, transportation infrastructure, land use, and travel data. The data collection effort is documented in Working Paper 1. A subset of these data types was used during the categorization process. The subset included: population density, employment density, vehicle ownership rates, land uses, bus stops, and bus transit service frequencies (see figures 6-13). This information was helpful in establishing the context for the case study locations as defined by the built environment and transportation system elements. These general characteristics were mapped and tabulated for each of the case study locations to establish an overall sense of each bus stop category's catchment area.

Working Paper 3 presents the results of case study analysis that were used to provide a basis for identifying opportunities and constraints at bus stops in the MAG region. Case studies consisted of two components:

- surveying bus system patrons to evaluate their experience associated with access to the bus stop and use of the bus transit system (see section 1.2.7), and
- field reviews and photography to verify the physical conditions associated with the three geographic points: the bus stop, the immediate vicinity of the stop, and patron catchment area.

The MAG DTAC study team employed field reconnaissance to verify and establish the validity and reliability of information gathered through the data collection process. Each of the selected case study locations (as well as preliminary candidate locations) was visited to (1) acquire knowledge of their specific land use and transportation attributes and (2) obtain a photographic record of the location's features. The field review process was supplemented with examination of aerial photography available on the internet through Google Earth and Bing maps. This work established a foundation for developing a toolkit of improvements that can enhance the comfort and safety of patrons of the Valley Metro bus system, as they travel to and from bus stops. Figures 15-24 illustrate the case study analysis conducted by the consultant team and confirmed by the TWG.

The case studies are intended to uncover issues and opportunities related to the specific bus stop areas, riders' experiences accessing bus stops, and the general catchment areas within a ¼ mile to two mile area of the bus stop. This section summarizes issues and opportunities identified during the field reviews and through the team's survey of bus riders. Based upon the field reviews and the stakeholder and bus transit user's input, issues and opportunities at the case study locations were identified within the following general topic areas:

- Shading, Landscaping, Weather Protection
- Waiting Areas, Bus Shelters and Stop Location
- Safety and Security
- Access to/from Bus Stop and Adjacent Land Uses

4.1 16th Street & Thomas Road *(Urban Core)*

Figure 15 illustrates the case study analysis conducted for the Urban Core bus stop category, located at 16th Street and Thomas Avenue in the City of Phoenix.

- 16th Street is a 5-lane, north-south arterial in central Phoenix. It currently carries an average daily traffic (ADT) volume of approximately 27,000 vehicles per day (vpd) at a posted speed of 35 miles per hour (mph). This roadway is an important north-south connector between the Dreamy Draw area of north central Phoenix and the central business district (CBD). The cross-section measures approximately 72 and consists of two lanes in the both direction with a center left turn lane.
- Thomas Road is 6-lane east-west urban arterial currently with and ADT of 36,000 vpd at a posted speed limit of 35 mph. This roadway provides an important connection between the Phoenix Uptown area and West Phoenix, Avondale, and Litchfield Park to the west and East Phoenix and Scottsdale to the east. The cross-section measures approximately 76 feet east of 16th Street and 84 feet west of 16th Street. The roadway consists of two lanes in the westbound direction, three lanes in the eastbound direction, and a center left-turn lane.

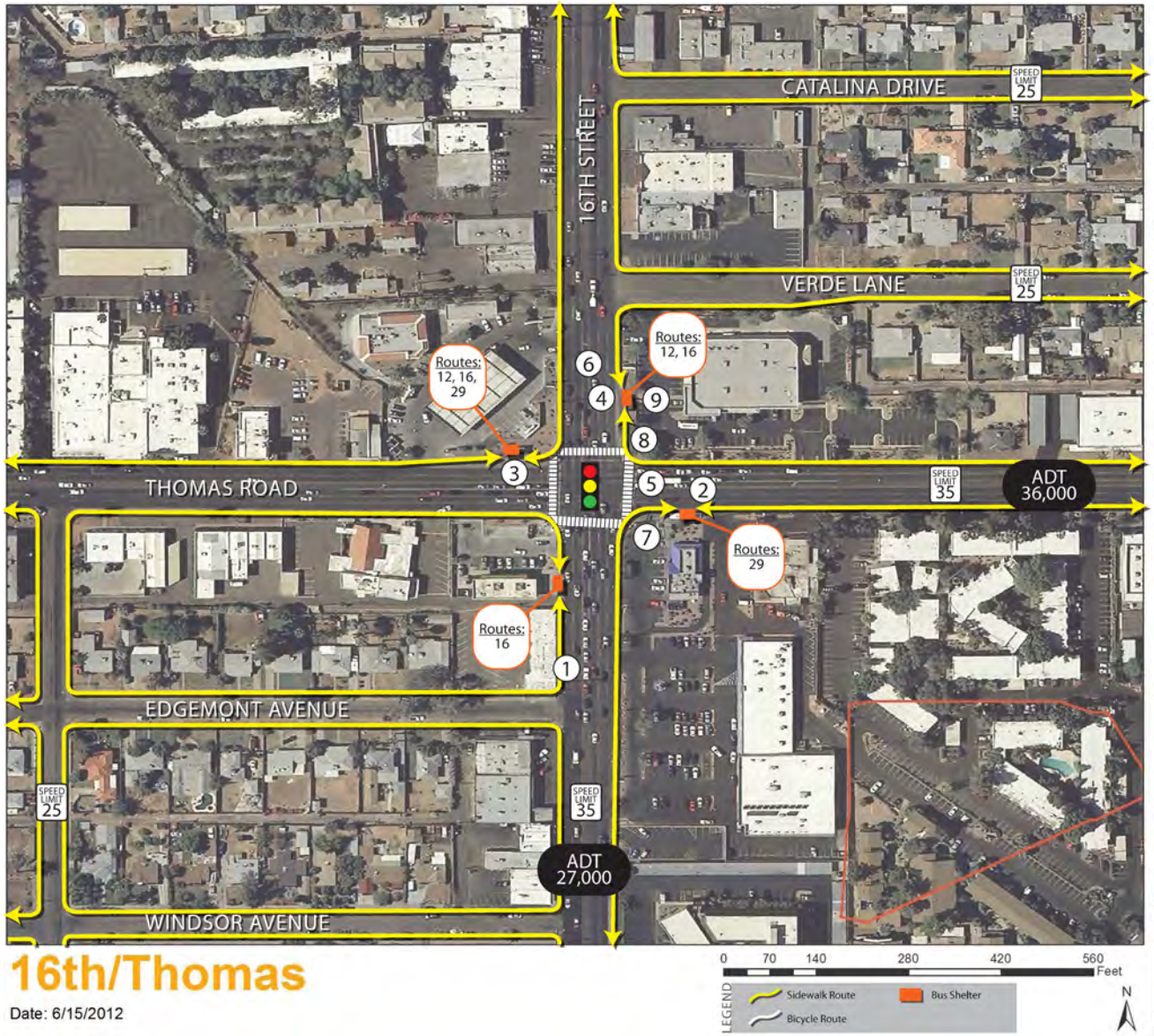
There are far-side bus stops with shelters on each of the intersection legs. There are diagonal curb ramps accommodating wheelchairs at each of the intersection corners. Each leg of the intersection has a standard cross-walk and a pedestrian signal head indicating the walk phases.

Five-foot sidewalks are consistently found throughout the bus stop area. With the exception of a short segment on the south side of Thomas Road west of 16th Street, sidewalks are directly adjacent to vehicle travel lanes creating a fairly uncomfortable experience for pedestrians. There are no landscaping strips or on street parking to buffer pedestrians from the high-volume of vehicular traffic along these two roadways. In addition, there are no bike lanes in this bus study area.

Land uses immediately adjacent to this bus stop location include: a small shopping center with a Burger King, a Walgreens Drug Store, and two gas station/ convenience markets. Land uses generally are set back from the sidewalks, requiring pedestrians to traverse the parking lots or landscaped areas to access buildings.

Figure 16 displays a comprehensive overview of the findings within each topic areas at the 16th & Thomas case study location, with associated issues and opportunities.

FIGURE 15: 16th Street & Thomas Road Case Study Analysis (*Urban Core Location*)




① SB Bus Stop


② EB Bus Stop


③ WB Bus Stop


④ NB Bus Stop


⑤ Pedestrians Crossing Thomas

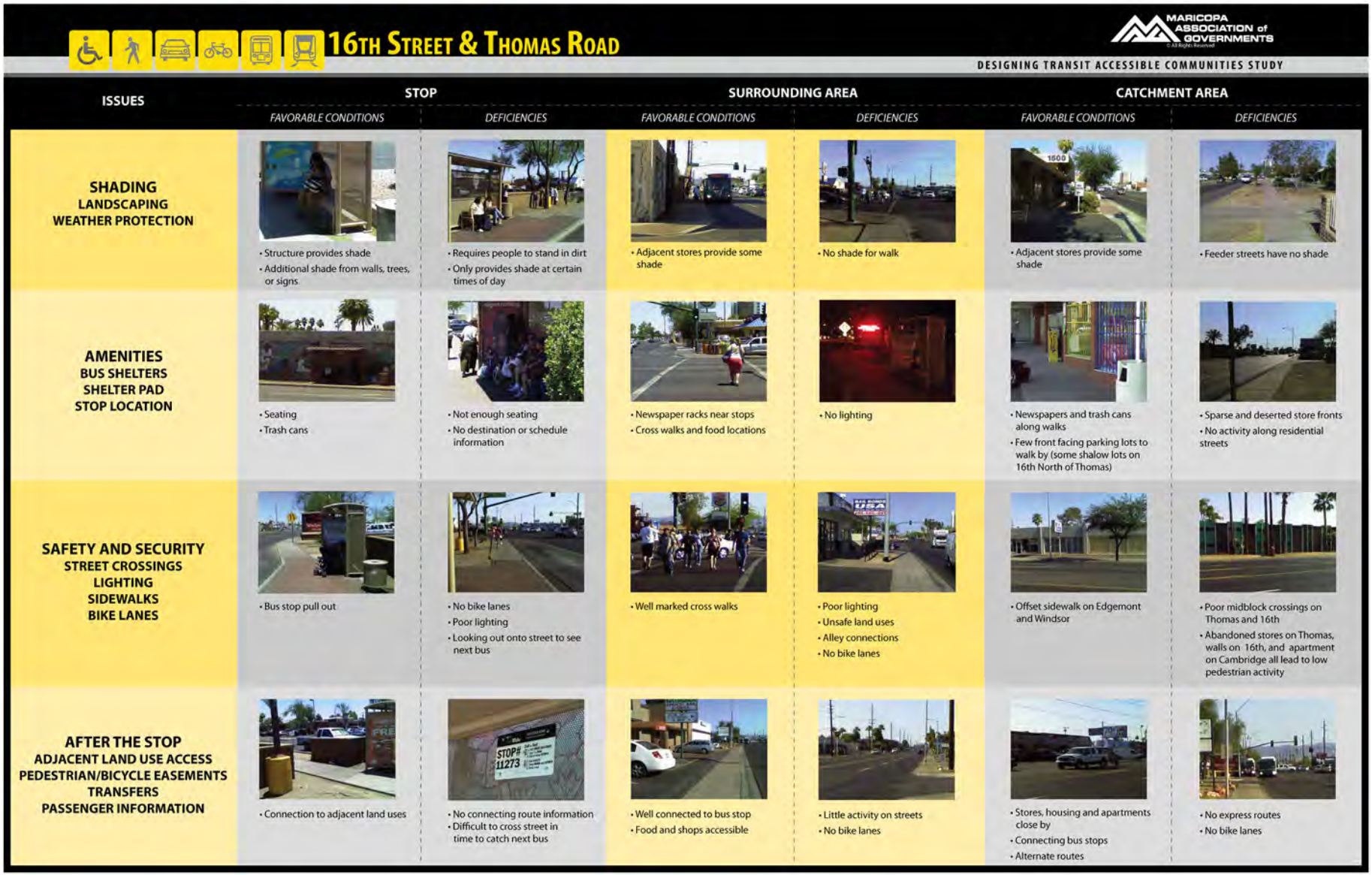

⑥ Bus Patron Looking for Bus


⑦ Shade and Seating Near EB Bus Stop


⑧ Bike on Sidewalk


⑨ Pedestrian Access to Adjacent Development

FIGURE 16: 16th Street & Thomas Road Case Study Analysis (*Urban Core Location*)



4.2 90th Street & Shea Boulevard *(Urban Retail)*

Figure 17 illustrates the case study analysis conducted for the Urban Retail bus stop category, located at 90th Street and Shea Boulevard in the City of Scottsdale.

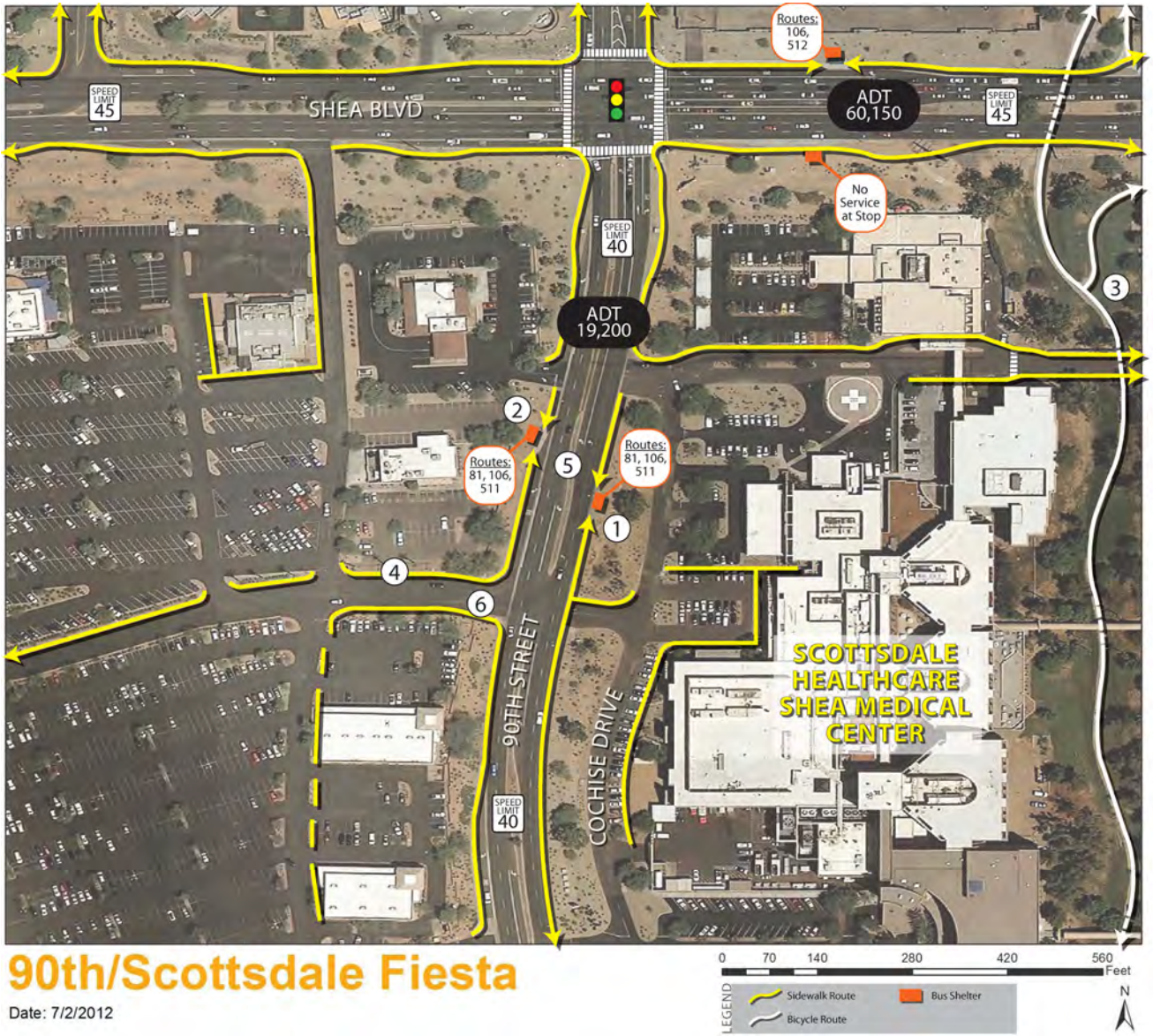
- 90th Street is a 4-lane, north-south arterial in the City of Scottsdale with an ADT of 19,200 vpd at a posted speed limit of 40 mph. This roadway is a critical north-south link between SR 101/Pima Freeway and Shea Boulevard. It is provides access to the Scottsdale Fiesta Shopping Center, Scottsdale Healthcare North Campus, and numerous commercial enterprises developed in concert with McCormick Ranch, one of the first master planned communities in the country. The cross-section measures 78-84 feet north of Mountain View Road and consists of two lanes in both directions with a center median and multiple right and left-turn bays. South of Mountain View Road, the roadway has a 70 foot, 5 lane cross-section, which consists of two lanes in each direction and a center left-turn lane. North of Shea Boulevard, the roadway has a two-lane cross-section and the speed limit drops to 25 mph. This portion of 90th Street serves commercial properties.
- Shea Boulevard is a six lane east west arterial roadway with an ADT of 60,150 vpd at a posted speed limit of 45 mph. Shea Boulevard is a major regional roadway, connecting with SR 101/Pima Freeway and SR 51/Piestewa Freeway. It also connects Fountain Hills, 10 miles to the east with Scottsdale and Phoenix. The roadway cross-section measures 140 feet north and consists of three lanes in both directions with a center median and dedicated right and left-turn bays; double left-turn bays are provided in the westbound direction at 90th Street.

Eight-foot sidewalks are consistently found throughout the case study location area. Sidewalks typically are five feet south of Mountain View Road. Sidewalks are, for the most part, directly adjacent to the vehicular travel lanes, causing a fairly uncomfortable experience for pedestrian movements. There is ample amount of landscaping in the bus stop area; however, the landscaped strips are between the sidewalks and adjacent buildings. There is no on street parking to buffer the pedestrian from high-volume of vehicular traffic along these two roadways. In addition, there are no bike lanes in this case study location area.

Adjacent land uses include a shopping center, gas station/convenience markets, restaurants, and a major hospital complex. Land uses generally are set back from the sidewalks, requiring pedestrians to traverse landscaped buffer areas and parking lots to access buildings.

Figure 18 displays a comprehensive overview of the findings within each topic areas at the 90th and Shea case study location, with associated issues and opportunities.

FIGURE 17: 90th Street & Shea Boulevard Case Study Analysis *(Urban Retail Location)*



① NB Bus Stop

② SB Bus Stop

③ Bike Path

④ Sidewalk Access to Scottsdale Fiesta

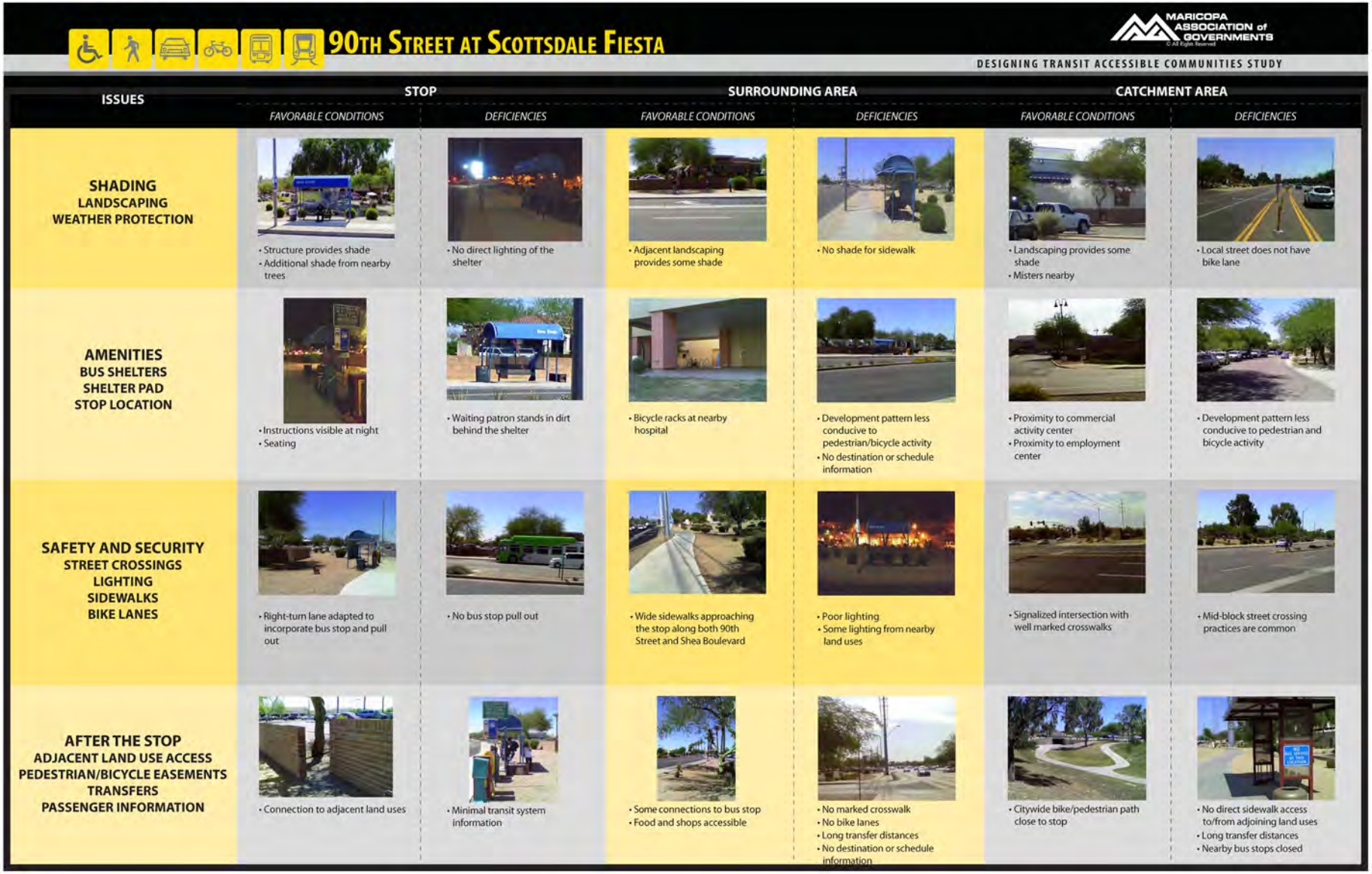
⑤ Jay Walking Between Stops

⑤ Jay Walking Between Stops

⑥ Unmarked Crosswalks

⑥ Unmarked Crosswalks

FIGURE 18: 90th Street & Shea Boulevard Case Study Analysis (*Urban Retail Location*)



4.3 19th Avenue & Southern Avenue *(Urban Residential)*

Figure 19 illustrates the case study analysis conducted for the Urban Residential bus stop category, located at 19th Avenue and Southern Avenue in the City of Phoenix.

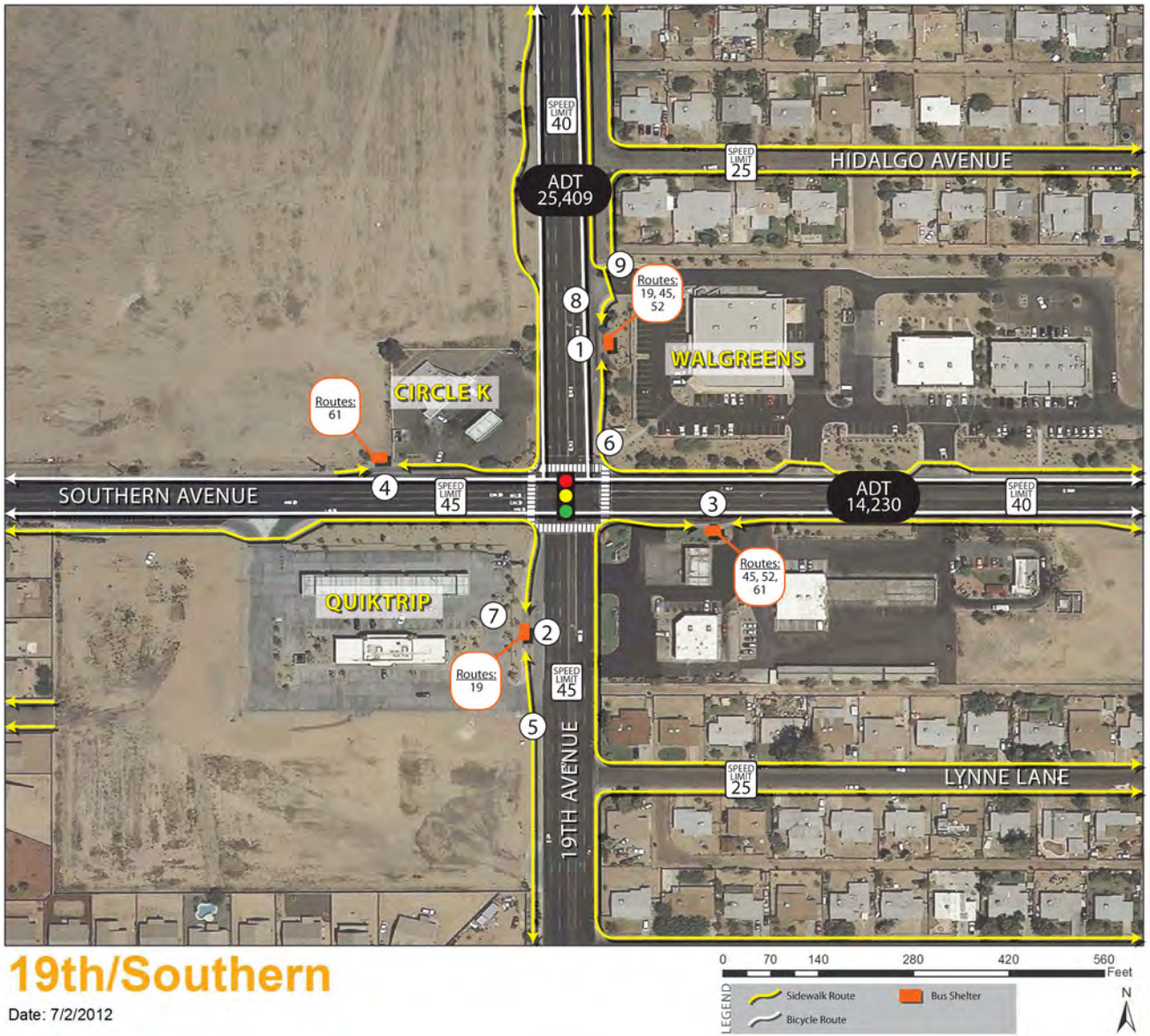
- 19th Avenue is a 5/6-lane, north south arterial, currently carrying an average daily traffic (ADT) volume of approximately 25,409 vpd at a posted speed of 40 mph north of Southern Avenue and 45 mph south of Southern Avenue. This roadway is an important north-south arterial for South Phoenix, providing access to the State Capitol area, the Arizona State Fairgrounds, and industrial/commercial employment centers at Peoria Avenue and the Deer Valley Airport. The cross-section measures approximately 76 feet north of Southern Avenue and 84 feet south of Southern Avenue. North of Southern Avenue, the roadway consists of three lanes in the southbound direction and two lanes in the northbound direction with a center left-turn lane. South of Southern Avenue, the roadway has two lanes in both directions, with a center left-turn lane.
- Southern Avenue is a 4-lane east-west urban arterial with an ADT of 14,230 vpd at a posted speed limit of 45 mph west of 19th Avenue and 40 mph east of 19th Avenue. This roadway is an important arterial for South Phoenix, providing access to the Phoenix CBD, the industrial area of southeast Phoenix/west Tempe, Tempe, and Mesa. The cross-section measures approximately 76 feet east of 16th Street and 84 feet west of 16th Street. The roadway consists of two lanes in the westbound direction, three lanes in the eastbound direction, and a center left-turn lane. In addition, there are bike lanes on the north and south sides of the roadway.

There are far-side bus stops with shelters and bus pull outs on each of the intersection legs. There are two perpendicular curb ramps accommodating wheelchairs at each of the intersection corners. Each leg of the intersection legs has a standard cross-walk and a pedestrian signal head indicating the pedestrian walk phases.
Five-foot sidewalks are consistently found throughout the bus stop area. However, sidewalks are directly adjacent to vehicular travel lanes, causing a fairly uncomfortable experience for pedestrians. There are no landscaping strips or on street parking to buffer pedestrian movements from high-speed, high-volume vehicular traffic along these two roadways. Bike lanes have been provided only on Southern Avenue.

Adjacent land uses include three gas station/convenience markets on three corners and a Walgreens on the fourth corner. Land uses generally are set back from the sidewalk requiring pedestrians to traverse the parking lots and landscaping to access buildings. The Walgreens on the northeast corner of the intersection has direct sidewalk access from the intersection corner to the building site, thereby making pedestrian access more comfortable.

Figure 20 displays a comprehensive overview of the findings within each topic areas at the 19th and Southern case study location, with associated issues and opportunities.

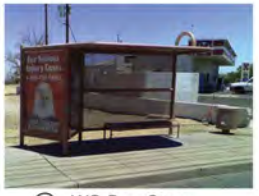
FIGURE 19: 19th Avenue & Southern Avenue Case Study Analysis (*Urban Residential Location*)




① NB Bus Stop


② SB Bus Stop


③ EB Bus Stop


④ WB Bus Stop


⑤ Bike Lane and Sign for Unmarked Crossing


⑥ Pedestrian Access of NE Corner


⑦ Pedestrian Access Near SB Bus Stop


⑧ Bike Boarding at NB Bus Stop


⑨ Crosswalk Across Driveway Near NB Stop

FIGURE 20: 19th Avenue & Southern Avenue Case Study Analysis *(Urban Residential Location)*

19TH AVENUE & SOUTHERN AVENUE

MARICOPA ASSOCIATION of GOVERNMENTS

DESIGNING TRANSIT ACCESSIBLE COMMUNITIES STUDY

ISSUES	STOP		SURROUNDING AREA		CATCHMENT AREA	
	FAVORABLE CONDITIONS	*DEFICIENCIES*	*FAVORABLE CONDITIONS*	*DEFICIENCIES*	*FAVORABLE CONDITIONS*	*DEFICIENCIES*
SHADING **LANDSCAPING** **WEATHER PROTECTION**	 • Shaded bench	 • Not good for all times of day • No landscape shading	 • Some arterial streets have partial shade	 • Little to no shade for walk	 • Some arterial streets have partial shade	 • Residential streets have no shading • Mostly emply lots • Few trees provide little shade
AMENITIES **BUS SHELTERS** **SHELTER PAD** **STOP LOCATION**	 • Advertising • Trash cans • Complete transit system signage	 • Not enough seating • No real time bus information • No newspapers	 • Some landscaping • Detached sidewalks • Convenience stores	 • Empty lots	 • Alleys to the North provide connectivity and relocate trash barrels • Detached sidewalks	 • Empty lots • No activity along streets • No landscaping • No bike lanes
SAFETY AND SECURITY **STREET CROSSINGS** **LIGHTING** **SIDEWALKS** **BIKE LANES**	 • Bus stop pull out • Detached sidewalks	 • No bike lanes or bike racks	 • Adjacent stores provide good lighting • Preferred land uses	 • Poor lighting after store hours	 • Pedestrian crosswalks • Eastbound bike lanes • Traffic calming devices in neighborhoods to the West	 • Inactive streets
AFTER THE STOP **ADJACENT LAND USE ACCESS** **PEDESTRIAN/BICYCLE EASEMENTS** **TRANSFERS** **PASSENGER INFORMATION**	 • Network map provided	 • Some locations with attached sidewalk	 • Connection to adjacent land use • Good crosswalks	 • Crossing signage but no crosswalk	 • Eastbound bike lanes • Large tracts of vacant/ undeveloped property	 • Primarily used for transfers and not origins/destinations • Neighborhood entrances not easily accessed

4.4 75th Avenue & Bell Road *(Suburban Retail)*

Figure 21 illustrates the case study analysis conducted for the Suburban Retail bus stop category, located at 75th Avenue and Bell Road in the City of Glendale.

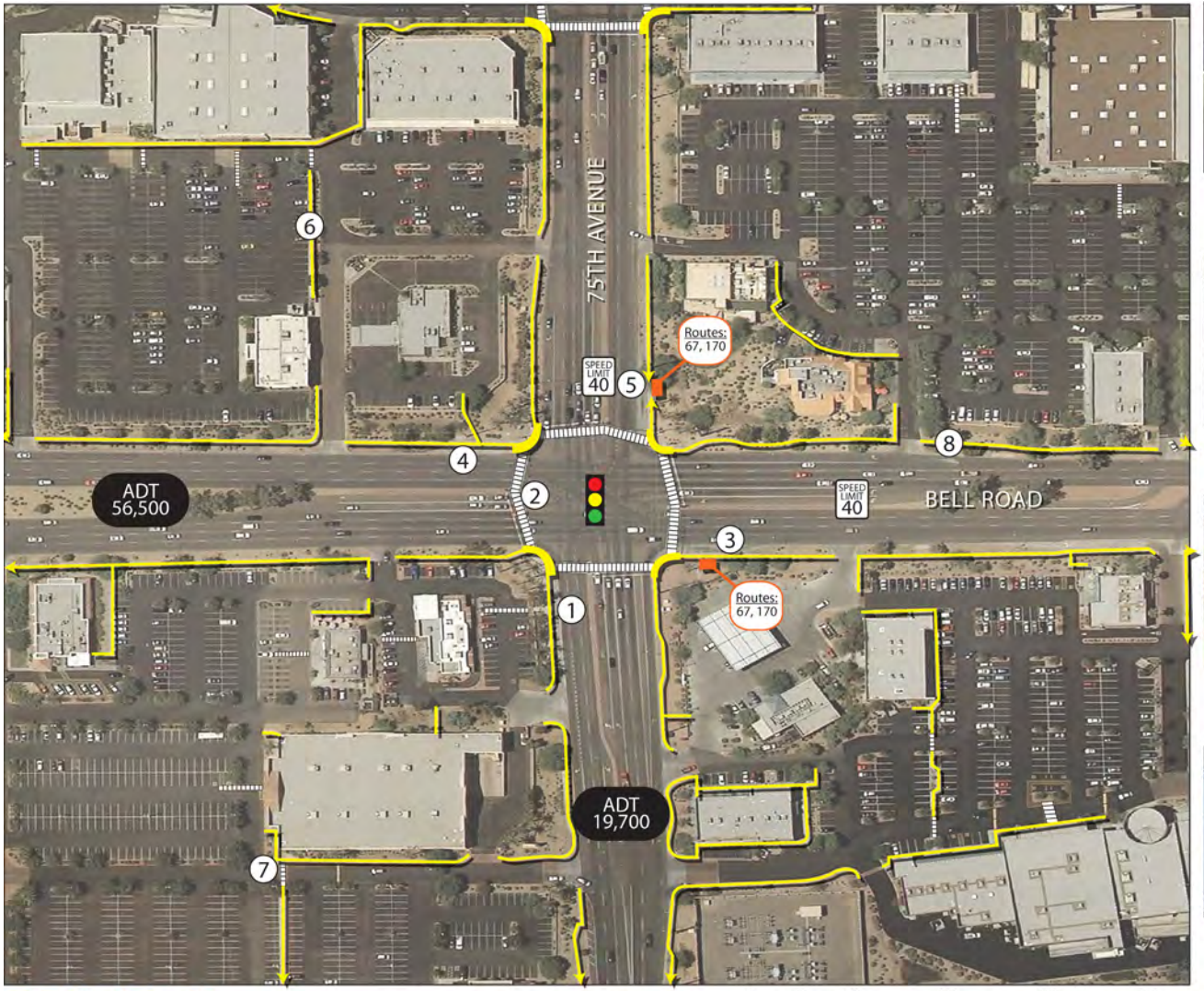
- 75th Avenue is a 4-lane, north-south arterial in the City of Glendale with an ADT of 19,700 vpd and a posted speed limit of 40 mph. This roadway is a critical north-south link between northern portions of Glendale and southern portions of Glendale between Camelback Road and Northern Avenue. It provides access to Arrowhead Towne Center on the north side of Bell Road and makes connections with SR 101/Agua Fria Freeway, US 60/Grand Avenue, and the I 10/Papago Freeway corridor in west Phoenix. The cross-section measures 130 feet north of Bell Road and consists of two lanes in the northbound directions and three lanes in the southbound direction with a center median and multiple right and left-turn bays. South of Bell Road, the roadway becomes a five-lane facility. The 135 foot cross-section at Bell Road narrows to 80 feet at the Skunk Creek Bridge, where there are two lanes in each direction with a center left-turn lane.
- Bell Road is an east west arterial roadway with an ADT of 56,500 vpd and a posted speed limit of 40 mph. This major regional roadway connects with SR 101/Agua Fria Freeway to the west and I 17/Black Canyon Freeway, SR 51/Piestewa Freeway, and SR 101/Pima Freeway to the east. As a major regional arterial, Bell Road is dominated by commercial development stretching from the Surprise and Glendale in the western portion to Phoenix and Scottsdale in the eastern portion. The roadway cross-section measures 145 feet east of 75th Avenue and consists of three lanes in both directions with a center median and dedicated right and left-turn bays. Double left-turn bays are provided in the westbound direction at 75th Avenue. West of 75th Avenue the cross-section expands to 190 feet, accommodating four lanes in both directions, right turn bays, and a median sufficiently wide to permit double left-turn bays at 75th Avenue, 83rd Avenue, and every intersection in between.

Sidewalks constructed six to seven feet in width are consistently found throughout the case study location area. Sidewalks on 75th Avenue, north of Bell Road, generally are separated from vehicular travel lanes by a landscaped buffer five to seven feet in width. South of Bell Road, this buffer is less consistent, and it disappears south of the Skunk Creek Bridge, which results in a less than favorable experience for the pedestrian. A five-foot pedestrian walkway has been incorporated on both sides of Skunk Creek Bridge. Sidewalks on Bell Road are separated from vehicular travel lanes by a 12 foot landscaped buffer, which buffers the pedestrian from high-speed, high-volume vehicular traffic. Bell Road crosses Skunk Creek east of 75th Avenue. This bridge does not include pedestrian walkways. There are no bike lanes in this case study location area.

Adjacent land uses include a regional mall, a power center, shopping centers, restaurants, and fast food establishments. Land uses generally are set back from the sidewalk area requiring pedestrians to traverse the landscaped areas and parking lots to access buildings.

Figure 22 displays a comprehensive overview of the findings within each topic areas at the 75th and Bell case study location, with associated issues and opportunities.

FIGURE 21: 75th Avenue & Bell Road Case Study Analysis (*Suburban Retail Location*)



① Connections to Adjacent Land Use

② Pedestrian Refuge

③ Bus Bay

④ Unused Bus Stop

⑤ NB Bus Stop

⑥ Pedestrian Passageway

⑦ Pedestrian Crosswalk

⑧ Detached Sidewalk

FIGURE 22: 75th Avenue & Bell Road Case Study Analysis (*Suburban Retail Location*)

75TH AVENUE AND BELL ROAD

MARICOPA ASSOCIATION of GOVERNMENTS
DESIGNING TRANSIT ACCESSIBLE COMMUNITIES STUDY

ISSUES	STOP		SURROUNDING AREA		CATCHMENT AREA	
	FAVORABLE CONDITIONS	*DEFICIENCIES*	*FAVORABLE CONDITIONS*	*DEFICIENCIES*	*FAVORABLE CONDITIONS*	*DEFICIENCIES*
SHADING LANDSCAPING WEATHER PROTECTION	 • Landscaping near stop • Additional shade from nearby trees	 • No shelter • Few trees	 • Adjacent landscaping provides some shade	 • Unused bus bay and shelter pad • Little to no shade on sidewalks	 • Shade and weather protection nearby, if needed	 • Little to no shade on sidewalks
AMENITIES BUS SHELTERS SHELTER PAD STOP LOCATION	 • Seating at shelter • Route information visible	 • Overflowing trash bin at shelter	 • Pedestrian crosswalk within nearby shopping center	 • Few pedestrian connections to adjacent development • Development pattern less conducive to bicyle/pedestrian activity	 • Proximity to commercial activity center • Bike racks in surrounding shopping centers	 • Few pedestrian connections to adjacent development • Development pattern less conducive to bicyle/pedestrian activity
SAFETY AND SECURITY STREET CROSSINGS LIGHTING SIDEWALKS BIKE LANES	 • Signalized intersection with safety island for pedestrian crossing of wide thoroughfare	 • High traffic area • Multiple traffic zones • Multiple traffic directions • No bike lanes	 • Wide sidewalks • Landscaped buffer separates sidewalks from street and traffic	 • Unmarked pedestrian crossing • Lack of lighting at intersection • Attached sidewalks • No bike lanes • Small pedestrian refuges	 • Protected crossing of Skunk Creek on 75th Avenue south of stop (Note: Similar pedestrian facility does not exist on Bell Road east of stop)	 • Eight-lane roadway • No bike lanes • Attached sidewalks
AFTER THE STOP ADJACENT LAND USE ACCESS PEDESTRIAN/BICYCLE EASEMENTS TRANSFERS PASSENGER INFORMATION	 • Direct connection with adjacent land uses • Food and shops accessible	 • Lack of schedule information • Technology-based information not available to all patrons	 • Wide sidewalk connections with stop	 • No bike lanes • Few transfer opportunities	 • Retail and commercial land uses nearby	 • No bike lanes • Sidewalks with no connections • Wide setbacks and parking lots

4.5 Elliot Road & Lakeview Drive *(Suburban Residential)*

Figure 23 illustrates the case study analysis conducted for the Suburban Residential bus stop category, located at Elliot Road and Lakeview Drive in the City of Gilbert.

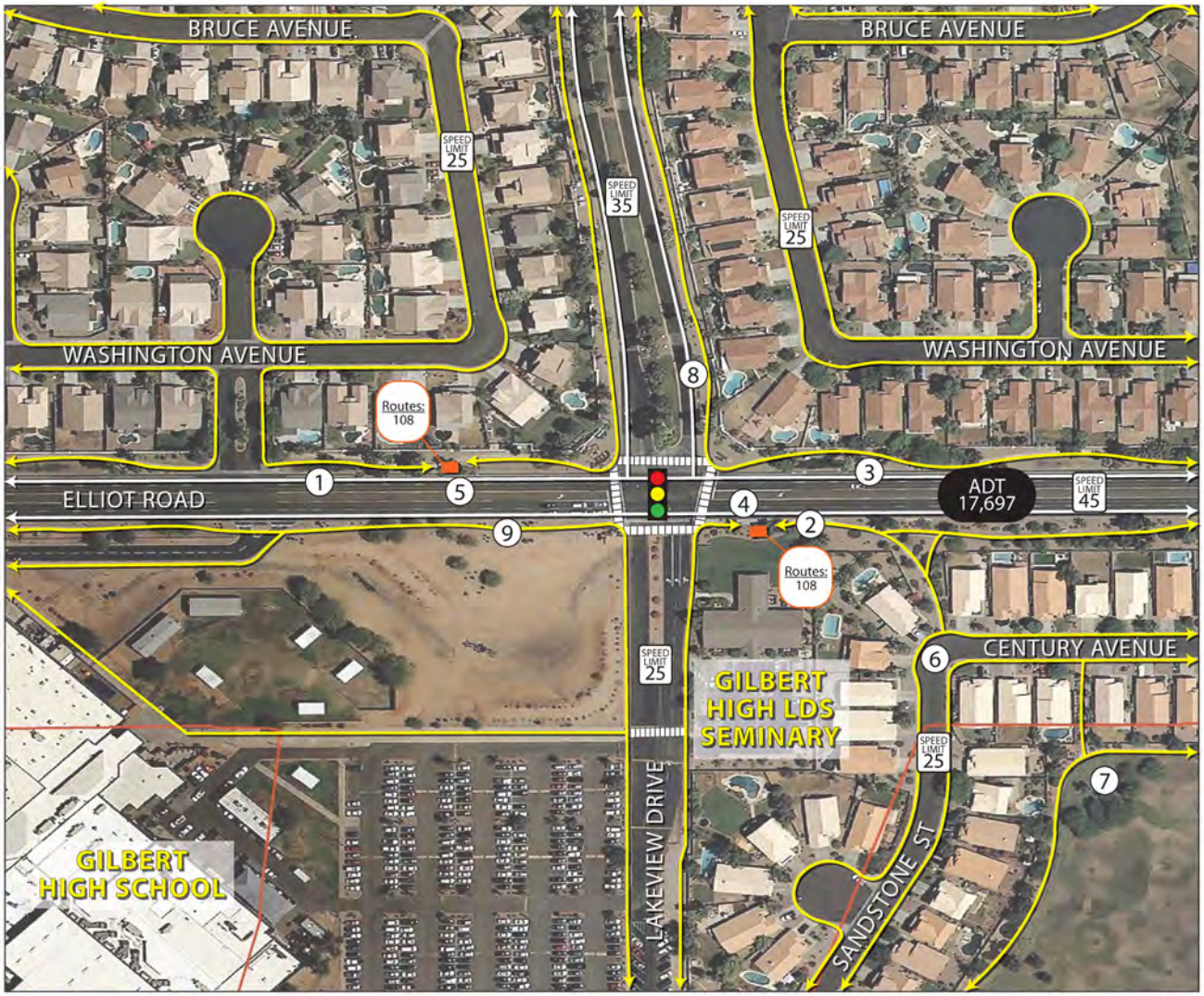
- Elliot Road is a 4-lane east-west arterial with an ADT of 17,697 vpd and a posted speed limit of 45 mph. Elliot Road is an important east-west arterial, connecting the eastern portions of Gilbert to Chandler to the east and Tempe and Phoenix to the west. The roadway connects with SR 202/Santan Freeway to the east and SR 101/Price Freeway and I 10/ Maricopa Freeway to the west. The roadway cross-section measures approximately 66 feet, accommodating two lanes in both directions with a center left-turn lane and bike lanes. The roadway has been developed within a right-of-way of 145 feet, which has allowed development of wide landscaped buffers on both sides of the roadway.
- Lakeview Drive is a two-lane roadway that extends less than one quarter mile north of the intersection with Elliot Road, transitioning into a loop road serving Wind Drift Development. It has a posted speed limit of 35 mph. Traffic levels on the north segment are associated with the residential development, and it has a posted speed limit of 35 mph. Lakeview Drive has a wide landscaped median developed within a cross-section of approximately 68 feet that expands to 92 feet at Elliot Road. The right-of-way ranges from 110 to 140 feet, allowing for wide landscaped buffers on both sides of the roadway. Bike lanes are provided on both sides of the roadway. South of Elliot Road, Lakeview Drive essentially is the entry drive for Gilbert High School with speed limit of 25 mph. Traffic levels are associated with Gilbert High School and, therefore, seasonal.

Five-foot sidewalks are consistently found throughout the case study location area. The sidewalks in this case study location have been developed with the landscaped buffers and, therefore, pedestrians are separated from moving traffic. The landscaped buffer provides pedestrians with a more comfortable walking experience, as they are not forced to travel adjacent to moving vehicular vehicles.

Adjacent land uses include Gilbert High School and single-family residential developments. Residential land uses mostly are walled off from the main roadway and landscaped buffers, where there are sidewalks. This requires residents of the area to ingress/egress their developments through limited points of access.

Figure 24 displays a comprehensive overview of the findings within each topic areas at the Elliot and Lakeview case study location, with associated issues and opportunities.

FIGURE 23: Elliot Road & Lakeview Drive Case Study Analysis (*Suburban Residential Location*)




① Bike Lane Adjacent to WB Bus Stop


② Bike Lane Adjacent to EB Bus Stop


③ Sidewalk on North Side of Elliot


④ EB Bus Stop


⑤ WB Bus Stop


⑥ Pedestrian Access East of EB Bus Stop


⑦ Pedestrian Access to Val Vista Place Park


⑧ Lakeview Drive


⑨ Jogger on Elliot Road

Elliot Lakeview

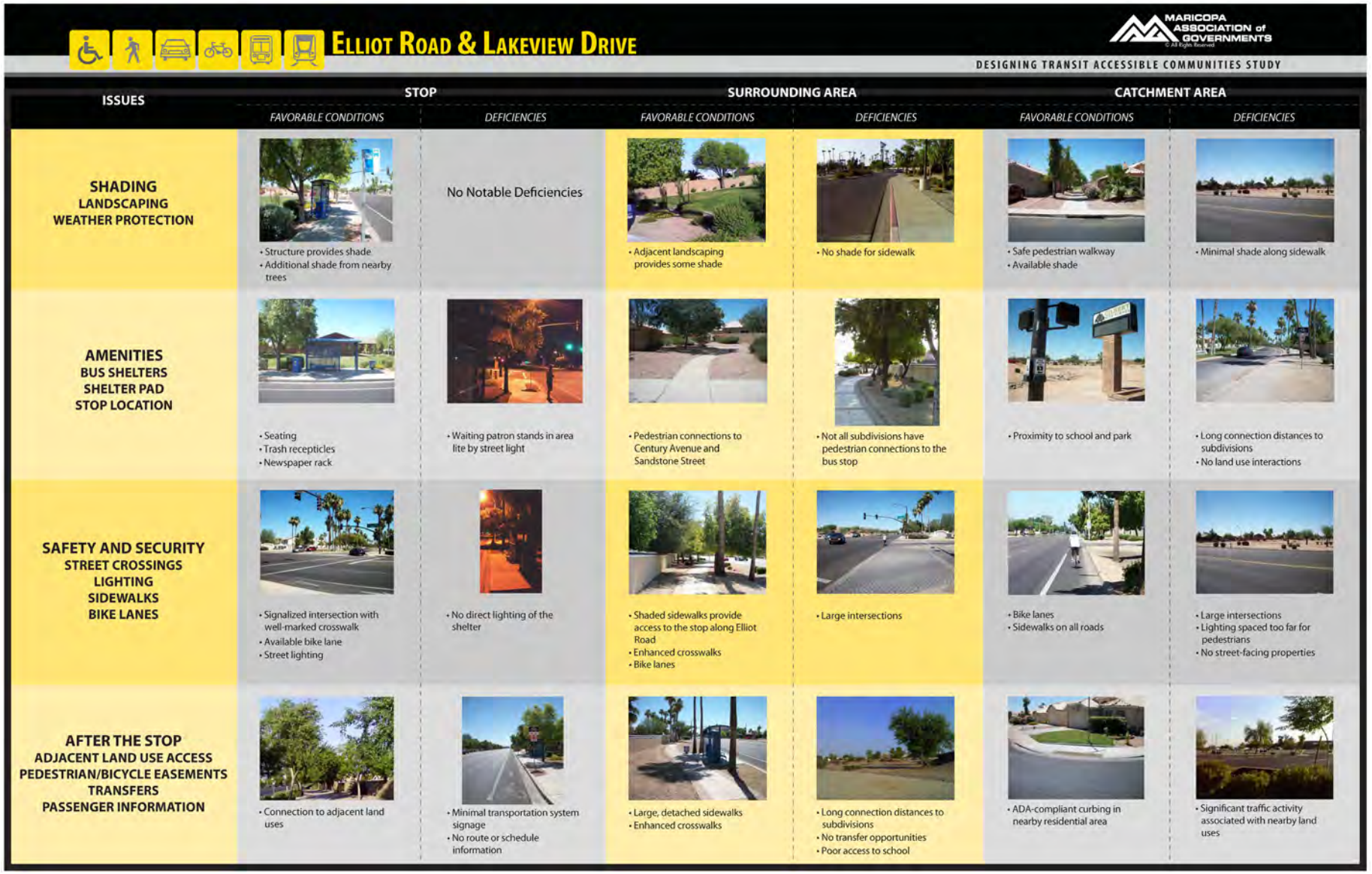
Date: 7/2/2012

0 70 140 280 420 560 Feet

LEGEND: Sidewalk Route, Bicycle Route, Bus Shelter

N

FIGURE 24: Elliot Road & Lakeview Drive Case Study Analysis (*Suburban Residential Location*)



5.0 Bus Stop Prototypes & Toolkit Development *(Working Paper 4)*

Working Paper 4 is divided into four sections: Developing Bus Stop Prototypes, Bus Stop Prototypes, Transit Accessibility Toolkit, and Implementation Checklist. These sections describe the development of prototypical bus stop areas or Bus Stop Prototypes for the MAG region. These Bus Stop Prototypes reflect optimal or recommended streetscape and roadway infrastructure improvements intended to support safe and comfortable bus stop accessibility via foot and by bicycle. Given the high rates of non-motorized access to the bus system found during the study, MAG recognizes the importance of supporting local agencies in their efforts to plan for environments that are safe, comfortable and inviting. Working Paper 4 defines the prototypes, a toolkit, and a checklist that provide a roadmap for improvements and new development for different bus stop areas throughout the region.

The Bus Stop Prototypes presented in this section provide a framework for enhancing the comfort and safety of non-motorized travelers accessing the transit system. This section recognizes the constraints at the case study locations and attempts to give alternatives within those constraints. Not all stops will fit precisely into a single case study category. The following subsections describe each of the bus stop categories and presents the related Bus Stop Prototype with pedestrian and bicycle access improvement considerations. Previous working papers defined the process to categorize bus stops across the MAG region and the process of selecting case study locations.

Figures 25-29 and tables 11-15 illustrate the prototypical improvements at case study locations as conducted and confirmed by the DTAC study team. Table 10 provides descriptions for the symbols illustrated in tables 11-15; this table is comprehensive in nature and does not necessarily provide the specific improvement recommendations or exact locations. Each improvement type is elaborated upon in the Transit Accessibility Toolkit shown in Chapter 6.

TABLE 10: Prototype Improvement Considerations

Category Ranking	Category Name	Defining Characteristics
	Connection to Adjacent Use	Create pedestrian passageways where the street network provides few pedestrian and bicycle connection opportunities.
	Enhanced Sidewalk	10' wide sidewalks that are detached from driving lanes when adjacent to major street intersections or when adjacent to a bus stop provide greater mobility for pedestrians. In some locations an expanded bus pad could extend to back side of shelter to accommodate additional seating and shade opportunities. ADA and bicycle access to be provided along all off-street and on-street identified and designated routes.
	Crosswalk/ Reduced Corner Radii	Stripe crosswalks according to ADA standards and have a signalized crossing system, advanced yield lines, and wider cross walks that improve safety for pedestrians crossing the street. Some locations may allow for reduced turning radius at intersection. Pedestrian refuges are encouraged on multi-lane roadways with significant traffic volumes and intermediate- to high-travel speeds. Establish mid-block signalized pedestrian crossings in non-intersection high transit use locations.
	Lighting	Provide pedestrian-scale lighting near transit facility to improve safety. Pedestrian-scale lighting along off-street pedestrian and bicycle routes improve safety.
	Relocate Transit Stop / Unused Transit Shelter	Relocate bus stop to the intersection to ease route transfers and connections, to take advantage of existing lighting at the intersection, and/or to utilize existing setback space. Existing unused transit facilities exist within some bus stop catchment areas. Should the transit system be expanded, these existing facilities may provide ideal locations for future bus stops.
	Seating	Provide highly visible seating under a nearby shade tree improves pedestrian comfort. Lower walls provide additional seating in high transit usage areas.
	Landscape Shading	Provide shade trees to maximize shade along pedestrian/bicycle routes. In urban areas, provide shade trees with grates to establish a larger sidewalk space for strollers and pedestrians near transit stops. Trees maximize shade along pedestrian/bicycle routes.
	Bicycle Access	Bicycle lanes serve as an additional route of travel for bicyclists in a safe environment. The addition of a bicycle lane would require further narrowing of travel lanes which may not be feasible at all locations. Wayfinding directs cyclists to low traffic volume roadways/ collector streets.
	Bicycle Parking	Provide bicycle racks or other parking facilities where bicycle ridership is high.
	Bicycle/ Pedestrian Wayfinding	Wayfinding directs pedestrians or bicyclists to nearby destinations and pedestrian/bicycle friendly routes including nearby local/collector streets.
	Information Signage	Install improved signage at bus stops to notify riders of the bus schedule and the bus routes.
	Reduced Building Setback	Encourage buildings adjacent to transit stops to frame the street and maintain a minimal setback to allow for shade opportunities and improved pedestrian access. Locate surface parking to the side or back of building, not adjacent to the street.
	Maintenance	Additional improvements and repairs.

5.1 16th Street & Thomas Road *(Urban Core)*

An Urban Core bus stop area is highly accessible and primarily within the core metropolitan area. The area usually has a traditional street network and these bus stops types are typically located along arterial streets or within the urban core. The area has multi-family housing units as well as neighborhood retail with few parking spaces and is typically oriented toward the main arterials. This area is usually serviced by both low local, express, and circulatory transit service although high frequency service is the predominant service type. The area will have anywhere from low to high population density but all urban core bus stop types will have high employment density. This stop type makes up 15.4% of all the bus stops in the MAG region. The case study location for the Urban Core bus stop is 16th Street and Thomas Road. Figure 25 and Table 11 illustrates the optimal improvements at the 16th and Thomas case study location given existing constraints.

FIGURE 25: 16th Street & Thomas Road Prototype Improvements *(Urban Core Location)*

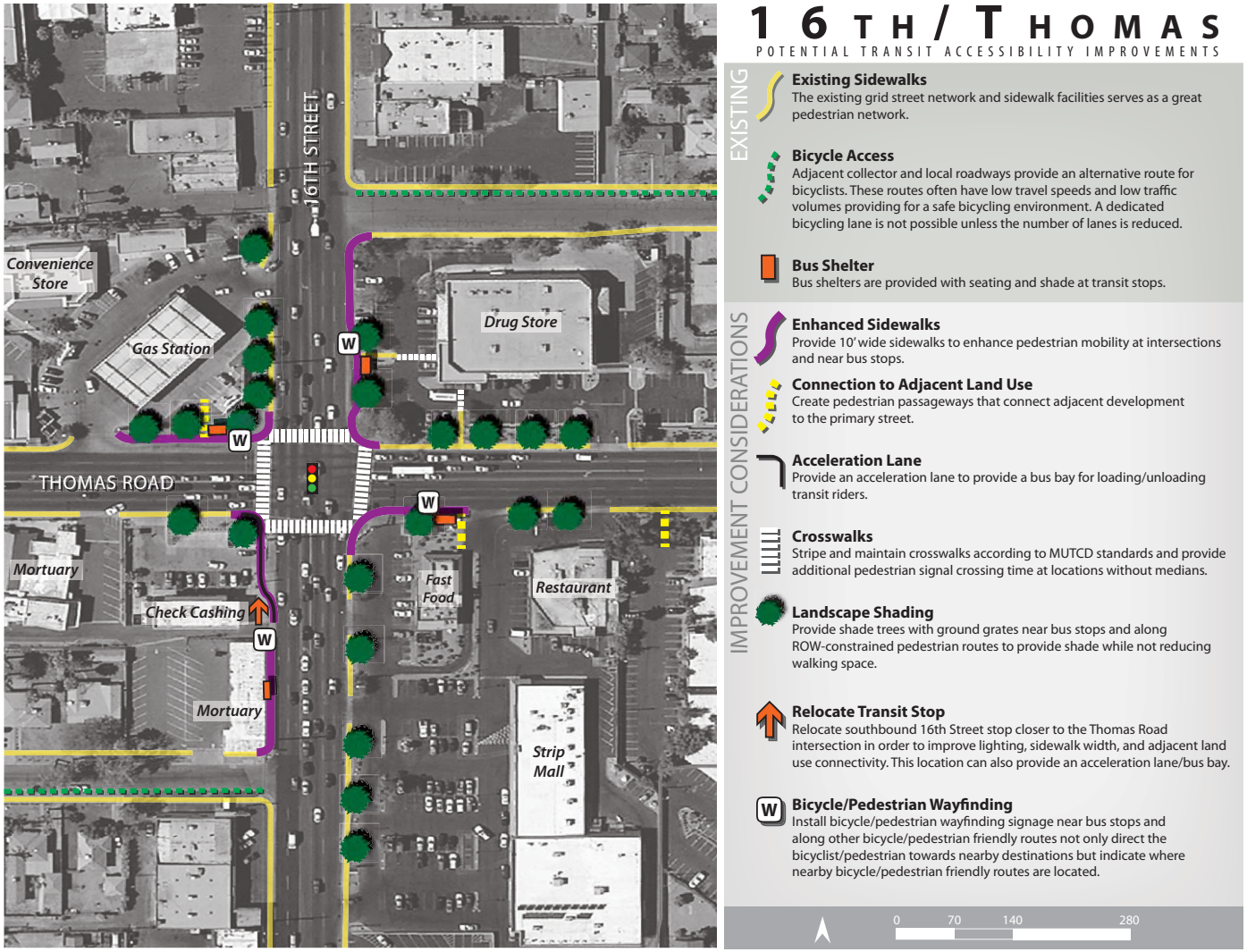


TABLE 11: 16th Street & Thomas Road Prototype Improvements *(Urban Core Location)*

Northbound 16th Street Stop

Northbound 16th Street Stop

Southbound 16th Street Stop

16th Street and Thomas Road Intersection

Northbound 16th Street Stop

5.2 90th Street & Shea Boulevard *(Urban Retail)*

An Urban Retail bus stop has retail land use present, high frequency transit route service confined to peak periods only, and medium population and employment density. This category accounts for 14.8% of all bus stop areas in the MAG region. The stop areas have a mix of traditional and conventional street networks and bus stops are concentrated along arterial streets. The surrounding land use is typically made up of medium-sized shopping centers and strip malls. The case study location for the Urban Retail bus stop is 90th Street and Shea Boulevard. Figure 26 and table 12 illustrate the optimal improvements at the 90th and Shea Boulevard case study location given existing constraints.

FIGURE 26: 90th Street & Shea Boulevard Prototype Improvements (Urban Retail Location)

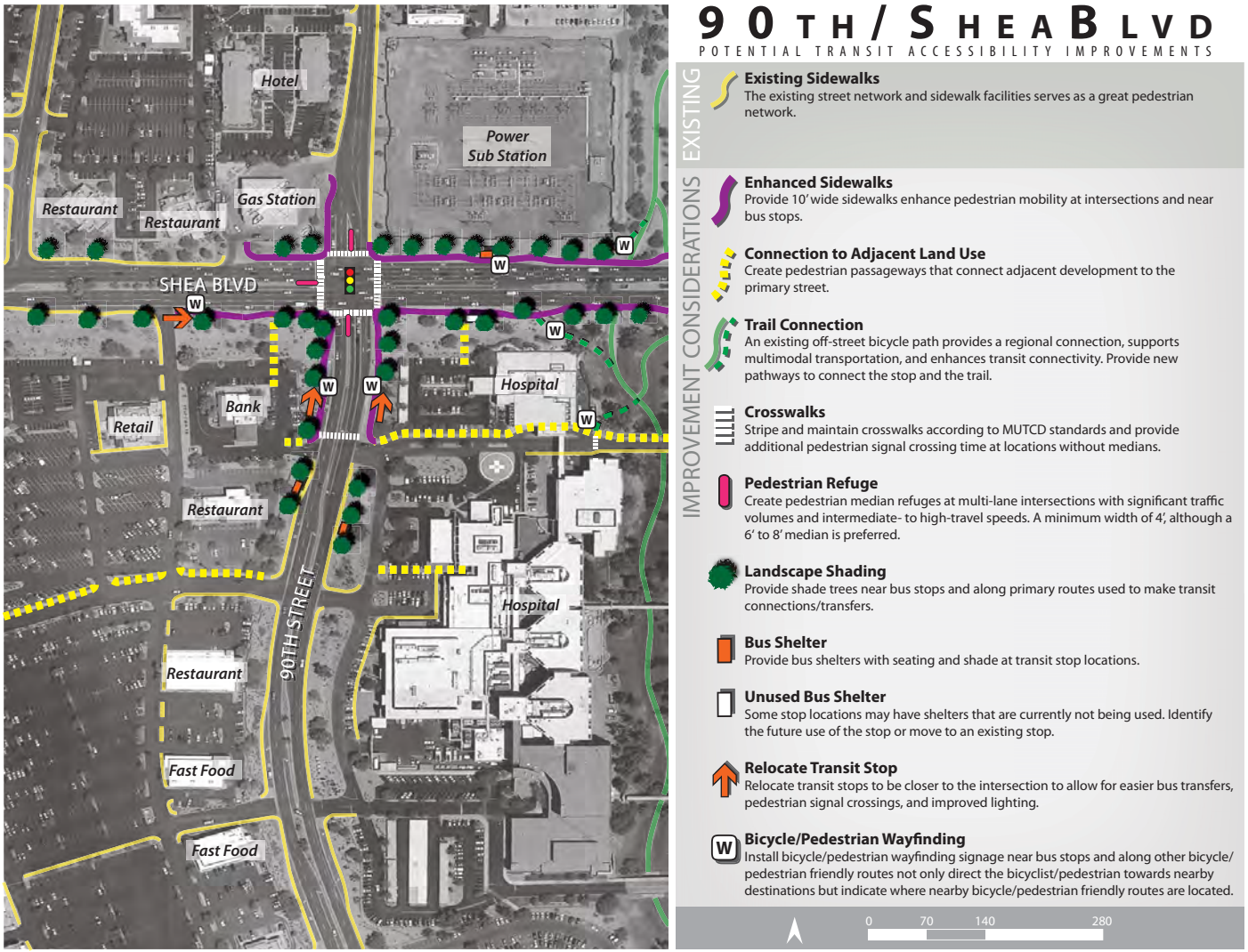
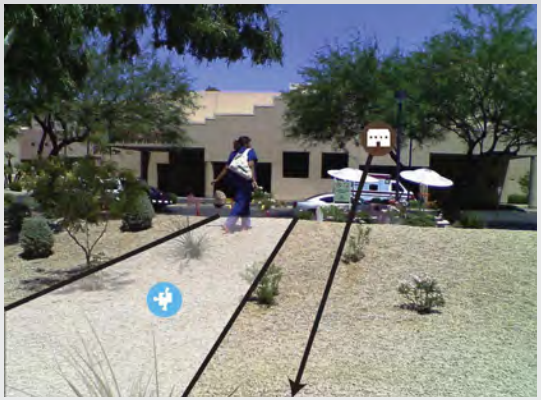
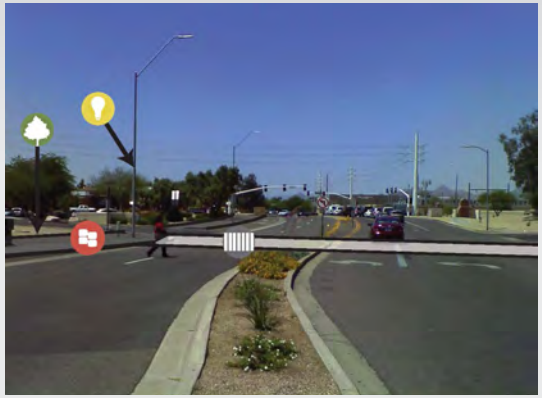


TABLE 12: 90th Street & Shea Boulevard Prototype Improvements *(Urban Retail Location)*

South of Shea Boulevard, Bicycle Path



90th Street at Scottsdale Healthcare



90th Street

Southbound 90th Street Stop

Southbound 90th Street Stop

Northbound 90th Street Stop

5.3 19th Avenue & Southern Avenue *(Urban Residential)*

An Urban Residential bus stop is similar to the Urban Core, except there is no retail land use present, and there is only a medium population and employment density. This category accounts for 7.8% of all bus stops in the MAG region. All bus stops in the Urban Residential category are served by just one all-day high frequency transit route. The surrounding area has a mix of traditional and conventional street networks with bus stops located along arterials streets. The area would have a mix of traditional neighborhoods with single- and multi-family homes. The case study location for the Urban Residential bus stop is 19th Avenue and Southern Avenue. Figures 27 and table 13 illustrate the optimal improvements at the 19th and Southern case study location given existing constraints.

FIGURE 27: 19th Avenue & Southern Avenue Prototype Improvements *(Urban Residential Location)*

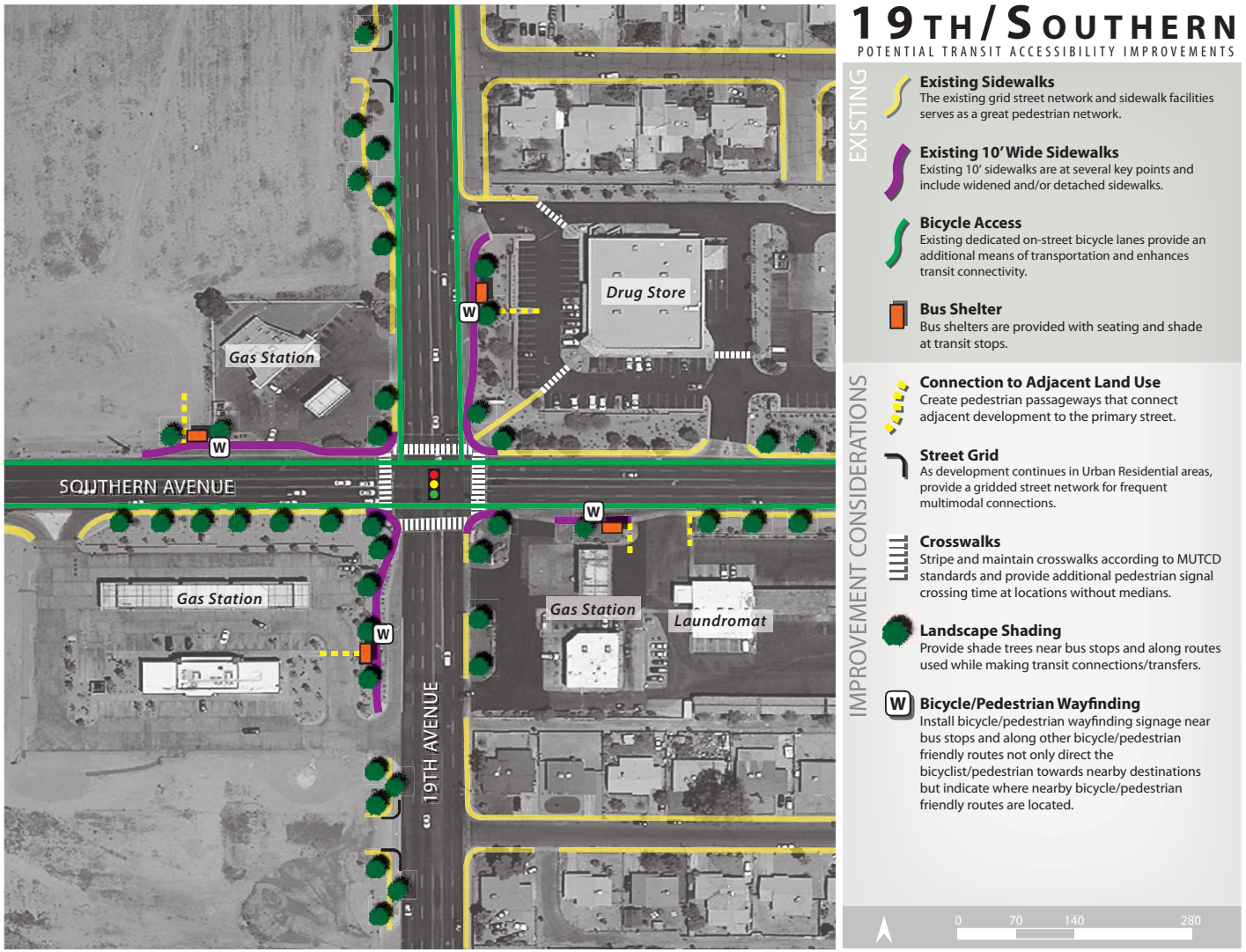


TABLE 13: 19th Avenue & Southern Avenue Prototype Improvements *(Urban Residential Location)*

Northbound 19th Street Stop

Southern Avenue Bicycle Access

Eastbound Southern Avenue Stop

Westbound Southern Avenue Stop

Northbound 19th Street Stop

5.4 17th Avenue & Bell Road *(Suburban Retail)*

A Suburban Retail bus stop area has retail land use present and low population and employment density; however, there are no high frequency transit routes serving these locations. This type of bus stop area accounts for the second highest share – 22.3% – of all bus stop areas in the MAG region. Surrounding these bus stop types is a conventional street network with nearby large shopping centers and big box stores with large parking areas. The stops are dispersed throughout the MAG region, with no geographic concentration. The case study location for the Suburban Retail bus stop is Bell Road and 75th Avenue. Figures 28 and table 14 illustrate the optimal improvements at the 75th and Bell case study location given existing constraints.

FIGURE 28: 75th Avenue & Bell Road Prototype Improvements *(Suburban Retail Location)*

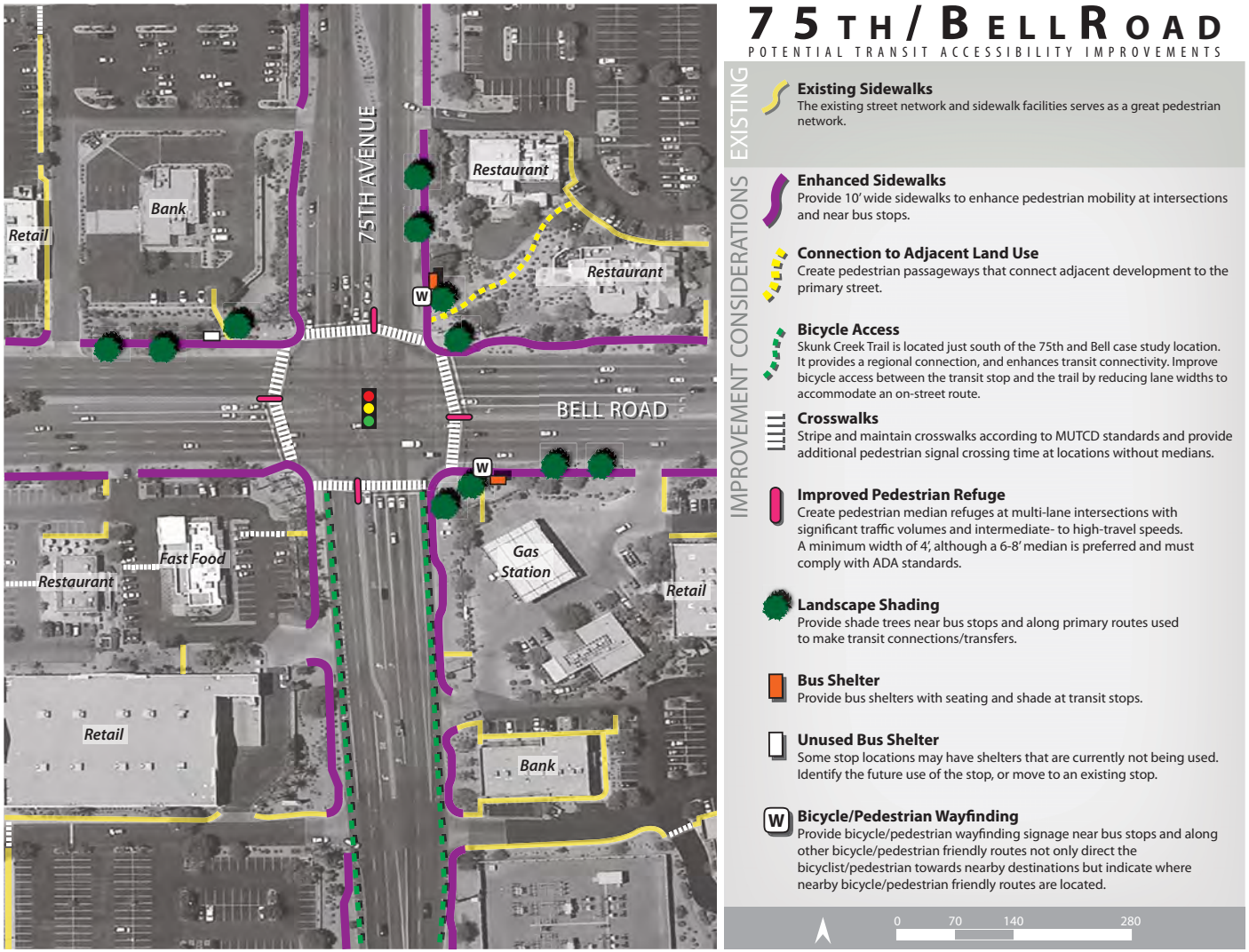
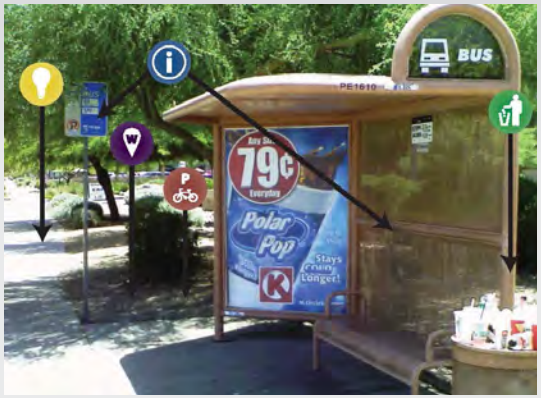


TABLE 14: 75th Avenue & Bell Road Prototype Improvements *(Suburban Retail Location)*

Eastbound Bell Road Stop



Eastbound Bell Road Stop

Bell Road Crossing

Future Westbound Bell Road Stop

Northbound 75th Avenue Stop

Southwest Corner Pedestrian Access

5.5 Elliot Road & Lakeview Drive *(Suburban Residential)*

A Suburban Residential bus stop has no retail land use present. These stops are typically only serviced by limited stop, express service, or no local service at all. The surrounding area has low population and employment density. This category is the most common type of the bus stop types, accounting for the greatest share of bus stop areas in the MAG region; 39.5% of bus stops fall within this category. The surrounding area includes a conventional street network with master planned communities, many of which are gated or walled subdivisions. The Suburban Residential bus stops are typically dispersed throughout the MAG region and have no geographic concentration. The case study location for the Suburban Residential bus stop is Lakeview Drive and Elliot Road. Figures 29 and table 15 illustrate the optimal improvements at the Elliot and Lakeview case study location given existing constraints.

FIGURE 29: Elliot Road & Lakeview Drive Prototype Improvements *(Suburban Residential Location)*

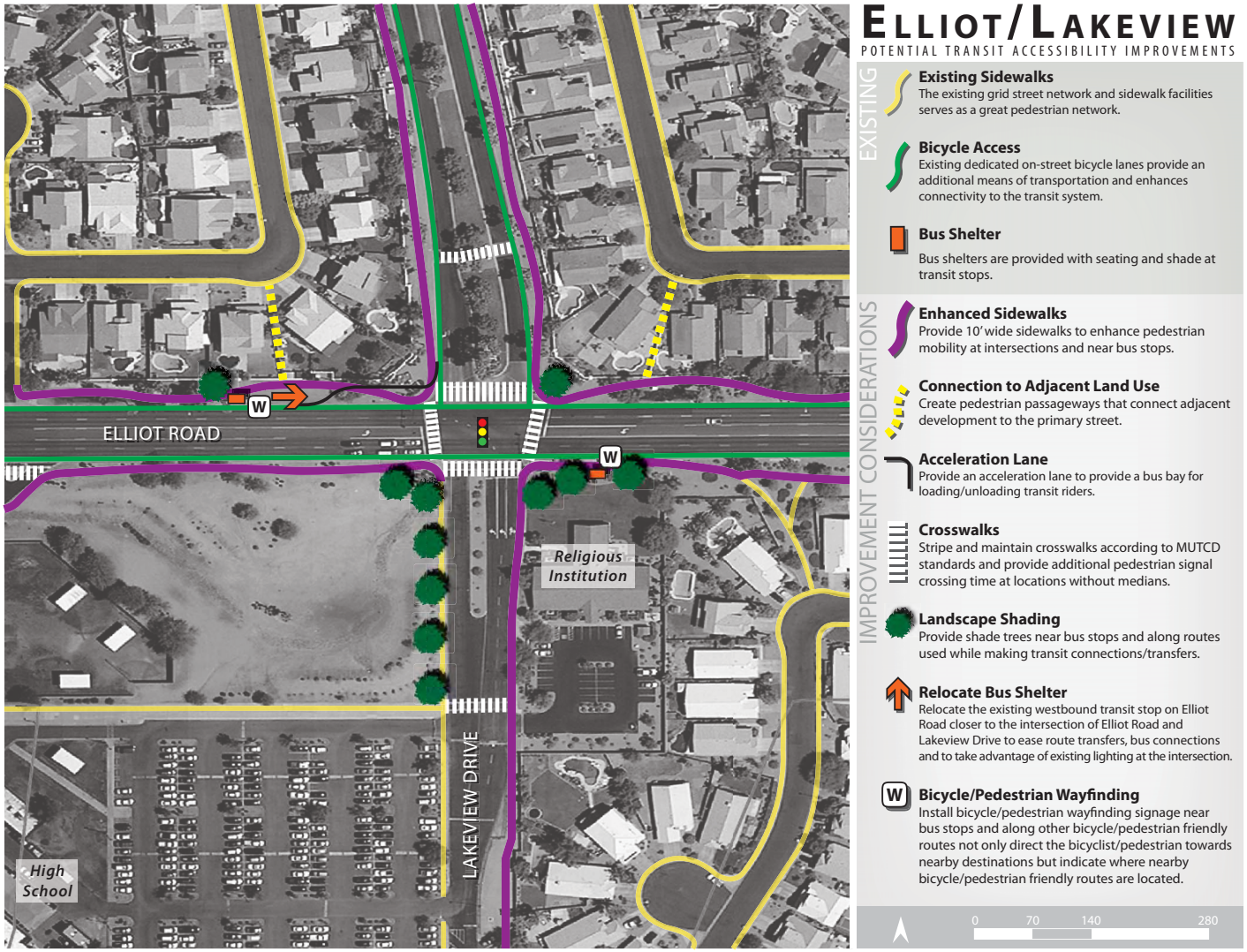


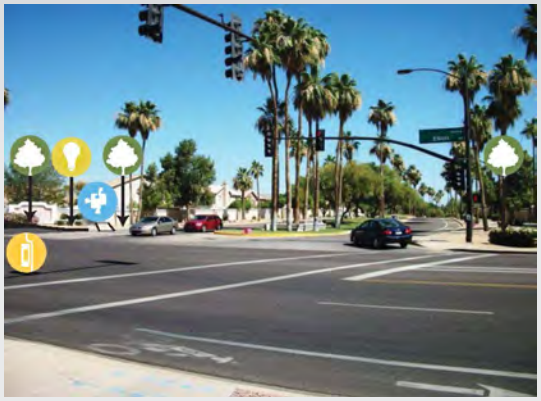
TABLE 15: Elliot Road & Lakeview Drive Prototype Improvements *(Suburban Residential Location)*

Eastbound Elliot Road Stop

Pedestrian Access to Park

Elliot Road Sidewalk

Elliot Road and Lakeview Drive Intersection



Elliot Road and Lakeview Drive Intersection

Southwest Corner

6.0 Transit Accessibility Toolkit

This section presents a toolkit of pedestrian and bicycle improvement recommendations linked to specific prototypes and intended to be used by local jurisdictions to support positive change in coordinating and integrating roadway and land use environments near bus stops. Involving professional staff from various organizations is paramount to the bus stop location's success. Consult with individuals from facilities, community/plan review, transportation/streets, and transit when coordinating improvements to bus stops and their catchment areas.

The improvement measures described in the toolkit were selected to address common access issues based on best practices nationally as well as more specific local access issues, particularly the need for shade at and around transit stops. The toolkit measures are organized into the following categories or elements:

- Lighting
- Information Signage
- Wayfinding
- Seating
- Shelter
- Landscape Shading
- Adjacent Land Use
- Bicycle Access
- Bicycle Parking
- Pedestrian Crossing
- Sidewalk

The toolkit includes discussions of applicability to different transit stop typologies and context-sensitive implementation strategies.

Transit stops are the gateways to public transportation. Each one welcomes riders into the system and provides a transition point for entry into the community. The Valley Metro Fact Sheet (Issue 6, July 2009 – June 2010) indicates there are over 7,000 bus stops serving over 55.5 million bus boardings annually. It is important, therefore, that the bus stops provide a consistent, safe, and accessible environment. Currently, bus stops in the MAG region give riders mixed messages, depending on accessibility and how safe each stop feels. MAG and its partners understand that safe and accessible transit stops are an integral part of the public transit system. As such, MAG has initiated this study to furnish member agencies with additional tools and guidelines to promote and sustain better planning associated with improving existing deficiencies and deploying future stops that are more accessible and supportive of adjacent neighborhood needs. Despite how transit patrons primarily arrive at a stop, in the end all are pedestrians. Thus, this study will focus on challenges faced by pedestrians and bicyclists as they access transit at the stop level.

"Transit Accessibility is… the segment of an individual trip that occurs between an origin or destination point and the transit system."

Source: American Public Transit Association

Lighting

Issue

Street and pedestrian lighting is an important feature at bus stops and nearby crossing locations for the safety and comfort of pedestrians and transit users. Additionally, adequate lighting promotes safety and security in urban areas and increases the quality of life of a community by extending the hours in which activities can safely take place along a street.

Importance

When asked “How likely is it that you would walk or ride a bicycle to this bus stop more frequently if there were more street lights?”, **60% of the respondents cited that improved lighting would increase their likelihood of walking or riding a bicycle.**

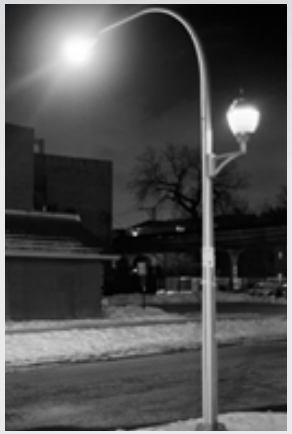
At most case study locations, good pedestrian lighting was not provided. Instead lighting was provided by adjacent street lights which were often too far from the transit stop. Some stops provided a back lit advertisement which provides lighting within the shelter; however, many shelters of this design had advertisement lighting that was not in operation. Additionally, lighting in more urban areas might come from adjacent land use; however, in areas with larger setbacks this did not provide a good sense of security.

Improvement Considerations

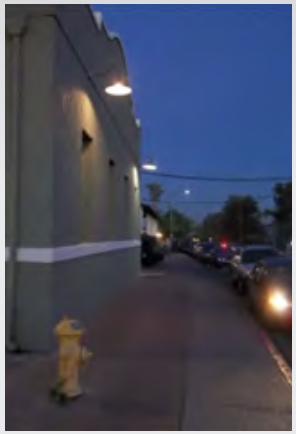
Pedestrian-oriented street lighting can be implemented using a variety of designs and configurations. The types of lighting shown below are higher cost and would be most appropriate for more urban bus stops.

Freestanding pedestrian-oriented lighting at bus stops.

Pedestrian light mounted to street light pole.



Attached to street light pole in catchment area.



Attached to building face in catchment area.

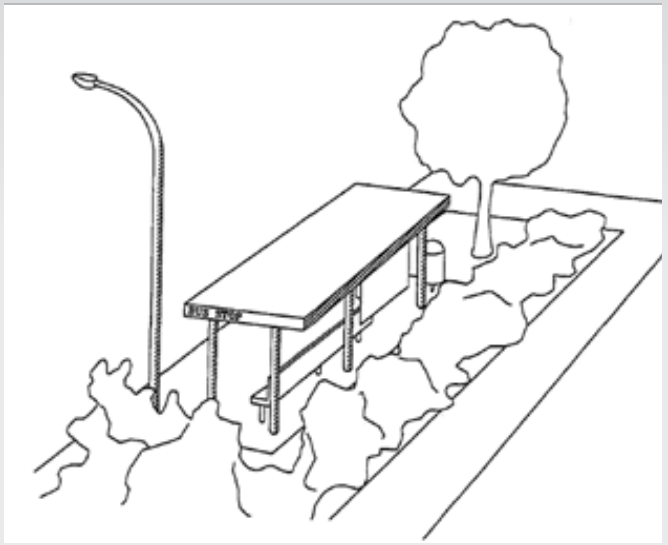
Freestanding Pedestrian Light | Freestanding pedestrian lighting is typically provided in addition to street lighting. These pedestrian lights must be located within closer proximity to each other so to minimize pedestrian dark areas; typically every 50’ as opposed to a typical street light spacing of 200’.

Pedestrian Light Mounted to Street Light | A pedestrian lighting arm may be attached an existing street light pole using a special SS band designed for this purpose. In addition to mounting to existing street lights additional pedestrian lighting may be necessary. Pedestrian lights must be located within closer proximity to each other so to minimize pedestrian dark areas; typically every 50’ as opposed to a typical street light spacing of 200’. Depending on the integrity of the existing street light pole and the method used for construction/installation, this method may be more costly than providing a freestanding pedestrian light.

Pedestrian Light Mounted to Building | Mounting pedestrian-scale lighting to building facades is a cost efficient technique as often that cost is paid by the developer or property owner. However, this strategy requires that local design guidelines require such lighting be installed. This lighting technique would only work with buildings with small setbacks whose lit façade is directly adjacent to the pedestrian walkway; buildings with larger setbacks would not be able to provide lighting for the adjacent walkways.

Planning/Policy Guidance

- Perform lighting study to conform to current lighting standards.
- Site bus stops and bus shelters to take advantage of overflow lighting from existing street lights (see graphic at right).
- Provide solar lighting in locations where connecting to power can be costly.
- Position backlit information kiosks to illuminate the interior of a bus shelter.
- Provide pedestrian level lighting either by retrofitting existing streetlight poles with a new lighting arm or by installing new/additional lighting.
- Consider low cost lighting solutions such as LED and other technologies.



Source: TCRP Report 19c - Guidelines for the Location and Design of Bus Stops

Cost

The table below lists the estimated unit construction costs for lighting features that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 16: Cost of Lighting & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Security/ Lighting	Luminaire adjacent to shelter	Each	$10,000					
	Pedestrian lighting attached to existing street light pole	Each	$7,500					
	Pedestrian lighting along walkway; 80' spacing	Each	$5,500					
	Electrical circuit / wire	Foot	$2					
	CCTV camera (1)	Each	$5,000					

1. Cost for real-time traveler information and CCTV does not include any necessary communications backbone or central processing system.

Information Signage

Issue

To have an effective transit system, riders need to have easy, reliable, and up-to-date information regarding the transit service. Providing bus service information at bus stops is important to transit users and can be used effectively to increase ridership by retaining existing riders and encouraging the use of transit by new riders, infrequent riders, and disabled individuals.

Importance

During the field survey, transit riders were asked if an increase in schedule information would make them more likely to ride the bus more often; **64% of transit riders said they would ride the bus more often if adequate schedule information was provided.**

At most case study locations bus stops had little to no information signage. The existing signage offered at all bus stops includes a bus route number sign only. Several locations also included a sign providing the bus stop number and a phone number that transit riders can call to get additional information about the bus stop location and routes offered at that stop. Few locations offered a full transit system map. One location (90th and Shea) provided park-and-ride location information. None of the case study locations provided a bus schedule, route destinations, or real-time travel information.

Table 17: Information Signage Elements

Information Content	Station/stop, route, schedule, service alert, real-time location, destination, vehicle load factor.
Information Format	Map, table, website, trip planner, electronic message, phone text.
Information Delivery Media	Telephone, personal computer, mobile device, signage, kiosk.

Improvement Considerations

Information signage can be implemented in several formats and with various combinations of information. It is highly encouraged that transit stops include a full bundle of information for transit riders including: a bus stop number, route(s) number and destinations, transit system schedule, transit system map, transit system provider's contact information, and if applicable, the park-and-ride location. Furthermore, bus stops and routes with high ridership volumes can consider adding real-time travel information. The types of information signage shown below are but a few examples of the possible design and format to provide the information. Overall, transit system information signage should be as consistent as possible throughout the entire transit system.

Freestanding information kiosk with detailed route and schedule information.

Existing post-mounted bus stop sign with bus route number. Proposed post-mounted bus stop sign with bus route numbers and destinations.

Post-mounted information box with route map.

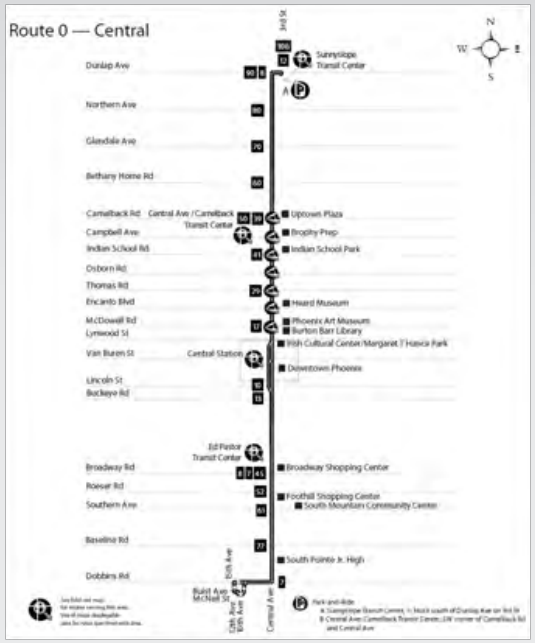
Bus Stop Sign with Route(s) Number and Destinations | As stated in the table above, the existing post-mounted bus stop sign includes the bus route number. These signs can be enhanced to include the route name and the primary destination along the route.

Information Kiosk | Each bus stop can include an information kiosk houses the transit system schedule and the system map. This may be another location to consider for the transit provider's contact information.

Contact Information Signage | Each bus stop can include the transit provider's contact information with the bus stop number. This sign provides another means for riders to get information regarding their bus route and bus stop. Many bus stops in the greater Phoenix area already include this sign. In addition to providing a phone number, these signs can be enhanced to include a QR code which would direct smart phone users to a website providing updated information on the bus route and bus stop.

Park-and-Ride Signage | Signage can be provided at bus stops directing transit riders to nearby park-and-ride facilities.

Real-time Travel Information | Bus routes and stops with high ridership volumes can be enhanced to include real-time travel information, further enhancing the customer service quality of the transit system. Vehicle tracking systems, such as Automatic Vehicle Location (AVL) systems, can also be used to process information and provide next bus arrival predictions.



The sample destination-based route map shown above could serve as an example for the MAG region.

Planning/Policy Guidance

- Consider incorporating transit-related information technologies (i.e. smart phone apps, phone text lines).
- In addition to improvements made at specific bus stop locations, a destination-based route map can be used throughout the transit system in the MAG region. The sample below shows an example of what that map may include.
- Install specific route information for transit users, particularly when low frequency service is provided. Install route information on separate signs if cost effective.

Cost

Of the improvement considerations listed above the freestanding kiosk has the highest capital cost. The post mounted signs provide the lowest cost option, but also the lowest level of information—typically a route number and final destination only. Adding information boxes with real time travel information through web-based (QR codes) or text messaging requires displaying printed schedule information and replacing schedule materials in the field whenever route schedules are modified. The table below lists the estimated unit construction costs for information signage that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 18: Cost of Information Signage & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Information Signage	Real-time information display (1)	Each	$5,000					
	Static information display	Each	$500					

1. Cost for real-time traveler information and CCTV does not include any necessary communications backbone or central processing system.

Wayfinding

Issue

Wayfinding is an important component in guiding bicyclists, pedestrians and transit riders to nearby destinations. Wayfinding includes physical and visual elements that orient and aid people in reaching their destination including paths, landmarks, nodes, edges and districts. These physical and visual elements are further described in the FTA report titled *Traveler Information Systems and Wayfinding Technologies in Transit Systems* listed in *Appendix A: Reference Material.*

Importance

The field survey did not ask specific questions related to wayfinding. However, when asked if there were interesting things to see on their trip to the bus, only 19% indicated that there was something interesting to see along their route. None of the case study locations provided transit, bicycle or pedestrian wayfinding.

"…Wayfinding signage plays an important role in the overall success of a rail authority. Not only does effective signage help create an environment where passengers feel informed and secure, it also provides an unrestricted opportunity for the authority to create and/or maintain a defining image with its riders and the surrounding community. Essentially, wayfinding signage is the most prominent and, therefore, the most vital communication tool of any public transit system…"

Source: "Design & Placement: The Defining Elements of Successful Wayfinding Signage" (Owens, Ron)

Improvement Considerations

Bicycle and pedestrian wayfinding signage near bus stops and along other pedestrian/bicycle friendly routes would not only direct the pedestrian or bicyclist towards nearby destinations but would indicate where nearby pedestrian/bicycle friendly routes are located, and would be used to direct potential riders to nearby bus stop locations. Where it is not possible to provide a bike path or lane, bicycle improvements can focus on wayfinding which would connect transit stops with off-street routes and nearby local or collector streets where traffic volumes and speeds are more conducive to bicycle travel.

Transit stop wayfinding can be provided as part of a larger community wayfinding signage program.

Source: MUTCD 2009, Ch. 2D

The MUTCD provides general information signs that may be used to identify transit stops/stations.

Source: MUTCD 2009, Ch. 2H

Bicycle wayfinding signs may also indicate the direction of transit station.

Source: City of Long Beach

Transit Stop Wayfinding | Transit, pedestrian and bicycle wayfinding can be created or can be added to an existing community wayfinding program.

Transit Stop Directional Signage | These general information signs can used to throughout a community to direct users to nearby transit stop locations.

Bicycle Wayfinding | Bicycle wayfinding can be used to direct bicyclist to nearby bicycle friendly routes, to destinations, and to transit stop locations.

Table 19: Example of Destination Classifications

Primary	Downtown and adjoining jurisdictions (signed at a distance up to five miles).
Secondary	Transit stations and districts (signed at a distance up to two miles).
Tertiary	Parks, landmarks, colleges, hospitals, and high schools (signed at a distance up to one mile).

Planning/Policy Guidance

- Consider incorporating a comprehensive, city-wide wayfinding signage program in the local community and consider transit riders, bicyclists, and pedestrians when designing the wayfinding system.
- Use an interdisciplinary team to design and develop wayfinding systems.
- Include an evaluation component into the implementation of wayfinding to understand how customers use them and assess effectiveness.
- Consider establishing a uniform set of regional transit wayfinding guidelines or standards.
- Establish a hierarchy that classifies destinations as primary, secondary and tertiary destinations.

Table 20: Wayfinding Strategies by Level of Technology

Uses	Basic	State-of-the-Practice	State-of-the-Art	Future
Signage	Signage – static fixed signage (ER, AS)	Signage – dynamic and mobile signage (ER, AS)	Remote Infrared Audible Signage (RIAS) (AS)	
Routes	Routes (ALL)	Route choices/Best Route (PT)	Real-time route info (ALL)	
Stations/Stops	Station/Stops (ALL)	Station Access (ALL)		
Fare	Schedules (ALL)	Travel mode & route fare/ cost options - Financial Comparisons (PT)	Financial Comparison (PT)	
Service Alerts	Elevator/excalator station access (ALL) signalge/oral instructions (AS)	Service alerts (ALL)	Customized service alerts (ALL)	
Real-Time Location		Self (ER, AS)	Transit Vehicles (ER, AS)	All Vehicles (ALL)
Destinations	Station/stop names (ALL)	Non-integrated (PT) Landmarks/Points of interests (PT)	Integrated (ALL)	
Vehicle Passenger Load	Seasonal surveys (PT)	Using APC for plannign (PT)		Vehicle passenger load available to passenger (ALL)

Trip Stages: Pre-Trip (PT), En Route (ER), At-station/Stop (AS), All Trip Stages (ALL)
Source: FTA, Traveler Information Systems and Wayfinding Technologies in Transit Systems, 2011

Cost

The table below lists the estimated unit construction costs for wayfinding features that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 21: Cost of Wayfinding Signage & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Wayfinding	Wayfinding sign	Each	$250					

Seating

Issue

Seating is typically included in shelter design, but where installation of a shelter is not justified a bench with a shade tree provides comfort and convenience at bus stops. Factors used in determining installation and locations of bus stop seating include:

- Available space
- Stops with long headways
- Landowner/developer was denied permission to install a shelter
- Stops frequently used by elderly and the disabled
- Evidence of riders sitting on nearby land or structures

Importance

The field survey did not ask specific questions related to seating. In “Evaluating Transit Stops and Stations from the Perspective of Transit Users” 749 transit users were surveyed at 12 transit stops and stations around metropolitan Los Angeles; in terms of provided amenities, **respondents selected “enough places to sit” as fourth out of five in rank of importance** (Isekis, H., Taylor, B. D., 2010).

Most case study locations provided seating via a bus shelter. One location provided additional benches outside of the shelter. And one location provided no seating at the bus stop.

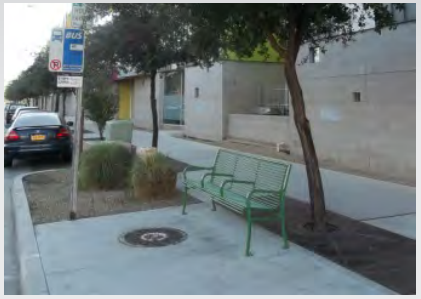
Improvement Considerations

Bus stop seating may be provided independent of bus shelters, offering comfort and convenience at bus stops. Seating at bus stops is often provided based on existing or projected ridership.

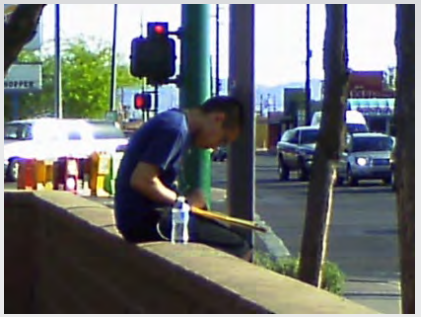
Bench | Seating provided independent of bus shelters would typically be provided where ridership is below those justifying a bus shelter. The quality, financing and siting of benches may vary according to the needs and resources of the responsible agency and local community. Locate benches near shade trees whenever possible to maximize shade or plant shade trees near the bench location. Coordinate bench locations with street lighting to increase visibility and enhance security. Do not locate benches in undeveloped areas of the right-of-way or near driveways to improve pedestrian safety and comfort. Locate benches on a non-slip, properly drained, concrete pad.

Seat Wall | Street walls can be designed at lower heights to serve as additional seating from transit patrons (aka Seat Walls). Seat walls can be integrated into pedestrian refuges. Shade trees should be planted near seat walls to provide the maximum amount of shade. Install skate stops or skate blocks along seat walls to avoid damage that may occur to wall.

Public Art/Gateway Monument | Seating can be incorporated as public art or as part of a gateway monument.



Bench with no advertising (shade from tree and building)

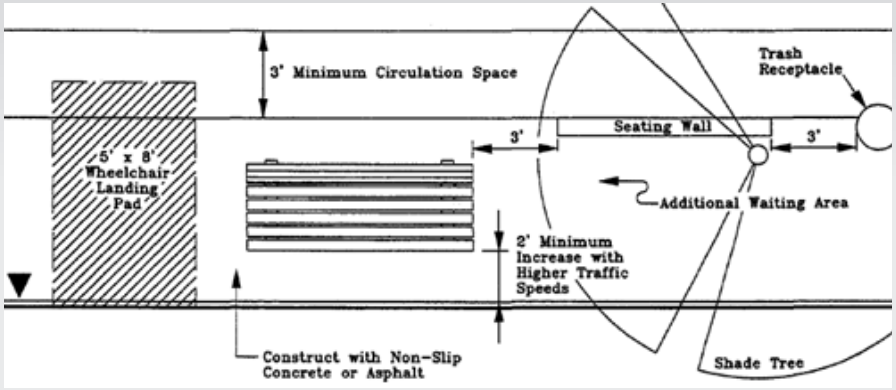


Seating provided on adjacent street wall, also known as a seat wall.

Seating provided on adjacent street wall, also known as a seat wall.

Planning/Policy Guidance

- TCRP Report 19c provides detailed guidance on the siting of bus benches. The siting of bus stop benches in the MAG region should consider:
  - distance from intersection,
  - distance from street light,
  - proximity to existing shade,
  - distance from driveways,
  - speed limit,
  - ADA mobility clearances, and
  - proximity and access to surrounding destinations.
- Seating may also be incorporated into the design of the adjacent development including designing street walls along the property line to be at a height that allows passengers to use the wall as seating.



Conceptual Bench and Waiting Pad Design
Source: TCRP Report 19c - Guidelines for the Location and Design of Bus Stops

Cost

The table below lists the estimated unit construction costs for seating that may be included at transit stops. The potential application of each feature by prototype is highlighted. Refer to the *RPTA Bus Stop Program and Standards*, 2008, for bus stop design information.

Table 22: Cost of Seating & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Seating	Standard shelter w/ seating, lighting, bicycle rack, concrete pad, trash receptacle	Each	$16,000					
	Enhanced shelter w/ seating, side screens, lighting, bicycle rack, concrete pad, trash receptacle	Each	$25,000					
	Custom shelter w/ seating, side screens, interior lighting, stop area lighting, bicycle rack, concrete pad, *trash receptacle*	Each	$35,000					
	Bench w/ concrete pad, shade	Each	$3,000					
	Bench w/ concrete pad, shade, lighting, trash receptacle	Each	$6,000					

Shelter

Issue

Bus shelters provide protection shade, seating, protection from the elements, and serve as a visual guide for transit stops. The Transportation Research Board published a report titled *Guidelines for the Location and Design of Bus Stops* which demonstrated the importance of shelter location, design, and pavement materials used. The report states that both **asphalt and concrete increase air temperature by several degrees because of the material's ability to retain and reflect heat. Temperatures at bus stops can often exceed actual air temperature by several degrees.** The report also states where shelters should be located based on accessibility factors such as bus stop transfer distances.

Within the MAG region, local jurisdictions determine bus shelter designs. There are a variety of designs that can accommodate different passenger volumes and various site demands. In the MAG region, sun protection is a key function of shelters. Depending on the orientation of the bus shelter (south facing, north facing, etc.), time of day and transit service time, a typical bus shelter may or may not provide relief from direct sunlight. In these circumstances other shading strategies such as locating the shelter near an existing tree can also be considered.

Importance

The field survey did not ask specific questions related to shelter. In *Evaluating Transit Stops and Stations from the Perspective of Transit Users* 749 transit users were surveyed at 12 transit stops and stations around metropolitan Los Angeles; **69% of respondents reported shelter to protect them from the sun or rain as being important, also, it was the highest ranking in terms of importance of all five amenities surveyed** (Isekis, H., Taylor, B. D., 2010).

Most case study locations provided bus shelters and bus stops. Some locations had bus shelters installed but bus service was not provided. At these locations bus transfer distances were long which resulted in riders missing transfers or cutting through developments to reach the next bus stop. One location had no shelter, only a bus sign and a shade tree. None of the case study locations included shelters designed for southern climates.

Improvement Considerations

Like bus benches, bus shelters may be supported by advertising or constructed using entirely public funds. Transparent screening is an important element of both of the examples below, as visibility is an important security feature and it also allows passengers to see approaching buses from behind the screen.

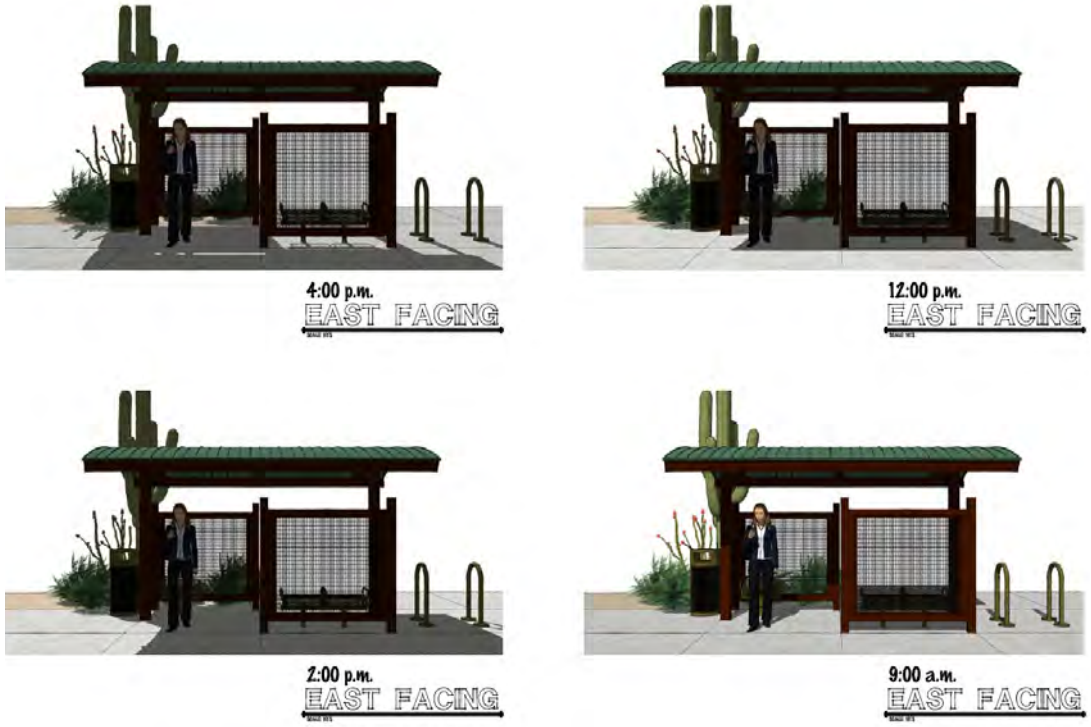
Furthermore, **shelters can be coordinated with landscaping to provide maximum protection from the elements** and to enhance the visual quality of the bus stop. Shade trees reduce heat at a site and provide additional shade for patrons waiting outside the shelter. To increase rider comfort consider using low heat gain materials and finishes.

Standard Bus Shelter | Transit agency requirements for bus shelters may include:

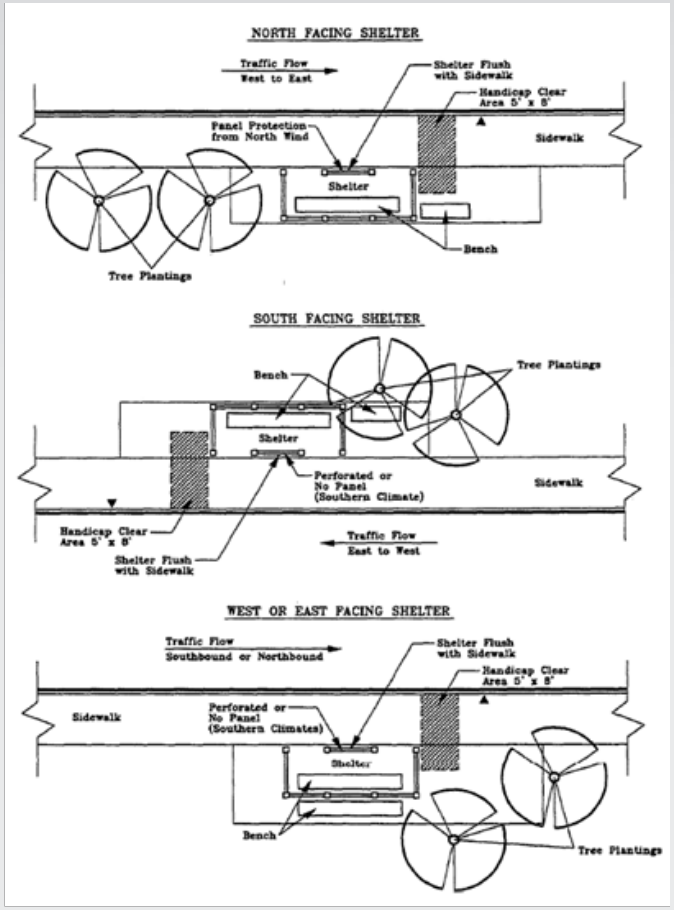
- Shelter location,
- Pedestrian access (i.e., direct sidewalk to the shelter),
- Visibility for vehicles and waiting passengers,
- ADA accessibility, and
- Signage.

Development-funded Bus Shelter | Local jurisdictions may require developers to install bus shelters. Additionally, ownership and maintenance of the shelter may be handled by the local jurisdiction or the developer. The designs of such shelters can vary from the typical bus shelter type to coordinate the design with major design features of the building or development.

Southern Climate Shelters | Shelters designed for southern climates are designed with the goal of alleviating uncomfortable conditions caused by heat and sun exposure. Shelters can be configured with a screen placed between the street and bench to protect waiting passengers from direct sunlight; this configuration would be most applicable for east or west facing stops and where there are few trees or buildings to block the sun. Prefabricated trellis panels may be used in the construction of transit shelters which offer both aesthetic and thermal benefits. Vertical panels and seating areas can be staggered to maximize shade opportunities throughout the day.



The City of Scottsdale conducted a sun exposure study as part of the conceptual design for standard bus shelters in the city. The resulting design is similar to concept designs included in TCRP Report 19c (referenced above).



Conceptual Shelter Design for Southern Climates
Source: TCRP Report 19c - Guidelines for the Location and Design of Bus Stops

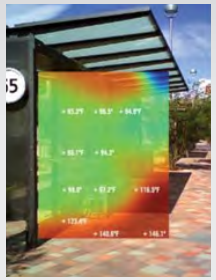
Planning/Policy Guidance

- Consider requiring private developers to install and/or maintain bus shelters.
- Consider establishing a southern climate shelter standard for bus stops and create a program to convert local shelters to shelters with enhanced protection from the sun.
- Consider the local transit agency's criteria to determine if a shelter should be provided at a bus stop and consider steps to be made to prove the need for a shelter at a stop location. Common factors in determining shelter need include:
  - Number of passenger boardings
  - Transit service type and frequency
  - Number of transfers
  - Available space
  - Number physically challenged individuals in the area
  - Adjacent land use compatibility
  - Shelters exclusively served by peak period express transit services will have different shade requirements than shelters utilized by all day services.

Coated Pavement | *Emerald Cities*, a Scottsdale-based environmental company, has created a pastel-hued coating that is sprayed over asphalt and lasts for five to eight years. The lighter color attracts and reflects less heat. The company measured the temperature of the surface of asphalt and compared it to their pastel-coated surface and saw an 80 degree difference in surface temperature.

Other Shade Structures | At locations with high pedestrian activity additional shade structures can be installed which may or may not act as a transit shelter.

Coated, light color pavement attracts and retains less heat.
Source: http://emeraldcoolpavements.com/



Prefabricated trellis panels may be used in the construction of transit shelters, offering aesthetic and thermal benefits.
Source: greenscreen.com

Cost

The table below lists the estimated unit construction costs for shelter that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 23: Cost of Shelter & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Shelter	Standard shelter w/ seating, lighting, bicycle rack, concrete pad, trash receptacle	Each	$16,000					
	Enhanced shelter w/ seating, side screens, lighting, bicycle rack, concrete pad, trash receptacle	Each	$25,000					
	Custom shelter w/ seating, side screens, interior lighting, stop area lighting, bicycle rack, concrete pad, trash receptacle	Each	$35,000					
	Sidewalk, concrete	Sq. Ft.	$4.00					
	Coated Pavement	Sq. Ft.	$1.50					
	Concrete pavers	Sq. Ft.	$7.00					

Shading

Issue

Adequate shading can improve uncomfortable environmental conditions like heat and sun. In the MAG region, sun protection is a key function of shelters. Depending on the orientation of the bus shelter (south facing, north facing, etc.), time of day, and transit service time, a typical bus shelter may or may not provide relief from direct sunlight. In these circumstances other shading strategies such as locating the bus stop near an existing tree can be considered. *TCRP Report 19c* provides detailed guidance on the shade of bus stop areas.

It is important to recognize that the movement of the sun will impact the effectiveness of the shade improvement. Before selecting a treatment visit the site during the period(s) of peak activity. Stop level transit ridership data and pedestrian counts will be useful in determining the periods of peak activity.

Importance

During the field survey, transit riders were asked if an increase in shade trees would make them more likely to ride the bus more often; **68% of transit riders said they would ride the bus more often if additional shade was provided.** Only 21% of riders thought there were a lot of trees and plants.

At all case study locations only partial shade was provided during certain periods of the day but not during all hours of daylight. At most case study locations at least partial shade was provided from the bus shelter; at bus stops where a shelter was not provided a nearby shade tree provided partial shade. None of the case studies had adequate shade pedestrian or bicycle routes in the catchment area.

Improvement Considerations

Various strategies for providing shade at transit stops have been discussed in previous sections including the siting of benches to take advantage of existing shade and the design and orientation of shelters. In addition to shade at the bus stop location, consideration should be given to providing adequate shade on bicycle and pedestrian routes that connect to bus stops.

Street Trees with Grates | Shade trees planted in tree wells are common in urban areas where on-street parking may be directly adjacent to the planting area. Shade trees with grates can be installed which maintain a larger sidewalk space for pedestrian, strollers and handicapped individuals.

Tree wells are typically used in urban areas or areas with high turnover of street parking.

A landscaped strip between the curb and sidewalk is more common in suburban settings.

Landscape Strip | Streets with a landscape strip can be enhanced by planting street trees in the space between the sidewalk and curb. This location can provide shade both to the sidewalk and to on-street bicycle lanes (if applicable). When sidewalks are detached, shade trees can be planted on both sides of the sidewalk to provide shade throughout the day.
Landscape strips that will be planted with shade trees need to be at least 3' wide to allow for a minimum 2'6" clearance radius around the base of the tree. Evaluate tree litter, fruit characteristics, smell, growth rate, proximity to building structures and utilities, root spread, and seasonal growth when determining tree species. Certain species can have major impacts on building foundations, sidewalks, cars, pedestrians, and utilities.

Shade Trees | Whenever possible, landscape transit, pedestrian and bicycle areas with shade trees rather than palm trees. Palm trees provide little to no shade.

Sidewalk-oriented Buildings | The design and orientation of buildings, particularly with regard to setback and height, can have a significant impact on the level of shade provided at transit stop and along sidewalks in the transit stop catchment area. Structures may also be built over sidewalks for short stretches to provide pockets of relief from direct sun exposure. Depending upon the orientation of the building (i.e. north, south, east, west) and the location of the sun, buildings with a zero setback line or small setback line can provide shade for the sidewalk. A two-story building has a comparable height to a mature shade tree.

Canopies | Canopies are typically used on private property. They may be erected to provide shade between the building entrance and the public sidewalk. Canopies have also been used on roadways in some urban settings.

Planning/Policy Guidance

- Install trees to maximize shade opportunities while considering the natural and built environmental impacts.
- Some cost effective strategies for planting street trees include:
  - Locating bus stops in locations where they will benefit from existing shade trees.
  - Prioritizing the planting of street trees that will serve existing bus shelters and sidewalks.
- Wide and/or detached sidewalks allow for a buffer zone that can include tree wells in urban areas or a continuous landscaped strip in more suburban settings.
- Shade can be a consideration during private development design and review and the implementation of public improvements within the public right-of-way. Identifying the appropriate strategy requires consideration of capital cost, maintenance and contextual factors such as aesthetics and the number of pedestrians and transit users who will actually benefit from the investment.
- Provide appropriate landscaping that does not interfere with pedestrian and bicycle accessibility.

The combination of tree wells and sidewalk-oriented buildings provides consistent shade throughout most of the day.

Sidewalk oriented development provides shaded connection between bus stops and building entrances.
Source: City of Chandler, Green Building Program

Canopies provide shade from the public sidewalk to the building entrance.

Cost

The table below lists the estimated unit construction costs for shade that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 24: Cost of Shade & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Shading	Standard shelter w/ seating, lighting, bicycle rack, concrete pad, trash receptacle	Each	$16,000					
	Enhanced shelter w/ seating, side screens, lighting, bicycle rack, concrete pad, trash receptacle	Each	$25,000					
	Custom shelter w/ seating, side screens, interior lighting, stop area lighting, bicycle rack, concrete pad, trash receptacle	Each	$35,000					
	Shade tree (irrigated)	Each	$750					
	Landscape buffer w/ shade tree (irrigated)	Sq. Ft.	$3.00					
	Tree well with cover	Each	$250					
	Custom shade structure	Each	$5,000					

Adjacent Land Use

Issue

Adjacent land use is an important element to consider when creating or improving a pedestrian environment. Developments with large setbacks, retaining walls, or gated communities all act as barriers separating pedestrians and bicyclists from the development.

Importance

During the field survey, transit riders were asked if the bus stop was close to home, work, or shopping; 34% of riders thought the bus stop was close to their origin or destination point.

Of the case study locations, only the Urban Core stop provided direct access to adjacent land uses. The Urban Residential stop provided direct access to some adjacent uses but no direct access to the surrounding residential areas. All other case study locations had no direct access to adjacent land uses. The Suburban Residential stop had walled subdivisions with access only at subdivision roads that were far from the bus stops.

Recent research has concluded that land use and development patterns have a significant impact on transit systems and stops:

"The results of this research suggest there are three primary means available to planners to enhance transit ridership through land use planning: increase residential density in the areas near transit corridors, concentrate mixed-use development within an eighth mile of the transit corridors, and channel a greater proportion of the retail development within a quarter mile of transit lines. In fact, this analysis suggests that transit planners would increase ridership to a greater degree through catalyzing retail, mixed-use and multifamily development than increasing transit service."

- Bus Transit and Land Use: Illuminating the Interaction

Improvement Considerations

Urban planners and transit planners should consider locating bus stops adjacent to land uses that generate the most activity or "eyes on the street" to enhance personal safety of transit users. Transit-stop-adjacent land uses can be compatible with high levels of pedestrian activity and provide services that may be useful to transit users, which also provide an economic development return on the transit investment.

Sidewalk-oriented Development | The design and orientation of buildings, particularly with regard to setback and height, can have a significant impact on the comfort of the pedestrian environment. Buildings with minimal or zero-setback lines create an ideal pedestrian environment and shorten the connecting distance for pedestrians from the street to the development. Many developments in the MAG region include a setback with surface parking between the building and the street; these developments can be improved by designing the site so that parking is provided on the side or rear of the building.

Where parking is located along the side or rear of a building, locate at least one building entrance at or near the street side of the building to allow for ease of pedestrian access.

Sidewalk-oriented development provides shade and direct access to building entrances.

Sidewalk/Pedestrian Paths | Should buildings have a setback, sidewalks or pedestrian paths can be installed which direct pedestrians to the easiest route to the building or development.

Street Walls | Street walls are a common urban design tool used to improve a development with a setback; however, these street walls can also disconnect street activity from the development. It is important that these street walls be designed with openings at key locations that provide easy access for pedestrians and bicyclists to access the development. Many subdivisions in the MAG region are walled, these walls can be designed with openings at strategic locations that provide easy access for pedestrians and bicyclists to both enter and exit the subdivision.

In Metro core locations, a minimal setback is encouraged, such as this example in Tempe.

The City of Tempe has several means by which to encourage pedestrian- and transit- friendly development. The *City of Tempe Transportation Master Plan* includes design criteria for new development (excerpt at right). Additionally, the City's Public Works Department enforces the City's *Engineering Design Criteria* which includes right-of-way dedication/improvement requirements (excerpt below).

Pedestrian-friendly Design Criteria for New Development

The City of Tempe Transportation Master Plan (pp. 2-2 & 2-3) includes design criteria for new development promoting pedestrian-friendly design:

- Encourage pedestrian and transit-user access to buildings by locating buildings at the minimum setback for arterial and arterial to collector intersections. The distance between bus stops and building entrances shall be minimized by using minimum setback requirements for locations of buildings on the site.
- Encourage pedestrian and bicycle access to the main building entrances from all sides of the site by providing more links to street frontages.
- Encourage buildings to locate closer to street intersections by minimizing the amount of parking allowed at street frontages, or by locating all parking behind or to the side of buildings.
- Encourage mixed-use development, allowing people to work where they live.
- New and existing cul-de-sacs and dead-end streets can be enhanced by providing connecting pedestrian and bicycle paths to the major streets.

Table 25: Cost of Wayfinding Signage & Potential Prototype Application

Right-Of-Way (ROW) Dedication/Improvement		Manufacturing/Industrial			Commercial/Retail			Residential		
		Large 70,000+ SF	Medium 18,000-70,000 SF	Small 0-18,000 SF	Large 45,000+ SF	Medium 8,000-45,000 SF	Small 0-8,000 SF	Large 75+ Units	Medium 25-75 Units	Small 0-25 Units
1. Public Health and Safety Requirements or Requests	1a. ROW/Install turning lane	R	R	R	R	R	N	R	R	N
	1b. Install looped water system where pressure/supply problems would otherwise exist.	R	R	R	R	R	R	R	R	R
2. Trip Generation Rate Requirements or Requests	2a. ROW for arterial street.	R	R	N	R	R	N	R	R	N
	2b. Full arterial half-street improvements (see 1b & 1e)	R	R	N	R	R	N	R	R	N
3. Individualized Determination or Requests	3a. Bus pad dedications for bench	R	R	N	R	R	N	R	R	N
	3b. Bus pad installation for bench	R	N	N	R	N	N	R	N	N
	3c. Bus shelter dedication	R	R	N	R	R	N	R	R	N
	3d. Bus shelter installation	R	N	N	R	N	N	R	N	N
	3e. Bus bay dedication (Arterial/Aterial, Arterial/Collector)	R	R	R	R	R	R	R	R	R
	3f. Bus bay installation (Arterial/Aterial, Arterial/Collector)	R	N	N	R	N	N	R	N	N
	3g. Multi-use path easement	R	N	N	R	N	N	R	N	N
	3h. Multi-use path construction (including lighting)	N	N	N	R	N	N	R	N	N
	3i. Construction of looped water main where existing pressure/supply is inadequate to service subject property.	N	N	N	N	N	N	N	N	N

Where setbacks are used, a clear path from the sidewalk to the building entrance is to be provided.

Pedestrian connection through a parking lot provides a solution for large setbacks and parking lots.
Source: City of Chandler, Green Building Program

Partial street closures act as "dead ends" for vehicles while allowing bicyclists and pedestrians to continue along the roadway. This is a good solution for subdivisions with cul-de-sac, hammerheads, and dead end streets.

Planning/Policy Guidance

- Consideration should be given to locating bus stops opposite convenience stores wherever practical as these stores provide a quick stop for transit riders.
- The best way to ensure adjacent land uses are compatible with transit stops is through the regulation of design or form of development. Two key urban design issues include:
  - Orientation of buildings relative to the sidewalk
  - Orientation of building entrances relative to sidewalk
  - Establishment of direct connections between the sidewalk and building entrances.
- Surface parking between the sidewalk and building entrances can be minimized or eliminated by locating surface parking lots at the rear or side of the building.
- Develop land use ordinances to better accommodate transit/ pedestrians through reducing parking requirements, reducing minimum setback, increasing the percentage of permitted lot coverage, and create more flexible ordinance that encourages innovation in design and greater density.

Cost

The table below lists the estimated unit construction costs for adjacent land use access improvements that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 26: Cost of Adjacent Land Use & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Adjacent Land Use	Provide opening in street wall	Each	$1,000					
	Sidewalk (concrete)	Sq. Ft.	$4.00					
	Path (asphalt)	Sq. Ft.	$2.00					

Bicycle Access

Issue

Bicycle access is important in any city and within the MAG region. Access is an important extension of any transit system as it improves mobility, extends and enhances transit service quality, and reduces reliance on automobiles. Some of the common challenges to providing good bicycle access include street crossings, lack of bicycle lanes or paths, perceived dangerous roadways, constrained right-of-way, station characteristics, network connectivity, transit agency policies, and surrounding land uses.

Importance

When asked if certain improvements would increase their use of transit, **52% of riders indicated adding a bicycle lane would increase their use of the transit system.**

Of the case study locations only the Urban Residential and Suburban Residential stops provided direct access for bicyclists to the bus stops via on-street bicycle lanes. The Suburban Retail stop had an off-street bicycle trail but no means of connecting from the trail to the bus stop. In addition to on-street and off-street facilities, bicyclists can often safely ride along local and collector streets that have lower traffic volumes and lower traffic speeds; however, none of the case study bus locations provided bicycle access from collector and local streets to the bus stop.

Improvement Considerations

Bicycle access improvements may include on-street or off-street bicycle facilities and can be focused on gaps or weak links in the bikeway network, particularly those situated between a transit stop and a major activity center. Existing or proposed bicycle paths can provide wayfinding signage to nearby transit stops and include marked and/or signalized crossings of major roadways to facilitate the use of bicycle paths to access transit.

Bicycle lanes on Southern Avenue in addition to vehicular travel lanes. Bicycle lanes can be installed by reducing the number of vehicular lanes from four to three or reducing vehicle travel lane widths.

Interim FHWA approved green paint denotes the "conflict zone" where buses and motorists will cross the bicycle lanes in order to pick up passengers or make right turns.

Buffered or protected bicycle lanes create greater separation between bicyclists and adjacent vehicular traffic and have been shown to attract new riders.

Bicycle Lanes | Bicycle lanes may be provided along major arterials and other roadways if there is sufficient roadway width. Because bicyclists in bicycle lanes often cross paths with buses and turning motorists near intersections, treatments such as interim FHWA approved green paint are being used increasingly at these locations to highlight the conflict zone. Designated bicycle routes or shared roadways may include a variety of treatments including signage, pavement markings, and traffic calming treatments.

Bike Lanes and On-Street Parking | A major component of bicycle access is on-street parking. On-street parking creates many hazards to cyclists when bike lanes are located behind parked cars. Where ROW permits, buffer space should be considered between parking and bike lanes.

Bicycle Paths | Bicycle paths are off-street routes that provide additional comfort and safety for the bicyclist. These facilities should be well lit with landscaping whenever possible.

Crossings | Street crossing locations are one of the major safety issues for bicyclists. Well lit and signalized bicycle crossings can improve safety. Crossings that occur at street intersections can be coordinated with pedestrian crossing signals. Local regulations determine allowable bicycle travel and crossing treatments, increased signage and standards can improve cyclist's awareness. Where bicycles cross at mid-block locations, HAWK signals, Rapid rectangular flashing beacons, and in-road flashing beacons can provide additional safety. To increase driver awareness incorporate lighted bike zone signs at intersections with high volumes of traffic. See the Crossings section of this toolkit for additional details.

Bicycle paths such as the Sun Circle Trail may facilitate access to transit if connections are made between the path and nearby transit stops. This bicycle and pedestrian crossing is signalized via a HAWK signal.

Bicycle paths will include lighting and landscaping wherever possible and have clearly marked and/or signalized crossings at major roadways.

Bike Sharing is a service where bicycles are made available for use for individuals who do not own them.

Bike Share | Bike sharing provides users point-to-point transportation for distances typically ranging between 1/2 and 3 miles. Bike Sharing can be provided and organized by a local community group or non-profit organization (Community Bike Program) or it can be provided and organized by government agencies, often through public-private partnerships (Smart Bike Program). Users have the ability to pick up a bicycle and return it to any self-serve bicycle station in the network. Common components and terminology of a bike share network include:

- Bike Sharing Stations;
- Docks;
- Customer Kiosks;
- 'Last Mile' Trips;
- Members;
- Membership Dues;
- Ridership/Usage Fees;
- Service Areas; and
- Rebalancing/Redistribution.

Bike Sharing in the United States: State of the Practice and Guide to Implementation further elaborates on planning, implementation, and evaluation of a bike share system.

Transit Connections | Off-street paths that are located at mid-block locations may have difficulty connecting to transit stations that are often located near street intersections. Whenever possible, improve bicycle access that connects off-street bicycle paths to the transit stops or to bike lanes that connect to transit centers/destinations.

Pavement Markings | Properly mark on-street bicycle pathways including dedicated bicycle lanes, bicycle boulevards and shared lanes to most recent MUTCD standards. The AASHTO Guide for the Development of Bicycle Facilities includes illustrations for correct bicycle lane markings at intersections that help minimize conflicts between cyclists and vehicles in right turn lanes, bus lanes, and trap lanes.

Bicycle Boulevards | Bicycle Boulevards are streets with low automobile traffic volumes and speeds. Many local streets offer these basic components and can be easily enhanced to create a bicycle boulevard. Bicycle Boulevards are commonly designed to give bicycles the highest priority by using the following measures:

- Route Planning;
- Signs and Pavement Markings;
- Speed Management;
- Volume Management;
- Minor and Major Street Crossings;
- Offset Crossings; and
- Green Infrastructure.

The NACTO Urban Bikeway Design Guide further elaborates on these recommended measures for Bicycle Boulevards.

Constrained Right-of-way | Adding bicycle lanes to existing roadways requires further narrowing of travel lanes which may not be feasible on all roadways. In such circumstances there may be few solutions including bicycle wayfinding that would direct bicyclists to nearby local and collector streets or off-street paths. For signage and wayfinding, see the Information Signage

Recent research on the safety of 10-foot versus 12-foot travel lanes has concluded that:

> *"…there is no indication that crash frequencies increase as lane width decreases for arterial roadway segments or arterial intersection approaches. These findings suggest that the AASHTO Green Book is correct in providing substantial flexibility for use of lane widths narrower than 3.6 m (12 ft) on urban and suburban arterials. Use of narrower lanes in appropriate locations can provide other benefits to users and the surrounding community including shorter pedestrian crossing distances and space for additional through lanes, auxiliary and turning lanes, bicycle lanes, buffer areas between travel lanes and sidewalks, and placement of roadside hardware. Interpretation of design policies as rigidly requiring the use of 3.6 m (12 ft) lanes on urban and suburban arterials may miss the opportunity for these other benefits without any documentable gain in safety."*
>
> *- Relationship of Lane Width to Safety for Urban and Suburban Arterials*, TRB2007 Annual Meeting

sections later in the toolkit. The examples in this section intend to increase bicyclist comfort by slowing traffic and/or reducing traffic volumes on local streets.

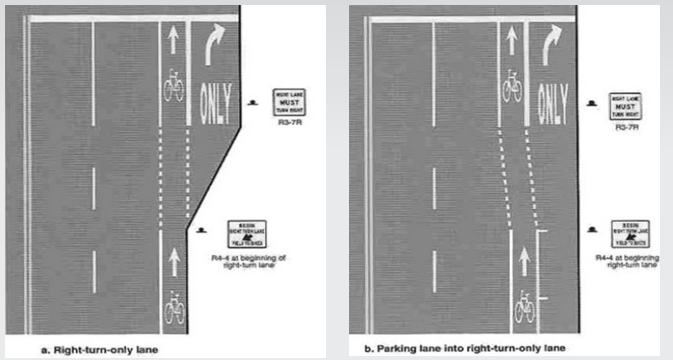
Lane Narrowing and Lane Removal | Bicycle lanes or cycle tracks can be considered on arterial or urban roadways. The installation of bicycle lanes may be achieved most cost effectively through lane narrowing or lane removal. On roadways with multiple 12-foot travel lanes, the narrowing of lanes to as narrow as 10 feet may provide sufficient width to stripe 5 to 6 foot bicycle lanes.

Traffic Calming and Diversion | Traffic calming devices can be used on local and collector streets to reduce both traffic volumes and travel speeds. Such treatments can greatly improve perceived and real pedestrian and bicycle safety.

City of Scottsdale Restriping Program

As an example, the City of Scottsdale has been actively restriping major streets with maintenance overlays to add bicycle lanes where feasible.

> *"They generally allow 11 foot wide through lanes and 10 foot wide turn lanes to accomplish this. In some cases the City of Scottsdale will accept 10 foot wide through lanes, but only on streets with lower speed limits and limited truck traffic."* -Street Engineer



Source: AASHTO Guide for the Development of Bicycle Facilities, 4th Ed., 2012

Speed bumps may be designed with a spacing that allows wide axle emergency vehicles to straddle the humps. Bicyclists may also ride through the gaps to avoid being impacted.

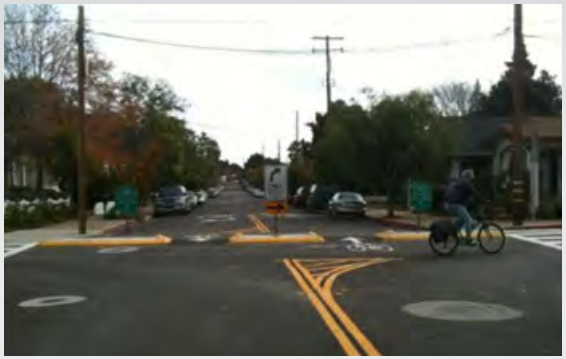
Mini traffic circles can be used to replace all-way stops, allowing cyclists to legally maintain momentum through minor low volume intersections.

Shared lane markings have been approved by FHWA and are included in the 2009 MUTCD.

Large custom bicycle boulevard pavement marking are used in some jurisdictions.

Planning/Policy Guidance

- Bicycle lanes or cycle tracks can be considered on arterial or urban roadways. The installation of bicycle lanes may be achieved most cost effectively through lane narrowing or lane removal. Lane removal can be considered in cases where a roadway is determined to have excess capacity.
- Bicycle lanes or shared lane markings can be considered on all collector or local streets that connect neighborhoods and commercial areas to major transit corridors, particularly in cases where parallel arterial roadways cannot accommodate bicycle lanes. Shared lane markings do not require the narrowing or removal of travel lanes and are generally suitable for roadways with speed limits of 35 miles per hour or less.
- Traffic calming measures can be implemented in a way that discourages "cut-through" traffic by motorists, but facilitates bicycle through traffic. This strategy of implementing traffic calming improvements combined with bicycle-oriented improvements such as signage and pavement markings on local streets is often referred to as the development of "bicycle boulevards" or "neighborhood greenways."



Traffic diverters reduce through traffic by forcing vehicles to turn at some intersections, while allowing bicyclist through movements. *Sources: pedbikeimages.org*

Partial street closures act as "dead ends" for vehicles while allowing bicyclists and pedestrians to continue along the roadway.

Cost

The table below lists the estimated unit construction costs for bicycle access improvements that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 27: Cost of Bicycle Access & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Bicycle Access	Add bicycle lane by restriping travel lanes	Mile	$15,000					
	Bicycle path (asphalt)	Sq. Ft.	$2.00					
	Mid-block crossing	Each	$10,000					
	Mid-block crossing w/ flashing beacon	Each	$50,000					
	Mid-block crossing signal (HAWK)	Each	$100,000					
	Pavement markings (sharrow, Bicycle Blvd, etc)	Each	$300					
	Bicycle wayfinding sign	Each	$500					

Bicycle Parking

Issue

Bicycle access can also address the need for bicycle parking and on-board accommodations (exterior and interior). Allowing bicycles on buses and providing bicycle accommodations at bus stops can greatly expand the service area of a transit system. Throughout the MAG region there is a lack of safe and secure bicycle parking facilities. Currently, buses in the MAG region provide exterior bicycle racks on most of their bus fleet. However, additional consideration should be given to routes and stops with high bicycle activity and when the exterior bicycle racks are at capacity.

Importance

When asked if certain improvements would increase their use of transit, **51% of riders indicated that adding bicycle parking would increase their use of the transit system.**

Of the case study locations, few bus stops provided bicycle racks or other bicycle parking facilities. Occasionally adjacent private developments would provide a bicycle rack. Exterior bicycle racks on buses were often at or near capacity and the transit agency does not accommodate interior bicycle storage. Additional bicycle racks may be needed, particularly at locations with low frequency transit service.

Improvement Considerations

Information signage can be implemented in several formats and with various combinations of information. It is highly encouraged that transit stops include a full bundle of information for transit riders including: a bus stop number, route(s) number and destinations, transit system schedule, transit system map, transit system provider's contact information, and if applicable, the park-and-ride location. Furthermore, bus stops and routes with high ridership volumes can consider adding real-time travel information. The types of information signage shown below are but a few examples of the possible design and format to provide the information. Overall, transit system information signage should be as consistent as possible throughout the entire transit system.

Bicycle Racks | Bicycle racks that fit universal bicycle design standards can be installed in the landscape or furniture zone of the sidewalk so that they do not obstruct the path of pedestrians.

Bicycle Corrals | Bicycle corrals are typically installed in an on-street parking space. This option is attractive to some business owners who see the conversion of a single car parking space into 8-12 bicycle parking spaces as an opportunity.

Bicycle Cellar/Transportation Station | Bicycle stations are major investments that are typically incorporated into larger transportation facilities. They can include a variety of bicycle parking options such as racks, lockers, and bike sharing facilities as well as personal lockers, showers, bicycle repair, rentals, and accessories, as well as other pedestrian amenities. The Bicycle Cellar at Tempe Transportation Station is an example of this type of facility.

Bicycle Lids and Lockers | A bicycle lid or locker is a secured box that stores a single bicycle which can be locked to prevent theft and vandalism and protect the bicycle from environmental conditions. This improvement is commonly considered one of the highest standards of bicycle safety and can be placed at locations where numerous cyclists are parking and storing their bicycles for extended periods of time.

Sidewalk bicycle racks.

Bicycle corrals.

Tempe Transportation Station

Planning/Policy Guidance

- Consider implementing a bikes-on-board program for interior, on-board bicycle storage for transit routes that have high volumes of bicyclists and when exterior bicycle storage is at or near capacity. Such bus vehicle improvements would need to be properly marked and have fixtures used to secure bicycles when the bus is in motion. The determination of if a bicycle can be properly stored on-board a bus is at the discretion of the bus driver.
- Universal design of bicycle parking on private property can be required by ordinance with clear guidance on design and siting. Design guidelines can promote use of racks similar to those used in the public right-of-way as this will facilitate standardization and ease of use. Locating guidelines can focus on visibility and the location of racks relative to main building entrances.
  - Bicycle parking should be clearly visible from the bus stop or building entrance.
  - The bicycle parking area should be located within 50 feet of the bus stop or building entrance it is intended to serve and no further than the closest (non-disabled) automobile parking space.
  - Under no circumstances should walls, fencing or landscaping be used to "screen" bicycle parking from view, as that will create an environment that facilitates bicycle theft.
  - Consider Bicycle Lids for highest frequency access stops (and LRT stations). Bicycle Lids provide more secure parking that discourages theft. Bicycle Lids securely protect the whole bicycle while costing less than actual bicycle lockers.
  - Consider ordinances that require locating bicycle parking facilities in highly visible locations along establishments located on arterial streets.

Bicycle Lockers and Bicycle Lids provide additional storage and protection for bicycles.

Cost

The table below lists the estimated unit construction costs for bicycle parking/storage that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 28: Cost of Bicycle Parking & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Bicycle Parking	Bicycle rack	Each	$400					
	Bicycle lockers	Each	$2,500					
	Bicycle shelter	Each	$5,000					
	Bicycle lid	Each	$1,500					

Pedestrian Crossing

Issue

Pedestrian and cyclists are most vulnerable at pedestrian crossings. Typical crossings include crossing at street intersections or at mid-block locations. Particular attention should be paid to locations with high vehicle-pedestrian conflicts and accidents.

Importance

During the field survey, transit riders were asked how they arrived to the bus stop; 61% of riders said they arrived by foot which is slightly higher than the national figure of less than 59%. **When asked if curb extensions would increase their use of transit, 50% of riders indicated adding these improvements would increase their use of the transit system. And when asked if installation of medians would increase their use of transit, 43% of riders indicated adding these improvements would increase their use of the transit system.**

None of the case study locations included curb extensions and just one location (the Suburban Retail case study) had pedestrian refuges although they were too narrow to accommodate a waiting pedestrian with stroller or a wheelchair. None of the case study locations included formal mid-block crossings; however, several locations experience a high amount of illegal mid-block crossings.

Improvement Considerations

When planning for access to transit stops, desired crossing locations can be identified and enhanced to support safe and comfortable crossing of roadways by transit users. Such improvements can include marked crosswalks, traffic signals, pedestrian refuges, and curb extensions. Pedestrian crossings should be as short as possible, reducing the time exposure of pedestrians to cross traffic.

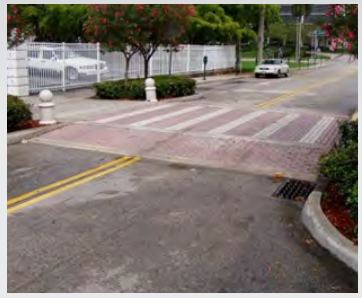
Reduced Curb Radii | Shortened crossing distances through reduced curb radii or curb extensions are encouraged where such improvements would meet minimum design standards.

Curb Extensions | Curb extensions shorten crossing distances and can be installed on streets where on-street parking is allowed. Curb extensions also create additional space at street corners that can facilitate the installation of dual curb ramps. This provides the mobility impaired and pedestrians with strollers and other wheeled devices a shorter crossing distance. Neither curb extensions nor the adjacent gutter pan can extend into the bicycle lane at intersections. Drainage must be considered when designing curb extensions.

Curb extensions shorten crossing distances for pedestrians and can create additional space at street corners that can facilitate the installation of dual curb ramps.

Mid-block Crossings | Mid-block crossings are discouraged, but when necessary can be enhanced to improve pedestrian safety. Whenever possible, locate bus stops near intersections where crossings already exist and not at mid-block locations. When bus stops are located mid-block, a pedestrian crossing can be added to facilitate safe and legal crossings. Unsignalized mid-block crossings can use high visibility crosswalk markings and include median refuge islands wherever possible. The path through the median refuge should be angled to turn pedestrian to the right to face traffic before making the second stage of the crossing. The desired minimum width for a median refuge is six feet as that

This mid-block crossing includes a raised median refuge, high contrast crosswalk, and in-pavement flashers.
Source: pedbikeimages.org



Raised crosswalks may be appropriate at some locations where reducing traffic speed is desirable. The impact on drainage must be considered.
Source: pedbikeimages.org

Rapid rectangular flashing beacons.
Source: pedbikeimages.org

Scottsdale HAWK signal.

In-road flashing beacons. *Source: crosswalks.com*

provides sufficient space for most bicyclists, pedestrians pushing strollers, and wheelchairs. Raised crosswalks can also be considered and are intended to slow vehicle traffic at the crossing locations while providing pedestrians, bicyclists and wheelchair users with a level crossing path.

Traffic Signals and Flashing Beacons | Flashing beacons can be considered at locations with sight distance issues and with nighttime crossing activity. Such improvements are based on the local jurisdiction's preference. Along high-volume arterials, either a traffic signal or HAWK signal (see above) may be required. HAWK signals are activated by crossing pedestrians; motorists may proceed during the flashing red phase after pedestrians clear the crosswalk. User activated rectangular rapid flashing beacons (RRFBs) may be considered at mid-block crossing to alert approaching motorists in advance. In-road flashing beacons alert drivers of crossing pedestrians and enhance the pedestrian crosswalk by improving visibility in the evening hours.

Planning/Policy Guidance

- Pedestrian safety cannot be compromised to accommodate greater auto volumes. Traffic engineering techniques such as double right-turn lanes and free right-turn lanes are discouraged along primary pedestrian routes and near bus stops.
- Bus stops at mid-block can be located based on an evaluation of ridership and crossing opportunities and should not be determined by the ¼ mile spacing distance as it is currently. Through collaboration with the community the local jurisdiction may be able to determine alternative options for bus stop placement or they may determine that the identified location is a critical need location.
- Establish policies that prioritize improvements in locations that do not meet ADA standards.

Cost

The table below lists the estimated unit construction costs for pedestrian crossings that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 29: Cost of Pedestrian Crossings & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Pedestrian Crossing	Mid-block crosswalk w/ pedestrian refuge	Each	$10,000					
	Mid-block crosswalk w/ flashers	Each	$50,000					
	Mid-block pedestrian signal	Each	$100,000					
	Sidewalk, concrete	Sq. Ft.	$4.00					
	Concrete pavers	Sq. Ft.	$7.00					
	Curb extension	Each	$5,000					

Sidewalk

Issue

Sidewalks are the means by which pedestrians access transit stops. Creating a comfortable pedestrian environment is important to a transit system's success. Unsafe and unfriendly pedestrian environments such as narrow or damaged sidewalks, poor landscaping, and poor lighting deter walking activity.

Design sidewalk ramps to continue in a straight or direct line across intersections. Currently, many sidewalks force pedestrians (and bicyclists) to walk out of their way to cross the street. This reduces visibility of the pedestrian for drivers and makes the pedestrian circulation less efficient by putting more distance between destinations.

Importance

During the field survey, transit riders were asked how they arrived to the bus stop; 61% of riders said they arrived by foot which is slightly higher than the national figure of less than 59%. When asked if there were good or bad sidewalks and walkways; **just 38% of riders classified the sidewalks and walkways as good.**

All of the case study locations included 4-to-5-foot wide sidewalks along arterial roads which provide a network for pedestrian connectivity. The Urban Retail case study location included enhanced sidewalks along several segments of roadway including near the arterial street intersection and adjacent to bus stops. These enhanced sidewalks were 10 feet wide and detached from the street curb providing a landscape strip for shade trees.

Improvement Considerations

Widening and detaching the sidewalk accommodates a heavier flow of traffic and provides a buffer which improves real and perceived pedestrian safety. Additionally, wide sidewalks with "buffer zones" make additional pedestrian improvements possible. The buffer zone may take very different forms in urban and suburban contexts.

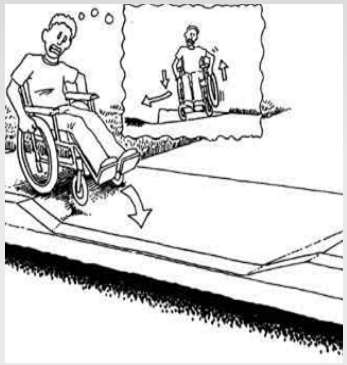
Urban Sidewalk | In urban areas, sidewalk buffer zones are used for the placement of trees, bicycle parking, street furniture, signage, lighting and other elements while maintaining a clear path for pedestrians. Trees planted in tree wells with grates provide shade while increasing surface area for pedestrians, wheelchairs, and strollers. On-street parking increases pedestrian comfort by creating an additional buffer between pedestrians and traffic. The clear zone for pedestrians can be a minimum of ten feet in urban areas.

Suburban Sidewalk | In suburban areas the buffer zone typically takes the form of a landscape strip between the street and sidewalk, providing space for trees and other landscaping, fire hydrants, mailboxes, and utility poles. The clear zone for pedestrians can be a minimum of five feet in suburban areas.

Driveway Ramps | Driveway ramps on narrow attached sidewalks are of particular concern because the resulting cross slope can be steep and turns wheelchair users toward the roadway and moving traffic. The issue of cross slope can be addressed in all new developments either through the installation of detached sidewalks with buffer zone or by designing a route around the driveway ramp providing wheelchair users with a flat surface when crossing driveways.

Urban area with sidewalk buffer zone.

Suburban area with landscape strip buffer zone.



When cross-slopes change rapidly over a short distance, wheelchair use becomes extremely unstable.

Planning/Policy Guidance

- Consider 10-foot wide paved pedestrian surfaces when bus stops are present between the intersection/pedestrian crossing and the first driveway or bus stop, whichever is furthest from the intersection.
- Sidewalks can always be included in road construction projects. Stand-alone projects cost more than the same work performed as part of a larger project. Sidewalks can be piggybacked to projects such as surface preservation, water or sewer lines, or placing utilities underground. Besides the monetary savings, the political fallout is reduced, since the public doesn't perceive an agency as being inefficient. It is typically very noticeable if an agency works on a road, then comes back to do more work later. The reduced impacts on traffic are an additional bonus to integration.
- A cost-savings can be achieved by combining several small sidewalk projects into one big one. This can occur even if the sidewalks are under different jurisdictions, or even if different localities, if they are close to each other. The basic principle is that bid prices drop as quantities increase.
- Establish policies that prioritize improvements in locations that do not meet ADA standards.

Cost

The table below lists the estimated unit construction costs for sidewalk improvements that may be included at transit stops. The potential application of each feature by prototype is highlighted.

Table 30: Cost of Enhanced Sidewalk & Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Enhanced Sidewalk	Sidewalk (concrete)	Sq. Ft.	$4.00					
	Concrete pavers	Sq. Ft.	$7.00					
	Shade tree (irrigated)	Each	$750					
	Landscape buffer w/ shade tree	Sq. Ft.	$3.00					
	Tree well cover	Each	$250					
	Trash receptacle	Each	$500					
	Bench w/ concrete pad, shade	Each	$3,000					
	Bench w/ concrete pad, shade, lighting, trash receptacle	Each	$6,000					

Prototype Costs

Other Cost Considerations

The cost to implement improved transit access, regardless of area type, can vary substantially depending upon the types of features desired, the potential need for additional right-of-way, physical site improvements (i.e. grading, retaining wall, etc) that may be required, proximity to electric service, utility impacts, the amount of sidewalk required to provide connectivity, as well as other factors specific to a particular site. The following points address strategies for minimizing implementation costs, as well as other cost considerations.

Right-of-way | The need for additional right-of-way to implement a given prototype can be minimized or eliminated through design. However, in addition to meeting ADA requirements, location and design of transit stops and connecting pedestrian/bicycle facilities must not compromise safety and should provide sufficient capacity (i.e. seating, shade area) to comfortably accommodate the expected demand and allow ample room for passengers, particularly wheelchairs, to board and alight from transit vehicles. Limited right-of-way is more often an issue in urban areas as opposed to suburban. Strategies for minimizing potential right-of-way costs include obtaining needed right-of-way as adjacent properties develop or as part of other roadway improvement projects, such as roadway widening or intersection reconstruction.

Utilities | Since utility relocation within the public right-of-way is typically the responsibility of each utility, unless a utility has prior rights, the cost impact is expected to be minimal. It is usually possible to design the transit stop and access improvements

Unit Construction Costs

Table 31 lists the estimated unit construction costs for various features that may be included at transit stops. The potential application of each feature by prototype is highlighted. For example, a standard shelter would be appropriate at any of the prototypes, while a custom shelter might only be appropriate at high visibility and/or high activity stops within the urban core, urban retail, and suburban retail prototypes. Note that all shelters are assumed to include a concrete pad, side screens to provide shade, and a trash receptacle. Similarly, implementation of bike storage facilities, including a bike rack or bike lockers, are most appropriate at urban residential and suburban retail and residential prototype stops, where commuters might wish to leave their bicycles.

Table 31: Cost of Transit Stop Features and Potential Prototype Application

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Security/ Lighting	Luminaire adjacent to shelter	Each	$10,000	■	■	■	■	■
	Pedestrian lighting attached to existing street light pole	Each	$750	■	■	■	■	■
	Pedestrian lighting along walkway; 80' spacing	Each	$2,500	■	■	■	■	■
	CCTV camera (1)	Each	$5,000	■	■			
Information Signage	Real‐time information display (1)	Each	$5,000	■	■			
	Static information display	Each	$500	■	■	■	■	■
Seating/ Shelter	Standard shelter w/seating ; concrete pad, lighting, bicycle rack, trash receptacle	Each	$16,000	■	■	■	■	■
	Enhanced shelter w/seating and side screens, concrete pad, lighting, bicycle rack, trash receptacle	Each	$25,000	■	■	■	■	
	Custom shelter w/ seating, side screens, concrete pad, lighting, bicycle rack, trash receptacle	Each	$35,000	■	■		■	
	Bench w/ concrete pad, shade	Each	$3,000	■	■	■	■	■
	Bench w/ concrete pad, shade, lighting, trash receptacle	Each	$6,000	■	■	■	■	■
Landscape/ Shade	Shade tree (irrigated)	Each	$750	■	■	■	■	■
	Landscape buffer w/shade trees (irrigated)	Sq. Ft.	$3.00			■	■	■
	Tree well cover	Each	$250	■	■	■		
	Custom shade structure	Each	$5,000	■	■			
Adjacent Land Use	Provide opening in street wall	Each	$1,000	■	■	■	■	■
	Sidewalk (concrete)	Sq. Ft.	$4.00	■	■	■	■	■
	Path (asphalt)	Sq. Ft.	$2.00	■	■	■	■	■

to avoid costly utility relocations (i.e. electric service cabinets or power poles), however if the relocation of a utility is needed, additional right-of-way may be required for the utility to move into. The costs for minor adjustments to manholes, water valve boxes, and electric/communication pull boxes are typically borne by the improvement project.

Electric Service | The cost to provide electric service for security and pedestrian walkway lighting, as well as transit stop amenities (lighting, real-time information display, CCTV camera) can be significant depending upon the location an appropriate service hook-up. At signalized intersections, it is often possible to obtain power from the signal electric service cabinet. At mid-block locations, it may be possible to tie into an existing street lighting system. Solar power systems can be a cost effective alternative for transit shelter lighting, pedestrian flashers, HAWK signals, and pedestrian lighting.

Component Costs | Standardizing transit stop components, including shelters, trash receptacles, bicycle racks, etc., can substantially reduce costs by allowing multiple vendors to provide bids and allowing for bulk purchasing. While one size/type may not be feasible across all jurisdictions in the Phoenix metro area, establishing 3-4 standard transit shelter configurations is reasonable.

Maintenance | Proper and frequent maintenance of transit stops and shelters is a valued service to existing transit users and an important consideration for potential transit users. Weekly trash pick-up and scheduled cleaning (power washing), graffiti abatement, and landscape maintenance can be included in the transit system program.

Feature	Description	Unit	Unit Cost	Application for Prototypes				
				Urban Core	Urban Retail	Urban Res.	Sub. Retail	Sub. Res.
Bicycle Access	Add bicycle lane by restriping travel lanes	Mile	$15,000					
	Bicycle path (asphalt)	Sq. Ft.	$2.00					
	Mid-block crossing	Each	$10,000					
	Mid-block crossing w/ flashing beacon	Each	$50,000					
	Mid-block crossing signal (HAWK)	Each	$100,000					
	Pavement markings (sharrow, Bicycle Blvd, etc)	Each	$300					
	Bicycle wayfinding sign	Each	$500					
Bicycle Parking	Bicycle rack	Each	$400					
	Bicycle locker	Each	$2,500					
	Bicycle shelter	Each	$5,000					
	Bicycle lid	Each	$1,500					
Sidewalk & Crossings	Sidewalk, concrete	Sq. Ft.	$4.00					
	Coated Pavement	Sq. Ft.	$1.50					
	Concrete pavers	Sq. Ft.	$7.00					
	Wayfinding sign	Each	$250					
	Curb extension	Each	$5,000					
	Mid-block crosswalk w/pedestrian refuge	Each	$10,000					
	Mid-block crosswalk w/ flashing beacon	Each	$50,000					
	Mid-block pedestrian signal	Each	$100,000					
Miscellaneous	Trash receptacle	Each	$500					

1. Costs for real-time traveler information and CCTV does not include any necessary communications backbone or central processing system.

Planning Level Prototype Costs

Planning level implementation costs for each prototype are provided in Table 32. Low, mid, and high cost levels are provided based on assumed features. These costs include construction, design, and administration. Design and administration costs are assumed to be 20% of construction cost. Additional costs that may be required for right-of-way, potential utility relocation, and ancillary site improvements are not included.

Reference Materials

Local, state and national best practices documents were referenced to develop the Bus Stop Prototypes and Transit Accessibility Toolkit. These references are further described in *Appendix A: Reference Materials*. The Reference Materials Appendix also provides a listing of reference materials by toolkit element.

Table 32: Planning Level Costs for each Prototype

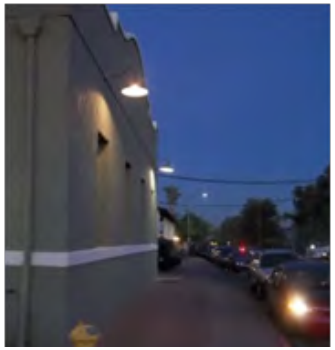
Prototype	Lower Cost	Moderate Cost	Higher Cost
Urban Core	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: no additional sidewalk Lighting: none added Shade Tree: none added Cost: $19,800	Shelter: enhanced Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: add sidewalk (500') Lighting: adjacent luminaire Shade Tree: shade trees Cost: $60,600	Shelter: custom Information Signage: real-time display Bicycle Parking: bicycle rack Sidewalk: add sidewalk (500'); Lighting: adjacent luminaire, CCTV camera Shade Tree: shade trees Cost: $89,400
Urban Retail	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: no additional sidewalk Lighting: none added Shade Tree: none added Cost: $19,800	Shelter: enhanced Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: add sidewalk (500') Lighting: adjacent luminaire Shade Tree: shade trees Cost: $60,600	Shelter: custom Information Signage: real-time display Bicycle Parking: bicycle rack Sidewalk: add sidewalk (500'); way finding signage Lighting: adjacent luminaire, CCTV camera Shade Tree: shade trees Cost: $94,800
Urban Residential	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: no additional sidewalk Lighting: none added Shade Tree: none added Cost: $19,800	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: added sidewalk (500'); mid-block cross walk Lighting: adjacent luminaire Shade Tree: shade trees Cost: $61,800	Shelter: enhanced Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: added sidewalk (500'); Lighting: pedestrian walkway lighting (500') Shade Tree: buffer (5000 sq ft) Cost: $81,000
Suburban Retail	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: no additional sidewalk Lighting: none added Shade Tree: none added Cost: $19,800	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: added sidewalk (500'); Lighting: adjacent luminaire Shade Tree: shade trees Cost: $49,800	Shelter: enhanced Information Signage: real time display Bicycle Parking: bicycle lockers Sidewalk: added sidewalk (500'); wayfinding signage, mid-block cross walk Lighting: adjacent luminaire Shade Tree: buffer (5000 sq ft) Cost: $95,000
Suburban Residential	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: no additional sidewalk Lighting: none added Shade Tree: none added Cost: $19,800	Shelter: standard Information Signage: static display Bicycle Parking: bicycle rack Sidewalk: added sidewalk (500'); Lighting: adjacent luminaire Shade Tree: shade trees Cost: $49,800	Shelter: enhanced Information Signage: static display Bicycle Parking: bicycle lockers Sidewalk: added sidewalk (500'); mid-block crosswalk Lighting: pedestrian walkway lighting (500') Shade Tree: buffer (5000 sq ft) Cost: $96,000

6.1 Implementation Checklist

Included in the following pages is a checklist of topics that have been recommended when considering the placement, replacement or upgrade of bus transit stops. The checklist is for all stakeholders in the design, development, installation, and maintenance of bus transit stops, including: planners, transit providers, city design review staff, and private developers. Below is a checklist illustrating all topics to be taken into consideration when planning for, locating, and building a bus transit stop. The checklist includes core elements identified in the DTAC study that make an effective transit stop.

Topics for Consideration	Check All That Apply
Have you coordinated with member agency staff?	□ Transit operations staff □ Facilities staff □ Street planner/engineer □ Development review/services □ Safety/Safe Routes to School □ Bicycle/Pedestrian □ Other/parks and recreation/maintenance, etc
Did you consider location?	□ At intersection (bus bay/acceleration lane). □ Mid-block (with pedestrian crossing). □ Close to targeted development. □ Ease of transit transfer. □ Potential conflict with pedestrian/bicyclists/auto users
Did you consider lighting?	□ Reviewed applicable lighting standards. □ Freestanding street light located near bus stop. □ Freestanding pedestrian light. □ Pedestrian light attached to street light pole. □ Pedestrian light attached to building.

Lighting Examples

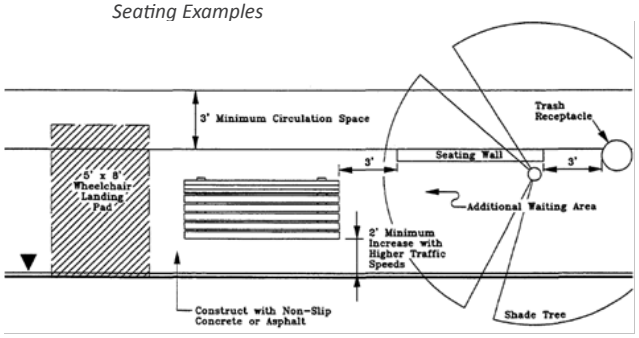



Did you consider information signage?	☐ Freestanding information kiosk with detailed route and schedule information. ☐ Pole-mounted bus stop sign with associated bus route number(s)/ destinations and NextRide information. ☐ Pole-mounted information box with route map. ☐ Wayfinding signage to local attractions, libraries, schools, public spaces, transit centers, light rail. ☐ Bicycle wayfinding signage to iconic routes (major crossings, off street paths, canals, etc).

Information Signage Examples

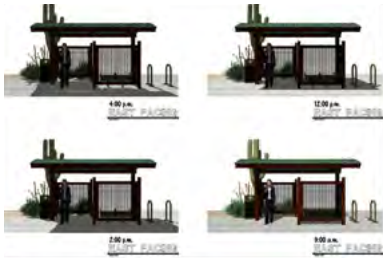
Did you consider seating?	☐ Bench under tree. ☐ Bench in shelter. ☐ Seating wall.

Seating Examples



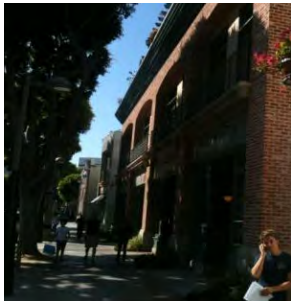
Did you consider shelter?	☐ Shelter designed for southern climates. ☐ Enhanced paving/surface coating.

Shelter Examples



Did you consider shade?	☐ Street trees that also create a buffer. ☐ Adjacent building structure. ☐ Other shade structure. ☐ Transit shelter that is appropriately oriented for southern climates. ☐ Shade/landscaping that minimizes interference to pedestrian and bike access. ☐ Interference to built/natural environment.

Shade Examples



Did you consider adjacent development (retail/ commercial)?	□ Sidewalk-oriented development. □ Pedestrian-oriented building entrance. □ Minimal setback with direct path. □ Path to building entrance. □ Shade at building entrance. □ Safe and shaded pedestrian pathway through parking lot. □ Awning or shade structure that shades the public ROW (TOD structures). □ Pedestrian and bicycle circulation between parcels. □ Multi use path or sidewalk easement (8-10' preferred). □ Safe pedestrian path from transit stop location to building access points.

Adjacent Development (Retail/Commercial) Examples



Did you consider adjacent development (residential)?	□ Pedestrian and bicycle access from walled residential communities to the transit system. □ Pedestrian and bicycle infrastructure within the community and to transit access point.

Adjacent Development (Residential) Examples


Did you consider bicycle access routes and multi-use paths?	□ On-street bicycle lane. □ Off-street bicycle path connected by wayfinding in catchment area. □ Local or collector road connected by wayfinding in catchment area. □ Bicycle crossings. □ Bicycle/pedestrian lighting. □ "Conflict zone" lane painting. □ Bicycle lane buffer. □ Pavement markings. □ Traffic calming and diversion.

Bicycle Access Examples



Did you consider **bicycle parking**?	□ Sidewalk bicycle rack. □ Bicycle corral. □ Bicycle rack at development entrance. □ Other bicycle parking (e.g. lockers). □ Transit frequency and use. □ Bike visibility and site location access. □ Shade for bicycles.

Bicycle Parking Examples



Did you consider **enhanced sidewalk**?	□ Urban buffer zone with tree wells. □ Suburban buffer zone with landscape strip (Only in suburban/ collector streets. Not preferred in locations limited R.O.W.) □ ADA accessibility. □ Maximize sidewalk width (8-10”).

Enhanced Sidewalk Examples


Did you consider **pedestrian crossings**?	□ Provide safe connects between pedestrian desire lines. □ Curb extensions. □ Median refuge. □ Raised crosswalk. □ Rapid rectangular flashing beacons. □ HAWK signal at mid-block crossing. □ In-road flashing beacons. □ Transit stop placement proximity to safe street crossing. □ Diagonal/direct pedestrian crossing.

Pedestrian Crossing Examples



APPLIED ECONOMICS

FISCAL BALANCE REPORT

Prepared by:

Applied Economics
11209 N. Tatum Blvd, Suite 225
Phoenix, Arizona 85028

Prepared for:

Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003

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TABLE OF CONTENTS

1.0 INTRODUCTION

The purpose of the fiscal analysis is to enable MAG to estimate order-of-magnitude fiscal impacts of regional land use plans and projects. The purpose of this working paper is to provide background information on how different types of development impact communities from a fiscal perspective. The paper also includes an analysis of the revenue structure of local governments in Metro Phoenix relative to the ability to sustain various mixes of development types.

This paper is accompanied by a generalized fiscal model that can be used to evaluate the impacts of different land use combinations for five size categories of cities and Maricopa and Pinal County. This model will be applied to the regional composite of land use plans of member agencies as part of general plan updates and amendments.

The balance of this working paper is divided into three chapters:

- Chapter 2.0 provides a summary of the literature review on land use impacts and local revenue sources. The focus of the literature review is on the applications of fiscal impact analysis in land use planning and the factors that influence the results for different locations and land uses. The local revenue information focuses on the types of revenues that are statutorily available to cities in Arizona, highlighting any underutilized sources.

- Chapter 3.0 details background data and assumptions that were collected for the fiscal model including city and county population, employment, staffing levels, tax rates, permitting activity, assessed value, taxable sales and other local data. In addition, the process for analyzing budget information for each community based on standardized revenue and expenditure categories is reviewed.

- Chapter 4.0 presents the methodology used in developing the model and results showing the comparative net impacts by city for residential, office, retail and industrial development.

2.0 LITERATURE REVIEW

2.1 Introduction

This portion of the working paper provides a summary of the articles and papers that describe methodology and key factors in local land use fiscal impacts. Second, this chapter presents a review of the types of local revenue sources that are available to cities in Arizona and how these revenues can be used to ensure fiscal sustainability.

2.2 Purpose of Fiscal Impact Analysis

Growth and development, whether a new retail center, manufacturing facility or residential development results in population and employment increases that have planning and economic consequences for the community. These increases in population and employment create corresponding increases in demand for services and infrastructure, as well as local revenues. Fiscal impact analysis provides a way to connect planning and finance by estimating the revenues and expenditures that result from new development or redevelopment.

New development may result in additional revenues in the form of property taxes from businesses and residents, sales taxes from retailers, services charges, fines, fees and other non-operating revenues such as development impacts fees.[1] At the same time, these new businesses and residents place an additional burden on city services like roads and public safety, as well as on infrastructure.[2] The question is whether the revenues generated by a particular land use, or mix of uses, are sufficient to cover the cost of services and infrastructure required. If new revenues fall short of new costs, the fiscal impact is negative. In this case, the local government must raise taxes to meet new service demands, and reduce the quantity or quality of services provided. If a fiscal impact indicates a surplus, the local government may wish to change its use of revenue sources to fund infrastructure replacement or provide higher levels of service.

Fiscal impact analysis as it relates to land use decisions can be applied in the following ways:

- To inform land use, zoning, and economic development decisions as part of the planning process,
- To measure the costs and benefits of specific projects or small area development or redevelopment plans,
- To prioritize infrastructure improvements or development in a specific area,
- To provide an understanding of service and infrastructure capacity constraints and their impact on a community's ability to realize its long term vision,
- To relate development issues to the underlying fiscal structure,
- To understand or refine inter-jurisdictional relationships,
- To identify future shortfalls that need be addressed through new revenue tools such as impact fees, tax increment financing, etc.
- To more clearly direct the economic development objectives of the community[3]

[1] Kotval, Zenia and Mullin, John, "Fiscal Impact Analysis: Methods, Cases and Intellectual Debate," Lincoln Institute of Land Policy Working Paper, 2006.
[2] Kelsey, Timothy, "Fiscal Impacts of Different Land Uses, The Pennsylvania Experience in 2006," Penn State College of Agriculture Sciences, 2007.
[3] Gross, Randall, "Understanding the Fiscal Impacts of Land Use in Ohio," Regional Connections, A Growth Strategy for Central Ohio, August 2004.

Most states require local governments to prepare a balanced budget on an annual basis. However, most states do not require that jurisdictions conduct fiscal impact evaluations to help ensure that local officials understand the short and long-term fiscal effects of land-use and development policies and of new developments that are approved. Most communities do not know if their land use plan is fiscally sustainable at build out. A fiscal impact analysis can enable local governments to address short and long-term planning, budget and finance issues.[4]

2.3 Factors that Influence Fiscal Impact Results

There are a number of case studies throughout the country of fiscal impact results for specific developments in specific communities. However, it is important to realize that these results for particular land uses cannot necessarily be generalized to communities in Arizona. There are a number of factors that affect the fiscal impacts of various land uses, including both development characteristics such as location, density and design as well as fiscal and planning issues such as local revenue structure and infrastructure capacity.

Local Revenue Structure. This is the most important factor in how different land uses will impact a community. Most communities have one or two primary revenues sources.[5] In Arizona, those sources include property and sales taxes and state shared revenues. Due to the predominance of sales taxes as a locally controlled revenue source for most communities, retail development is often prioritized over other types of nonresidential development that only generate property taxes but may create higher quality jobs. Arizona's revenue structure also means that most residential development does not pay for itself in isolation.

This is in sharp contrast to states like Maryland that have local income taxes and derive significant revenues from residential development. In Maryland where local income taxes are collected by *place of residence*, residential units are not the fiscal drain they can be in other communities. In Ohio, local income taxes are collected by *place of business*. Thus their goal is to attract and zone for new office development. Maintaining a diverse and balanced tax base is healthy from a fiscal perspective to avoid too much reliance on a single land use as market demand fluctuates over time.[6]

Market Characteristics of New Growth. The second most important factor in determining fiscal impact results, other than a community's revenue structure, is the demographic and market characteristics of different land uses. For residential development this includes average household size, market value of housing units, average household income, density per acre and trip generation rates. For nonresidential development factors include employment density (square feet per employee), building value per square foot, floor area ratios, sales per square foot and trip generation rates.[7]

Density. The density of new development is another factor related to the market characteristics of new growth. Suburban-style development is often comprised of single-family, detached housing with approximately four units per acre. Compact development, built at higher densities may reduce the total

[4] Mix, Troy and Hurley, Rachel, "Fiscal Impacts of Development, Literature Review and Discussion," University of Delaware Institute for Public Administration Planning Services Report, July 2008.
[5] Edwards, Mary, "Community Guide to Development Impact Analysis," University of Wisconsin Land Use Research Program, March 2000.
[6] Howard County Maryland Department of Planning and Zoning, "PlanHoward 2030: Fiscal Impact Analysis, Fiscal Impact Results," May 2012.
[7] Bise, L. Carson, "Fiscal Impact Analysis, How Today's Decisions Affect Tomorrow's Budgets," ICMA IQ Report, November 2007.

amount of infrastructure needed and ultimately reduce per capita costs.[8] Higher-density development, regardless of the capacity of existing infrastructure, tends to require less new infrastructure construction since fewer pipes and lane-miles will be needed to connect a larger number of households. Mixed uses can also promote interconnectivity and reduce costs.

Levels of Service are another important factor that tends to vary from community to community. Some cities are not full service and do not provide things like parks or libraries or even local police service, whereas other communities may provide a full range of services at a higher or lower level than their neighbors.

Capacity of Existing Infrastructure has an impact on the capital improvements that may be required to accommodate new development. One community, for example, may have the capacity to absorb a large number of additional vehicle trips on its existing road network whereas another community may have rural roads that are not designed to handle large traffic volumes. The available capacity determines how much additional growth can be absorbed without additional infrastructure investment.

Timing/Phasing of New Development. The timing of new development, or the phasing of different types of uses within a mixed use development, will also affect the annual fiscal impacts.[9] For example, if there is a long lag between when residential development occurs and when supported retail development occurs, there may revenue shortfalls in that interim period. Also, in Arizona where state shared revenues are distributed to cities based on population share, and the population share is only adjusted in Census years, communities with significant residential development between Censuses will experience a delay before they are compensated for those new residents.

Level of Government. It is also important to remember that the types of government expenditures and revenues will vary depending on which level of government is examined. Not all levels of government rely on the same set of revenues in equal measure. Also, they do not spend money on the same things, and those revenues and expenditures are not equally affected by different types of development.

Fiscal Impact Methodology. The fiscal impact method used to make estimates also matters in terms of the final results. Different methods may produce different results. It is important to be aware of the assumptions driving the method used to assess a particular development or land use plan.[10] Fiscal models also reflect existing market and budget conditions. They may or may not include infrastructure capital costs, off-site capital cost impacts or annual maintenance & capital replacement. Also, impact analyses do not serve as feasibility studies and therefore presume that the existing land use plans are possible from a market perspective.[11]

2.4 Types of Fiscal Impacts

It is important to understand that development can create both capital impacts and operations and maintenance impacts. These include the need for new capital infrastructure, the additional cost to operate and maintain that infrastructure or the additional maintenance burdens on existing infrastructure as well as cost of providing services that are not impacted by infrastructure. It is possible, for example, that a development may have a minimal infrastructure impact but a negative operations and maintenance impact. Below are the categories of fiscal impacts.

[8] Mix, Troy and Hurley, Rachel.
[9] TishlerBise, "Incorporating Fiscal Impact Analysis in Land Use Planning," Balanced Growth Ohio, 2013.
[10] Bise, L. Carson.
[11] Gross, Randall.

Capital Infrastructure. Two factors generally influence the need for new capital infrastructure to service new development. First, development in an area may outstrip the ability of existing infrastructure to service it, resulting in a need for upgrades and new construction. Second, there may not be any existing infrastructure if development extends into a new area. The density and design of a development may impact the construction costs of new infrastructure. Higher-density development may result in lower costs for new infrastructure since it will not need to span as great of a distance to serve a larger number of people or businesses.

Operating Infrastructure. The costs associated with new infrastructure construction are significant, but they do not reflect the on-going maintenance costs of that infrastructure which are often overlooked when calculating the cost of new development. In the long run, this is often the greatest cost to governments and taxpayers. For example, a study by the Natural Resources Defense Council (NRDC) found that "average annual operations and maintenance costs are about three times greater than annualized capital costs.[12]

Demand-Based Operating Costs. Lower density development tends to increase operating costs particularly for functions like public safety that require on-site service.[13] The distance between jobs and housing creates additional street maintenance costs. There may also be a delayed response for some types of maintenance costs that tend to increase over time as development leads to population and employment growth and demand for services grows.

The MAG fiscal impact model does not consider the cost of constructing new infrastructure which is typically funded through development fees and not through operations and maintenance revenues. Also, infrastructure demand is highly location dependent and cannot be adequately addressed in a regional model. The MAG fiscal impact model is focused on demand-based operating revenues and expenditures in the general fund as well as street maintenance funds of member agencies.

2.5 General Results and Conclusions of the Literature Review

A number of important points derived from this literature review provide a basis for the fiscal impact model for Maricopa County. Fiscal impact analysis is a powerful tool for examining costs & benefits of various land uses, for prioritizing projects or for assessing development alternatives. However, fiscal impacts are only one of several important factors for determining appropriate land use. Local governments should not use the results of a fiscal impact analysis to encourage "fiscal zoning" or the practice of excluding or denying development proposals that are less beneficial fiscally than other alternatives.[14] Land use decisions must also account for community vision, public assets, market realities, environmental impacts and infrastructure impacts. It is sometimes sensible to encourage certain types of development that do not have a fiscal net benefit, if the costs are outweighed by other qualitative benefits such as improved quality of life or greater economic diversity. [15]Nevertheless, fiscal impact tools can be used as part of a larger strategy to create land use plans that incorporate the appropriate mix of uses necessary to achieve fiscal sustainability or, at minimum, fiscal neutrality.

It is also important to remember the individuality of areas when reviewing fiscal impact analyses. The results of a fiscal analysis in one specific area cannot be interpreted as sweeping truths for all new development in any area. The nature of the area, tax structure, and the current capacity of the available facilities are important factors that are unique to a particular jurisdiction. This is an element of

[12] Mix, Troy and Hurley, Rachel.
[13] Mix, Troy and Hurley, Rachel.
[14] Bise, L. Carson.
[15] Gross, Randall.

importance for the fiscal impact model for Maricopa County, where the local tax structure and growth patterns differ widely from other places in the United States.

2.6 Revenue Sources Available to Arizona Communities

Every state has a defined set of revenues that are available to local communities. As noted in the fiscal impact literature review, the local tax structure can have a significant impact on fiscal impact results. For example, in states with local income taxes, residential development is very important because it tends to affect both property and income tax revenues. In Arizona, where sales taxes are a key local revenue source, retail development creates an overwhelmingly positive impact that helps to offset the negative net impact of residential development that in turn creates demand for local retail.

2.6.1 Sales Taxes

All communities in Maricopa County levy a local sales tax ranging from one to three percent. Sales taxes, according to state statues, can be levied on businesses in the following categories: transportation, utilities, telecommunications, pipelines, private car lines, publishers, job printing, contracting, builder sales, amusements, restaurants, real and personal property rental, retail, membership camping, transient lodging and mining extractions. This includes transient lodging taxes, which are classified by most cities as separate revenue line items. The various categories of businesses above can be taxed at different rates. Within the retail category, higher priced items may also be taxed at a differential rate. Typically taxes on hospitality industries, which may include both restaurants and lodging, are at a different rate than other types of retail sales. Some cities also have differential sales tax rates on construction and utilities. In addition to taxes on electric, gas and telecommunication utilities providing service in a particular city, cities may also tax municipal water sales.

In Maricopa County, cities that tax utilities at a different rate than the standard sales tax include Phoenix, Chandler, Peoria and Apache Junction. Although the utility provider pays the taxes, residents and businesses that use utilities effectively generate the tax revenues. Thus, utility taxes, especially at a higher than standard rate, allow residential development as well as industrial operations (which are typically larger utility users) to generate revenues beyond just property taxes.

Some cities also tax construction activities at a higher rate including Surprise, Goodyear, Litchfield Park, Queen Creek, Cave Creek, Carefree, Florence and Maricopa. Many of these communities are on the periphery and experienced significant new construction activity in the past decade. However, as a result of the economic downturn and the overdependence of the regional economy on growth, many cities have opted to allocate all or part of construction sales tax revenue to non-recurring uses such as capital.

Arizona lawmakers passed landmark legislation in 2013 to simplify the sales tax system — regarded as one the most complex in the nation. This legislation, which goes into effect in 2015, will result in taxes on materials used in new construction or significant re-construction being paid at the site of construction, while construction sales taxes on smaller alterations or maintenance work will be paid at the point of sale where the materials are purchased. Although this decision preserves construction sales tax revenues for smaller communities like Queen Creek or Maricopa where there may be a lot of building activity but few construction suppliers, it does make tax reporting more complicated for many contractors.

Transaction privilege tax revenues are normally an unrestricted revenue source, but they may be restricted for particular uses based on local voter-approved initiatives. Typically, all or most privilege or sales tax revenues are allocated to the general fund. However, some cities have voter-approved increments to their normal sales tax that are set aside for specific uses such as transit improvements, tourism promotion, public safety or other local projects. According to state statutes, cities can form special multi-purpose

facility districts and levy extra sales taxes within the district. The district may cover the entire city. Additionally, counties with populations over 1.2 million may levy a special sales or transaction privilege tax of not more than 10 percent of the state tax rate applying to each type of business activity. This mechanism has been used in Maricopa County in the past to fund freeway construction.

Transient lodging taxes, which in Maricopa County range from 2 to 6 percent in addition to the normal sales tax rate, can be a significant revenue source for cities with hotel development. All but three of the cities in Maricopa County levy transient lodging taxes. According to state statutes, cities over 100,000 people must use all lodging taxes in excess of the normal sales tax rate for tourism promotion.

Among the various types of transaction privilege taxes, an additional revenue generator related to non-retail land uses is a tax on leases which may include both real and personal property. All municipalities in Maricopa County levy a rental occupancy tax. Statewide, there are just a couple of municipalities, including Tucson, that do not have a rental occupancy tax. Cities are allowed to impose a tax on leases of commercial and industrial space as well as equipment. For office space where lease rates are typically fairly high relative to other types of nonresidential uses, lease taxes can generate significant revenues. For industrial space, both building leases and leases on high value manufacturing equipment may generate a sizeable stream of revenues for a city. This is particularly important in terms of supporting non-residential development in communities that do not impose a local property tax.

2.6.2 Property Taxes

The second major type of unrestricted revenues for cities and counties are property taxes. Property taxes are one of the few revenue sources that are generated by all types of land uses. The amount of local property tax revenues is a function of the property value as well as the tax rate. Taxes apply to both real and personal property.

Typically cities have both a primary and secondary property tax rate. The primary tax is used for general fund purposes, while the secondary tax is used for bonded indebtedness. In Arizona, residential property is taxed at 10 percent of its assessed value while commercial and industrial property is currently taxed at 19.5 percent of its assessed value, but that ratio will fall to 18 percent by 2016. There are 9 classes of property in total, each with specific assessment ratios, although the residential or commercial/industrial rates apply to the majority of property.

The state sets limits on property tax rates and the annual increase in local tax rates. The local property tax levy cannot increase more than 2 percent per year (plus new construction), excluding special assessments, taxes for bonded indebtedness and voter approved increases, thus limiting increases in the primary tax rate. Bonded indebtedness cannot exceed 6 percent of the value of taxable property in the city, thereby limiting secondary property tax rates. However, this debt limit may be extended to 20 percent of taxable property value for water, sewer, lighting, or land acquisition for parks or open space, with the approval of the majority of taxpayers in the district. Limits on bonded indebtedness became a problem for many cities during the real estate downturn when assessed value dropped significantly while long term debt that was guaranteed by that value remained in place.

Property taxes can be used as a restricted revenue source in the case of special assessment districts. Cities can form special assessment districts or enhanced municipal service districts. Typically, a city will issue bonds to cover the cost of specific improvements. These bonds are then repaid using property taxes from the special assessment. Special assessment districts may be formed to provide a specific area with a higher level or greater degree of services including public safety, fire protection, refuse collection, street or sidewalk cleaning, landscape maintenance in public areas, planning, promotion, transportation, or public parking.

Within Maricopa County, 10 cities and towns do not impose local primary property taxes including: Mesa, Gilbert, Fountain Hills, Paradise Valley, Guadalupe, Litchfield Park, Cave Creek, Carefree, Youngtown and Apache Junction. While property taxes may be viewed as a potential source of additional revenues for these communities, there is typically overwhelming political opposition to implementing local property taxes in a non-tax city. That said, both Queen Creek and El Mirage initiated primary property taxes in the past decade to provide funding for essential services. For communities with no local property tax, industrial development does not tend to have a positive fiscal impact. However, if the city or town imposes a lease tax, this may partially offset the shortage of revenues for some types of industrial operations. Lease taxes may also be generated by residential rental properties. However, owner-occupied residential development does not generate any tax revenues in cities without a local property tax. However, resident population is the basis for state shared revenue distributions, which make up a large portion of general fund revenues in most municipalities.

2.6.3 Other Local Revenues

The majority of other revenues used by municipalities for operations and maintenance include service charges, licenses and permits, fines, interest and intergovernmental or state shared revenues. Service charges, licenses and permits are a useful way to offset the cost of specific services. Although these types of revenues do not always result in a break-even impact for cities relative to the expenditures they are intended to cover, they do reduce the amount of local tax revenues required to cover certain services.

Intergovernmental or state shared revenues are a significant item for most cities. This category includes state shared income and sales taxes as well as vehicle license tax, grants and highway user revenues (HURF). All of these revenues except for grants are distributed to cities based on population. State shared income and sales tax and distributions are only adjusted following a decennial or mid-decade census, vehicle license taxes are adjusted based on annual population estimates. Additionally, state shared income tax, sales tax and HURF fund distributions are adjusted to reflect annexations.

State shared income and sales tax as well as auto lieu taxes are all general fund revenues. However, highway user funds are restricted for street maintenance and must be captured in separate accounts. Based on state statutes, any revenues derived from fees, excises or license taxes relating to registration, operation or use of vehicles on public highways or streets must be used for construction, maintenance and repair of streets, highways and bridges or for right-of-way acquisition. Typically, municipalities have transportation or streets accounts that are used for HURF distributions and related expenditures. During the economic downturn, the amount of state shared income and sales taxes available for distribution decreased dramatically, placing an additional strain on local governments in terms of their ability to fund basic O&M needs.

Development impact fees are another type of local revenues that can be used by cities and towns, although these fees are limited to capital costs. Impact fees are designed to cover the cost of extending infrastructure and increasing capacity to serve new development. According to state statutes, impact fees must result in beneficial use to the areas being charged. They must bear a reasonable relationship to the burden imposed on the municipality to provide additional public services, and they must be assessed in a non-discriminatory manner. To ensure that these fees are used for their intended purpose, they must also be placed in a separate fund. Cities typically use development fees for water and sewer infrastructure including expanded treatment capacity and water resource acquisition; public safety facilities; street and traffic signal improvements; parks, cultural and library facilities; and general government facilities. The majority of cities in Maricopa County now impose impact fees which are updated regularly to reflect changes in capital costs and development patterns.

Finally, franchise taxes can be a good source of local revenues that apply to all types of development. Franchise taxes are technically paid by utility providers, based on a negotiated rate agreement between the city and the utility for the privilege of the utility operating in that city. However, the tax rate is applied to utility bills, similar to sales tax, including natural gas, electric, cable television and telecommunications.

2.6.4 Conclusions on Local Revenue Sources

Local governments have a fairly limited range of revenue types that can be generated locally. These include transaction privilege and property taxes, as well as various fees for services including user and franchise fees, permits and licenses.

For municipalities that currently impose property taxes, there is little underutilized potential for additional revenues, outside of increases in assessed value from market conditions and new development that will yield additional property taxes. Most of the untapped potential for increases in locally controlled revenues is in the various types of privilege taxes including sales taxes on utilities, food for home consumption, transient lodging and property leases. Transient lodging tax, which can be imposed on both lodging and restaurants, can provide increased local revenues for cities with this type of development. However, for cities over 100,000, lodging taxes may only generate a limited amount of unrestricted revenues since taxes above the standard retail sales tax rate must be used for tourism promotion.

Since retail sales taxes generate significant unrestricted local revenues, cities may be tempted to pursue retail development at the expense of office any industrial development. While retail land uses in typically generate the most positive fiscal impacts, given the tax structure in Arizona, the exclusion of other types of development does not promote balanced communities from an economic perspective.

Only a few cities impose a higher tax rate on utilities above their standard sales tax. Taxes on utilities and leases can provide sales tax revenues from non-retail uses. These may be the best alternatives for cities and towns in terms of increasing the volume locally controlled revenues from a variety of development types.

3.0 ANALYSIS OF LOCAL TAX RATES

3.1 Introduction

The purpose of the literature review described in Chapter 2 and the background data and assumptions described here is to provide a basis for a generalized fiscal impact model for cities in Maricopa and Pinal Counties. This chapter includes information about local tax rates, an analysis of local versus non-local city revenues, and a discussion of other socioeconomic data that is used in the impact model.

Cities in the fiscal impact model are categorized into five groups based on population size. The tax rates in this section are shown for each city group. Maricopa and Pinal Counties are in a separate category since they are not really comparable to cities in terms of budget structure. The following describes the size categories.

- **Extra Large** – This category includes only the City of Phoenix based on current population. Since Phoenix is over 3 times larger than Mesa, the next largest city, it has unique socioeconomic and fiscal characteristics that require a separate category.

- **Large** – This category includes cities from 200,000 to 450,000 in population such as Mesa, Glendale, Scottsdale, Chandler and Gilbert.

- **Medium Large** – This category includes cities from 100,000 to 200,000. Tempe, Peoria and Surprise fall into this category. Surprise has grown significantly over the past ten years, moving up from the medium category.

- **Medium** – This category includes cities from 25,000 to 100,000. Cities in the medium category include Avondale, Buckeye, Goodyear, Fountain Hills and El Mirage, Queen Creek, Apache Junction, Florence and Maricopa. This category is fairly comparable to the small category in terms of the number of cities.

- **Small** – This category captures communities with population under 25,000, including nine cities and towns: Paradise Valley, Guadalupe, Wickenburg, Tolleson, Litchfield Park, Cave Creek, Youngtown, Carefree and Gila Bend. Many of these smaller cities and towns are on the urban periphery, with the exception of Guadalupe and Paradise Valley.

3.2 Local Taxes

As noted in the previous chapter, there are two primary types of local tax revenues: property tax and transaction privilege tax. Cities generally break privilege tax into two types in their budgets: sales tax and transient occupancy tax (TOT). Figure 3-1 shows tax rates for all incorporated cities in Maricopa County. The cities are listed in descending order by population size.

FIGURE 3-1
LOCAL TAX RATES

Jurisdiction/Size	Retail Sales Tax	Construction Sales Tax	Utility Sales Tax	Lodging Tax*	Primary Property Tax
Extra Large					
Phoenix	2.00%	2.00%	2.70%	3.00%	1.24%
Large					
Mesa	1.75%	1.75%	1.75%	5.00%	0.00%
Glendale	2.90%	2.90%	2.90%	5.00%	0.23%
Scottsdale	1.65%	1.65%	1.65%	5.00%	0.50%
Chandler	1.50%	1.50%	2.75%	2.90%	0.33%
Gilbert	1.50%	1.50%	1.50%	3.00%	0.00%
Medium Large					
Tempe	2.00%	2.00%	2.00%	3.00%	0.79%
Surprise	2.20%	3.70%	2.20%	2.52%	0.74%
Peoria	1.80%	1.80%	3.30%	3.80%	0.19%
Medium					
Avondale	2.50%	2.50%	2.50%	2.00%	0.68%
Goodyear	2.50%	3.50%	2.50%	2.50%	1.11%
Fountain Hills	2.60%	2.60%	2.60%	4.00%	0.00%
El Mirage	3.00%	3.00%	3.00%	2.00%	1.86%
Buckeye	3.00%	3.00%	3.00%	2.00%	1.80%
Queen Creek	2.25%	4.25%	3.00%	4.00%	1.95%
Apache Junction	2.20%	2.20%	3.20%	2.20%	0.00%
Florence	2.00%	5.00%	2.00%	2.00%	1.05%
Maricopa	2.00%	3.50%	2.00%	2.00%	1.24%
Small					
Paradise Valley	2.50%	2.50%	2.50%	3.40%	0.00%
Guadalupe	4.00%	4.00%	4.00%	6.00%	0.00%
Wickenburg	2.20%	2.20%	2.20%	2.00%	0.41%
Tolleson	2.50%	2.50%	2.50%	2.00%	1.26%
Litchfield Park	2.80%	4.80%	2.80%	1.00%	0.00%
Cave Creek	3.00%	5.00%	3.00%	4.00%	0.00%
Youngtown	3.00%	3.00%	3.00%	2.00%	0.00%
Carefree	3.00%	4.00%	3.00%	3.00%	0.00%
Gila Bend	3.00%	3.00%	3.00%	2.00%	0.31%
Maricopa County	0.00%	1.17%	0.00%	0.97%	1.28%
Pinal County	0.50%	0.50%	0.50%	0.00%	3.80%

Source: Arizona League of Cities and Towns, Model City Tax Code-City Profiles; Maricopa County Assessor 2013 tax rate data.

*Lodging tax rate is in addition to sales tax. All tax rates include general fund portions only.

Sales tax rates in Maricopa County range from 1 to 3 percent. Maricopa County imposes an additional 0.7 percent tax, although none of these revenues are captured in the County's general fund. In general, smaller cities and cities without property taxes tend to have higher sales tax rates. However, there are exceptions. Gila Bend, a small town, has one of the highest local sales tax rates and the highest primary property tax rate. Mesa, a large city, also has no local property tax and a relatively low sales tax rate. However, Mesa is also one of the few cities in Arizona with a municipal electric and gas utility (serving

the city's downtown area) that generates substantial local revenues. Note that this table includes only general fund revenues so total city sales tax rates are higher for some cities.

Property tax rates shown in the table include only the primary tax or the portion that goes into the general fund for unrestricted use. Local rates range from 0 percent to 1.95 percent. County property taxes are in addition to local taxes in incorporated areas. Gila Bend, Goodyear, Tolleson and Buckeye have the highest rates ranging from 0.94 percent to 1.64 percent, even though they have average or above average assessed value per capita.

Only five cities impose a utility tax that is over and above the standard sales tax rate including Phoenix, Chandler, Peoria, Queen Creek and Apache Junction. Utility taxes are imposed on gross sales by electric and gas utilities. The tax is paid by the utility provider, but passed through to the consumer.

All cities in the region also impose lodging taxes which apply to hotel/motel sales but may also apply to restaurant sales. In other cases there is a separate rate for restaurants that is in between the standard sales tax rate and the lodging tax rate. Lodging taxes are in addition to the normal sales tax rate. Rates range from 1 to 6 percent. Maricopa County imposes an additional 0.97 percent tax although revenues are captured in special funds.

3.3 Local and Non-Local Revenues

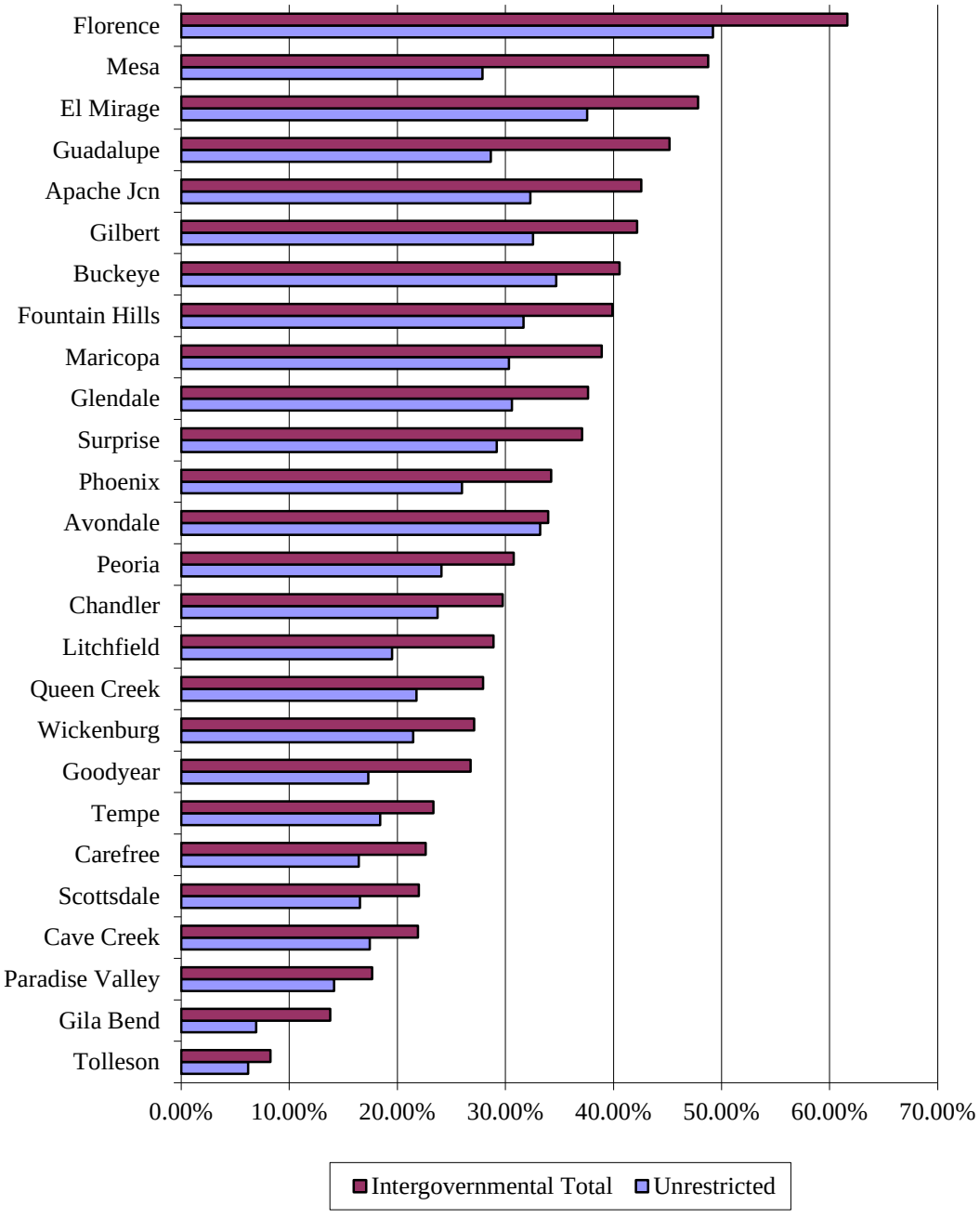
Cities utilize a variety of types of revenues, some of which are under local control and some of which are distributed by other government entities such as the state. The taxes described above are generally locally controlled in terms of cities being able to set rates for various business categories. Service charges, fines, licenses and permits are other examples of locally controlled revenues.

Non-local or intergovernmental revenue sources include state shared income and sales tax, auto lieu tax, federal, state and local grants and highway user revenues. Figure 3-2 shows intergovernmental revenues as a share of total general fund plus transportation fund revenues.[16]

Typically state shared income and sales tax and motor vehicle in-lieu combined make up 15 to 35 percent of local operating budgets for cities in Maricopa and Pinal Counties. This translates into an average of $195 per capita per year. These three sources are unrestricted general fund revenues. State shared income and sales taxes are distributed based on Census population. The amount of revenues distributed varies each year depending on the total amount of state taxes collected. However, for cities that are adding large amounts of residential development there is a one to ten year lag before state shared revenues will catch up to current resident population.

[16] Transportation or streets accounts are used to capture highway user revenues and pay for local street maintenance expenditures.

FIGURE 3-2
SHARE OF INTERGOVERNMENTAL REVENUES



Total intergovernmental revenues, including grants and funds that are specifically for transportation make up between 8 and 62 percent of local budgets, with the typical share being closer to 33 percent. There does not seem to be a particular pattern in terms of city size. For Guadalupe, El Mirage, Mesa and Florence, intergovernmental revenues make up 45 to 62 percent of operating resources. On the low end

of the spectrum, intergovernmental revenues make up less than 15 percent of the budget in Tolleson and Gila Bend.

Generally, the problem with intergovernmental revenues is that while they have been a reliable source of revenues for cities in the past, they can be impacted by changes in state legislation at any time and in recent years, they have been decreased due to the economic downturn and lower overall tax revenues. The other issue is timing, as noted above. These revenues cover a large portion of the cost of supporting residential development. For fast growing cities, particularly small cities, the lag in adjusting distribution formulas for state shared income and sales tax can strain local budgets.

3.4 Other Socioeconomic Data

In order to develop a generalized fiscal impact model for the MAG member agencies, a variety of data was collected in addition to the tax and revenue information. Revenues and expenditures by line item were collected for each city and county and are described in Chapter 4. In addition information gathered on population, employment, FTE City Staff, police officers, park acres, street miles, value of building permits issued, gross sales and assessed value is shown.

Cities can generally be grouped by size range based on population. There are common fiscal and economic characteristics for cities of similar sizes. Small cities struggle to achieve economies of scale in their staffing and service levels, whereas large cities may be able provide additional services that are not available in smaller cities, thereby increasing expenditures and staffing levels on a relative basis. In the impact model, cities can change categories over time as their population grows.

Figure 3-3 shows population and employment levels for MAG member agencies along with city staffing levels and number of police officers. With a few exceptions, staffing levels per capita are fairly uniform across all sizes of cities. As noted above, larger cities such as Phoenix may provide municipal services that are not available in smaller areas and require additional staffing. Smaller cities, in contrast, must have a minimum number of personnel just to provide a basic level of services. Among larger cities, Chandler, Gilbert and Surprise have slightly lower staffing levels per capita compared to Phoenix, Tempe and Scottsdale. Among smaller cities, Fountain Hills, Youngtown and Carefree seem to have below average staff relative to their population size while cities like Tolleson, Wickenburg and Gila Bend have higher than average staffing levels.

FIGURE 3-3
SOCIOECONOMIC CHARACTERISTICS AND STAFFING LEVELS

Jurisdiction	Population	Employment	FTE City Staff	Population per FTE	Sworn Police Officers	Population Per Officer
Extra Large						
Phoenix	1,449,242	789,760	15,000	97	3214	451
Large						
Mesa	439,929	171,720	3,491	126	790	557
Glendale	227,217	86,160	1,966	116	467	487
Scottsdale	217,365	175,200	2,455	89	437	497
Chandler	236,687	120,840	1,588	149	317	747
Gilbert	209,048	81,300	1,188	176	449	466
Medium Large						
Tempe	161,974	179,560	1,797	90	364	445
Surprise	117,688	22,640	769	153	130	905
Peoria	154,164	45,240	1,101	140	187	824
Medium						
Avondale	76,468	16,720	484	158	89	859
Buckeye	51,019	16,080	339	151	71	719
Goodyear	65,404	28,660	505	130	94	696
Fountain Hills	22,444	5,900	58	385	contract	na
El Mirage	31,911	4,620	160	200	43	742
Apache Junction	35,828	6,435	241	149	45	796
Florence	25,537	8,862	252	101	30	851
Maricopa	43,598	3,649	216	202	59	739
Queen Creek	26,448	7,260	159	167	contract	na
Small						
Paradise Valley	12,810	4,700	76	169	25	512
Guadalupe	5,540	1,020	45	123	contract	na
Wickenburg	6,353	3,860	86	74	16	397
Tolleson	6,573	11,280	168	39	30	219
Litchfield Park	5,467	2,240	31	176	contract	na
Cave Creek	5,005	2,000	38	132	contract	na
Youngtown	6,154	1,380	18	342	contract	na
Carefree	3,358	1,500	14	240	contract	na
Gila Bend	1,932	940	23	84	contract	na
Pinal County	389,192	44,197	2,217	176	207	1,880
Maricopa County	3,884,705	1,706,300	15,118	257	679	5,721

Source: Individual city budgets and annual financial reports, 2012-13; Arizona Department of Administration, Population and Employment Statistics.

Staffing levels for police follow a somewhat similar pattern. The counts shown in Figure 3-3 are only for sworn officers and do not include other support staff or volunteers. A number of the small cities contract with the Maricopa County Sheriff for police services including Fountain Hills, Guadalupe, Litchfield Park, Cave Creek, Youngtown, Queen Creek, Carefree and Gila Bend. Typically, these contracts are substantially less costly on a per capita basis than in-house police departments and are more feasible for small cities.

One way to compare the level of police staffing across communities is to compare the population per officer. Among larger cities there are typically about 500 to 600 people per officer. Phoenix is actually the lowest among large cities, perhaps due to economies of scale. All of the larger cities have achieved certain economies due to their population size; however, police departments in larger cities also tend to have more special units and task forces.

Among medium large and medium sized cities the number of residents per officer is typically about 760. Tempe is the exception with only 445 residents per officer. Among small cities that have municipal police departments, there are only about 380 residents per officer, reflecting a higher level of service that is typical among smaller communities.

The next set of information collected for cities includes economic data that will be used in the impact model such as construction permit values, assessed value and gross sales, shown in Figure 3-4. Construction permit data was not available for all cities.

Construction values vary significantly over time depending on economic cycles. Relative levels among cities also vary depending on the ratio of residential to nonresidential construction, since one large nonresidential project can substantially increase the value of permits issued. Generally, in 2012 the cities of Phoenix, Gilbert and Goodyear had the largest construction values with over to $300 million each, and close to $1.9 billion in Phoenix. Among the smaller cities, Queen Creek had $145 million in activity, and Buckeye had $179 million, which is substantially more than other cities based on city size. Both of these cities are experiencing high levels of residential development as the regional economy moves back into growth mode.

Gross sales (including both retail and non-retail) are another economic indicator that can vary over time with economic cycles. In order to compare the level of sales across cities, per capita retail and restaurant sales are shown. Per capita retail sales are a good way to show the level of revenues that are available to each city from sales tax. However, not all sales are generated by local residents. There is significant crossover between cities in terms of shopping patterns. In addition, some cities like Scottsdale and Tempe, where sales per capita are twice as high as any other city, benefit significantly from sales to tourists and other non-resident population. Construction contributes to gross sales, so cities with higher levels of new construction will have temporarily inflated sales figures.

FIGURE 3-4
ECONOMIC CHARACTERISTICS

Jurisdiction	Population	Employment	Construction Value	Gross Sales	Retail & Restaurants Sales	Retail Sales per Capita	Primary Net Assessed Value	AV per Svc Pop.
Extra Large								
Phoenix	1,449,242	789,760	$1,863,005,638	$33,721,299,950	$16,629,550,000	$11,475	$10,803,375,535	$4,825
Large								
Mesa	439,929	171,720	$232,864,485	$7,244,449,714	$4,231,667,486	$9,619	$2,758,663,542	$4,510
Glendale	227,217	86,160	$152,742,289	$3,353,010,655	$1,844,155,860	$8,116	$1,146,680,633	$3,659
Scottsdale	217,365	175,200	$269,679,602	$9,154,711,758	$4,573,264,000	$21,040	$5,069,582,668	$12,914
Chandler	236,687	120,840	$143,847,121	$6,343,410,600	$3,481,980,733	$14,711	$2,246,527,350	$6,284
Gilbert	209,048	81,300	$375,000,305	$3,579,581,667	$2,204,233,800	$10,544	$1,666,867,842	$5,741
Medium Large								
Tempe	161,974	179,560	$240,318,687	$6,306,200,000	$3,850,918,000	$23,775	$1,688,014,795	$4,942
Surprise	117,688	22,640	$147,838,006	$1,464,592,545	$765,620,773	$6,506	$851,987,114	$6,071
Peoria	154,164	45,240	$87,474,618	$3,373,313,833	$2,230,909,389	$14,471	$1,133,938,910	$5,687
Medium								
Avondale	76,468	16,720	$18,297,227	$1,311,595,960	$968,957,880	$12,671	$344,925,286	$3,701
Buckeye	51,019	16,080	$178,909,980	$484,671,133	$275,093,700	$5,392	$295,509,637	$4,404
Goodyear	65,404	28,660	$310,934,667	$1,424,408,080	$733,612,040	$11,217	$602,167,739	$6,402
Fountain Hills	22,444	5,900	$4,558,935	$302,606,385	$160,627,846	$7,157	$376,986,530	$13,300
El Mirage	31,911	4,620	$4,124,358	$182,095,200	$92,263,633	$2,891	$96,045,678	$2,629
Apache Junction	35,828	6,435	$24,703,301	$472,377,364	$267,072,000	$7,454	$143,100,778	$3,386
Florence	25,537	8,862	$22,248,939	$186,676,050	$114,820,200	$4,496	$72,842,647	$2,118
Maricopa	43,598	3,649	$57,747,923	$374,672,250	$210,142,150	$4,820	$198,475,898	$4,201
Queen Creek	26,448	7,260	$144,907,437	$518,076,400	$307,435,867	$11,624	$190,523,471	$5,652
Small								
Paradise Valley	12,810	4,700	$69,773,940	$622,306,970	$14,228,680	$1,111	$709,516,782	$40,521
Guadalupe	5,540	1,020	na	$48,963,367	$26,929,852	$4,861	$11,266,182	$1,717
Wickenburg	6,353	3,860	$1,164,085	$119,293,182	$63,662,545	$10,021	$61,106,215	$5,983
Tolleson	6,573	11,280	$46,360,872	$537,888,960	$263,770,880	$40,129	$177,671,887	$9,952
Litchfield Park	5,467	2,240	$45,639,294	$122,252,500	$48,901,000	$8,945	$65,095,473	$8,446
Cave Creek	5,005	2,000	$12,401,254	$159,623,400	$83,575,467	$16,698	$126,128,812	$18,006
Youngtown	6,154	1,380	$609,333	$34,718,033	$17,359,017	$2,821	$20,232,075	$2,685
Carefree	3,358	1,500	$5,405,546	$96,208,067	$48,104,033	$14,325	$145,234,210	$29,896
Gila Bend	1,932	940	$134,366,296	$70,140,667	$35,070,333	$18,152	$141,464,925	$49,257
Pinal County	389,192	44,197	$136,563,483	$2,764,247,539	$1,374,352,562	$3,531	$1,988,882,373	$4,589
Maricopa Cty	3,884,705	1,706,300	$182,582,331	na	$40,146,179,669	na	$34,263,842,276	$6,128

Source: Individual city budgets and annual financial reports, 2012-13; Arizona Department of Revenue Annual Report; Arizona Department of Administration, Population and Employment Statistics.
Note: Service population = population + employment.

The final economic measure shown in Figure 3-4 is assessed value. This is an important factor since cities with higher levels of assessed value have a larger tax base and can potentially generate more property tax revenues. Assessed value across cities is compared based on service population or population plus employment. This is appropriate since both residential and nonresidential properties contributed to the value base. Paradise Valley and Carefree, and to a lesser extent Scottsdale, Fountain Hills and Cave Creek, stand out due to the extremely high average value of residential properties in these cities. Gila Bend has the highest assessed value per capita, which is almost entirely due to value from equipment at the Entegra Power Station. Most of the other cities range from about $3,400 to $9,900 in assessed value per service population. Florence, El Mirage, Youngtown and Guadalupe all have values below $2,700, which is primarily a reflection of below average housing values and limited new home construction. However Youngtown and Guadalupe do not collect primary local property taxes so assessed values are less important.

All of the data presented in the chapter will be used along with revenues and expenditures to build the fiscal impact model. Socioeconomic data is important in creating revenue and expenditure rates that can be applied to future development information to calculate impacts.

4.0 FISCAL IMPACT MODEL METHODOLOGY

4.1 Introduction

This chapter describes the methodology used to develop the generalized fiscal impact model for 27 cities in Maricopa and Pinal Counties that will show net impacts for ten time periods: 2012, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050 and build out. Although the model is set up to show results for ten time periods, the results described in this report are only for 2012.

4.2 Budget Data

Annual budgets were collected for each community in Maricopa County for the 2012-13 fiscal year. These budgets included actual or estimated revenues and expenditures for 2011-12 that were used in developing the model. Since the model must be generalized for 27 cities and the two counties, a uniform set of revenue and expenditure categories was developed. The general categories of revenues are fairly standard across cities. However, there is some variation among departmental expenditures in terms of how functions are organized, and the types of functions that exist in different sizes of cities. To the extent possible, like functions were classified uniformly across cities.

Figure 4-1 lists the categories of revenues and expenditures that are reflected in the model. Although the model is only intended to provide order of magnitude estimates of net impacts, it is useful to be able to develop rates based on different factors for each of the revenue and expenditure categories.

For expenditures, there is some variation by size category. Only extra large cities have transit expenditures detailed separately from other transportation. Small cities typically do not have marketing/communications or economic development departments or a line item for nondepartmental expenditures. Also, engineering is typically included in public works for small cities. Some small cities also combine general government services including city manager, city clerk and human resources into a single line item that is reflected under city manager. There are other individual differences between cities, but since this is a generalized model, it is not possible to reflect each city's exact expenditure structure.

FIGURE 4-1
STANDARDIZED REVENUE AND EXPENDITURE CATEGORIES

Revenues	**Expenditures**
Local Taxes	Mayor & Council
Property Tax	City Manager
Sales Tax	Marketing/Communications
Transient Occupancy	Human Resources and Info Tech
Utility Franchises	City Clerk
Other	City Attorney
Charges for Services	Municipal Court
Fines and Forfeitures	Finance, Audit
Interest	Police
Intergovernmental Revenues, Grants	Fire
Licenses and Permits	Community Development (planning, bldg safety)
Miscellaneous	Economic Development
	Public Works
	Engineering
	Parks, Recreation, Library, Social Services
	Nondepartmental
	Streets
	Transit
	County Only
	Superintendent of Schools
	Health and Human Services
	General Government

4.3 Revenue and Expenditure Rates

For each city, population, employment, staff size, police officers, retail sales, hotel sales and additional data on park acres and street miles were used to develop rates for the line items shown above. The model complexity was somewhat limited based on the type of information available. However, every effort was made to choose the appropriate data as "drivers" for the line items in order to accurately reflect factors that would increase or decrease revenue and expenditure levels.

Ultimately, the model will use land absorption by land use category as the basic input. This data will then be converted to population, employment, street miles, taxable sales, construction value and assessed value that will in turn drive revenues and expenditures.

Once rates were developed by line item and by city, the next step was to group cities by size. Cities can generally be grouped by size range based on population. There are common fiscal and economic characteristics for cities of similar sizes. Small cities struggle to achieve economies of scale in their staffing and service levels, whereas large cities may be able provide additional services that are not available in smaller cities, thereby increasing expenditures and staffing levels on a relative basis.

The cities and towns in the model were categorized into 5 groups based on population size. (See section 3.4) Maricopa and Pinal Counties are in separate categories since they are not really comparable to cities, or to each other, in terms of budget structure. In the impact model, cities may change categories over time as their population increases.

Based on averages for each size category, final revenue and expenditure rates were calculated. Some averages included all cities in a size category, while other averages excluded cities that were significantly above or below average relative to other similar sized areas. Figure 4-2 details the average rates by line item. As cities grow over time, rates for the appropriate size category are applied in the model. Note that, in the case of sales and property tax, individual city tax rates are used to calculate revenues.

FIGURE 4-2
REVENUE AND EXPENDITURE RATES

Revenue Rates		Extra Large	Large	Medium Large	Medium	Small	Maricopa County	Pinal County
Property Tax	assessed value, city rates	varies	varies	varies	varies	varies	varies	varies
Sales Tax	gross sales, city rates	varies	varies	varies	varies	varies	0	varies
Utility Franchise	service population (emp*2)	3.0832	10.6016	16.6684	10.4246	9.8446	0.0000	1.1516
TOT	lodging sales per motel acre	731,097	1,219,501	845,162	722,545	0	0	0
Charges for Services-Const	construction value	0.0096	0.0083	0.0167	0.0101	0.0066	0.0000	0.0031
Charges for Services-Other	service pop (pop*2)	23.6098	10.3042	16.1406	6.7934	4.9899	4.1197	24.2007
Fines & Forfeitures	service pop (pop*2)	6.4804	8.8146	8.3864	5.6924	10.2107	1.1844	2.2356
Interest	total revenues	0.0007	0.0020	0.0029	0.0072	0.0006	0.0041	0.0200
Intergovernmental*	population	257.50	271.96	244.0271	268.0674	252.2026	133.41	107.45
Licenses & Permits-Const	construction value	0.0085	0.0167	0.0000	0.0107	0.0141	0.0085	0.0085
Licenses & Permits-Other	employment	3.6441	11.4577	19.9210	11.6645	9.9387	7.2404	7.2404
Misc Income	service population	0.8947	12.7577	11.4397	5.7700	17.8795	1.3810	4.1346

Expenditure Rates		Extra Large	Large	Medium Large	Medium	Small	Maricopa County	Pinal County
Mayor & Council	population	3.6444	3.8078	3.0430	4.5307	4.1699	0.4454	1.2905
City Manager	service pop (pop*2)	1.6482	2.2944	3.5230	6.4584	21.7194	0.3417	0.9622
Marketing/Communications	population	0.6745	2.9581	9.4534	6.9218	0.0000	0.0000	0.0000
Human Resources and IT	Per FTE	3,103.00	4,990.85	1,638.06	6,332.97	7164.76	966.66	4,566.67
City Clerk	service pop (pop*2)	1.6049	1.1596	2.3034	2.6652	20.6120	0.5083	2.8012
City Attorney	population	13.2093	13.6636	14.4622	14.5123	19.8591	17.1710	22.2087
Municipal Court	population	24.0338	16.3789	16.2267	13.8234	33.4357	66.0656	72.4250
Finance, Audit	Per FTE	1,531.83	2,255.87	2,765.05	3,776.25	4,276.94	2,430.47	3,056.76
Police	per officer	140,116.99	135,119.35	153,194.71	132,434.93	47.45	135,587.55	236,106.29
Fire	service pop (pop*2)	65.6451	47.2980	52.2690	49.1365	75.5859	0.7648	0.0000
Community Development	70% service population	1.5484	8.9186	11.3185	12.2964	38.7358	0.9028	10.7286
	30% construction value	0.0008	0.0074	0.0059	0.0042	0.0102	0.0008	0.0070
Economic Development	employment	6.1512	17.6139	35.5033	19.0141	0.0000	0.0000	15.4091
Public Works	service pop (pop*2)	5.0040	29.3664	22.9462	11.8702	53.4307	16.8414	17.4601
Engineering	construction value	0.0000	0.0128	0.0070	0.0048	0.0061	0.0000	0.0000
Parks, Recreation, Library	60% population	13.8575	56.1251	65.2530	38.7316	89.6307	2.2915	0.1392
and Social Services	40% park acres	4,386.26	27,853.44	28,231.72	16,809.50	28863.64	3.78	60.99
Nondepartmental	total expenditures	0.0000	0.0817	0.0435	0.0455	0.0000	0.0509	0.2360
Streets	street miles	4,646.94	10,892.25	11,999.85	11,243.30	11,837.45	0.00	0.00
Transit	service pop	8.6756	1.2730	0.0000	0.0000	0.0000	0.0000	0.0000
Superintendent of Schools	population	0.0000	0.0000	0.0000	0.0000	0.0000	0.5254	2.3362
Health and Human Services	population	0.0000	0.0000	0.0000	0.0000	0.0000	65.9833	23.3178
General Government	service pop (pop*2)	0.0000	0.0000	0.0000	0.0000	0.0000	0.3252	0.1194
*FTE per Service Pop (pop*2)*		0.0040	0.0034	0.0028	0.0027	0.0028	0.0016	0.0046
Service Pop per Officer		1,157.19	1,443.28	1,700.22	1,783.96	1,033.19	2,374.78	1,950.08
Utility Sales Tax per Employee		1,218.55	2,957.93	6,344.43	5,542.01	4,122.59	0.00	10,812.27

Sources: 2011/12 actual budget data for each jurisdiction; Applied Economics, 2013.
Note: For small cities, city manager, human resources and IT expenditures are combined and police expenditures are based on service pop.

Note that there are some drawbacks to this approach, especially relative to balancing revenues and expenditures for individual cities. When creating average rates, not every city was included in every average since cities that were well above or well below the average in a particular category were eliminated as outliers. This means that some rates are not reflective of all cities in that size range.

Additionally, minor adjustments were made to the rates to ensure that there was a relatively smooth progression upward or downward from large cities to small cities. This was important so that the revenue and expenditure impacts are consistent over time as cities progress to different size ranges. *Despite the lack of customization for individual communities, it is still clear that there are only minor differences in revenue generation rates that are directly related to city size, but major differences in cost of services that are directly related to city size.*

4.4 Other Assumptions

A variety of assumptions are required to convert acres into fiscal impacts. Some assumptions are city-specific and some assumptions apply to all cities uniformly. The user can modify most assumptions used in the model.

4.4.1 Square Footage and Housing Units

First, nonresidential acreage is converted into square footage by type and residential acreage is converted into housing units. This conversion is based on floor area ratios (FAR) for nonresidential development, and city-specific assumptions about and units per acre in each residential density category. In both cases, gross acres are converted to net acres by accounting for the percentage of land devoted to right of way in each land use category. This percentage is based on data from the MAG existing land use dataset.

4.4.2 Construction Value

Construction value forms the basis for changes in future assessed value, and is used to calculate construction sales tax and to drive other revenues and expenditures related to construction activity. In order to calculate construction value, construction costs per square foot from RS Means are applied to nonresidential square footage described above. For residential development, the number of units by density category is multiplied by average unit size and then multiplied by construction cost per square foot. Baseline assumptions for per square foot construction costs and unit sizes are shown in Figure 4-3.

FIGURE 4-3
CONSTRUCTION COST AND UNIT SIZE ASSUMPTIONS

Land Use	Unit Size (Sq Ft)	Construction Cost PSF
Residential		
Very High Multi-Family (13+ du/acre)	800	$108.86
High Multi-Family (10-13 du/acre)	1,000	$100.89
Medium Multi-Family (6-10 du/acre)	1,000	$79.65
Very Small Lot (7+ du/acre)	1,200	$77.66
Small Lot (4-6 du/acre)	1,500	$71.29
Medium Lot (2-4 du/acre)	2,200	$91.38
Large Lot (1-2 du/acre)	3,200	$72.22
Estate (1du/acre)	3,500	$97.39
Rural (less than 1 du/acre)	2,800	$82.44
Nonresidential		
High Rise Office	na	$143.37
Low Rise Office	na	$114.17
Retail	na	$78.77
Motel	na	$95.58
Industrial	na	$62.84
Business Park	na	$62.84
Other	na	$134.52
Public	na	$129.21
Institutional	na	$144.26

Source: RSMeans Building Construction Cost Data, 2013.

4.4.3 Assessed Value

Assessed value is used to calculate property taxes, which are a primary source of revenues for cities. Nonresidential assessed value was calculated by multiplying square footage by construction cost per square foot times 85 percent (a general rule of thumb used to account for the difference between market value and full cash value), and adding the number of acres times city-specific land cost per acre. Nonresidential assessed value also includes personal property, which is calculated on a per employee basis.

For residential development, assessed value was calculated similarly based on average value per unit, using assessor's records for each community. The value per unit is equal to unit size time construction cost per square foot times 85 percent plus current average value per unit times the number of existing units. For future assessed value the change in number of units times the construction cost times 85 percent is added to the assessed value for the previous time period. This calculation yields a fairly reasonable result given that all new construction can be assumed to meet minimum quality standards that would be consistent with the assumed construction costs.

Assessed value adjustment factors were applied by city by land use (residential, commercial/industrial, other and vacant) such that the baseline 2012 assessed value calculation in the model would be consistent with the Assessor's totals by land use category for that city.[17]

[17] Arizona Department of Revenue, Central Information Services Section "State and County Abstract of the Assessment Roll," 2013.

4.4.4 Taxable Sales

The other key local revenue source for cities in addition to property taxes is sales taxes, which are based on taxable sales. Taxable sales come from several sources. First, for retail land use the model includes taxable retail, restaurant and amusement sales per acre for each city. Transient lodging sales per acre are also based on city specific assumptions. Assumptions for retail and lodging sales per acre are shown in Figure 4-4.

The other important component of taxable sales is property rentals. In order to calculate taxable sales from property rentals, the amount of total square footage by type in each time period is multiplied by percent leased (versus owner occupied), then by the occupancy rate and then by an average lease rate. Average lease rates were based on information from CBRE for second quarter 2013. These figures vary by land use and by metro sub-region (Figure 4-4). Percent leased is adjustable by land use category.

FIGURE 4-4
ASSUMPTIONS FOR TAXABLE SALES AND LEASE RATES

	Taxable Sales		Annual Lease Rates				
	Per Retail Acre	Per Motel Acre	Multi-Family	High Rise Office	Low Rise Office	Retail	Industrial/ Bsns Park
Phoenix	$1,702,628	$731,097	$10,476	$16.54	$22.08	$20.30	$6.84
Mesa	$1,101,225	$960,201	$10,152	$14.78	$22.08	$19.68	$9.00
Glendale	$1,076,282	$960,201	$10,236	$14.63	$22.08	$19.68	$10.20
Scottsdale	$2,363,200	$1,110,684	$13,488	$15.59	$22.08	$22.05	$10.68
Chandler	$3,397,320	$1,239,252	$12,684	$14.78	$22.08	$19.68	$9.00
Tempe	$4,172,176	$1,123,118	$10,778	$15.16	$22.08	$18.66	$6.84
Gilbert	$1,595,029	$1,328,318	$11,784	$14.78	$22.08	$19.68	$9.00
Peoria	$1,682,930	$960,201	$12,936	$13.45	$22.08	$19.72	$10.20
Avondale	$1,472,245	$1,370,757	$12,804	$15.11	$22.08	$19.72	$4.44
Surprise	$1,127,770	$567,206	$12,804	$14.89	$22.08	$19.72	$10.20
Goodyear	$1,178,001	$598,931	$12,804	$15.11	$22.08	$19.72	$4.44
Fountain Hills	$1,241,328	$960,201	$13,488	$18.17	$22.08	$22.05	$10.68
Peoria	$15,465,957	$978,200	$13,488	$24.15	$22.08	$21.26	$10.68
El Mirage	$1,040,528	$960,201	$9,900	$14.89	$22.08	$19.72	$10.20
Buckeye	$1,108,757	$554,448	$12,804	$15.11	$22.08	$19.72	$4.44
Guadalupe	$1,795,323	$152,241	$9,900	$15.16	$22.08	$18.66	$6.84
Wickenburg	$293,755	$250,509	$10,236	$13.45	$22.08	$19.72	$10.20
Tolleson	$3,940,408	$960,201	$9,900	$15.11	$22.08	$19.72	$4.44
Litchfield Park	$1,835,623	$960,201	$10,236	$15.11	$22.08	$19.72	$4.44
Cave Creek	$495,203	$29,357	$13,488	$18.17	$22.08	$22.05	$10.68
Queen Creek	$1,316,980	$960,201	$12,684	$14.78	$22.08	$19.68	$9.00
Youngtown	$1,576,394	$960,201	$9,900	$15.11	$22.08	$19.72	$4.44
Carefree	$1,191,284	$960,201	$13,488	$18.17	$22.08	$22.05	$10.68
Gila Bend	$355,215	$250,000	$9,900	$14.63	$22.08	$17.64	$4.44
Apache Junction	$519,413	$263,552	$10,152	$14.94	$22.08	$19.68	$9.00
Florence	$529,736	$74,679	$10,152	$14.94	$22.08	$17.64	$4.44
Maricopa	$421,811	$0	$10,236	$21.24	$22.08	$19.68	$9.00
Percent Leased			100%	75%	85%	85%	50%

4.4.5 Population and Employment

The final conversion of the land use information is to socioeconomic impacts -- population and employment. In order to convert residential development into population, the number of housing units is multiplied by population per unit and by an occupancy rate. Population per unit varies by city and by density level. Both occupancy rates and population per unit are based on data provided by MAG. The model includes current and future population per unit rates. Current rates have been adjusted to bench to 2012 city population estimates.

In order to convert nonresidential land uses into employment, the number of acres by type is multiplied by employment per acre. The number of acres and control total employment by type for 2012 based on current MAG employment estimates by generalized land use.

4.5 Baseline Land Use Profiles

Once the assumptions were developed, the next step was to set up baseline land use pro-formas for each of the 27 cities and the two counties. The baseline land use data was provided by MAG. It includes developed and vacant acres in nine nonresidential land use categories and nine residential categories for 2012 and build out. The model is set up to input data for ten time periods, but data was not available to fill in absorption for 2015, 2020, 2025, 2030, 2035, 2040, 2045 and 2050.

The model requires an inventory of current developed and vacant acres by type, and then an accounting of cumulative absorption by type in each future time period. This data is then converted into socioeconomic and fiscal impacts.

The nonresidential land use categories in the model include the following:

- Retail
- Industrial
- Business Park
- High Rise Office
- Low Rise Office
- Hotel/Motel
- Public
- Institutional
- Other

The residential land use categories in the model include the following:

- Very High Density Multi-Family (13+ units/acre)
- High Density Multi-Family (10 to 13 units/acre)
- Medium Density Multi-Family (6 to 10 units/acre)
- Very Small Lot (7+ units/acre)
- Small Lot (4 to 6 units/acre)
- Medium Lot (2 to 4 units/acre)
- Large Lot (1 to 2 units/acre)
- Estate (1 unit/acre)
- Rural (less than 1 unit/acre)

4.6 Model Calibration

Once the baseline land use pro-formas for each member agency were entered, a series of steps were taken to calibrate the model and verify assumptions. First, the amount of current population, housing units and employment for each city were verified to ensure that they approximately matched the current estimates. Density assumptions were adjusted as needed. Future housing units were matched to MAG projections as closely as possible by varying future units per acre by density category.

The next step was to calibrate the calculation of assessed value. Based on information from the Assessor's abstract, current assessed value by type as calculated by the model was adjusted to match the Assessor's information for 2013, based on the process described in 4.4.3.

For sales tax, the sales per acre figures described in Figure 4-4 are used for future retail development. However, there is substantial variation in the quality and density of existing retail development and it is difficult based on limitations of the land use data to accurately calculate taxable sales for 2012. For this reason, an adjustment factor was applied so that general fund sales tax revenues in each community match the current budget numbers for 2012. All future sales tax revenues were calculated on the change, based on the assumptions described above.

Finally, the revenues and expenditure impacts were compared with actual budget information for each city. The major revenue sources including property and sales tax and intergovernmental revenues match very closely to actual budgets. Expenditures may vary since rates are used for generalized groups of cities, but they are all within a reasonable margin compared to actual budgets.

Additional model testing could be done to "backcast" fiscal impacts for previous years. However, there are some challenges with this type of testing because there may be sizeable variation in city budgets from year to year. The model is calibrated based on current budgets only. This type of backcasting would also require MAG land use data for each community for those previous years.

Once the baseline profiles for each city were completed and the described above calibrations were made, the model was ready to produce results. The impacts for 2012 by city and by land use category are described in the following sections.

4.7 Land Use Pro-Formas

The fiscal impact model was used to estimate net impacts by city for four different general land uses in order to illustrate the differences in revenues and expenditures generated by land use and by city size. The land use categories included office, retail, industrial and residential. Within the residential category there are five different density levels included in the analysis (3 single family and 2 multi-family). Development pro-formas were created for one acre of land of each type. These pro-formas, shown in Figure 4-5, include assumptions on density, construction costs per square foot, and retail sales per square foot. This information is then used to calculate residential housing units and population, nonresidential square feet and employment, construction costs, retail sales, assessed value, additional park acres and street miles required.

Some variables such as population per housing unit and park acres per capita vary by city in order to make the results more representative of city-specific conditions. Utility sales per employee are based on actual tax collections by industry. The data by city was averaged to create a rate for each size category.

FIGURE 4-5
LAND USE PRO-FORMAS

	Single Family					Non-Residential		
Characteristics	Rural Residential	Medium Lot Residential	Very Small Lot Residential	High Density	Very High Density	Office	Retail	Industrial
Acres	1	1	1	1	1	1	1	1
Housing Units	0.2	4	8	12	34	0	0	0
Population	varies	varies	varies	varies	varies	0	0	0
Square Feet	2,800 per unit	2,200 per unit	1,200 per unit	1,000 per unit	800 per unit	15,769	8,708	11,602
Employment	0	0	0	0	0	60	16	12
New Street Miles	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
Construction Cost per Acre	$46,166	$749,593	$745,536	$1,210,680	$2,960,992	$1,800,315	$685,949	$729,044
Taxable Sales	$0	$0	$0	$0	$0	$0	$1,702,628	$0
Assessed Value	varies	varies	varies	varies	varies	varies	varies	varies
Assumptions								
Units per Acre	0.2	3	8	12	34	0	0	0
PPDU	varies by city	varies by city	varies by city	varies by city	varies by city	na	na	na
Construction cost psf	$82.44	$85.18	$77.66	$100.89	$108.86	$114.17	$78.77	$62.84
Park Acres per capita	varies by city	varies by city	varies by city	varies by city	varies by city	na	na	na
Employees per Acre	0	0	0	0	0	60.00	16.00	12.00
FAR	na	na	na	na	na	0.40	0.22	0.28
Occupancy Rate	93%	93%	93%	80%	80%	90%	90%	90%
Lease Rate	$0	$0	$0	$10,476	$10,476	varies by city	varies by city	varies by city
Personal Property per Empl	$0	$0	$0	$0	$0	$10,000	$0	$10,000
Retail Sales per Acre	$0	$0	$0	$0	$0	$0	$1,702,628	$0
Utility Sales per Employee	$0	$0	$0	$0	$0	varies by city	$0	varies by city

4.8 Net Impacts by Land Use by City

Using the preliminary impact model, each of the pro-formas was evaluated for each of the 27 communities plus the two counties. The community results are shown in Figure 4-6. Total revenues and expenditures are indicated along with a ratio of revenues divided by expenditures. Ratios greater than one indicate a positive net impact. Since this is an order of magnitude model, ratios close to one should be considered a neutral impact.

Although construction costs are shown in the pro-formas, these are only used as a basis for calculating assessed value. No construction sales tax, permit fees or related expenses are included in the net impacts since these are non-recurring items that distort the longer term impact results.

4.8.1 Industrial Development

Industrial development generates a moderate positive fiscal impact for most cities. For this example, assessed value varies by city, based on differences in land values, although FAR and employment per acre are fixed. For Goodyear, Buckeye, El Mirage and Queen Creek that have relatively high local property tax rates, the ratio of revenues to expenditures for industrial development ranges from 1.63 to 2.55 indicating a strong positive impact. For Maricopa County, industrial development also generates a positive impact since the county relies on property tax revenues and not sales tax for operations and maintenance (O&M).

Real property assessed value for industrial is less than for office development, but employment density is also lower. Typically with industrial development, the majority of assessed value is from personal property. Based on averages from the Census of Manufacturing, the industrial pro-forma includes $15,000 of personal property per employee, which helps to boost property tax revenues. Additionally, this pro-forma assumes that 50 percent of the industrial space would be for lease, thus generating some

sales tax revenues for cities. On the expenditure side industrial and office development generally require less police service than other types of development. This is significant since public safety is usually one of the largest expenditure items for cities.

4.8.2 Office Development

Office development creates a positive impact for most cities, with the ratio of revenues to expenditures ranging from 0.68 to 2.53. The greatest positive impacts are in cities with both high sales and property tax rates such as Tempe, Avondale, Goodyear, El Mirage, Buckeye, Fountain Hills and Queen Creek, since both higher property values and sales taxes on leases are important revenues from office development.

The model shows break even or negative impacts for cities like Mesa, Chandler and Gilbert which have very low or no primary property taxes and relatively low sales tax rates. Paradise Valley, which also has no primary property tax, shows a negative impact due to the high cost of police service. Maricopa County which does not have any general fund sales tax but shows a positive impact since office development generates sufficient revenues from property taxes to cover the cost of county services.

The pro-forma assumes that 85 percent of the office space is leased versus owner occupied. The office pro-forma also includes $10,000 of personal property per employee, which helps to boost property tax revenues. Office development, which is assumed to be low to mid-rise office for this example, has the highest assessed value among nonresidential uses due both the quality and density of development. Real property values are about 2.5 times the level for industrial or retail development. Office development also generates more employees per acre than retail or industrial, so the overall level of expenditures is generally higher.

4.8.3 Retail Development

Retail development creates the largest positive impact, significantly greater than any other type of development. This is because retail sales contribute so directly to a city's bottom line. The ratios of revenues to expenditures for retail range from 6.97 to 19.15. Cities such as Glendale, Avondale, Goodyear, El Mirage, Buckeye, Guadalupe, Fountain Hills and Cave Creek with higher sales tax rates tend to have the most positive impacts from retail development. Taxable retail sales in this scenario are estimated at $196 per square foot which represents an average for the region. Retail sales per square foot in the model actually vary by city, but were held constant for this example. The lower assessed value associated with retail development is significantly overshadowed by higher sales tax revenues. Maricopa County, which does not have a general fund sales tax is the exception and has a negative impact from retail with a revenue to expenditure ratio of 0.88.

Retail development typically places a greater burden on local streets and requires more police services, although these expenditures are far out-weighed by higher revenues. Density of employment is also fairly low resulting in lower expenditure levels for other services.

For the purpose of this analysis, each land use type is analyzed independently. However, the retail pro-forma is a good example of how different land uses support each other. Although all retail sales in this model are attributed to retail land uses, local residents create demand for these establishments. In a well-balanced city, the highly positive impact created by retail development helps to offset some of the costs associated with supporting residential development.

FIGURE 4-6
NET IMPACTS PER ACRE OF DEVELOPMENT BY CITY AND LAND USE TYPE AND REVENUE TO EXPENDITURE RATIOS

		Industrial		Office		Retail	
Phoenix	Revenues	$2,665	0.97	$15,347	1.11	$38,154	10.37
	Expenditures	$2,761		$13,803		$3,681	
Mesa	Revenues	$1,967	0.67	$9,880	0.68	$33,107	8.50
	Expenditures	$2,920		$14,602		$3,894	
Glendale	Revenues	$3,660	1.25	$17,013	1.17	$54,921	14.10
	Expenditures	$2,920		$14,602		$3,894	
Scottsdale	Revenues	$2,617	0.90	$14,204	0.97	$31,838	8.18
	Expenditures	$2,920		$14,602		$3,894	
Chandler	Revenues	$2,574	0.88	$11,691	0.80	$29,237	7.47
	Expenditures	$2,937		$14,685		$3,916	
Tempe	Revenues	$4,417	1.53	$21,610	1.50	$40,498	10.54
	Expenditures	$2,881		$14,407		$3,842	
Gilbert	Revenues	$2,016	0.69	$10,116	0.69	$28,817	7.40
	Expenditures	$2,920		$14,602		$3,894	
Peoria	Revenues	$3,270	1.14	$16,131	1.12	$35,320	9.19
	Expenditures	$2,881		$14,407		$3,842	
Avondale	Revenues	$3,470	1.37	$20,664	1.63	$48,778	14.39
	Expenditures	$2,541		$12,707		$3,389	
Surprise	Revenues	$4,637	1.61	$22,582	1.57	$43,850	11.41
	Expenditures	$2,881		$14,407		$3,842	
Goodyear	Revenues	$3,744	1.27	$22,738	1.79	$48,907	14.43
	Expenditures	$2,941		$12,707		$3,389	
Fountain Hills	Revenues	$3,815	1.73	$18,741	1.70	$50,896	17.31
	Expenditures	$2,205		$11,026		$2,940	
Paradise Valley	Revenues	$3,385	0.71	$16,368	0.69	$49,272	7.78
	Expenditures	$4,752		$23,758		$6,336	
El Mirage	Revenues	$5,878	2.55	$29,131	2.53	$58,803	19.15
	Expenditures	$2,303		$11,514		$3,070	
Buckeye	Revenues	$4,138	1.63	$28,894	2.27	$58,175	17.17
	Expenditures	$2,541		$12,707		$3,389	
Guadalupe	Revenues	$4,162	1.06	$22,675	1.15	$75,835	14.42
	Expenditures	$3,945		$19,723		$5,260	
Wickenburg	Revenues	$3,927	0.94	$19,972	0.95	$42,918	7.68
	Expenditures	$4,191		$20,954		$5,588	
Tolleson	Revenues	$4,516	0.86	$21,920	0.83	$49,102	6.97
	Expenditures	$5,281		$26,405		$7,041	
Litchfield Park	Revenues	$2,789	0.86	$17,360	1.07	$53,376	12.38
	Expenditures	$3,233		$16,165		$4,311	
Cave Creek	Revenues	$3,912	1.69	$19,175	1.65	$57,729	18.68
	Expenditures	$2,318		$11,589		$3,090	
Queen Creek	Revenues	$4,634	2.10	$25,212	2.29	$44,369	15.09
	Expenditures	$2,205		$11,026		$2,940	
Youngtown	Revenues	$2,934	0.70	$18,331	0.88	$57,117	10.27
	Expenditures	$4,173		$20,865		$5,564	
Carefree	Revenues	$3,912	0.82	$19,175	0.81	$57,729	9.12
	Expenditures	$4,749		$23,747		$6,332	
Gila Bend	Revenues	$3,506	0.88	$20,590	1.04	$57,563	10.87
	Expenditures	$3,971		$19,856		$5,295	
Apache Junction	Revenues	$3,128	1.62	$15,696	1.63	$42,715	16.64
	Expenditures	$1,925		$9,625		$2,567	
Florence	Revenues	$2,968	1.17	$18,886	1.49	$39,060	11.53
	Expenditures	$2,541		$12,707		$3,389	
Maricopa	Revenues	$4,164	1.40	$20,562	1.38	$40,513	11.95
	Expenditures	$2,981		$14,905		$3,389	
Pinal County	Revenues	$5,953	1.97	$28,158	1.86	$13,529	3.35
	Expenditures	$3,025		$15,123		$4,033	
Maricopa County	Revenues	$1,587	1.53	$8,290	1.60	$1,216	0.88
	Expenditures	$1,036		$5,182		$1,382	

Source: Applied Economics, 2013.

FIGURE 4-6 (continued)
NET IMPACTS PER ACRE OF DEVELOPMENT BY CITY AND LAND USE TYPE AND REVENUE TO EXPENDITURE RATIOS

		Rural SF		Medium Lot SF		Very Small SF		High Density MF		Very High Density MF	
Phoenix	Revenues	$214	0.80	$3,723	0.74	$6,786	0.68	$8,496	0.83	$24,886	0.83
	Expenditures	$268		$5,038		$10,053		$10,294		$29,902	
Mesa	Revenues	$191	0.57	$3,599	0.57	$4,909	0.57	$8,069	0.70	$23,439	0.70
	Expenditures	$336		$6,343		$8,651		$11,516		$33,454	
Glendale	Revenues	$219	0.63	$3,546	0.61	$5,479	0.60	$9,814	0.81	$28,529	0.81
	Expenditures	$349		$5,840		$9,059		$12,073		$35,071	
Scottsdale	Revenues	$282	1.03	$3,600	0.72	$5,714	0.62	$6,536	0.73	$19,215	0.74
	Expenditures	$273		$5,030		$9,162		$8,897		$25,846	
Chandler	Revenues	$218	0.59	$3,982	0.60	$6,068	0.58	$7,818	0.68	$22,872	0.69
	Expenditures	$369		$6,628		$10,472		$11,490		$33,377	
Tempe	Revenues	$196	0.60	$3,534	0.68	$6,239	0.64	$7,850	0.79	$23,082	0.80
	Expenditures	$329		$5,196		$9,681		$9,926		$28,835	
Gilbert	Revenues	$220	0.60	$3,696	0.60	$6,181	0.60	$7,541	0.72	$21,905	0.72
	Expenditures	$369		$6,205		$10,377		$10,453		$30,364	
Peoria	Revenues	$199	0.69	$3,099	0.59	$5,743	0.58	$6,974	0.74	$20,339	0.75
	Expenditures	$287		$5,211		$9,886		$9,387		$27,269	
Avondale	Revenues	$208	0.63	$3,217	0.65	$7,126	0.64	$7,714	0.88	$22,769	0.90
	Expenditures	$332		$4,919		$11,115		$8,744		$25,400	
Surprise	Revenues	$173	0.54	$3,371	0.57	$5,930	0.53	$7,532	0.70	$21,965	0.71
	Expenditures	$322		$5,935		$11,109		$10,695		$31,068	
Goodyear	Revenues	$172	0.71	$3,743	0.75	$6,650	0.70	$7,822	0.94	$23,404	0.97
	Expenditures	$241		$4,978		$9,444		$8,321		$24,173	
Fountain Hills	Revenues	$136	0.76	$2,264	0.76	$4,159	0.76	$7,836	1.07	$22,763	1.07
	Expenditures	$180		$2,993		$5,497		$7,331		$21,295	
Paradise Valley	Revenues	$148	0.38	$3,061	0.38	$5,751	0.38	$8,014	0.53	$23,280	0.53
	Expenditures	$389		$8,017		$15,060		$15,258		$44,322	
El Mirage	Revenues	$252	0.77	$4,154	0.78	$7,224	0.74	$13,912	0.86	$40,375	0.86
	Expenditures	$329		$5,343		$9,736		$16,085		$46,726	
Buckeye	Revenues	$182	0.73	$3,561	0.72	$5,747	0.70	$8,686	0.99	$25,379	1.00
	Expenditures	$248		$4,958		$8,168		$8,732		$25,367	
Guadalupe	Revenues	$117	0.40	$5,253	0.40	$9,168	0.40	$12,705	0.55	$36,924	0.55
	Expenditures	$295		$13,203		$23,056		$23,135		$67,250	
Wickenburg	Revenues	$189	0.53	$3,748	0.51	$5,889	0.50	$9,756	0.63	$28,440	0.63
	Expenditures	$354		$7,286		$11,663		$15,534		$45,124	
Tolleson	Revenues	$201	0.37	$3,608	0.37	$7,043	0.38	$9,958	0.47	$30,043	0.49
	Expenditures	$545		$9,782		$18,558		$21,082		$61,242	
Litchfield Park	Revenues	$168	0.56	$2,565	0.56	$4,866	0.56	$8,619	0.78	$25,038	0.78
	Expenditures	$301		$4,606		$8,738		$11,076		$32,175	
Cave Creek	Revenues	$136	0.77	$2,560	0.77	$4,746	0.77	$8,197	1.13	$23,811	1.13
	Expenditures	$177		$3,339		$6,190		$7,266		$21,108	
Queen Creek	Revenues	$297	1.16	$4,737	0.96	$7,256	0.85	$8,208	1.04	$24,177	1.06
	Expenditures	$255		$4,954		$8,513		$7,869		$22,860	
Youngtown	Revenues	$79	0.38	$2,512	0.38	$4,964	0.38	$8,469	0.55	$24,600	0.55
	Expenditures	$207		$6,607		$13,057		$15,370		$44,648	
Carefree	Revenues	$111	0.48	$2,203	0.48	$4,179	0.72	$7,711	0.72	$22,400	0.72
	Expenditures	$233		$4,623		$5,771		$10,672		$31,003	
Gila Bend	Revenues	$191	0.42	$3,566	0.41	$6,758	0.41	$9,121	0.58	$26,497	0.58
	Expenditures	$459		$8,624		$16,363		$15,697		$45,599	
Apache Junction	Revenues	$130	0.76	$2,469	0.68	$4,608	0.76	$8,101	1.00	$23,532	1.00
	Expenditures	$171		$3,630		$6,039		$8,077		$23,462	
Florence	Revenues	$174	0.69	$3,138	0.68	$5,934	0.67	$8,151	0.86	$23,679	0.86
	Expenditures	$251		$4,644		$8,810		$9,449		$27,449	
Maricopa	Revenues	$193	0.82	$3,383	0.74	$6,129	0.71	$8,205	0.89	$23,949	0.89
	Expenditures	$236		$4,552		$8,641		$9,262		$26,904	
Pinal County	Revenues	$149	0.50	$2,476	0.52	$4,048	0.45	$5,237	0.43	$15,610	0.44
	Expenditures	$301		$4,775		$9,059		$12,115		$35,193	
Maricopa Cty	Revenues	$104	0.62	$1,850	0.62	$2,929	0.62	$3,299	0.61	$9,615	0.61
	Expenditures	$167		$2,971		$4,759		$5,421		$15,748	

Source: Applied Economics, 2013.

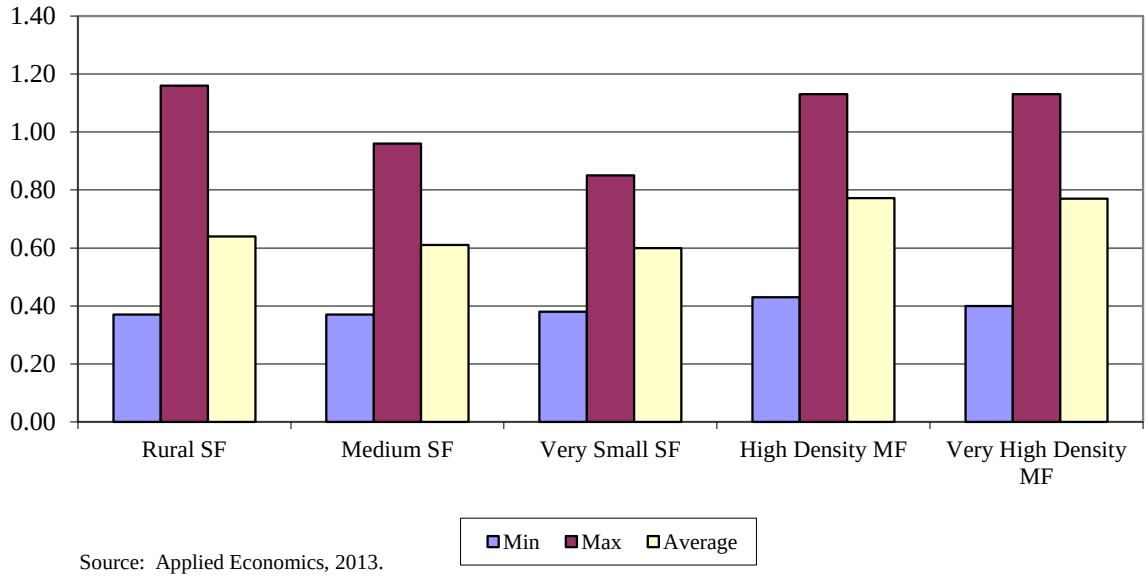
4.8.4 Residential Development

Residential development is the only type of development that creates a consistently negative impact. The five pro-formas shown here range in density from rural single-family at 0.2 units per acre, to very high density multi-family at 34 units per acre. The impacts from residential development are largely a function of the tax structure of cities in Arizona. The majority of revenues from residential development come from property tax and state shared revenues. Additional revenues from service charges offset some expenditures for items such as recreation. However, since most residents use city services more heavily than people working in the city, the expenditures from residential development typically outweigh revenues.

Although it is true that increased density results in lower capital costs for infrastructure it does not necessarily result in lower operations and maintenance costs. In general, the impacts become more negative as density increases for single family since the larger amount of residents per acre demand a higher level of services which are not offset by the increase in property tax revenues per acre. Within multi-family, there is little difference between high density and very high density, but in both cases the impacts tend to be less negative, or even slightly positive, compared to single family development. In addition to property taxes, multi-family development generates sales tax on rents which results in greater revenues to offset service costs. Positive impacts in high density multi-family development are most likely in cities with high land values as well as higher sales tax rates such as Fountain Hills, Cave Creek and Queen Creek.

Among the residential pro-formas shown here, high density and very high density multi-family yield the highest proportion of revenues relative to expenditures. Very small lot single family appears to have the most negative impacts. However, there is significant variation among cities. A summary of the relative revenue to expenditure ratios for each residential density type is shown in the graph below (Figure 4-7).

FIGURE 4-7
RESIDENTIAL REVENUE/EXPENDITURE RATIOS BY DENSITY
MAG MEMBER AGENCIES



Source: Applied Economics, 2013.

For single family, Queen Creek had the highest revenue to expenditure ratios across all three density categories and was one of only two cities that showed a non-negative impact for residential development. Scottsdale also showed a neutral impact for the lowest density of single family development, although the ratios of revenues and expenditures for medium and very small lot single family were significantly lower. Fountain Hills and El Mirage showed consistently higher (although still negative) impacts for all categories of single family development ranging from 0.74 to 0.78. The lowest ratios across the single family categories were in Tolleson, Youngtown, Gila Bend and Paradise Valley ranging from 0.37 to 0.42 cents in revenues for every dollar of expenditures required to support this type of development.

In terms of impacts by city size range, it appears that the medium sized cities had the least negative impacts on average, followed closely by Phoenix. The small cities had the most negative impacts on average. However, the results varied from city to city as to whether lower density development with less population and lower service demands created a less negative impact versus higher density single family housing, which according to the literature review can be more efficient to serve.

The two multi-family development pro-formas represent increasingly greater densities, but with lower per unit values and lower population per unit than single family. The distinguishing feature of multi-family development is that it generates sales tax revenues through rental occupancy tax. However, for most cities, there was relatively little variation in revenue to expenditure ratios across the two multi-family categories.[18] While some single family rentals may also generate sales tax, the vast majority of revenues are from multi-family, because a relatively small share of single family units are rentals and because individuals that rent their single family home are unlikely to remit sales taxes. Thus, rental occupancy taxes from single family development are not included in the model.

Several cities including Goodyear, Fountain Hills, Buckeye, Cave Creek Queen Creek and Apache Junction showed a neutral or slightly positive impact, indicating that the amount of property and sales tax revenues generated by this type of development could be sufficient to cover the cost of services based on the current service standards in that community. Ironically, all of these cities on the urban periphery are unlikely to see multi-family development in the near future at the very high density levels shown in the pro-formas.

The most negative impacts were in Paradise Valley, Guadalupe, Tolleson, Youngtown, and Gila Bend, all of which fall into the small size category and showed relatively more negative impacts for single family development as well. In terms of overall averages by size range, medium sized cities had the least negative net impacts on average for multi-family development at 0.95, whereas small cities had the most negative impacts on average at 0.66. For Maricopa and Pinal Counties, the results were fairly similar across density categories ranging from 0.43 to 0.52 in Pinal County and 0.61 to 0.62 in Maricopa County.

4.9 Conclusions

The fiscal model can yield valuable information about how different types of development are likely to impact city budgets on an order of magnitude level. These summary results show how the tax structure in Arizona as well as differences among individual cities are manifested in land use and planning decisions.

The bottom line is that cities must have a balanced mix of land uses for both economic and fiscal reasons. Residential development in isolation is not generally feasible. However, residential development is

[18] While some single family rentals may also generate sales tax, the vast majority of revenues are from multi-family, because a relatively small share of single family units are rentals and because individuals that rent their single family home are unlikely to remit sales taxes. Thus, rental occupancy taxes from single family development are not included in the model.

necessary to support demand for retail, and to create a labor pool for office and industrial uses. At the same time, retail development as the primary type of non-residential development in a community would create a strong fiscal impact, but would not result in a healthy economic base. The complexity within a contiguous urban area like Maricopa County stems from the fact that development patterns do not necessarily conform to city boundaries. When residents can easily work or shop in a neighboring community, it is possible for some cities to develop with an unbalanced mix of land uses that threaten fiscal sustainability. The fiscal impact model will be a useful tool in illustrating how growth patterns in individual cities will impact local budgets in the long term.

4.10 Recommendations for Future Enhancements

There are several enhancements and changes that could be incorporated in future updates of the model to increase its functionality and improve the accuracy of the impact results.

- Future updates could include new reports to allow for side by side comparisons of two scenarios, and modifications to the model to allow user to run multiple land use profiles and sum the results.

- Metrics could be developed to identify cities that are out of balance in terms of the amount of retail or other nonresidential uses in their future land use plans based on regional averages. Fiscal results are not meaningful if the future land use plans are not consistent with market reality.

- Current land use and socioeconomic data provided by MAG should be based on current city boundaries rather than MPA boundaries since the city budget and service areas only extend within the city boundaries. This would make the model more accurate and make it easier to reconcile the current land use with the current revenue and expenditure amounts from the city budgets.

- The land use fiscal model should be connected to MAG socioeconomic model to ensure that the amount of developed land by type and the assumptions regarding density, occupancy, population and employment are internally consistent for all time periods and reflect the controls and decision rules that are already incorporated into the methodology of the socioeconomic model.

- There is a disconnect in the model between FAR and employment density since density is expressed in employees per acre. Although both can be adjusted by the user, this should be resolved so that employment increases automatically as square footage increases.

Agenda Item #11

MARICOPA ASSOCIATION OF GOVERNMENTS
INFORMATION SUMMARY… for your review

DATE:
February 4, 2014

SUBJECT:
Development of the FY 2015 MAG Unified Planning Work Program and Annual Budget

SUMMARY:
Each year, staff develops the MAG Unified Planning Work Program and Annual Budget. The Work Program is reviewed each year by the federal agencies and approved by the Regional Council in May. A review of the detailed draft Work Program and Budget is tentatively scheduled for the beginning of April. This presentation is an overview of MAG's early FY 2015 proposed projects for the FY 2015 Work Program.

The Budget Workshop, which will also be available via Webinar, is scheduled for Thursday, February 23, 2014, at 1:00 p.m. in the MAG Cottonwood Room. The invitation to the Budget Workshop is attached.

The rate for the draft Dues and Assessments each fiscal year prior to FY 2010 has been calculated by applying the average CPI-U from the prior calendar year. This calculated rate was approved by the MAG Regional Council on May 24, 2006. In FY 2010, due to the downturn in the economy, the Dues and Assessments were reduced to 50 percent of the FY 2009 amount. This 50 percent reduction in Dues and Assessments for the members was maintained through FY 2014. Expenses in excess of the Dues and Assessments for the year have been paid out of MAG's fund balance. A motion was made and approved at the May 22, 2013 meeting that member Dues and Assessments would continue at the 50 percent rate for FY 2014 with the understanding that the Dues and Assessments rate would be increased to 100 percent for FY 2015. Last month MAG staff proposed that draft Dues and Assessments be set at 100 percent of the FY 2009 Dues and Assessments amount with the average CPI-U change of 8.59 percent from calendar year 2009 through 2013 applied to this overall amount. Changes in dues and assessments for individual members are due to population shifts and the application of the CPI-U. The draft Dues and Assessments for FY 2015 are included as Attachment B. The application of a minimum dues and assessments amount of $350 affects two members and is discussed in footnote (d) of this attachment.

Information for this presentation of the developing budget is included for your early review and input. Enclosed for your information are the following documents:

- Attachment A is the timeline for budget development.
- Attachment B is the draft Dues and Assessments for FY 2015.
- Attachment C is the Budget Workshop invitation scheduled for Friday, February 20, 2014.
- Attachment D is the Proposed New Projects for FY 2015.

PUBLIC INPUT:
None.

PROS & CONS:
PROS: MAG is presenting a review of the proposed new projects associated estimated costs for FY 2015. This will provide for an incremental review of key budget proposed projects in February and a review of the more complete draft budget and work program in March of 2014.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: None.

POLICY: None.

ACTION NEEDED:
Information and discussion.

PRIOR COMMITTEE ACTIONS:
This item was on the January 29, 2014, MAG Regional Council agenda for information and discussion:

MEMBERS ATTENDING

* Mayor Scott Smith, Mesa, Chair
Mayor Michael LeVault, Youngtown, Vice Chair
Vice Mayor Robin Barker, Apache Junction
Mayor Marie Lopez Rogers, Avondale
Mayor Jackie Meck, Buckeye
Councilmember Mike Farrar, Carefree
* Councilmember Reginald Monachino, Cave Creek
# Mayor Jay Tibshraeny, Chandler
# Mayor Lana Mook, El Mirage
* Mayor Tom Rankin, Florence
* President Ruben Balderas, Fort McDowell Yavapai Nation
Mayor Linda Kavanagh, Fountain Hills
Mayor Steven Holt, Gila Bend
* Governor Gregory Mendoza, Gila River Indian Community
Mayor John Lewis, Gilbert
Mayor Jerry Weiers, Glendale
Mayor Georgia Lord, Goodyear
Mayor Rebecca Jimenez, Guadalupe
Mayor Thomas Schoaf, Litchfield Park
Mayor Christian Price, City of Maricopa
* Supervisor Steve Chucri, Maricopa County
* Mayor Scott LeMarr, Paradise Valley
Councilmember Cathy Carlat, Peoria
Mayor Greg Stanton, Phoenix
Supervisor Todd House, Pinal County
Mayor Gail Barney, Queen Creek
* President Diane Enos, Salt River Pima-Maricopa Indian Community
Mayor W. J. "Jim" Lane, Scottsdale
Mayor Sharon Wolcott, Surprise
Mayor Mark Mitchell, Tempe
* Mayor Adolfo Gamez, Tolleson
Mayor John Cook, Wickenburg
Victor Flores, State Transportation Board
Joseph La Rue, State Transportation Board
Roc Arnett, Citizens Transportation Oversight Committee

* Those members neither present nor represented by proxy.
# Attended by telephone conference call. + Attended by videoconference

This item was on the January 21, 2014, MAG Executive Committee agenda for information and discussion.

MEMBERS ATTENDING

* Mayor Scott Smith, Mesa, Chair
Mayor Michael LeVault, Youngtown, Vice Chair
Mayor W.J. "Jim" Lane, Scottsdale, Treasurer
* Mayor Gail Barney, Queen Creek
Mayor Marie Lopez Rogers, Avondale
Mayor Lana Mook, El Mirage
Mayor Greg Stanton, Phoenix

* Not present
# Participated by video or telephone conference call

This item was on the January 8, 2014 MAG Management Committee for information and discussion.

MEMBERS ATTENDING

Dr. Spencer Isom, El Mirage, Chair
Christopher Brady, Mesa, Vice Chair
Matt Busby for George Hoffman, Apache Junction
Charlie McClendon, Avondale
* Stephen Cleveland, Buckeye
* Gary Neiss, Carefree
Rodney Glassman, Cave Creek
Patrice Kraus for Rich Dlugas, Chandler
* Charles Montoya, Florence
* Phil Dorchester, Fort McDowell Yavapai Nation
# Ken Buchanan, Fountain Hills
Rick Buss, Gila Bend
* David White, Gila River Indian Community
Marc Skocypec for Patrick Banger, Gilbert
Brent Stoddard for Brenda S. Fischer, Glendale
* Brian Dalke, Goodyear
Rosemary Arellano, Guadalupe
Darryl Crossman, Litchfield Park
* Trisha Sorensen, City of Maricopa
* Jim Bacon, Paradise Valley
Carl Swenson, Peoria
Ed Zuercher, Phoenix
Greg Stanley, Pinal County
John Kross, Queen Creek
* Bryan Meyers, Salt River Pima-Maricopa Indian Community
Brad Lundahl for Fritz Behring, Scottsdale
Chris Hillman, Surprise
Marge Zylla for Andrew Ching, Tempe
* Reyes Medrano, Tolleson
Joshua Wright, Wickenburg
Jeanne Blackman, Youngtown
Brent Cain for John Halikowski, ADOT
John Hauskins for Tom Manos, Maricopa County
John Farry for Steve Banta, Valley Metro/RPTA

* Those members neither present nor represented by proxy.
# Participated by telephone conference call. + Participated by videoconference call.

CONTACT PERSON:
Rebecca Kimbrough, MAG Fiscal Services Manager, (602) 452-5051

Maricopa Association of Governments

ATTACHMENT A

January 16, 2014 estimate for Fiscal Year 2015

Draft Dues And Assessments

Jurisdiction	FY 2014 Budget (a) Population Totals	MAG Member Dues	Solid Waste Planning Assessment	Water Quality (j) Planning Assessment	9-1-1 (b) Planning Assessment	Human Services Planning Assessment	Homeless (c) Prevention Assessment	Total (d) FY 2015 Estimated Dues & Assessments	Total FY 2014 Dues & Assessments
Apache Junction (f)	37,623	$1,978	$97	$1,201	$2,194	$704		$6,174	$2,835
Avondale	77,511	$4,075	$201	$2,475	$4,520	$1,451	$1,336	$14,058	$6,520
Buckeye	56,460	$2,968	$146	$1,803	$3,292	$1,057		$9,266	$4,154
Carefree	3,424	$180	$9	$109	$200	$64		$562	$350
Cave Creek	5,228	$275	$14	$167	$305	$98		$859	$392
Chandler	246,197	$12,942	$638	$7,862	$14,356	$4,608	$4,243	$44,649	$20,458
El Mirage	32,472	$1,707	$84	$1,037	$1,893	$608		$5,329	$2,462
Florence (i)	25,512	$1,341	$66			$478		$1,885	$924
Fort McDowell Yavapai Nation (d) (h)	984	$241	$3	$31	$57	$18		$350	$350
Fountain Hills	22,893	$1,203	$59	$731	$1,335	$429		$3,757	$1,742
Gila Bend (d)	1,948	$133	$5	$62	$114	$36		$350	$350
Gila River Indian Community (i)	11,918	$627	$31	$381	$695	$223		$1,957	$905
Gilbert	227,603	$11,965	$590	$7,268	$13,271	$4,260	$3,923	$41,277	$18,629
Glendale	231,109	$12,149	$599	$7,380	$13,476	$4,326	$3,983	$41,913	$19,421
Goodyear	72,275	$3,799	$187	$2,308	$4,214	$1,353		$11,861	$5,299
Guadalupe	6,019	$316	$16	$192	$351	$113		$988	$456
Litchfield Park	5,759	$303	$15	$184	$336	$108		$946	$431
Maricopa (i)	46,140	$2,425	$120		$2,690	$864		$6,099	$2,779
Maricopa County (e)	277,846	$14,606	$720	$8,872	$16,201	$5,201	$4,789	$50,389	$23,461
Mesa	450,310	$23,672	$1,167	$14,379	$26,257	$8,429	$7,761	$81,665	$37,726
Paradise Valley	13,282	$698	$34	$424	$774	$249		$2,179	$1,007
Peoria (g)	160,552	$8,440	$416	$5,127	$9,362	$3,005	$2,767	$29,117	$13,372
Phoenix	1,485,751	$78,103	$3,850	$47,443		$27,811	$25,607	$182,814	$83,681
Pinal County (c)(i)	127,351	$6,695	$330		$7,426	$2,384	$2,195	$19,030	$8,735
Queen Creek (f)	29,510	$1,551	$76	$942	$1,721	$552		$4,842	$2,127
Salt River Pima-Maricopa (h)	6,498	$342	$17	$207	$379	$122		$1,067	$494
Scottsdale	222,213	$11,681	$576	$7,096	$12,957	$4,160	$3,830	$40,300	$18,635
Surprise	121,629	$6,394	$315	$3,884	$7,092	$2,277	$2,096	$22,058	$10,138
Tempe	165,158	$8,682	$428	$5,274	$9,630	$3,092	$2,847	$29,953	$13,965
Tolleson	6,632	$349	$17	$212	$387	$124		$1,089	$506
Wickenburg (g)	6,511	$342	$17	$208	$380	$122		$1,069	$498
Youngtown	6,236	$328	$16	$199	$364	$117		$1,024	$474
TOTALS	4,190,554	$220,510	$10,859	$127,458	$156,229	$78,443	$65,377	$658,876	$303,276

FY 2014 Total Costs		$101,432	$5,000	$58,688	$71,935	$36,118	$30,103
Based on Population		$119,078	$5,859	$68,770	$84,294	$42,325	$35,274
		117.40%	117.18%	117.18%	117.18%	117.19%	117.18%
Per Capita Cost		$0.05262	$0.00259	$0.03042	$0.03728	$0.01872	$0.01560

Each year, the MAG annual Dues and Assessments are apportioned according to per capita populations and the CPI-U from the prior calendar year is applied to the Dues and Assessments. From FY 2010 through FY 2014, Dues and Assessments were reduced by 50% from the FY 2009 amount and this overall lower amount was held constant due to economic conditions. The FY 2015 estimated Dues and Assessments are increased to 100% of the FY 2009 amount and the CPI-U increase from calendar year 2009 to the present of 8.59% has been applied. Changes in population coupled with the addition of 3 new members account for the individual member differences between the FY 2014 and FY 2015 Dues and Assessments totals.

(a) MAG July 1, 2013 Approved Population within one percent of the approved Maricopa County control total. The population updates are needed by the State Economic Estimates Commission by December 15th of each year and in order to project the final estimates.

(b) The 9-1-1 assessment is apportioned according to per capita populations excluding the City of Phoenix that performs 9-1-1 operations and the Town of Florence that is not part of the Maricopa Region 9-1-1 system.

(c) The Homeless Prevention assessment is only charged to cities who are CDBG recipients and have populations over 50,000 and to Maricopa County and Pinal County.

(d) Total Dues and Assessments minimum at $350 per member results in an overall increase for these members and a slight adjustment for the other members.

(e) The Maricopa County portion of the dues and assessments includes the balance of the county, excluding the Fort McDowell Yavapai Nation and the Salt River Pima-Maricopa Indian Community (except when calculating the Homeless Prevention assessment).

(f) Maricopa and Pinal County portions.

(g) Maricopa and Yavapai County portions.

(h) Maricopa County portion only.

(i) The Pinal County portion of the dues and assessments includes unincorporated areas in Pinal County in the the MAG Metropolitan Planning Organization Area planning boundaries; also included is the entire population of the Gila River Indian Community as well as the Town of Florence and the City of Maricopa.

(j) The Water Quality Planning Assessment is applied to the members that have their Water Quality Planning performed by the Maricopa Region.

Attachment B

Maricopa Association of Governments
Fiscal Year 2015
DRAFT December 31, 2013
Work Program and Annual Budget Proposed Timeline

01/06/14	Monday	Intergovernmental Meeting
01/08/14	Wednesday	Management Committee Meeting-dues/assessments; timeline
01/21/14	Tuesday	Regional Council Executive Committee Meeting-dues/assessments; timeline
01/29/14	Wednesday	Regional Council-dues/assessments; timeline
02/06/14	Thursday	Intergovernmental Meeting
02/12/14	Wednesday	Management Committee Meeting- present new projects; presentation of summary budget documents
02/18/14	Tuesday	Regional Council Executive Committee Meeting- present new projects; presentation of summary budget documents
02/20/14	Friday	Budget Workshop-webinar 1:00 p.m.Cottonwood Room, 2nd Floor, MAG Building
02/26/14	Wednesday	Regional Council Meeting- present new projects; presentation of summary budget documents
03/06/14	Thursday	Intergovernmental Meeting
03/12/14	Wednesday	Management Committee Meeting- information and review of draft budget documents
03/17/14	Monday	Regional Council Executive Committee Meeting- information and review of draft budget documents
03/26/14	Wednesday	Regional Council Meeting- information and review of draft budget documents
April	TBD	IPG meeting with FHWA, FTA, ADOT and others
04/03/14	Thursday	Intergovernmental Meeting
04/09/14	Wednesday	Management Committee Meeting- information and review of draft budget documents
04/14/14	Monday	Regional Council Executive Committee Meeting- information and review of draft budget documents
04/23/14	Wednesday	Regional Council Meeting- information and review of draft budget documents
April		Changes in draft budget projects and/or any changes in budgeted staff will be brought to the Executive Committee, Management Committee and Regional Council in their April meetings if needed (TBD)
05/08/14	Thursday	Intergovernmental Meeting
05/14/14	Wednesday	Management Committee meeting - present draft Budget for recommendation of approval
05/19/14	Monday	Regional Council Executive Committee meeting - present draft Budget for recommendation of approval
05/28/14	Wednesday	Regional Council meeting - present draft Budget for approval

Attachment C

MAG WEBINAR PRESENTATION ON THE DEVELOPMENT OF THE FY 2015 UNIFIED PLANNING WORK PROGRAM AND ANNUAL BUDGET

Thursday, February 23, 2014 at 1:00 p.m.
MAG Office, Suite 200, Cottonwood Room
302 North 1st Avenue, Phoenix, AZ

In an effort to get early input into the FY 2015 MAG Budget and to provide information about the proposed budget for our member agencies, we will hold a budget workshop on Thursday, February 23, at 1:00 p.m. The budget workshop will include an overview of MAG's proposed dues and assessments and proposed projects for the FY 2015 Work Program.

If you are attending in person, please park in the garage underneath the building and bring your ticket to the meeting, parking will be validated.

If you would like to attend this meeting by web and/or phone please contact Imelda Lopez-Worley for log in information at (602) 452-5068.

If you have any questions or need additional information regarding new projects or dues and assessments, please contact Becky Kimbrough at (602) 254-6300.

ATTACHMENT D

DRAFT MAG FY 2015 UPWP
Proposed New Projects

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Environmental Division

Project Name: MAG Air Quality Associate

Brief Description: As the designated Regional Air Quality Planning Agency for the Maricopa area, the Maricopa Association of Governments conducts air quality modeling and prepares air quality plans to attain and maintain the National Ambient Air Quality Standards. Technical assistance from a MAG Associate will be needed in the following technical air quality areas: air quality modeling; air quality monitoring and meteorology; exceptional events; traffic surveys and emissions inventories; dirt road inventories and tracking progress made to pave dirt roads; statistical analysis of data; analysis of control measures; air quality plan preparation; CMAQ evaluation methodologies; and transportation conformity. The MAG 2012 Five Percent Plan for PM-10 contains a variety of existing committed control measures and projects that have been implemented to reduce PM-10 and a new measure designed to reduce PM-10 during high risk conditions, including high winds. On April 19 and August 23, 2013, the Environmental Protection Agency (EPA) proposed approval of several statutes for the measures in the plan. On December 3, 2013, EPA issued a notice of final approval of various statutes for the plan measures. Supplemental technical analyses and information may need to be provided to EPA. Following plan approval and a determination by EPA that the standard has been met, MAG will initiate the planning effort to prepare a PM-10 Maintenance Plan. For the eight-hour ozone standard of 0.075 parts per million, EPA published a final rule on May 21, 2012 to designate the Maricopa nonattainment area as a Marginal Area with a December 31, 2015 attainment date. Based upon the June 6, 2013 EPA proposed planning requirements, Marginal Areas would be required to submit an emissions statement, a baseline emissions inventory, a pre-1990 reasonably available control technology fix-up, a nonattainment area preconstruction program, new source review, pre-1990 corrections to previously required vehicle inspection and maintenance programs, and meet transportation conformity requirements. On May 16, 2012, EPA published a final rule indicating that Onboard Refueling Vapor Recovery on passenger vehicles was in widespread use nationwide. States may now evaluate the removal of Stage II vapor recovery at gas stations, since they are redundant systems. A plan revision to remove Stage II vapor recovery has been initiated. New versions of the EPA MOVES model will need to be integrated into the MAG air quality modeling and analyses. Consultant expertise will be needed in the following technical air quality areas: air quality modeling; air quality monitoring and meteorology; exceptional events; traffic surveys and emissions inventories; dirt road inventories and tracking progress made to pave dirt roads; statistical analysis of data; analysis of control measures; air quality plan preparation; CMAQ evaluation methodologies; and transportation conformity. Consultant expertise may also include an analysis of greenhouse gas requirements and emissions. While the level of activity on Climate Change by Congress has slowed dramatically since 2009, there may be renewed interest due to the damage caused by Hurricane Sandy in 2012.

Requested by: This project is recommended by MAG staff, in order to meet the requirements in the Clean Air Act and follow through with the direction given by the MAG Regional Council.

Mission/Goal Statement: Perform data collection, analysis, modeling, and planning necessary to meet the National Ambient Air Quality Standards and the Clean Air Act requirements for the criteria pollutants and conformity.

Total Resources Required: $130,000

Approximate time frame for project completion: July 2014-June 2015

Expected Outcome: On May 21, 2012, EPA published a final rule to designate the Maricopa nonattainment area as a Marginal Area for the eight-hour ozone standard of 0.075 parts per million, with a December 31, 2015 attainment date. Based upon the June 6, 2013 EPA proposed planning requirements, Marginal Areas would be required to submit an emissions statement, a baseline emissions inventory, a pre-1990 reasonably available control technology fix-up, a nonattainment area preconstruction program, new source review, pre-1990 corrections to previously required vehicle inspection and maintenance programs, and meet transportation conformity requirements. On May 16, 2012, EPA published a final rule indicating that Onboard Refueling Vapor Recovery on passenger vehicles was in widespread use nationwide. States may now evaluate the removal of Stage II vapor recovery at gas stations, since they are redundant systems. A plan revision to remove Stage II vapor recovery has been initiated. The MAG 2012 Five Percent Plan for PM-10 contains a variety of existing committed control measures and projects that have been implemented to reduce PM-10 and a new measure designed to reduce PM-10 during high risk conditions, including high winds. On April 19 and August 23, 2013, the Environmental Protection Agency (EPA) proposed approval of several statutes for the measures in the plan. On December 3, 2013, EPA issued a notice of final approval of various statutes for the plan measures. Supplemental technical analyses and information may need to be provided to EPA. Following plan approval and a determination by EPA that the standard has been met, MAG will initiate the planning effort to prepare a PM-10 Maintenance Plan. Tracking the progress made to pave dirt roads will contribute to attainment of the PM-10 standard and cleaner air for the citizenry.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Benefit to MAG Member Agencies: Attainment of the 2008 eight-hour ozone standard (0.075 parts per million) would reflect positively on the region. Timely implementation of committed control measures in the MAG 2012 Five Percent Plan for PM-10 will assist the region in meeting the Clean Air Act requirements for PM-10 and avoid more onerous control measures, the withholding of federal highway funds, and a conformity lapse. Updating the CMAQ methodologies and assumptions used to quantify the air quality benefits of the CMAQ projects will incorporate the latest research results and technical approaches. This will ensure that the projects submitted by the MAG member agencies for CMAQ funds are fairly and equitably evaluated. An analysis of greenhouse gas requirements and emissions may be beneficial to the MAG member agencies for complying with potential future mandates.

Benefit to the Public: Timely implementation of committed measures in the MAG 2012 Five Percent Plan for PM-10 will assist the region in attaining the PM-10 standard and protecting public health throughout the region. Tracking the progress made to pave dirt roads will also contribute to attainment of the PM-10 standard and cleaner air for the citizenry. Improved methodologies for CMAQ project evaluation will provide more accurate emissions reductions for proposed projects that will be used in prioritizing the projects for funding and implementation in accordance with the multi-modal theme in the Regional Transportation Plan.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Communications Division

Project Name: Don't Trash Arizona Litter Prevention and Education Program

Brief Description: Concern over ugly freeway litter led elected officials to call for a litter education and prevention as an important component of the Regional Transportation Plan. Don't Trash Arizona is a joint effort between the Maricopa Association of Governments and the Arizona Department of Transportation to address the economic, safety, and health impacts of freeway litter along regional and state highways. The program is funded through Proposition 400, which was approved by voters in 2004. Highway maintenance funding in the Regional Transportation Plan funded by Prop 400 encompasses litter pickup, sweeping, and landscape maintenance, as well as litter education and prevention. Don't Trash Arizona seeks to change attitudes, awareness, and most importantly, behavior, when it comes to roadway littering.

In 2006, litter prevention and education efforts were begun by MAG and ADOT to address roadway litter. The slogan Don't Trash Arizona is used cooperatively by both agencies to increase public awareness of the roadway litter condition.

In October 2011, the Regional Council approved the selection of a consultant to develop the FY 2012 litter prevention and education program. The action included a provision that the base contract period shall be a one-year term but that MAG may, at its option, offer to extend the period of this agreement up to a maximum of two (2), one (1) year options, based on consultant performance and funding availability. The available extension options were utilized, carrying the project through November 30, 2014. Continued funding for the Don't Trash Arizona program will enable MAG to continue building on its successes in litter prevention and education efforts in Maricopa County.

Requested by: This project is recommended by MAG staff, the Transportation Policy Committee and Regional Council in 2003, by a resolution passed by the MAG Regional Council and State Transportation Board on December 3, 2003, citing litter education as a high priority for the Regional Transportation Plan, and also by the approval of extending consultant contract by Regional Council Executive Committee on October 15, 2012.

Mission/Goal Statement: The goal of the litter prevention and education program, conducted in cooperation with the Arizona Department of Transportation, is to reduce litter along state and Valley freeways to protect public safety, health and the environment; improve visual aesthetics along the MAG Regional Freeway System, resulting in enhanced tourism and economic development prospects; and to ultimately reduce the cost of freeway maintenance.

Total Resources Required: $300,000

Approximate time frame for project completion: December 2014-November 2015

Expected Outcome: The consultant will develop and implement a strategy to increase public awareness as a way to reduce litter on the regional freeway system in the MAG Region and will establish an evaluative process to measure the success of the program. The consultant will use an array of communication services, including public education and outreach efforts, that are designed to increase awareness of the freeway litter problem in the MAG region with a goal of changing behavior among offenders. The consultant will provide services that include public relations, marketing, advertising and the development of partnerships with businesses, organizations or other entities that may provide additional value in promoting litter control efforts.

Benefit to MAG Member Agencies: It costs our region about $3 million and nearly 150,000 labor hours each year to pick up 1.6 million pounds of litter along Valley freeways. Unsightly litter also impacts our economy when tourists and prospective businesses choose not to come back to our state due to a poor impression. Litter is not only unsightly, it is unsanitary and can cause environmental and health problems. Cigarette butts, for example, contain toxic chemicals that can end up in storm drains and contaminate our water systems. Trash and other items falling from unsecured loads can cause serious traffic accidents. Debris on roadways nationwide causes 25,000 accidents each year and more than 80 fatalities. Accidents and slow-downs due to roadway debris increase the time we spend stuck in traffic and results in lost productivity. The litter prevention and education campaign will help mitigate these impacts to local communities.

Benefit to the Public: Along with the benefits referenced above, reducing the amount of freeway litter through public education will help the region address the economic, safety and health impacts of litter to residents and improve our regional quality of life. It will improve visual aesthetics along the MAG Regional Freeway System, enhance tourism and economic development prospects, and ultimately reduce the cost of freeway maintenance.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Communications Division

Project Name: Video Outreach Associate

Brief Description: The Video Outreach Associate assists in implementing the MAG Video Outreach Program by providing writing, direction, preproduction, production, and post production services, along with project management. Approximately five videos would be produced within a 12-month time frame.

Requested by: This project is recommended by MAG staff, in concert with federal guidelines calling for public involvement and visualization techniques.

Mission/Goal Statement: Surveys have found that an overwhelming majority of Americans get their news and information through the medium of television over all other forms of media. Through the use of television production equipment and facilities, MAG utilizes its Video Outreach Program to help inform Valley residents of MAG's role and responsibilities in the region and to encourage public participation in the development of MAG plans and programs. These video segments are posted to the MAG website and affiliated sites, YouTube, and distributed to air on city cable channels and other broadcast outlets in order to reach the broadest possible community.

Total Resources Required: $70,000

Approximate time frame for project completion: July 2014-June 2015

Expected Outcome: The MAG Communications Division began its Video Outreach Program in 2007 with the purchase of television production equipment and staff training. Since that time, the program has evolved into a robust outreach program with numerous successful videos produced, resulting in a better informed public regarding MAG's roles and responsibilities in the region. It is anticipated that the continuation of the MAG Video Outreach Program, through the assistance of the MAG Associate, will continue to increase awareness and encourage public participation in the development of MAG plans and programs.

Benefit to MAG Member Agencies: As members of the MAG organization, member agencies play a key role in developing regional policies. The Video Outreach Program provides positive exposure regarding this role and increases the public understanding of local governments' regional responsibilities and accomplishments.

Benefit to the Public: The MAG Video Outreach Program performs an important public service by communicating information about air quality, transportation, and human services issues to the general public, encouraging public participation in the development of MAG plans and programs, and resulting in a better informed and active citizenry.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Communications Division

Project Name: Disability Outreach Associate

Brief Description: Federal transportation law requires that environmental justice be part of any transportation plan to prevent discrimination and to ensure the full and fair participation of minority populations and low-income populations in the transportation decision-making process. MAG implemented the Associate Outreach program in 2001 to provide targeted outreach to Title VI communities, including the disability community. The Disability Outreach Associate serves as a liaison between MAG and the disability community, developing methods to engage the community in the transportation planning process, while achieving high levels of participation from the community and securing participation and promoting activity in the planning and programming process.

Requested by: This project is recommended by MAG staff and also required under MAP-21 Federal Transportation Law.

Mission/Goal Statement: To develop a regional transportation plan that ensures the full and fair participation of all potentially affected communities in the transportation decision-making process, and to ensure that the plan identifies and addresses, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on protected populations, such as the disability community.

Total Resources Required: $18,000

Approximate time frame for project completion: July 2014-June 2015

Expected Outcome: The Associate will work as a liaison between MAG and members of the disability community to provide information and collect feedback to be used in the update of the Regional Transportation Plan. The Plan is designed to develop systems, services and solutions that meet the needs of the public, including disability communities. Input from the disability community leads to better transportation decisions that meet the needs of all people and the creation of transportation facilities that fit harmoniously into communities.

Benefit to MAG Member Agencies: Active public involvement by all affected stakeholders helps strengthen community-based partnerships; helps develop transportation facilities that fit harmoniously into communities; and provides populations with opportunities to learn about and improve the quality and usefulness of transportation in their lives.

Benefit to the Public: Regional transportation solutions that ensure safety and mobility for all while avoiding, minimizing or mitigating disproportionately high and adverse human health and environmental effects, including social and economic effects, on Title VI and other protected populations, such as people with disabilities.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: MAG Regional Transportation Plan On-Call

Brief Description: The next Regional Transportation Plan update represents the next generation and refresh of this important document since its current edition that was adopted by the MAG Regional Council in November 2003. Although there have been updates to the Plan in 2005, 2006, 2008, 2010 and 2013, there has been considerable change in the available funding for regional transportation facilities, greater demands for better transit integration (based upon the successes of light rail transportation), a larger transportation planning area related to expanding MAG's boundaries into Pinal County, designation of Interstate 11 as a new northwest-southeast corridor for the region providing connections throughout the InnerMountain West, and new federal policies significantly expanding the role of performance-based and scenario planning into a region's transportation planning process. New land use and socio-economic data forecasts have also been identified for the region for the 2040 horizon prompting the need to evaluate this growth on the regional transportation system to determine future needs. As part of this effort, a new tool such as Metroquest will be used to enhance the public involvement aspects of the plan. Given these factors, the multi-year planning for the next generation of the MAG Regional Transportation Plan will continue during FY 2015.

Requested by: This project is recommended by MAG staff.

Mission/Goal Statement: Establish the next generation of the MAG Regional Transportation Plan planned for adoption by the MAG Regional Council in FY 2016 through a continuing, comprehensive, and collaborative process.

Total Resources Required: $300,000

Approximate time frame for project completion: July 2014-December 2015

Expected Outcome: During FY 2015, the development of the next generation of the MAG Regional Transportation Plan (RTP) will be completed. Tasks will include the development of the project management plan; identify and implement new tasks to supplement MAG's continued public consent and outreach process; establish the RTP Vision, Goals, and Measures; and complete the data collection and analysis of the following elements: Demographic/socio-economic data; System Performance Inventory; Congestion Management Process/Strategies; Environmental Justice; Environmental Mitigation Process; Freight; Pedestrian/Bicycle planning; Safety; Regional Studies Summary; System Preservation, Maintenance, and Rehabilitation; and Revenue Forecasts. In FY 2015 and FY 2016, the next generation of the Regional Transportation Plan will complete Alternative Analysis based upon a project identification/prioritization process following recommendations from the Congestion Management Plan, the Final Report, and the Adoption process through the MAG Regional Council.

Benefit to MAG Member Agencies: Member agencies rely upon the Regional Transportation Plan and its collective goals and visions to identify their future plans for meeting travel demand within their communities or within the purvey of their agencies. A reliable and reasonably funded transportation system permits all agencies to benefit economically in meeting their general plan's goals and objectives. The document also provides Valley Metro/RPTA, the Arizona Department of Transportation, and federal agencies within the U.S. Department of Transportation a vision for the future of transportation system within the MAG Region as well the anticipated performance of that system to meet the forecasted travel demand.

Benefit to the Public: The MAG Regional Transportation Plan is the cornerstone of transportation planning for the agency. A refreshed, next generation document will reflect the current thinking by the Region about the regional transportation system and through a scenario process that considers multiple congestion mitigation methods, modes of travel, and revenue possibilities based upon land-use and socio-economic data forecasted through 2040. As this process is collaborative, the public will be asked to provide thoughts, ideas, and comments in developing the new RTP. Following adoption, the public will have a document that will identify and prioritize future transportation facilities to assist with their personal mobility planning.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: Transportation Associate

Brief Description: Continue the present MAG Transportation Division Associate position to assist the MAG Senior Engineering Project Manager with the delivery of the Interstate 10/Interstate 17 Corridor Master Plan project and other tasks as required.

Requested by: This project is recommended by MAG staff.

Mission/Goal Statement: The MAG Transportation Associate will provide review and support assistance to the MAG Senior Engineering Project Manager on consultant deliverables for the Interstate 10/Interstate 17 Corridor Master Plan and on other transportation division projects.

Total Resources Required: $80,000

Approximate time frame for project completion: July 2014-June 2015.

Expected Outcome: The MAG Transportation Associate will continue to expedite the deliverable review process provided by the consultant in delivery of the Interstate 10/Interstate 17 Corridor Master Plan and other transportation division project reviews as assigned.

Benefit to MAG Member Agencies: The MAG Transportation Associate provides civil engineering and transportation planning expertise, based upon past experiences with member agencies, in the performance of duties associated with this position.

Benefit to the Public: An expedited review process, provided by this position, enhances MAG's capabilities in delivering transportation planning products and recommendations for timely Regional Council decisions on funding and project delivery matters.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: Bicycle/Pedestrian Associate

Brief Description: The Bicycle/Pedestrian Associate will support the planning and programming team and work on short and long range regional Bicycle and Pedestrian planning issues.

Requested by: This project is requested by MAG staff.

Mission/Goal Statement: The MAG Associate will support the MAG Bicycle and Pedestrian Committee, and also assist with the management of the Bicycle/Pedestrian Design Assistance Program. This will include project oversight for FY 2013 and FY 2014 projects that are currently under contract, and for FY 2015 projects. This associate will also assist with the management of the Off-Street Bicycle Network Wayfinding Guide project, work with the Transportation Planning Project Manager to creating digital media files such as photos, videos, audio recording, and wayfinding instructions for the expansion of the on-line Bikeways Map.

Total Resources Required: $50,000

Approximate time frame for project completion: July 2014-June 2015

Expected Outcome: The Associate will assist the launch, review, and conclusion of the FY 2014/2015 Bicycle/Pedestrian Design Assistance Program that will include review of contracts with consultants and MAG member agencies. The Associate will also assist on the Off-Street Bicycle Network Wayfinding Guide project and will be completed in FY 2015. The work done by the Bicycle/Pedestrian Assoicate will result with an enhanced on-line bikeways map in which the Associate will help create digital media files: photos, videos, audio recording, and wayfinding instructions.

Benefit to MAG Member Agencies: This associate contract will provide the seven bicycle/pedestrian design assistance projects to continue with the same project manager, and that the Bicycles Count study and the Wayfinding study will continue under the leadership of the associate.

Benefit to the Public: This associate contract will support MAG in delivering the multimodal program in the Regional Transportation Plan and the Transportation Improvement Program.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: MAG Bicycle Data Collection Program

Brief Description: In June 2014, MAG completed the MAG Bicycles Count project. Included in this project was an Implementation Plan for continuing data collection and analysis throughout the region beyond the scope of the project. At their December 17, 2013 meeting, the MAG Bicycle and Pedestrian Committee expressed support of the continuation of the bicycle data collection into the future, including the purchase of bicycle counters by MAG for this purpose. MAG and MAG member agencies will utilize the bike counters two ways. First, MAG will continue it's bike count data collection program and deploy counters at 40 of the same locations that were counted in 2013. MAG is proposing to continue the annual counts for a total of 3 years (2013 (complete), 2014, and 2015), and then proceed with either a bi-annual count or continue on an annual basis, as needed. Second, the MAG bike counters will be available on loan to member agencies to do counts and use for their own needs.

The program will contract with a consultant to do the field work for installing/de-installing, quality control, and field checks/fixes the bike counters at approximately 40 locations over eight two-week periods (October/November and April/May). The consultant will install the equipment and perform frequent field checks to ensure the counters are functioning.

Requested by: This consultant project is requested by MAG staff and the MAG Bicycle and Pedestrian Committee.

Mission/Goal Statement: The goal of this project is to continue bike count data collection as recommended in the MAG Bicycles Count Final Report and Implementation Plan, and to provide MAG member agencies with the tools to conduct additional bike counts on an as-needed basis.

Total Resources Required: $40,000

Approximate time frame for project completion: July 2014-June 2015

Expected Outcome: The outcome of this project will be to obtain data on bicycle volumes in the region at approximately 40 locations over two-week periods, in addition to counts at other locations throughout the year as requested. The data will be used to develop year-over-year trends of bicycle usage in the region, as well as before-and-after counts for individual projects, bike-to-transit counts, Road Safety Assessments, and other uses as requested by MAG member agencies. Data may also be utilized for project evaluation during MAG competitive processes for federal funding of projects.

Benefit to MAG Member Agencies: MAG member agencies will have access to data on bicycle travel volumes, both at set locations with year-over-year data, and at other specific locations as requested.

Benefit to the Public: The public will benefit from this project in having access to data about bicycling travel volumes in the region, as well as bicycle volumes at specific local sites as requested.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: Traffic Signal Optimization Program On-Call

Brief Description: The MAG Traffic Signal Optimization Program (TSOP) has successfully completed over 120 projects and has provided services to many MAG jurisdictions. Projects launched through this program will provide technical assistance to member agencies to improve traffic signal coordination, optimization and review of operations through simulation modeling. Future TSOP projects will also provide technical support to develope Integrated Corridor Management (ICM) strategies for freeway-arterial corridors. Assistance will be provided by local consultants hired by MAG through an on-call services contract, with modeling support for ICM projects provided by MAG staff.

This program has been championed by the MAG Intelligent Transportation Systems Program to provide traffic engineering assistance for refining signal operations across the MAG region. It is also one of the strategies identified in the MAG Regional Concept of Transportation Operations. A selected number of these projects will be evaluated through "before" and "after" travel time studies.

Requested by: This projects is recommended by MAG staff and the MAG ITS Committee.

Mission/Goal Statement: The goal of this program is to ensure that the traffic signal operations in the region are efficient, safe and minimize the impact on the environment, and fits well within the overall goals of the MAG RTP.

Total Resources Required: $300,000

Approximate time frame for project completion: July 2014-June 2015

Expected Outcome: The key outcomes of the TSOP projects include improved traffic operations and reduced vehicular emissions. Improvements to traffic operations also lead to secondary benefits in terms of safety improvements. National studies have found that signal optimization projects, such as these, produce benefit to cost ratios as high as 40 to 1.

Benefit to MAG Member Agencies: Ability to adjust signal timing to keep up with changes in traffic patterns due to new developments and traffic growth; and also the ability to delay the need for costly long-term road capacity improvements by improving traffic flow and reducing congestion through fine adjustments to traffic signal operations.

Benefit to the Public: Reduce motorist frustration and unsafe driving by reducing overall stops and delay. Improved traffic flow through coordinated signals, thereby reducing overall emissions and fuel consumption.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: Corridor Safety Management Plan Pilot Project On-Call

Brief Description: This pilot project will develop a Safety Management Plan for one arterial corridor in the region. These plans will be an effective approach to address road safety issues that will be identify and mitigate as part of a corridor-wide safety investigation. This will be similar to a Road Safety Assessment, except that a Safety Management Plan will involve a corridor 3 to 4 miles in length and will determine crash occurrences and also project resource limits. This will also include observations for pedestrian, bicycle, transit and vehicular interactions and safety issues associated with those interactions. The recommendations of this plan will include improvements in all four Es - Engineering, Enforcement, Education and Emergency Medical Services. This will be the first corridor Safety Management Plan to be developed by MAG and will address all forms of transportation, including pedestrians (with and without disabilities), bicyclists, transit and vehicles.

Requested by: This project is recommended by MAG staff and the MAG Transportation Safety Committee.

Mission/Goal Statement: The goals of conducting a Safety Management Plan Pilot Project are to provide technical assistance to local agencies in identifying potential safety countermeasures that could be implemented on one arterial corridor that experiences high crash occurrence, selected based on; reported crash data; and also will establish a methodology for developing a Corridor Safety Management Plan that local agencies could utilize to investigate corridors of high crash risk and identify effective countermeasures.

Total Resources Required: $200,000

Approximate time frame for project completion: September 2014-June 2015

Expected Outcome: The development of a Safety Management Plan will identify low cost road safety improvements that local agencies can address within a short time. The countermeasures may include both infrastructure improvements that could compete for HSIP funds and also non-infrastructure improvements that may compete for MAG Transportation Alternatives funds.

Benefit to MAG Member Agencies: Assistance to MAG member agencies in the identification of road safety issues. Preparation of projects for high priority road safety improvements that could compete for federal funds.

Benefit to the Public: Road safety improvements and the resulting reductions in crashes, injuries and deaths.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: Federally Funded Safety Improvements On-Call

Brief Description: Most of the vehicle accidents in the MAG region, that result in injuries and deaths, occur on roads that are owned by local jurisdictions. Local agencies look to federal assistance for planning and implementing road safety improvements. Federal Highway Safety Improvement Program (HSIP) funds are available for such improvements through two sources: (1) HSIP funds suballocated to the MAG region and programmed for projects by MAG; and (2) HSIP funds programmed for projects by ADOT. The documentation of the many processes and added clarity regarding project applications, programming, obtaining eligibility for federal funds etc. would be very helpful to both local agencies and MAG. This consultant project will clearly document all relevant processes for road safety project application, review, approval and implementation of federally funded road safety improvement projects in local jurisdictions. It is anticipated that the result will clearly define the process to help improve the overall efficiency of planning and implementing road safety improvements that qualify for federal funds. This outcome will help both the state and the MAG region to reach MAP-21 goals for reducing deaths and serious injuries.

Requested by: This project is recommended by MAG staff and the Transportation Safety Committee.

Mission/Goal Statement: The goal of this project is to define the current process for seeking federal funds for implementing road safety improvements in local jurisdictions. This will be carried out in consultation with ADOT and FHWA.

Total Resources Required: $25,000

Approximate time frame for project completion: July 2014-November 2014

Expected Outcome: A clear document that will define and map all the related processes for planning and implementing road safety improvements in local jurisdictions with federal funds. This will address obtaining federal funds (MAG HSIP or statewide HSIP) to obtain ADOT and FHWA approvals for project eligibility and implement the projects either through ADOT or by local agencies.

Benefit to MAG Member Agencies: The document will be helpful to both MAG and local agencies in streamlining the project programming process.

Benefit to the Public: Faster delivery of road safety improvement projects.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: Road Safety Assessments and Project Assessments On-Call

Brief Description: A select number of Road Safety Assessments (RSAs) and Project Assessments (PAs) will be executed for a list of intersections and arterial corridors that experience high crash occurrences. These locations will be identified by a comprehensive network screening process that will include a 3-year review of road network crashes, and also by local agency facilities recommendations.

Requested by: This project is recommended by MAG staff and the MAG Transportation Safety Committee.

Mission/Goal Statement: The goals of performing Road Safety Assessments and developing Project Assessments are to: 1) Provide technical assistance to local agencies in identifying potential safety countermeasures that could be implemented at locations that experience high crash occurrence or at sites where the safety of road users has been identified as an agency concern; 2) Assist local agencies in further developing safety countermeasures identified through RSAs or similar studies into projects that would qualify to receive federal Highway Safety Improvement Program funds for implementation.

Total Resources Required: $300,000

Approximate time frame for project completion: January 2015-June 2015

Expected Outcome: The performance of RSAs will identify low cost road safety improvements that local agencies can address within a short time. The PAs will help define infrastructure improvements, based on recommendations in previous MAG or agency funded RSAs, that would position these as candidate projects to compete for statewide HSIP funds.

Benefit to MAG Member Agencies: Assistance to MAG member agencies in the identification of road safety issues. Preparation of projects for high priority road safety improvements that could compete for HSIP funds.

Benefit to the Public: Road safety improvements and reductions in automobile crashes, injuries and deaths.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Transportation Division

Project Name: Users Manual for RTSIMS Software On-Call

Brief Description: The RTSIMS software was developed by MAG for the purpose of performing crash data analysis to gain a good understanding of crash causation and crash risk and to identify appropriate countermeasures. The software was developed with built-in ability to allow authorized staff at MAG member agencies gain access to the software via the internet for performing crash data analysis. One of the essential steps priori to making the software available to local agencies is the development of a good Users Manual. The current Users Manual was developed in-house by MAG staff and needs to be improved.

Requested by: This project is request by MAG staff and the MAG Transportation Safety Committee.

Mission/Goal Statement: The goals of developing a comprehensive User's Manual for the RTSIMS software are: to enable users of the software to better understand how to gain the maximum use from it; and to help distribute the software to all interested MAG member agencies, so that agency staff can perform their own crash data analysis.

Total Resources Required: $30,000

Approximate time frame for project completion: July 2014-December 2014

Expected Outcome: This project will produce a Users Manual for the RTSIMS software.

Benefit to MAG Member Agencies: The availability of a Users Manual for RTSIMS will help all end users of the software learn how to use RTSIMS..

Benefit to the Public: Local agencies gain insights to road safety issues and required improvements and the resulting reductions in crashes, injuries and deaths.

DRAFT MAG FY 2015 UPWP
Proposed New Projects

Information Services Division

Project Name: MAG Data and GIS Consultant Support On-Call

Brief Description: MAG is in the process of collecting geospatial data that is needed for socioeconomic modeling activities. Much of this data, including seasonal transient population, mobile home and RV park population, and other data sources to support modeling and analysis, are not available from commercial sources and must be collected and compiled and subsequently maintained and disseminated to MAG member agencies and the public by MAG staff. The development and maintenance of these geospatial data will be made more efficient and of higher quality with consultant support to provide data collections, technical guidance, custom tools, and procedures to Information Services staff. Consultant projects that will be undertaken also include the development of an online land use analysis tool that will better enable MAG member agencies to review land use data sets and understand implications of changes to general plans for population and employment. These land use data sets are an essential input the socioeconomic modeling tools (AZ-SMART). Additional enhancements to the MAG employer database to ensure streamlined data maintenance will also be undertaken in this project.

Requested by: This project is recommended by MAG Staff.

Mission/Goal Statement: The support provided to MAG thorough on-call consultant contracts will ensure the collection and development of timely and accurate geospatial data in order to support the MAG socioeconomic and transportation models, and better enable Information Services staff to maintain and disseminate these data to the MAG member agencies and the public.

Total Resources Required: $150,000

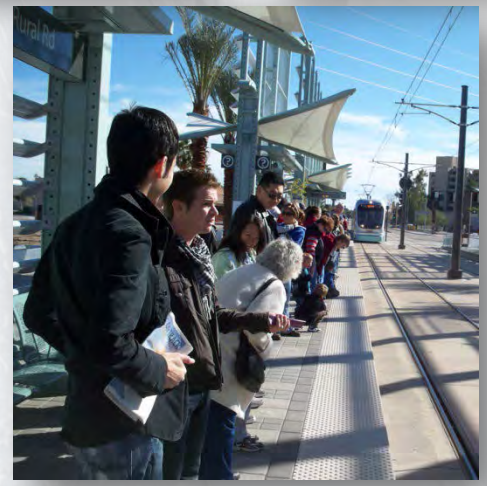
Approximate time frame for project completion: July 2014-December 2015

Expected Outcome: Updated socioeconomic data sets for use in regional analysis and as a basis for long term projections. Documented methods for collecting and maintaining these data in subsequent years. Support for the development of online tools that provide a rich analytical framework for member agencies to better understand their own data.

Benefit to MAG Member Agencies: Regional data sets developed or enhance under this project will be used by MAG member agencies and are essential for projections developed by Information Services and supporting the MAG transportation modeling and planning activities.

Benefit to the Public: Datasets enhanced or developed under this contract will enable MAG and MAG member agencies to enhance their long range planning efforts and also allow them to provide better information to MAG and the public. The software tools developed will aide the member agencies in making decisions regarding the future development of the communities of the MAG Region.

2013/2014 MAG Transportation Survey Topline Results



MARICOPA ASSOCIATION of GOVERNMENTS

MAG Transportation Survey Timeline

Questionnaire Development Phase

- Regional Council: October 23rd
- Online discussion bulletin boards: Early November
- Stakeholder Meeting: November 20th

Quantitative Data Collection/Analysis Phase

- Finalized survey instrument: November 26th
- Data Collection: December 4th to December 31st
- Top line: Second week of January 2014
- Full report: End - January 2014

Sample – MAG Region High Efficacy Voters

- High efficacy voter = voted at least three times in the last five elections (every two years, does not include local elections).
- Voters between the ages of 18 to 24 were required to have voted at least once.
- As a result of specifically targeting high efficacy voters, the demographic makeup of the sample skews *1) older in age and 2) Caucasian*, compared to a representative sample of all residents in the region or registered voters.

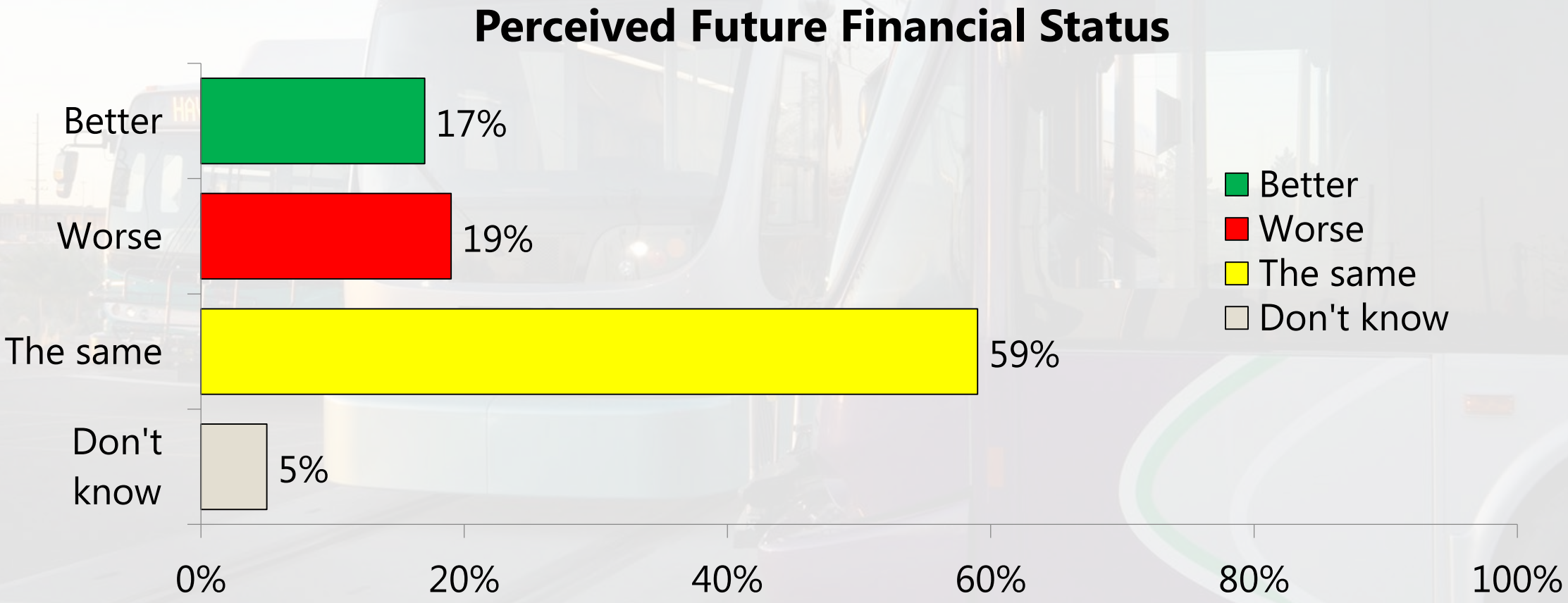
Demographics and Respondent Background

Demographic Category	Total n=602
Gender	
Male	49%
Female	51%
Ethnicity	
Caucasian	82%
Hispanic	3%
African American	2%
Asian	2%
Other	6%
Refused	7%
Education level	
College degree or higher	50%
Some college	34%
High school or less	13%

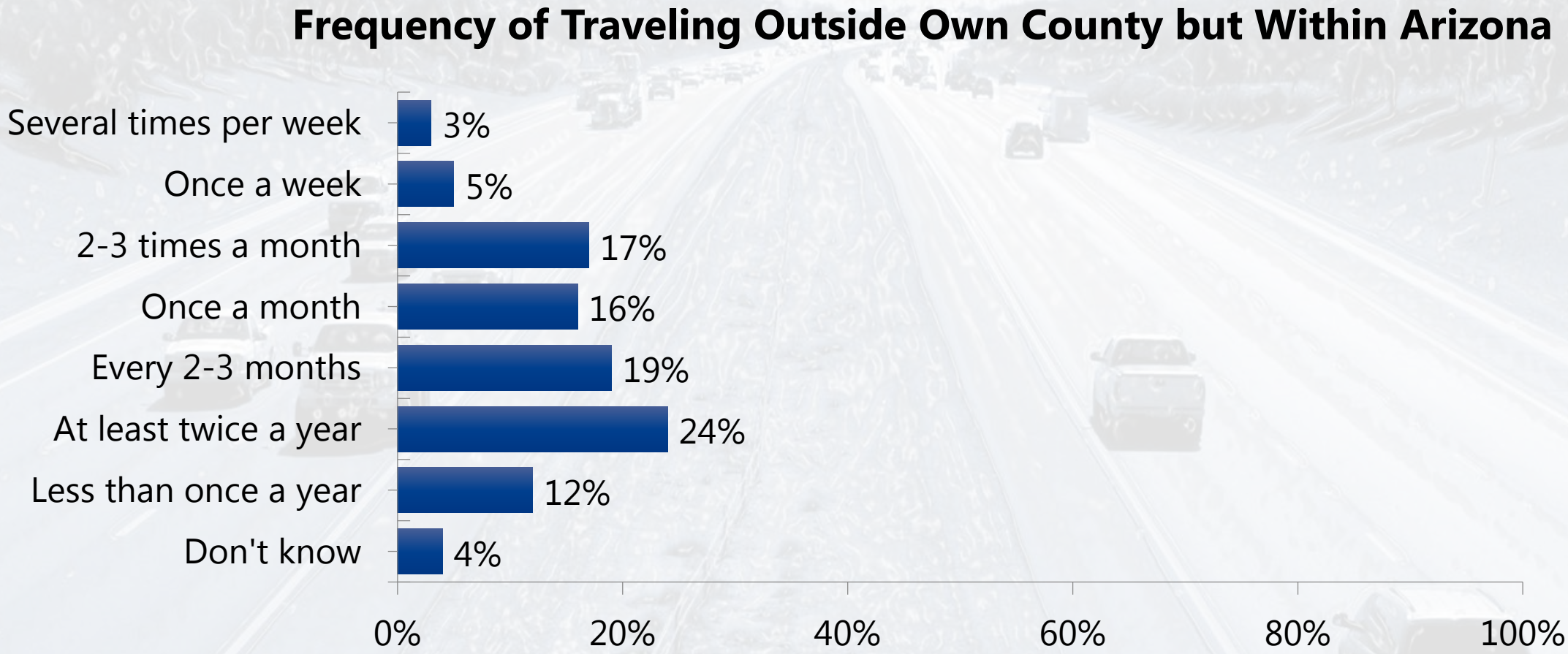
Demographics and Respondent Background

Demographic Category	Total n=602
Age	
Under 55	32%
55 and over	68%
Political Affiliation	
Republican	48%
Democrat	30%
Independent	8%
Other	15%
Annual Household Income	
Under $50K	29%
$50K-$100K	28%
Over $100K	20%
Refused	22%

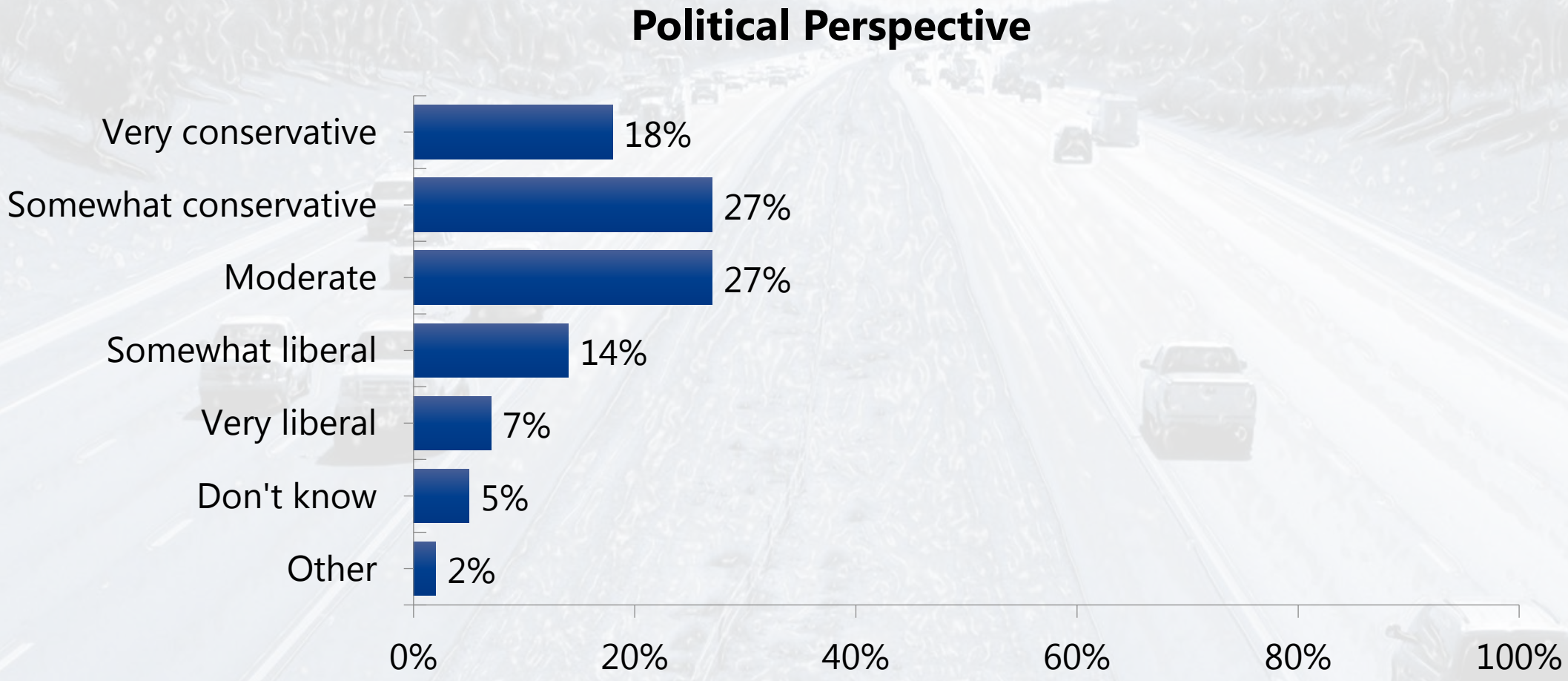
D1. Thinking about the future, do you think you/your family will be in a better or worse financial place next year or will it remain the same?



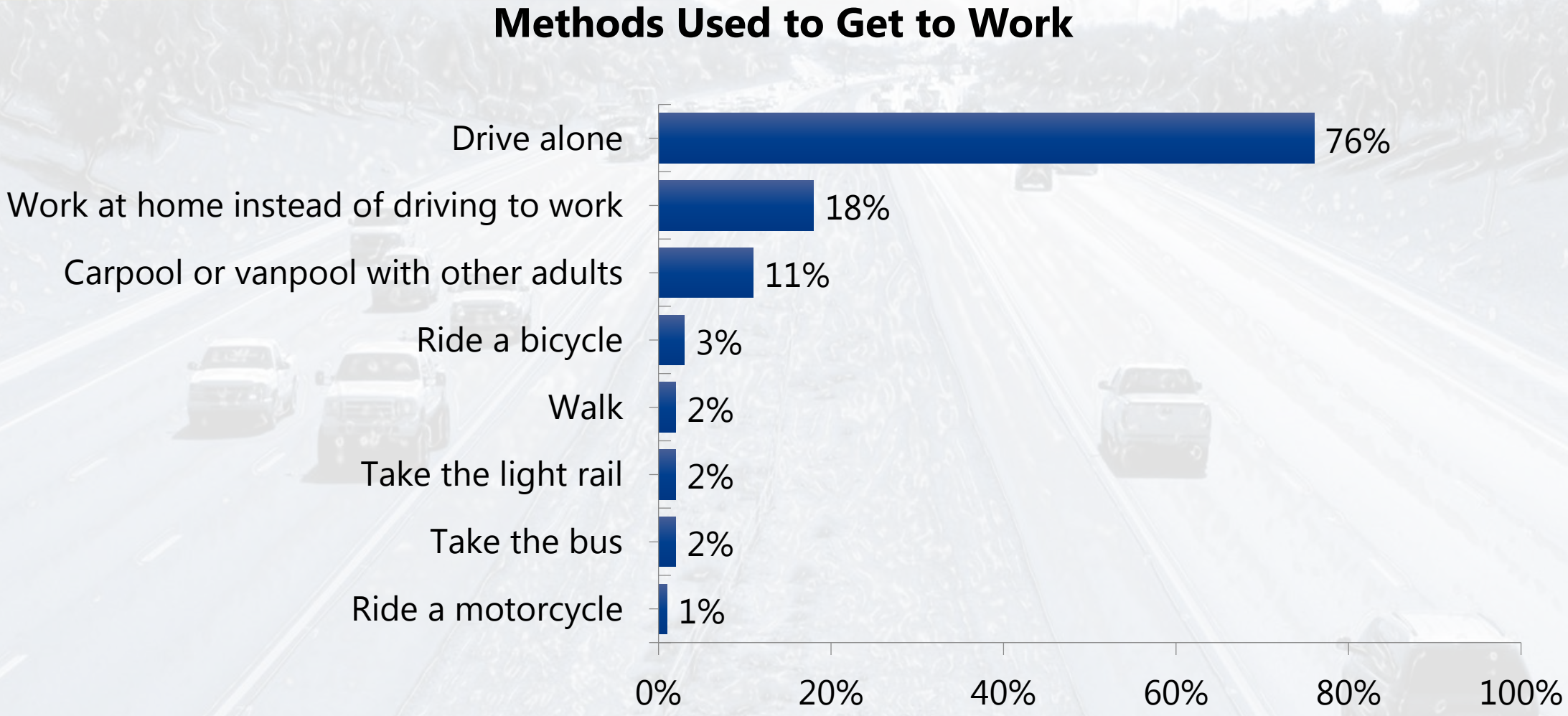
D2. How often do you travel within the state of Arizona, but outside of your county of residence? Would you say…



D3. Which of the following best describes your political perspective? Would you say…

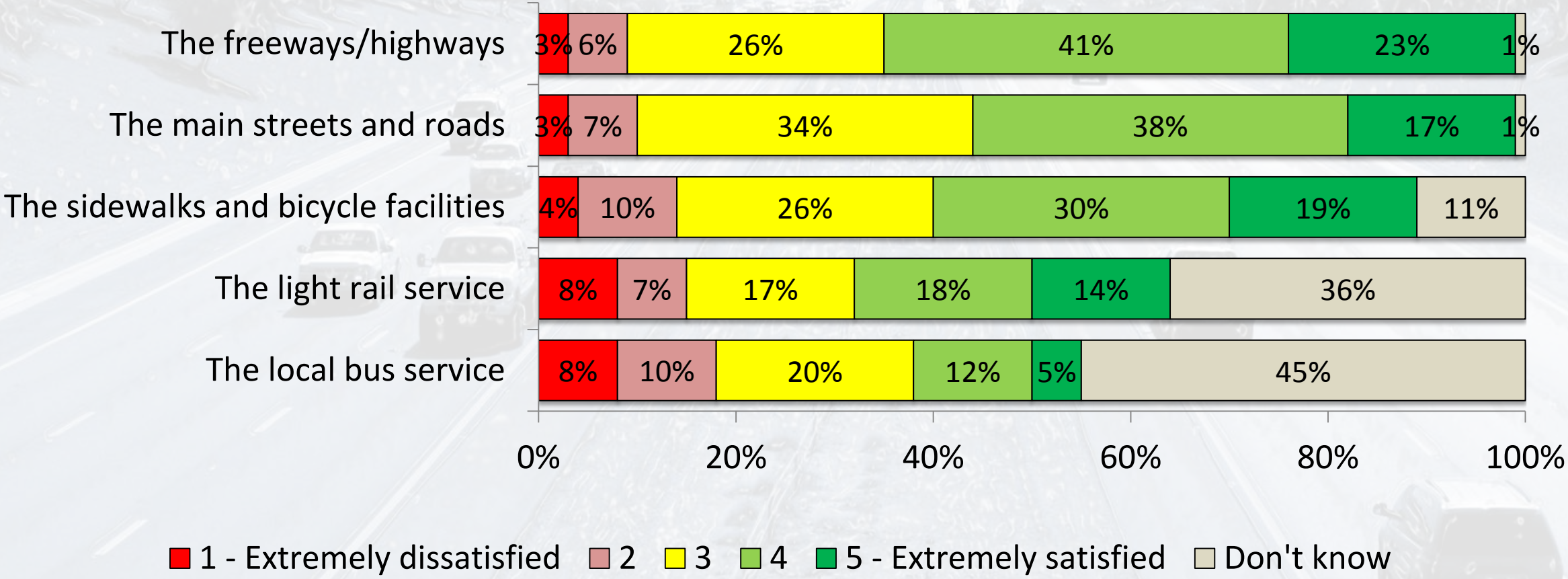


Q3. During a typical week, which of the following methods do you use to get to work? Do you . . . .?



MARICOPA ASSOCIATION of GOVERNMENTS

Q1. Using a scale of 1 to 5, where 1 means extremely dissatisfied and 5 means extremely satisfied, how satisfied are you with each of the following components of the transportation system in the greater Phoenix area. To start, how satisfied are you with. . .?

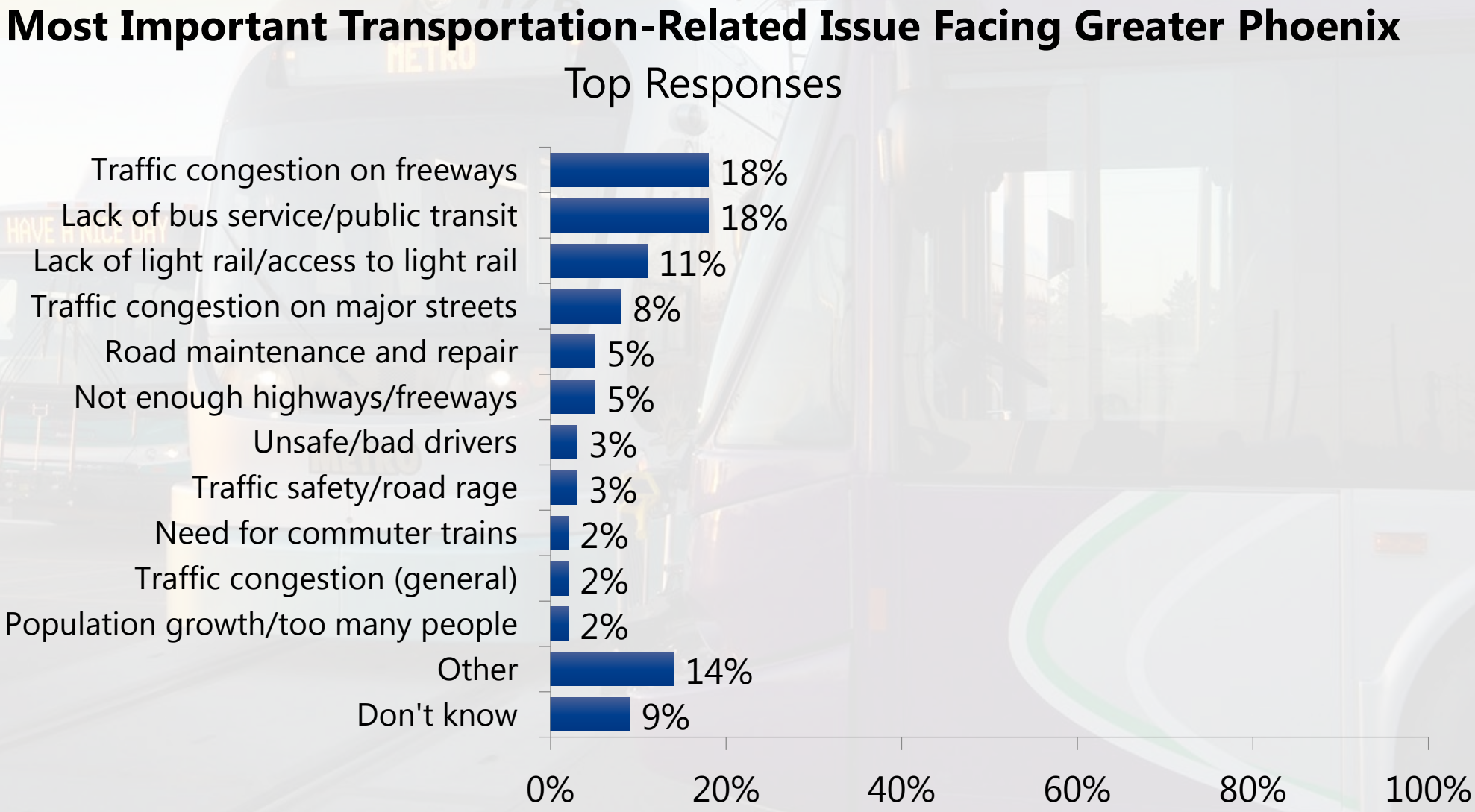


Satisfaction with Components of the Greater Phoenix Transportation System by County (%Top-Two Ratings)

Component	Total n=602	County	
		Maricopa n=552 A	Pinal n=50 B
The freeways/highways	64%	64%	60%
The main streets and roads	55%	**55%[B]**	**36%**
The sidewalks and bicycle facilities	49%	48%	42%
The light rail service	32%	32%	30%
The local bus service	17%	17%	12%

[AB] Indicates significant statistical difference in comparison to other sub-group(s) at the 95% confidence level

Q2. What do you think is the ONE most important transportation-related issue or problem in the greater Phoenix area today? (Open Ended)



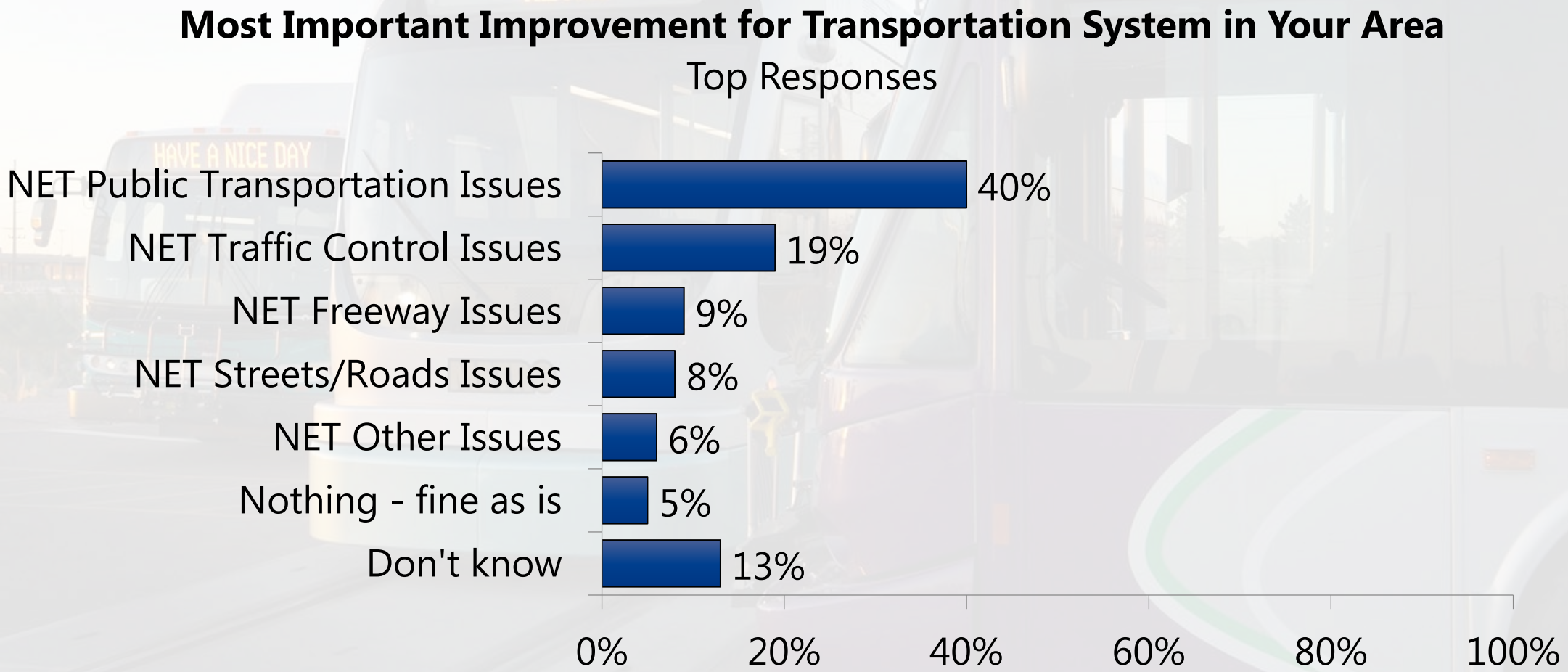
MARICOPA ASSOCIATION of GOVERNMENTS

ONE most important transportation-related issue or problem with Historical 2008 Data for Reference

Most Important Issues Mentioned	2013 n=602	Most Important Issues Mentioned (Note: Code list not precisely the same as in 2013)	2008 (statewide) n=736
Traffic congestion on freeways	18%	Lack of public transit	30%
Lack of bus service/public transit	18%	Gas prices	15%
Lack of light rail/access to light rail	11%	Not enough highways/freeways	12%
Traffic congestion on major streets	8%	Traffic congestion (general)	11%
Road maintenance and repair	5%	Road maintenance and repair	4%
Not enough highways/freeways	5%	Pollution	3%
Unsafe/bad drivers	3%	Population growth/too many people	3%
Traffic safety/road rage	3%	Not enough roads/small roads	2%
Need for commuter trains	2%	Lack of funding	2%
Traffic congestion (general)	2%	Need for commuter trains	2%
Population growth/too many people	2%	Poor planning	2%
Other	14%	Other	6%
Don't know	9%	Don’t know	8%

*Due to variations in comment code-lists between years, and demographic differences of sample composition between years, historical data provided is for reference only and not for statistical comparison.

Q4. What do you feel is the ONE most important thing that could be done to improve transportation problems in your area? (Open Ended)



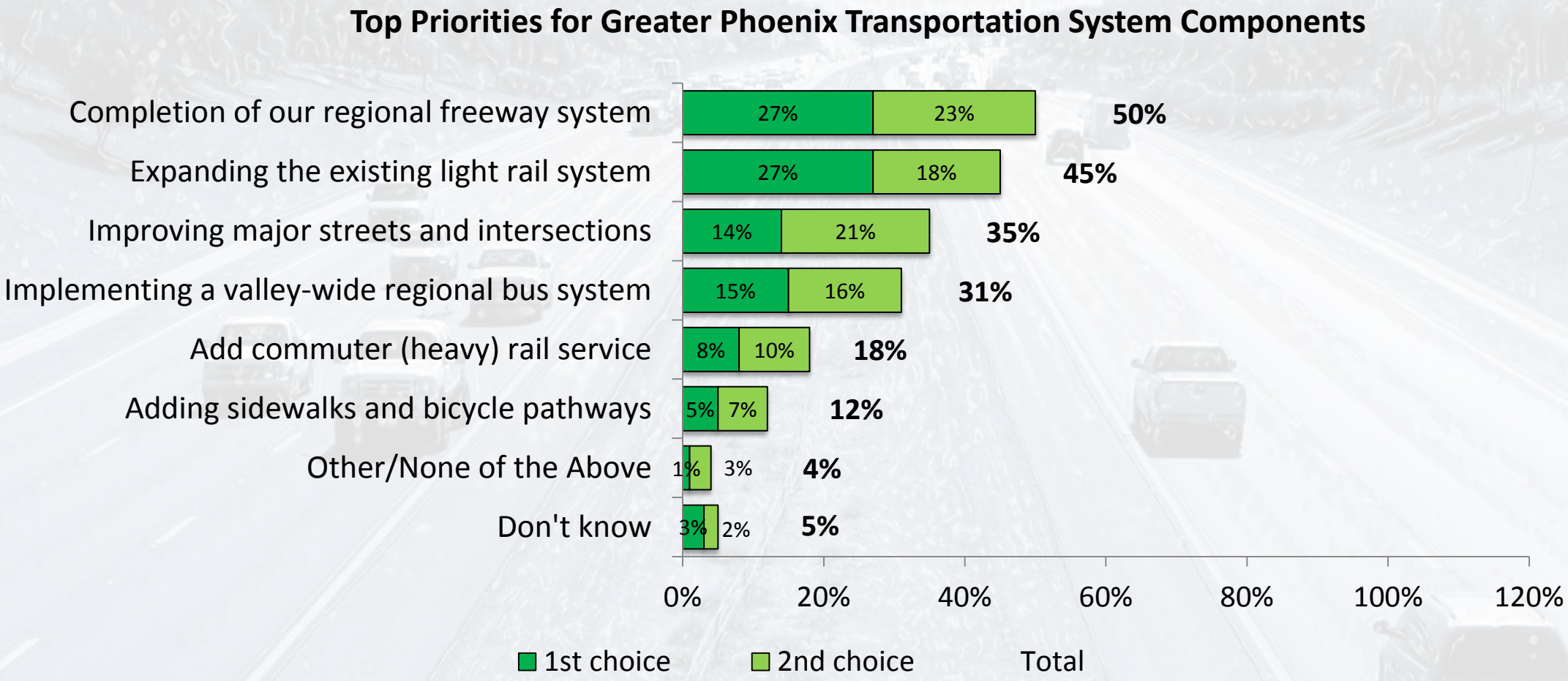
Q4. What do you feel is the ONE most important thing that could be done to improve transportation problems in your area? (Open Ended)

Improvements	Total n=602
NET Public Transportation Issues	40%
Top Individual Public Transportation Comments	
Light rail	13%
Expand bus coverage	12%
More frequent bus service	6%
Improve/need more	5%
Commuter rail	1%
More stops, closer	1%
Longer hours of service	1%
Encourage people to use public transit	1%

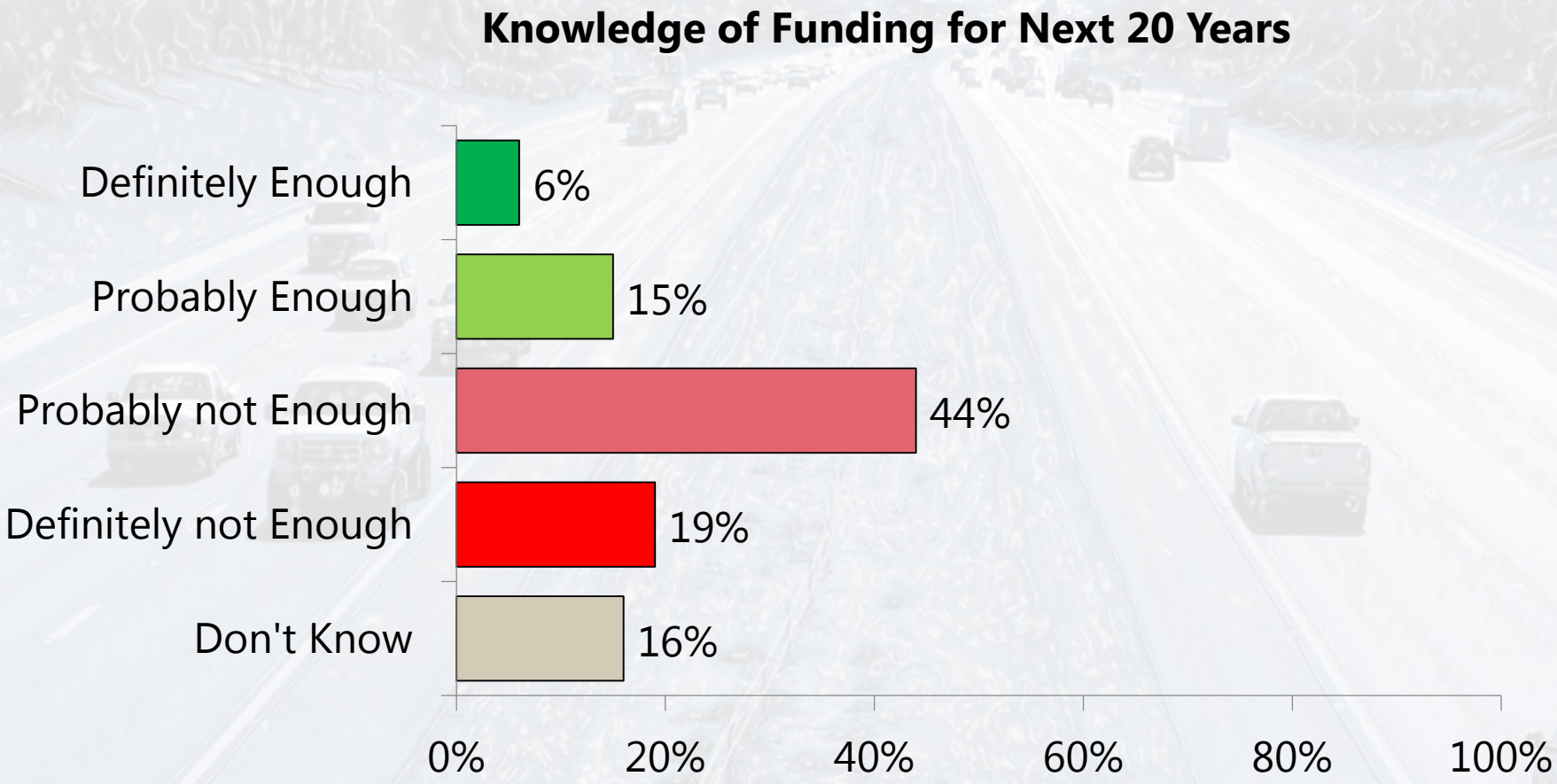
Q4. What do you feel is the ONE most important thing that could be done to improve transportation problems in your area? (Open Ended)

Improvements	Total n=602
NET Traffic Control Issues	19%
Top Individual Traffic Control Comments	
Better traffic control	4%
Synchronize lights	4%
More traffic lights	3%
Better law enforcement/police patrol	3%
More carpooling/encourage people to use carpool/bike/walk	2%
Control growth	1%
Sidewalks /bike paths	1%
Better planning	1%

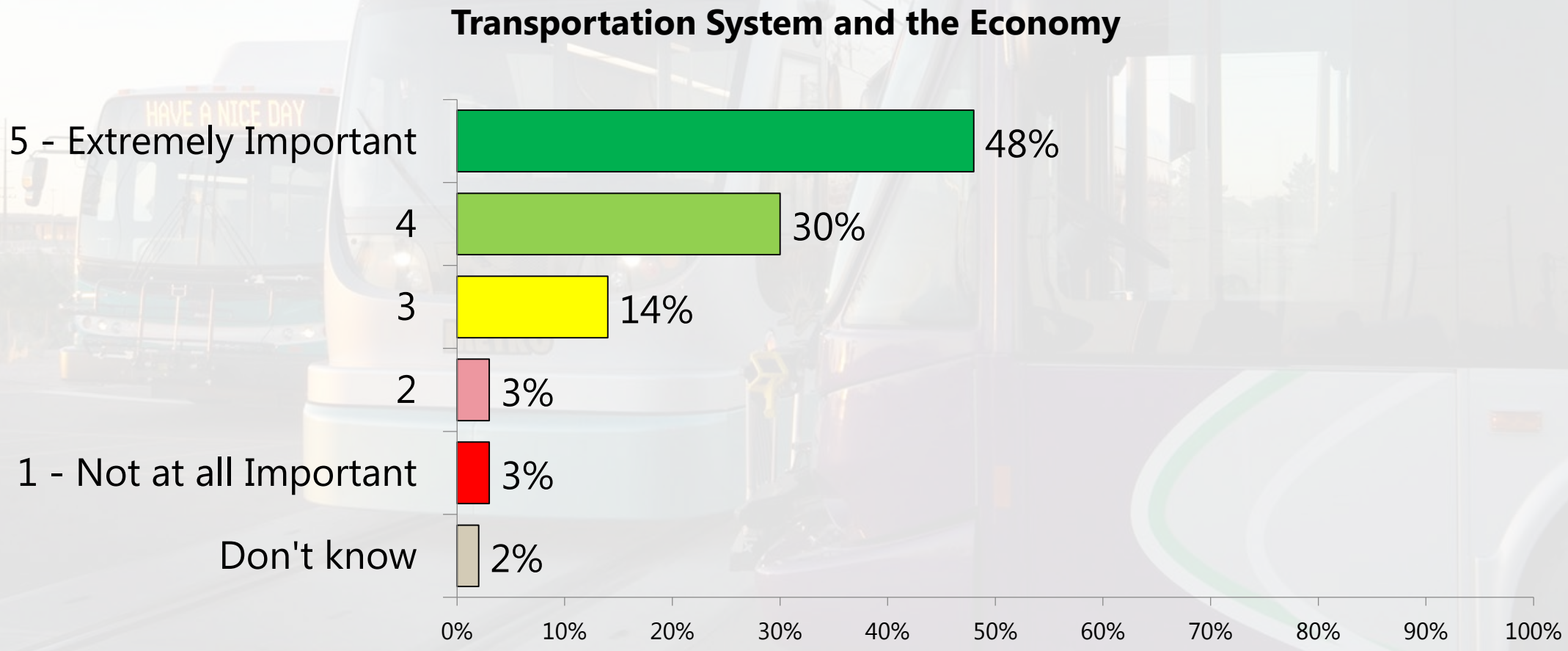
Q5. Of the following six components of the transportation system, which one do you think should be the number one priority for the greater Phoenix area? Of the remaining items, which one should be the second highest priority?



Q6. Next, as far as you know, is there definitely, probably, probably not, or definitely not enough funding available to cover needed transportation improvements in the greater Phoenix area over the next 20 years?



Q7. How important is the regional transportation system for the Greater Phoenix area's economy? Please use a 1 to 5 scale where 1 means not at all important and 5 mean extremely important.

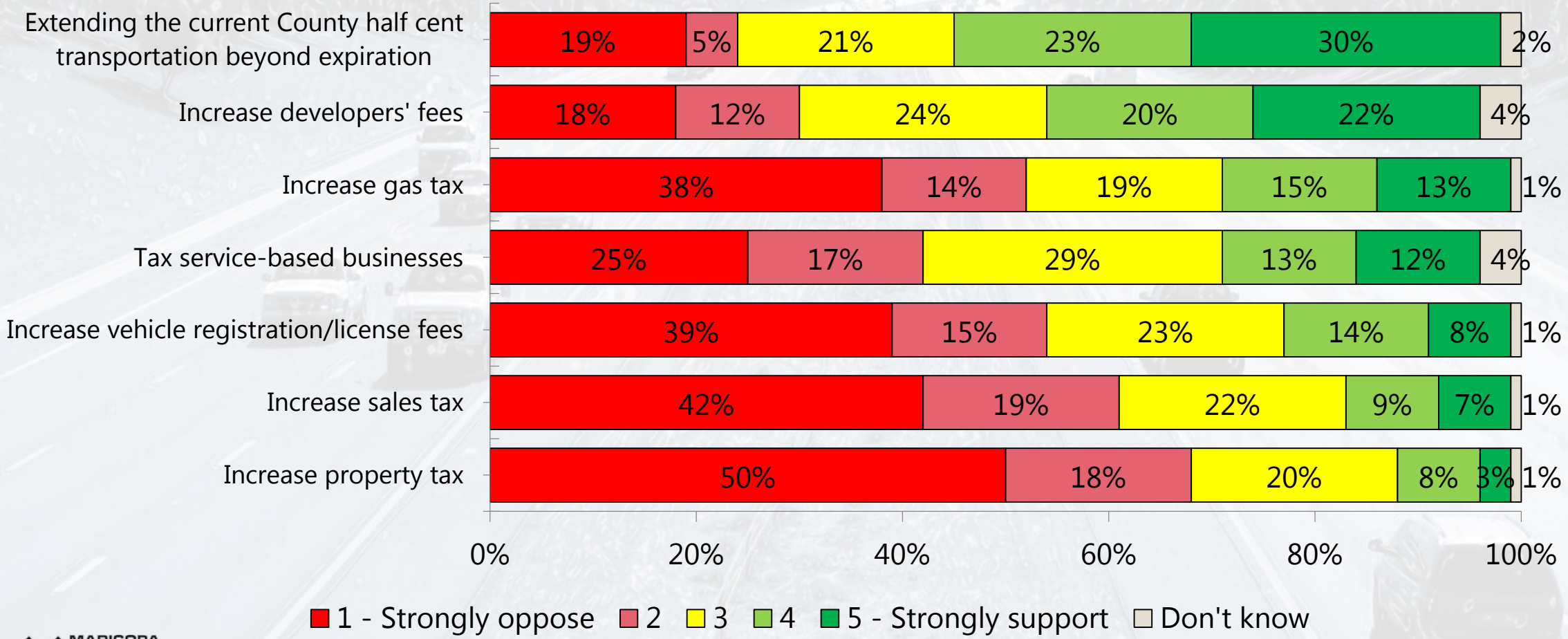


Preamble

I am going to read some information to you and then ask you some questions based on this information.

Our transportation system primarily relies on gas taxes and dedicated sales taxes for funding. The Arizona gas tax has been 18 cents a gallon since 1991, which means that the purchasing power of the gas tax is almost 60 percent less due to inflation and increased fuel economy. The 20-year transportation sales tax for Maricopa County, which ends in 2025, is expected to generate 40 percent less than projected due to the recession. Because of lower revenue, maintenance and expansion of major parts of the regional transportation system have been delayed indefinitely.

Q8. Based on that information, using a 1 to 5 scale where "1" means you "strongly oppose" an option and "5" means you "strongly support" an option, please rate your level of support for each proposed funding option to improve the transportation system in the greater Phoenix area.



MARICOPA ASSOCIATION of GOVERNMENTS

Support for Potential New Revenue Streams in Greater Phoenix by Political Persuasion (% - (4)Somewhat and (5)Strongly Support)

Support for Potential New Revenue Streams (NET 4-5 ratings)	Total n=602	Political Persuasion		
		Very/somewhat conservative n=273 A	Moderate n=164 B	Very/somewhat liberal n=127 C
Extending the current County half cent transportation tax beyond 2025 when it expires	53%	48%	56%	67%[A]
Increase developers' fees	42%	34%	40%	60%[AB]
Increase the Arizona gas tax	28%	20%	32%[A]	44%[AB]
Tax service-based businesses	25%	19%	23%	44%[AB]
Increase vehicle registration/license fees	22%	17%	28%[A]	28%[A]
Increase sales tax	16%	13%	17%	24%[A]
Increase property tax	11%	9%	11%	17%[A]

[ABC] Indicates significant statistical difference in comparison to other sub-group(s) at the 95% confidence level

Support for Potential New Revenue Streams in Greater Phoenix by Q7 (% - (4)Somewhat and (5)Strongly Support)

Potential New Revenue Stream	Total n=602	Q7 – Perceived Importance of Transportation System to Economy	
		"1 – Not at all Important" to "3" Ratings n=121 D	"4 to "5 – Extremely Important" Ratings n=472 E
Extending the current County half cent transportation tax beyond 2025 when it expires	53%	38%	58%[D]
Increase developers' fees	42%	26%	46%[D]
Increase the Arizona gas tax	28%	14%	32%[D]
Tax service-based businesses	25%	17%	28%[D]
Increase vehicle registration/license fees	22%	8%	25%[D]
Increase sales tax	16%	6%	19%[D]
Increase property tax	11%	6%	13%[D]

[DE] Indicates significant statistical difference in comparison to other sub-group(s) at the 95% confidence level

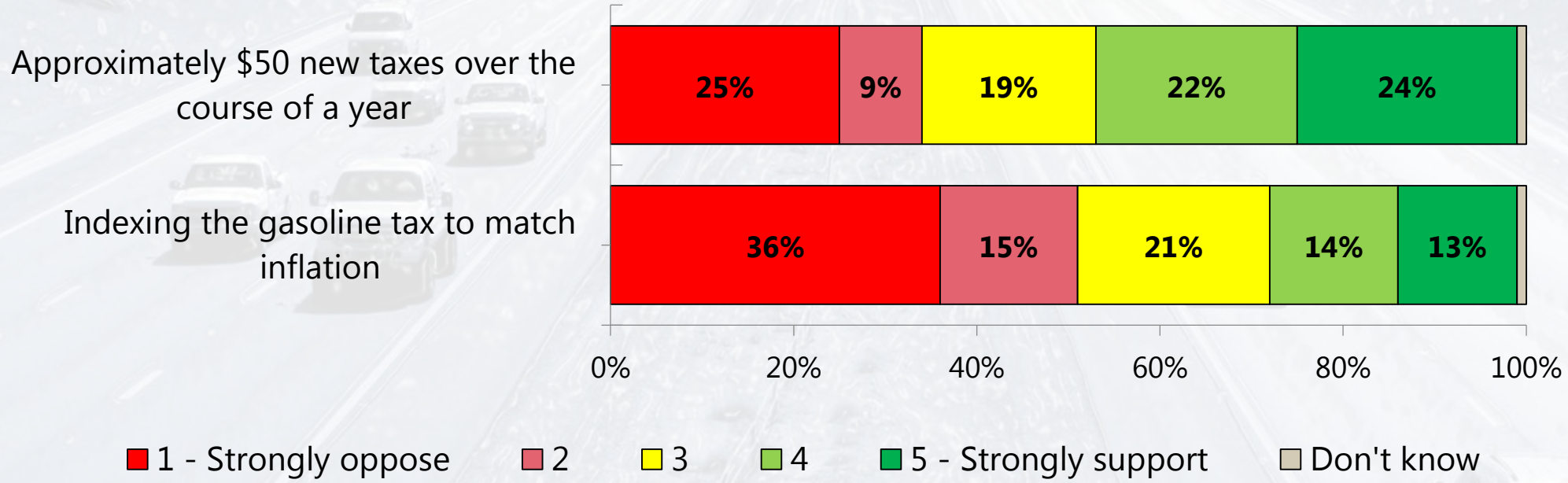
Support for Potential New Revenue Streams in Greater Phoenix with Historical 2008 Data for Reference (% - (4)Somewhat and (5)Strongly Support)

Potential New Revenue Stream	2013 n=602	Proposed Revenue Stream	2008* (Maricopa County) n=367-369
Extending the current County half cent transportation tax beyond 2025 when it expires	53%	N/A	N/A
Increase developer fees	42%	Increase developer fees	57%
Increase the Arizona gas tax	28%	N/A	N/A
Increasing the businesses that are taxed to include service based businesses	25%	Broaden the base of sales tax into areas that do not currently charge it	35%
Increase vehicle registration/ driver's license fees	22%	Increase vehicle license fees	19%
Increase sales tax	16%	Increase statewide sales tax	24%
Increase property tax	11%	Increase statewide property taxes	12%

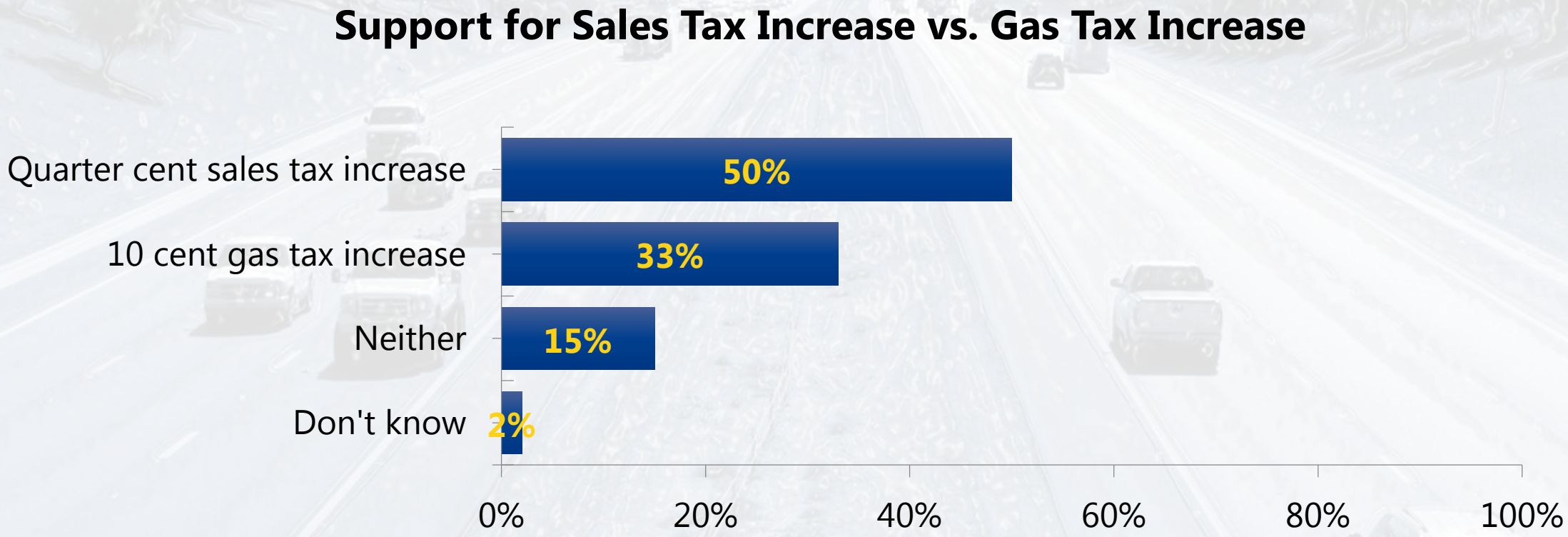
*Due to variations in wording between years, and demographic differences of sample composition between years, historical data provided is for reference only and not for statistical comparison.

Q9. Using the same 1 to 5 scale, please rate your level of support for an increase in the taxes dedicated for transportation improvements if it would result in you paying approximately $50 more in taxes spread across the course of a year.

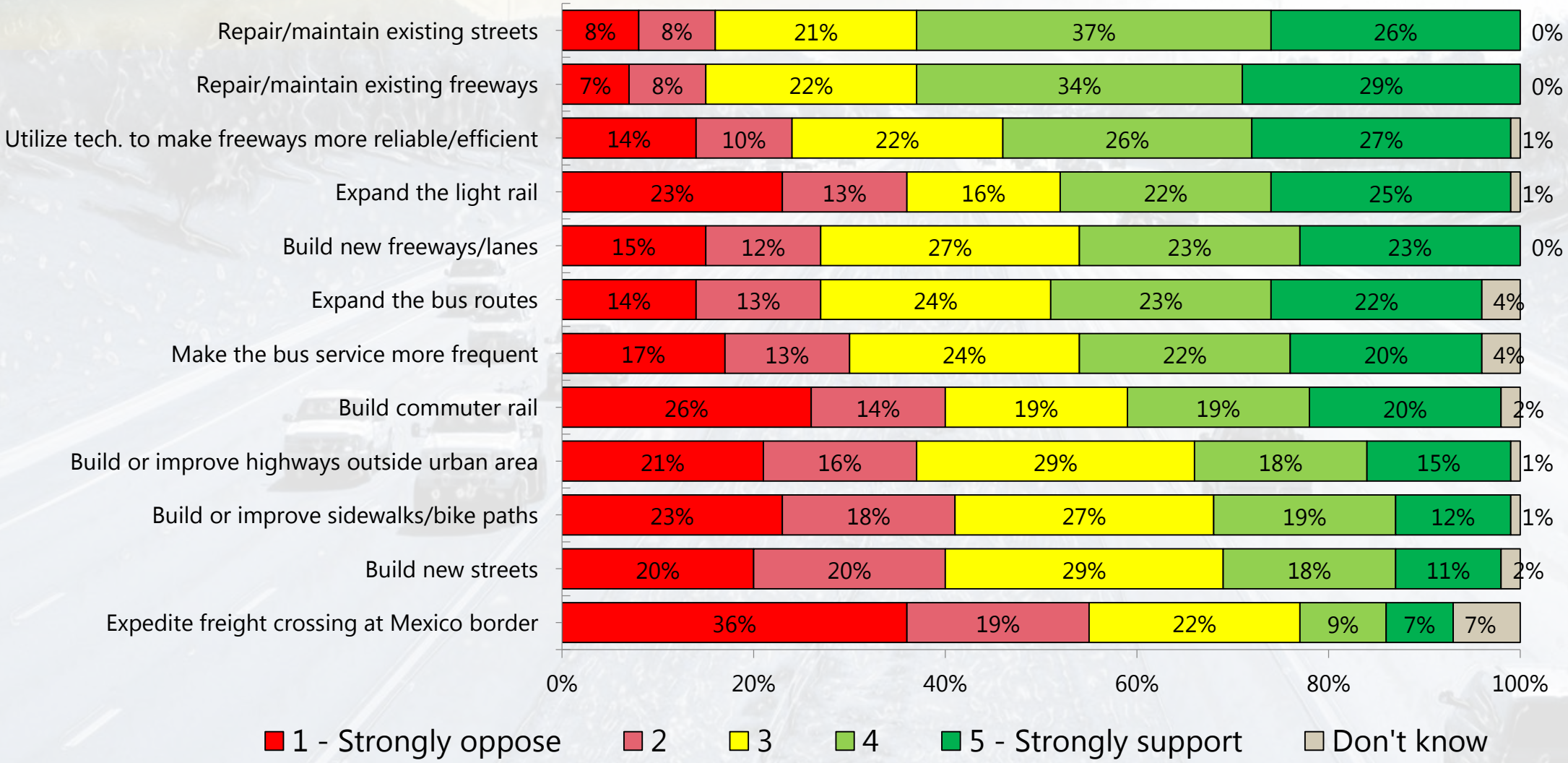
Q10. Again, using the same 1 to 5 scale, please rate your level of support for increasing the gas tax each year in the future to match the general inflation rate in order to fund transportation system improvements.



Q11. If you had a choice of paying this $50 more per year in the sales tax or gas tax, which is about a quarter of a cent increase in sales tax or a 10 cent increase per gallon in gas tax, which tax would you prefer?



Q12. Using a 1 to 5 scale where "1" means "not at all supportive" and "5" means "very supportive," how supportive of additional taxes or fees would you be if the money would be used to…



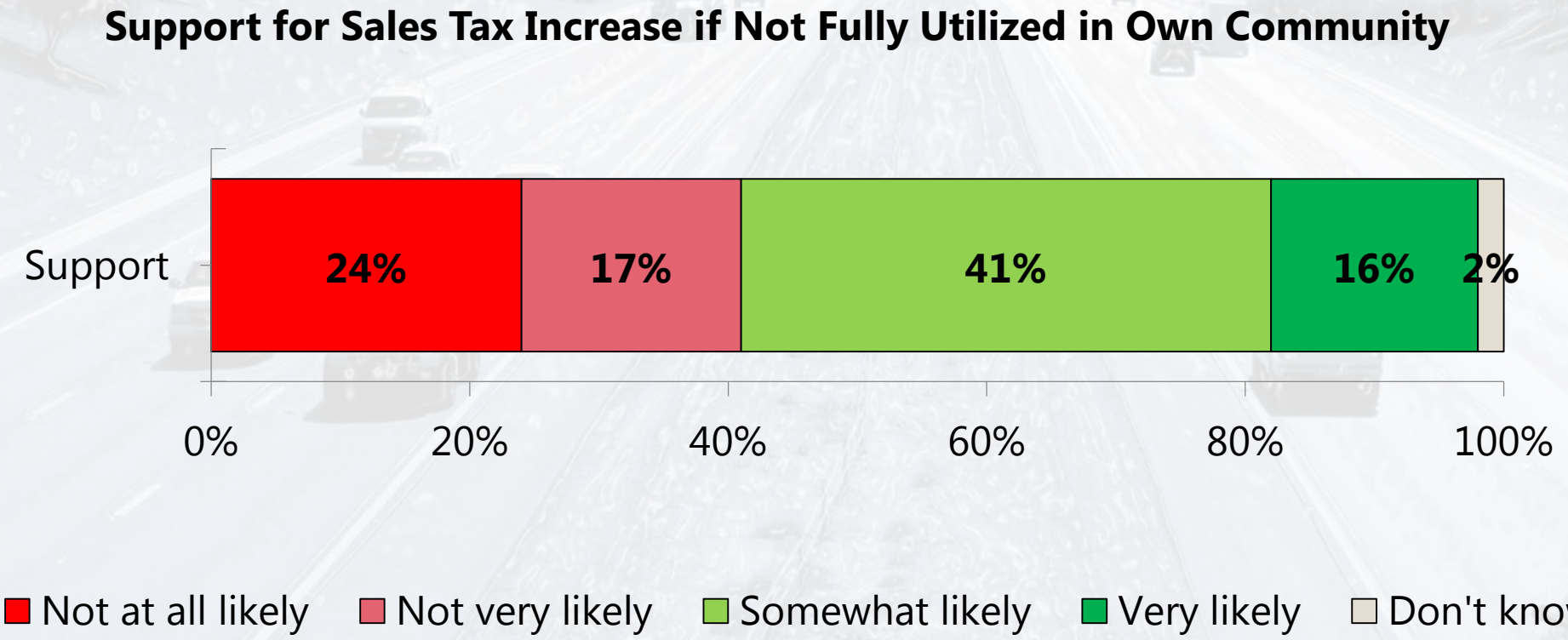
MARICOPA ASSOCIATION of GOVERNMENTS

Support for Proposed Usage of Additional Fees
Political Persuasion - (% - (4)Somewhat and (5)Strongly Support)

Proposed Usage of Additional Fees	Total n=602	Political Persuasion		
		Very/somewhat conservative n=273 A	Moderate n=164 B	Very/somewhat liberal n=127 C
Repair, rebuild, and maintain existing streets	63%	58%	66%	69%[A]
Repair, rebuild and maintain existing freeways	63%	60%	66%	66%
Utilize technology to make freeways more reliable/efficient	53%	46%	58%[A]	64%[A]
Expand the light rail	47%	29%	56%[A]	71%[AB]
Build new freeways/freeway lanes	46%	45%	45%	51%
Expand the bus routes	45%	33%	52%[A]	62%[A]
Make the bus service more frequent	42%	30%	42%[A]	64%[AB]
Build commuter rail	39%	25%	45%[A]	65%[AB]
Build new or improve highways outside the urban area	33%	30%	35%	41%[B]
Build or improve sidewalks and bicycle lanes/paths	31%	22%	34%[A]	47%[AB]
Build new streets	29%	30%	33%	24%
Expedite freight crossings at the Mexico border for easier freight movement	16%	9%	24%[A]	24%[A]

[ABC] Indicates significant statistical difference in comparison to other sub-group(s) at the 95% confidence level

Q13. How likely are you to support a tax increase if all of the money is used for regional transportation projects that may not be in your community?



Conclusions

- Voters don't appear to support any new taxes/fees
- Voters not overwhelmingly ready to support the extension of the existing ½ cent sales tax.
- Little interest/support for increasing the gas tax
- Many "undecided" or "middle of the road" = room for education
- Majority of the voters understand the link between transportation and the economy
- *This can be the foundation to build the case for the need for additional funds*

Conclusions

- Many responses emphasized the need for public transportation improvements

- Satisfaction was high with freeways and roads/streets, but voters want additional funding to improve and maintain the existing freeways and streets.

- While improved public transportation is important by voters, they also recognize the importance of maintaining the existing roads.

Eileen Yazzie, MAG

eyazzie@azmag.gov

(602) 452-5058

Kathy DeBoer, WestGroup Research