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April 19, 2010

TO: Members of the MAG Transportation Review Committee

FROM: David Moody, City of Peoria, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, April 29, 2010, 10:00 a.m.  
MAG Office, Suite 200, Saguaro Room  
302 North 1st Avenue, Phoenix

A meeting of the MAG Transportation Review Committee (TRC) will be held at the time and place noted above. **Please park in the garage under the building. Bring your ticket to the meeting as parking will be validated. Bicycles can be locked in the rack at the entrance to the parking garage.**

The next meeting of the MAG Transportation Review Committee will be held at the time and place noted above. Committee members or their proxies may attend **in person, via videoconference or by telephone conference call**. Those attending video conference must notify the MAG site three business days prior to the meeting. Those attending by telephone conference call please contact MAG offices for conference call instructions.

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 Christina Hopes or Jason Stephens at the MAG Office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures adopted by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum in order to conduct business. A quorum is a simple majority of the membership or twelve people for the MAG TRC. If the Transportation Review Committee does not meet the quorum requirement, members who have arrived at the meeting will be instructed a legal meeting cannot occur and subsequently be dismissed. Your attendance at the meeting is strongly encouraged. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction to represent you. Please contact Eric Anderson or Christina Hopes at (602) 254-6300 if you have any questions or need additional information.

A Voluntary Association of Local Governments in Maricopa County

City of Apache Junction ▲ City of Avondale ▲ Town of Buckeye ▲ Town of Carefree ▲ Town of Cave Creek ▲ City of Chandler ▲ City of El Mirage ▲ Fort McDowell Yavapai Nation ▲ Town of Fountain Hills ▲ Town of Gila Bend  
Gila River Indian Community ▲ Town of Gilbert ▲ City of Glendale ▲ City of Goodyear ▲ Town of Guadalupe ▲ City of Litchfield Park ▲ Maricopa County ▲ City of Mesa ▲ Town of Paradise Valley ▲ City of Peoria ▲ City of Phoenix  
Town of Queen Creek ▲ Salt River Pima-Maricopa Indian Community ▲ City of Scottsdale ▲ City of Surprise ▲ City of Tempe ▲ City of Tolleson ▲ Town of Wickenburg ▲ Town of Youngtown ▲ Arizona Department of Transportation

## TENTATIVE AGENDA

1. Call to Order

2. Approval of Draft March 29, 2010 Minutes

3. Call to the Audience

An opportunity will be provided to members of the public to address the Transportation Review Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. 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 Transportation Review Committee requests an exception to this limit.

4. Transportation Director's Report

Recent transportation planning activities and upcoming agenda items for the MAG Management Committee will be reviewed by the Transportation Director.

5. Consent Agenda

Consent items are marked with an asterisk (\*). Committee members may request that an item be removed from the consent agenda to be heard.

### COMMITTEE ACTION REQUESTED

2. Approve Draft minutes of the March 29, 2010 meeting.

3. For information and discussion.

4. For information and discussion.

5. Recommend approval of the Consent Agenda.

### ITEMS PROPOSED FOR CONSENT\*

5a. American Recovery and Reinvestment Act (ARRA) Status Report\*

A Status Report on the American Recovery and Reinvestment Act (ARRA) funds dedicated to transportation projects in the MAG region details the status of project development. The report covers highway, local, transit, and enhancement projects

5a. For information.

programmed with ARRA funds and the status of project development milestones per project. An updated status report will be provided at the meeting.

#### ITEMS TO BE HEARD

6. Project Changes/Amendments and Administrative Modifications to the FY 2008-2012 MAG Transportation Improvement Program

The FY 2008-2012 MAG Transportation Improvement Program and Regional Transportation Plan - 2007 Update were approved by the MAG Regional Council on July 25, 2007. A request has been received from the Arizona Department of Transportation to add new highway projects and modify projects costs in the program. The project adjustments and new projects being added to the TIP are fiscally constrained and funding is available. Handouts will be provided at the meeting.

7. Arterial Life Cycle Program (ALCP) Update and Fiscal Year (FY) 2010 Regional Area Road Fund (RARF) Closeout

MAG Staff will provide an overview of the ALCP RARF Closeout process as established in the approved ALCP Policies and Procedures. An update on the fiscal analysis of ALCP revenues and expenditures and a list of eligible projects for ALCP RARF Closeout will be presented. Please refer to Attachment One for the FY10 ALCP RARF Closeout Memorandum, list of eligible projects, and Section 260 of the ALCP Policies and Procedures.

8. Update and Review of Project Deferral Requests for Federal Fiscal Year (FFY) 2010 MAG Closeout

MAG Staff will provide an update on the amount of funds available for FFY10 MAG Federal Fund Closeout (Closeout) and review projects deferral requests for the FFY10

6. For information, discussion, and possible recommendation to approve changes/amendments and administrative modifications to the FY 2008-2012 MAG Transportation Improvement Program and, as appropriate, Regional Transportation Plan - 2007 Update.

7. Information, discussion, and recommendation to approve ALCP project reimbursements for the Fiscal Year 2010 ALCP RARF Closeout, and amend the FY 2010 Arterial Life Cycle Program, the 2008-2012 Transportation Improvement Program, and 2007 Regional Transportation Plan Update, as necessary.

8. For information and discussion, and possible recommendation to approve a list of projects to be deferred from FFY 2010 to FFY 2011 or later and make the necessary amendments and modifications to the 2008-2012 MAG Transportation Improvement Program, and as necessary to the Regional Transportation Plan 2007 Update.

Closeout. The deadline for FFY10 Closeout project submittal and initial deferral notification was April 19, 2010. Information regarding project deferral requests will be provided via email to TRC members prior to the meeting. Handouts also will be provided at the meeting. Projects submitted for Closeout funds will be reviewed at the May 2010 TRC meeting.

9. Acceptance of Commuter Rail Planning Studies

Since 2008, MAG has been engaged in developing three commuter rail studies. The Grand Avenue Commuter Rail Corridor Development Plan provides a detailed evaluation of the feasibility and necessary elements to successfully implement of commuter rail service along the Burlington Northern/Santa Fe (BNSF) Phoenix Subdivision between Phoenix and Wickenburg. The Union Pacific (UP) Yuma West Commuter Rail Corridor Development Plan provides a detailed evaluation of the feasibility and necessary elements to successfully of implement commuter rail service along the Yuma West rail line between Buckeye and Union Station in downtown Phoenix, with a conceptual evaluation of the issues associated with extending the corridor to the Tempe Branch line in Tempe. The Commuter Rail System Study provides an evaluation of commuter rail options for the MAG region and the potential connecting routes immediately adjacent to the MAG region. The study establishes priorities for implementing commuter rail service through an evaluation of ridership potential, operating strategies, and associated capital and operating costs. Please refer to Attachment Two for additional information.

10. FY 2010 MAG Highway Safety Improvement Program (HSIP) Projects

A total of \$1 million in FY 2010 Highway Safety Improvement Program funds have been

9. Information, discussion, and recommendation to (1) accept the findings of the Grand Avenue Commuter Rail Corridor Development Plan, Yuma West Commuter Rail Corridor Development Plan, and Commuter Rail System Study; and to (2) revise the corridor ranking included in the Commuter Rail System Study upon the completion of updated regional socioeconomic forecasts or relevant passenger rail studies.

10. For information, discussion and recommendation to approve the listing of selected projects for FY 2010 highway safety improvement program funds.

suballocated by ADOT to MAG for road safety improvements in the region. On March 1, 2010, ADOT informed MAG that the list of recommended safety projects was due by June 1, 2010 to enable timely obligation. Due to the short time available to obligate the funds, the MAG Transportation Safety Committee adopted a process that would result in three categories of road safety improvement projects that could be obligated in the available time frame. On March 24, 2010, MAG Staff announced a call for projects with a submittal deadline of April 9 2010. Seventeen applications were received by MAG. The Transportation Safety Committee reviewed the applications and recommended a list of projects for funding. A memorandum detailing the selection process and the list of projects selected for funding will be emailed to the Committee prior to the meeting. Copies also will be provided at the meeting.

11. American Recovery and Reinvestment Act (ARRA) Update and Guidance

All American Recovery and Reinvestment Act (ARRA) projects in the MAG Region were obligated prior to the established deadline of March 2, 2010. Currently, ARRA-funded projects are going out for construction bid, and it is expected that all bids will be finalized by end of May 2010. An update and additional guidance regarding the de-obligation and utilization of ARRA funds will be provided. Please refer to Attachment Three for additional information.

12. ADOT Red Letter Process

An overview of the Arizona Department of Transportation (ADOT) Red Letter Process will be provided. ADOT Staff will discuss the notification process and actions taken to address pending development in planned highway corridors.

11. For discussion, information and possible action.

12. For information and discussion.

13. Request for Future Agenda Items

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

14. Member Agency Update

This section of the Agenda will provide Committee members with an opportunity to share information regarding a variety of transportation-related issues within their respective communities.

15. Next Meeting Date

The next regular TRC meeting will be scheduled Thursday, May 27, 2010 at 10:00 a.m. in the MAG Office, Saguaro Room.

13. For information and discussion.

14. For information.

15. For information.

DRAFT MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
TRANSPORTATION REVIEW COMMITTEE

March 29, 2010

Maricopa Association of Governments Office  
302 North First Avenue, Suite 200, Saguaro Room  
Phoenix, Arizona

MEMBERS ATTENDING

|  |   |
|--|---|
| Peoria: David Moody                            | Litchfield Park: Paul Ward for Woody Scoutten |
| ADOT: Kwi-Kang Sung for Floyd Roehrich         | Maricopa County: John Hauskins                |
| *Avondale: David Fitzhugh                      | Mesa: Jeff Martin for Scott Butler            |
| Buckeye: Scott Lowe                            | Paradise Valley: Bill Mead                    |
| Chandler: RJ Zeder for Patrice Kraus           | Phoenix: Wylie Bearup for Ed Zuercher         |
| El Mirage: Lance Calvert                       | *Queen Creek: Troy White                      |
| Fountain Hills: Randy Harrel                   | RPTA: Bryan Jungwirth                         |
| Gila Bend: Eric Fitzer for Rick Buss           | Scottsdale: Dave Meinhart                     |
| Gila River: Sreedevi Samudrala for Doug Torres | Surprise: Bob Beckley for vacant              |
| Gilbert: Michelle Gramley for Tami Ryall       | Tempe: Chris Salomone                         |
| Glendale: Terry Johnson                        | Valley Metro Rail: John Farry                 |
| Goodyear: Cato Esquivel                        | Wickenburg: Rick Austin                       |
| *Guadalupe: Gino Turrubiarres                  | Youngtown: Grant Anderson for Lloyce Robinson |

EX-OFFICIO MEMBERS ATTENDING

|   |   |
|---|---|
| *Street Committee: Dan Cook, City of Chandler | *Bicycle/Pedestrian Committee: Peggy Rubach, RPTA                 |
| *ITS Committee: Debbie Albert                 | *Transportation Safety Committee: Kerry Wilcoxon, City of Phoenix |

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

OTHERS PRESENT

|                    |                            |
|--------------------|----------------------------|
| Eric Anderson, MAG | Tom Remes, Phoenix         |
| Alice Chen, MAG    | Andy Granger, Peoria       |
| Roger Herzog, MAG  | Scott Miller, HDR          |
| Tim Strow, MAG     | Clemenc Ligocki, MCDOT     |
| Bob Hazlett, MAG   | Mike Sabatini, MCDOT       |
| Kevin Wallace, MAG | Ray Dovalina, Phoenix      |
| Steve Tate, MAG    | Jorie, Bresnahan, Phoenix  |
| Patty Camacho, MAG | Thomas Relucio, Glendale   |
| Roger Roy, MAG     | Jon Kostaras, Soilworks    |
| Ed Stillings, FHWA | Denise Sumaraul, Soilworks |

1. Call to Order

Chairman David Moody from the City of Peoria called the meeting to order at 1:33 p.m.

2. Approval of Draft February 25, 2010 Minutes

Chairman Moody asked if there were any changes or amendments to the February 25, 2010 meeting minutes, and there were none. Mr. David Meinhart from City of Scottsdale moved to approve the minutes. Mr. RJ Zeder from the City of Chandler seconded the motion, and the minutes were subsequently approved by unanimous voice vote of the Committee.

3. Call to the Audience

Chairman Moody stated that he had not received any request to speak cards from the audience and moved onto the next item on the agenda.

4. Transportation Director's Report

Chairman Moody announced that Mr. Roger Herzog, MAG Senior Project Manager, would present the MAG Transportation Director's Report. Mr. Herzog informed the Committee that Mr. Eric Anderson, the MAG Transportation Director, had been called over unexpectedly to a meeting at the State Legislature.

Mr. Herzog reported that Regional Area Road Fund (RARF) revenues in February were seven percent lower than Fiscal Year (FY) 2009. He stated that RARF revenues had declined continually over the previous 30 months. Mr. Herzog reported that year-to-date RARF revenues were 11.5 percent below FY 2009, and that current revenue collections were on par with revenue collections in 2004.

Next, Mr. Herzog addressed transportation federal funding levels. He announced that the US Congress had extended transportation funding until the end of the calendar year. He added the extension also repealed the Federal Fiscal Year (FFY) 2010 rescissions, but maintained the FFY 2009 rescissions. He explained the actions meant the MAG Region would have the anticipated federal funding for FY 2010, but would lose any carry forward from FFY 2009.

Mr. Herzog directed the Committee's attention to a handout at their places. He explained that the Arizona Department of Transportation (ADOT) had been sending a letter to MAG Member Agencies regarding the deobligation of bid savings on projects funded by the American Recovery and Reinvestment Act of 2009 (ARRA). Mr. Herzog stated the language in the letter had raised concerns by member agencies that ADOT would be deobligating ARRA funds and using the funds on State projects. Mr. Herzog explained that the language in the letter was ambiguous and assured the Committee that ADOT would not be deobligating projects at this time.

Chairman Moody asked if there were any questions or comments about this agenda item. There were none, and this concluded the Transportation Director's Report.

5. Consent Agenda

Addressing the next item of business, Chairman Moody directed the Committee's attention to the consent agenda. He asked the Committee if there were any questions or comments regarding the consent agenda items: (5a) the Arterial Life Cycle Program (ALCP) Status Report for October 2009 to March 2010, (5b) the American Recovery and Reinvestment Act (ARRA) Status Report, or (5c) the Update to the Federal Functional Classification System.

Mr. Terry Johnson from the City of Glendale motioned to approve the consent agenda items as presented. Mr. John Hauskins from Maricopa County seconded the motion. Chairman Moody inquired if there were any questions or comments regarding the items on the consent agenda.

Mr. Jeff Martin from the City of Mesa inquired why the ALCP reimbursement for Power Road from Loop 202/Santan to Pecos Road had been deferred. Ms. Christina Hopes, MAG Transportation Planner, replied that the reimbursement had been deferred in the Draft Fiscal Year (FY) 2011 Arterial Life Cycle Program, which would not be presented for approval through the MAG Committee Process until June. She explained the consent agenda item was a status report on projects programmed for work and/or reimbursement in FY 2010 and did not address the programming of reimbursements in the Draft FY 2011 ALCP.

Chairman Moody inquired if there were any additional questions or comment regarding the consent agenda. There were none. The Chairman called for a vote, and the consent agenda was approved by a unanimous voice vote of the Committee. Chairman Moody acknowledged the arrival of Mr. Eric Anderson, MAG Transportation Director, and proceeded to the next agenda item.

6. Project Changes/Amendments and Administrative Modifications to the FY 2008-2012 MAG Transportation Improvement Program

Chairman Moody invited Ms. Hopes to present project changes to the FY 2008-2012 MAG Transportation Improvement Program (TIP). Ms. Hopes directed the Committee's attention to the handout at their places. She explained that the tables listed in the handout included amendments and administrative modifications to projects listed in the FY 2008-2012 TIP and/or the FY 2010 Arterial Life Cycle Program (ALCP).

Ms. Hopes referenced the first page of the handout, which included two tables. She explained that the first table listed project changes for highway and streets projects to be included in the TIP. She stated the second table listed project changes for street projects to be included in both the TIP and the FY 2010 ALCP.

Then, Ms. Hopes referenced a series of tables on pages two through four of the handout. She

stated that these tables indicated amendments and administrative modifications to the FY 2008-2012 TIP for transit projects programmed for FY 2009 and FY 2010. Next, Ms. Hopes addressed the table of page five of the handout. She explained that the projects listed in that table were fiscal modifications to ALCP projects that would be reflected in an updated FY 2010 ALCP only.

Members of the Committee requested clarification on the amendments and administrative modifications to the transit projects in the MAG TIP. Mr. Eric Anderson reported that during the update of the Transit Life Cycle Program (TLCP) unprogrammed balances of 5307 and 5309 funds remained. He explained that the MAG Transit Committee had been tasked with reconciling the unprogrammed federal transit funds for FY 2009 and 2010. He stated the requested amendments and administrative modifications coincided with the MAG Transit Committee's programming of the available balances of 5307 and 5309 funds. A brief discussion followed.

Ms. Hopes stated the item was on the agenda for action. Mr. Eric Anderson clarified the motion before the Committee had been adjusted to include recommending the approval of projects to be included in the FY 2010 Arterial Life Cycle Program, as necessary.

Chairman Moody inquired if there were any additional questions or comment regarding the agenda item. There were none. Mr. Wylie Bearup from the City of Phoenix motioned to approve the amendments and administrative modifications to the FY 2008-2012 MAG TIP, the FY 2010 ALCP, and as appropriate, the RTP 2007 Update. Mr. Grant Anderson from the Town of Youngtown seconded, and the motion passed by a unanimous voice vote of the Committee.

7. Conformity Analysis of the Draft FY 2011-2015 MAG Transportation Improvement Program - Listing of Projects

Chairman Moody invited Mr. Herzog to present on the conformity analysis of the Draft FY 2011-2015 MAG Transportation Improvement Program (TIP) project listing. Mr. Herzog directed the Committee's attention to a revised project listing at their places. He stated the handout included the Congestion Mitigation and Air Quality (CMAQ) funded project listing approved by the MAG Regional Council in February.

Then, Mr. Herzog summarized the information provided in the handout. He stated the Draft FY 2011-2015 included 409 street projects, 206 transit projects, 138 freeway projects, 87 Intelligent Transportation Systems (ITS) projects, 69 bicycle and pedestrian projects, 78 air quality or transportation demand management projects, one bridge project, and 20 projects categorized as "other." He also summarized the total funding sources for the projects listed the Draft FY 2011-2015 TIP. Mr. Herzog reported that funding in the Draft TIP included:

- \$1.26 billion for local highways;
- \$244 million for private highways;
- \$2.3 billion for state highways;
- \$977 million for regional highways;
- \$799 million for federal highways;

- \$414 million for local transit;
- \$307 million for regional transit; and,
- \$604 million for federal transit.

Mr. Herzog also summarized the regional (and federal) funding for transit, street and highway projects listed in the Draft FY 2011-2015 TIP. He stated that \$1.3 billion in funding had been allocated to transit projects. He explained the \$1.3 billion was comprised of 5307 funds (\$296 million); 5309 funds (\$190 million); other federal funds (\$4 million); CMAQ funds (\$114 million); PTF funds (\$307 million); and Local funds (\$414 million). Mr. Herzog also reported that \$5.6 billion in funding had been allocated to street and highway projects from several sources, which included:

- \$412 million of IMS/NHS funds;
- \$80 million of STP-AZ funds;
- \$156 million of STP-MAG funds;
- \$150 million of CMAQ funds;
- \$2.3 billion in State funds;
- \$977 million in Regional Area Road Funds;
- \$1.3 billion in Local funds; and,
- \$244 million in Private funds.

Moving on, Mr. Herzog announced outlined the schedule for approving the Draft FY 2011-2015 TIP. He informed the Committee that MAG Staff would conduct conformity analysis in May, hold a final phase public hearing in June, and consider the Draft TIP for adoption in July. Mr. Herzog stated the item was on the agenda for a recommendation to approve a listing of projects to be included in the MAG Air Quality conformity analysis.

Mr. Bryan Jungwirth from Valley Metro/RPTA announced that the lottery funds (LTAF) used for local transit operations had been permanently repealed and swept by the Legislature to balance the State budget. Mr. Jungwirth inquired how transit service changes that would occur due to the funding shortfall would be modeled. Mr. Herzog replied that MAG would accommodate the changes as they were made. He stated that MAG also could amended the approved TIP as needed.

Mr. Jungwirth inquired what impact the reduction of transit service would have on the air quality conformity model. Mr. Herzog replied that most likely the reductions would not have a significant impact on conformity. He added that impact could not be determined at this point because a specific list of changes was not available.

Mr. Jungwirth motioned to approve the list of projects to be included in MAG air quality conformity analysis. Mr. John Hauskins from Maricopa County seconded, and the motion passed by unanimous voice vote of the Committee.

#### 8. Conformity Analysis of the Draft MAG Regional Transportation Plan - 2010 Update

Moving on, Chairman Moody invited Mr. Herzog to present the conformity analysis of the Draft MAG Regional Transportation Plan (RTP) 2010 Update. Mr. Herzog reported that a

2010 Update has been prepared, as part of the continuing regional transportation planning process for the MAG Region. He stated that major factors considered in the update included extending the horizon year to 2031 and reduced revenues. Mr. Herzog informed the Committee that the Draft RTP Update included a Phase V that spanned from FY 2026 to FY 2031.

Mr Herzog explained that \$58.8 billion in funding was reported in the RTP and listed in year-of-expenditure (YOE) dollars, per federal requirements. Mr. Herzog reported \$29.3 billion in local/other funds and \$29.5 billion in regional funds had been identified in the RTP. He explained that regional funds comprised of MAG Federal highway funds (\$3 billion), MAG Federal transit funds (\$3.1 billion), half-cent sales tax funds (\$15.7 billion), and ADOT funds (\$7.6 billion).

Next, Mr. Herzog discussed the major modal programs addressed in the RTP. He reported that revisions to the highway/freeway, arterial, and transit life cycle programs had been required due to lower revenue projections. He stated the adjustments to the life cycle programs were discussed extensively and conducted cooperatively between MAG, METRO, RPTA and the regional member agencies. He announced that currently all life cycle programs were fiscally balanced. Then, Mr. Herzog displayed a series of maps indicating the phasing of projects in the life cycle programs.

Mr. Herzog stated the item was on the agenda for action to recommend that the Draft MAG Regional Transportation Plan – 2010 Update to undergo an air quality conformity analysis. Mr. Martin inquired why the Central Mesa Light Rail Extension project was shown in Phase III of the Regional Transportation Plan. He stated the majority of funds for the project were programmed in Phase II of the Draft RTP. Mr. Herzog explained that projects were listed according to the fiscal year construction was programmed for completion. Mr. Herzog reported that the Central Mesa Light Rail Extension project was programmed for completion in Phase III although the majority of the work would occur in Phase II. Mr. Martin asked if the listing could be modified. Mr. Herzog replied that a footnote could be added.

Mr. Martin motioned to recommend the Draft RTP 2010 Update with the requested amendment to undergo an air quality conformity analysis. Mr. Meinhart seconded the motion. Mr. Terry Johnson expressed disappoint in the process of updating the Transit Life Cycle Program (TLCP). He stated that the cuts to the TLCP were more substantial in the west valley than in the east valley.

Chairman Moody called for vote on the motion. The motion passed by a majority voice vote of the Committee. Mr. Johnson voted no, citing the TLCP cuts.

9. Programming of Bid Savings of Local/MPO American Recovery and Reinvestment Act (ARRA) Funds

Moving on, Chairman Moody returned to the next item on the agenda and invited Ms. Alice Chen, Transportation Planner, to present the programming of bid savings of local/MPO American Recovery and Reinvestment Act (ARRA) funds. Ms. Chen reported that a memorandum calling for projects was sent to members of the Transportation Review

Committee and Intergovernmental representatives on Monday, March 29, 2010. She explained that the call for proposed projects that could use any ARRA funds resulting from bid savings.

Ms. Chen informed the Committee that MAG Staff did not know the amount of bid savings available for reallocation at this time. She explained that typically, a project could not be added to the MAG TIP and be reviewed by ADOT without federal funds allocated to the project. She announced that ADOT and FHWA had made an exception to the rule due deadlines associated with the obligation of ARRA funds.

Ms. Chen stated that MAG Staff was recommending a technical amendment to the previous recommendation on the reallocation of local ARRA bids savings. She announced that the technical amendment would recommend that:

1. Member agency may apply bid savings to a project within its own jurisdiction if MAG Staff, ADOT and FHWA had determined the project could obligate by August 15, 2010;
2. Any bid savings that could not be utilized within a jurisdiction shall be applied to a sub-regional pool of projects that could obligate by August 15, 2010, and the member agencies within the sub-region would prioritize the project list to be included in the MAG TIP; and,
3. Any remaining funds that could not obligate by August 15, 2010 would be returned to ADOT to be applied towards a statewide project.

Ms. Chen announced that the deadline to submit proposed projects for ARRA funding consideration was April 5, 2010. She added that MAG Staff would coordinate with ADOT and FHWA to determine the likelihood of the proposed projects obligating on or before August 15, 2010.

Mr. Zeder expressed concerns about the City's difficulty in obtaining a project TRACS number from the Arizona Department of Transportation (ADOT). Mr. Paul Ward from the City of Litchfield Park concurred.

Mr. Meinhart inquired if the City of Scottsdale should request to reprogram a CMAQ funded project with ARRA funds. Mr. Eric Anderson replied that the decision to reprogram a project with ARRA funds would be contingent on a variety of factors, including the ability to apply the ARRA funds towards the local match requirement stipulated in the RTP.

Mr. Anderson informed the Committee that member agencies, such as Maricopa County, had started receiving bids higher than the engineers' estimates. Mr. Hauskins reported that one of the County's project bids had come in \$1.2 million higher than the engineering estimate. Mr. Hauskins attributed the higher costs to an increase in the price of asphalt. A brief discussion followed regarding the impact of the costs increases.

Mr. Scott Lowe from the Town of Buckeye inquired how long the bid amount were good. Mr. Eric Anderson replied that he was unsure.

Chairman Moody noted a discrepancy in the attached memorandum regarding the deadline to submitted proposed projects for the reallocation of bid savings. Mr. Anderson replied that the correct deadline to submit proposed projects for ARRA funding consideration was April 5, 2010.

Mr. Rick Austin from the Town of Wickenburg raised concerns about the Vulture Mine project. He reported that the original project amount had been reduced and inquired if funding could be obtained to make the project whole. Mr. Anderson replied that MAG Staff would look into the issue.

Mr. Martin motion to approve the technical programming recommendations as presented. Mr. Zeder seconded the motion citing that the motion allowed for funds to remain in the localized area if a jurisdiction was unable to use the funds. Chairman Moody called for a vote, and the motion passed by a unanimous voice vote of the Committee.

10. Transit Allocation Methodology for Proposed Federal Economic Stimulus Legislation - Potential Changes due to loss of LTAF

Chairman Moody invited Mr. Eric Anderson to discuss the transit allocation methodology for the proposed federal economic stimulus legislation. Mr. Anderson reported that MAG Staff had sent request for transit projects that could obligate within the specified time frame. He reiterated the recommended action presented to the Committee the previous month, which stated that funds that are required to be under contract within ninety days be allocated towards operations (up to maximum allowable), ADA operations and ADA preventative maintenance (10%), and preventative maintenance by applying the principles outlined by RPTA for project savings from ARRA I funds; and amend the FY 2008-2012 MAG TIP as appropriate.

Mr. Anderson reported that the MAG Management Committee had discussed applying a different methodology as a result of the sweep of LTAF funds proposed by legislature. He added that the Management Committee requested the agenda item be brought before the Transit Committee and through the TRC again before approval. Mr. Anderson directed the Committee's attention to two handouts in the agenda packet that addressed the State Shared Revenue and LTAF II estimated distributions, which listed approximate funding by agency from LTAF funds.

Mr. Anderson reported that the motion, as presented last month, had been approved by the Transit Committee. He explained that the motion, as previously presented, was before the Committee again for approval. Mr. Anderson stated that the intent of the Management Committee was to receive the Transit Committee and TRC's input on the recommendation in light of the LTAF sweeps.

Mr. Jungwirth from RPTA clarified that the agenda item was to reaffirm the previous motion. He added that the issue could be addressed later through the MAG Committee process if changes to the LTAF sweeps or stimulus legislation occurred. Mr. Jungwirth motioned to reaffirm the motion. Mr. Wylie Bearup from the City of Phoenix seconded, and the motion was approved by a unanimous voice vote of the Committee.

11. Interim Closeout of the Federal Fiscal Year (FFY) 2010 MAG Federally Funded Program

Chairman Moody asked Mr. Steve Tate, MAG Transportation Planner III, to present on the Interim Closeout of the Federal Fiscal Year (FFY) 2010 MAG Federally Funded Program. Mr. Tate informed the Committee that MAG Staff would conduct the FFY 2010 Closeout process according to the Draft Federal Fund Programming Principles (Draft Principles). Mr. Tate explained that the purpose of the closeout was to maximize the use available Congestion Mitigation and Air Quality (CMAQ) fund obligation authority (OA) in the current federal fiscal year. He added the caveat that cash balances would need to be taken into account for the closeout due to past rescissions.

Mr. Tate provided an overview the MAG Federal Fund Closeout Process. He explained the member agencies deferring a federally funded project for the second time or more must submit a deferral notification form and justification letter documenting the history, status and intent of the project. He added that a one-time automatic deferral, without justification was permitted.

Next, Mr. Tate discussed the requirements to defer a federally funded project for the second time or more. Mr. Tate stated that the sponsoring agency for the project must submit a justification letter in addition to the deferral request. He listed the key requirements of the justification letter, which required:

- the letter to be signed by the Manager/Administrator of the jurisdiction;
- a detailed explanation of the reason for deferring the project; and,
- an explanation of how the requesting agency would commit to completing the project through the ADOT - Local Government process.

Mr. Tate informed the Committee that projects submitted for use of closeout funds would be considered based on the three priorities established in the Draft Principles. He explained that consideration would be given first to advanced projects of the same mode currently programmed with federal funds in the TIP. The advanced, funded projects would be selected in chronological order of the TIP. Then, consideration would be given to increasing federal funds on an existing, unobligated project, up to the originally programmed, federal-aid maximum, or the maximum established by the mode in the RTP, whichever is less. Finally, funding consideration would be give to new projects.

Mr. Tate announced that request forms were available for download from the MAG-TIP website. He stated that project requests that change the scope of an existing project or create a new project required an addendum providing information needed to calculate a CMAQ cost-effectiveness score.

Next, Mr. Tate encouraged member agencies with project deferrals to notify MAG Staff by April 19, 2010. He announced that the deadline to submit project request forms for funding consideration was also April 19<sup>th</sup> by noon. Mr. Tate explained the deadline for funding consideration was a hard deadline and that late forms would not be accepted.

Moving on, Mr. Tate discussed the estimated CMAQ funds that would be available for the FFY 2010 Closeout. He noted that past federal fund rescissions had left MAG with zero

CMAQ and Surface Transportation Program (STP) cash balances carried into FY 2010 and an OA balance carryover of \$48 million. Mr. Tate explained that MAG had to balance the need to preserve cash for projects programmed in future years of the TIP while maximizing the OA used in FFY10. He stated the projects deferring to FFY 2011 or later would need to reserve funding to avoid over programming federal funds. Mr. Tate reported that in light of these factors the estimated available for FFY 2010 Closeout at \$1,273,000.

Mr. Eric Anderson stated that MAG had very little money to consider for closeout. He explained that the US Congress had wiped out the available federal funds with the FFY09 rescission. Mr. Anderson encouraged member agencies to notify MAG quickly if a federally eligible project could obligate now. He added that it was rare to have spending authority but no cash available to spend.

Chairman Moody inquired if there were any questions or comments about the agenda item. There were none, and the Chair proceeded to the next agenda item.

12. Request for Future Agenda Items

Chairman Moody inquired if the members had any topics or issues of interest they would like to have considered for discussion at a future Committee meeting. Mr. Jungwirth suggested that the LTAF repeal and subsequent be discussed. He asked if MAG Staff could address the use of CMAQ or STP funds to fund transit. Mr. Eric Anderson replied that CMAQ only could be used for developmental projects for the first three years of operation.

Mr. Grant Anderson noted that the ADOT Red Letter Process had not been addressed, as requested, on the current agenda. He repeated his request that the item be added to an agenda. Mr. Grant Anderson also requested an update on the progress of the Federal Fund Working Group. Chairman Moody asked if anyone else would like to propose a future agenda item. The Committee members did not, and Chairman Moody moved onto the next agenda item.

13. Member Agency Update

Chairman Moody asked members of the Committee if they would like to provide updates, address any issues or concerns regarding transportation at the regional level, and asked if any members in attendance would like to address recent information that was relevant to transportation within their respective communities. There were none.

14. Next Meeting Date

Chairman Moody informed members in attendance that the next regularly scheduled meeting of the Committee would be held on April 29, 2010. There be no further business, Chairman Moody adjourned the meeting at 2:37 p.m.

# **ATTACHMENT ONE**

April 19, 2010

TO: Members of Transportation Review Committee

FROM: Christina Hopes, Transportation Planner II

SUBJECT: ARTERIAL LIFE CYCLE PROGRAM (ALCP) - REGIONAL AREA ROAD FUND (RARF) FISCAL YEAR (FY) 2010 CLOSEOUT PROCESS

The *Arterial Life Cycle Program (ALCP) Policies and Procedures* approved by the MAG Regional Council established the ALCP RARF Closeout process, which includes a fiscal analysis of the ALCP and proposed RARF Closeout options. The ALCP RARF Closeout options are based on the priorities and project eligibility as established in Section 260 of the *ALCP Policies and Procedures (Policies)*. The allocation of ALCP RARF Closeout funds is prioritized by:

1. Projects scheduled for reimbursement in the next fiscal year;
2. All other Projects according to the chronological order of the programmed reimbursement;
3. The fiscal year work was completed on the project;
4. The date of the project's final invoice; and
5. The date the final Project Reimbursement Request was accepted by MAG Staff.

#### BACKGROUND

On December 19, 2007, the MAG Regional Council approved the Section 260 of *Policies*, which established the RARF Closeout Process. The *Policies* detail the RARF Closeout procedures, project eligibility, and the allocation process of available closeout funds. Since then, MAG Staff, in conjunction with the ALCP Working Group, have made additional refinements to the RARF Closeout procedures, which are documented in the current version of the *Policies* approved by the MAG Regional Council on December 9, 2009.

Before recommending project to be funded through RARF Closeout, MAG Staff performed a detailed financial analysis to determine the impact of proposed ALCP RARF Closeout options. As part of the financial analysis, MAG Staff reviewed:

- Eligible projects for the ALCP RARF Closeout
- The FY2010 programmed vs. actual project expenditures
- Historical trends in RARF revenue collection
- The FY2010 and Draft FY2011 ALCP bonding program
- The impact of the various Closeout reimbursement scenarios on the Draft FY2011 life cycle budget and bonding program
- Programmed project expenditures for FY 2011 in the Draft FY 2011 ALCP

After reviewing the results of the financial analysis, MAG staff is recommending that six eligible projects be reimbursed in the FY2010 ALCP Regional Area Road Funds (RARF) Closeout. The recommended projects include:

- Arizona Ave/Elliott Rd Intersection Improvements for \$3.7 million;
- Gilbert Rd from SR-202L/Germann to Queen Creek Rd for \$6.1million;

- Shea Blvd at 90th/92nd/96th Streets for \$1.8 million;
- Gilbert Rd at University Dr for \$2.7 million; and,
- El Mirage Rd from Deer Valley Drive to L303 for \$9.37 million.

Please refer to the attached table summarizing the list of eligible projects in chronological order of programmed reimbursements and completed fiscal year of work. A copy of Section 260 of the Arterial Life Cycle Program Policies and Procedures addressing RARF Closeout also are attached.

For any questions or comments, please contact Christina Hopes by phone at 602.254.6300 or by email at [chopes@mag.maricopa.gov](mailto:chopes@mag.maricopa.gov).

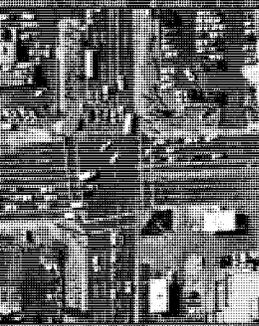
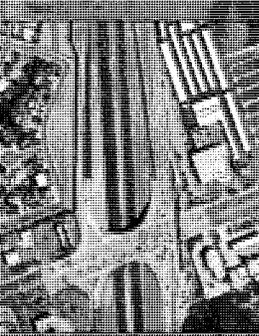
### FY2010 Regional Area Road Fund (RARF) Closeout Eligible Projects

Eligible projects are in consecutive order based on the fiscal year the project is programmed for reimbursement and fiscal year for work.

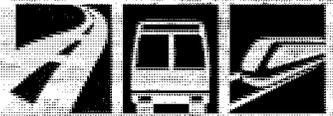
| Fiscal Year for Reimb. | RTP ID          | Lead Agency     | Project Name                                    | Fiscal Year for Work | Amount 2009\$ (millions) | Completed Project Requirements | Recommended for FY2010 Closeout |
|------------------------|-----------------|-----------------|---|----------------------|--------------------------|--------------------------------|---------------------------------|
| 2013                   | All-ARZ-10-03   | Chandler        | Arizona Ave/Elliot Rd Intersection Improvements | 2006                 | 3.714                    | PO, PA, PRR                    | Yes                             |
| 2015                   | ACI-GIL-10-03-A | Chandler        | Gilbert Rd: SR-202L/Germann to Queen Creek Rd   | 2009                 | 2.316                    | PO, PA, PRR                    | Yes                             |
| 2016                   | ACI-GIL-10-03-A | Chandler        | Gilbert Rd: SR-202L/Germann to Queen Creek Rd   | 2009                 | 3.762                    | PO, PA, PRR                    | Yes                             |
| 2016                   | All-GIL-10-03   | Mesa            | Gilbert Rd at University Dr*                    | 2010                 | 2.741                    | PO, PA                         | Yes                             |
| 2017                   | ACI-SHA-20-03-A | Scottsdale      | Shea Blvd at 90th/92nd/96th Streets*            | 2007                 | 1.792                    | PO, PA, PRR                    | Yes                             |
| 2017                   | ACI-ELM-10-03-C | Maricopa County | El Mirage Rd: Deer Valley Drive to L303         | 2009                 | 0.548                    | PO, PA                         | Yes                             |
| 2018                   | ACI-ELM-10-03-C | Maricopa County | El Mirage Rd: Deer Valley Drive to L303         | 2009                 | 9.122                    | PO, PA                         | Yes                             |
| 2021                   | ACI-GIL-10-03-A | Chandler        | Gilbert Rd: SR-202L/Germann to Queen Creek Rd   | 2009                 | 0.659                    | PO, PA, PRR                    | No                              |
| 2024                   | ACI-HPV-20-03-A | Phoenix         | Happy Valley: I-17 to 35th Ave                  | 2005                 | 5.136                    | PO, PA, PRR                    | No                              |

\*Pending Regional Council approval of Proposed Project Changes: Amendments and Administrative Modifications to the MAG FY08-12 TIP and FY10 ALCP

| LEGEND |                               |
|--------|-------------------------------|
| PA     | Project Agreement             |
| PO     | Project Overview              |
| PRR    | Project Reimbursement Request |
| Reimb. | Reimbursement                 |



**ON THE MOVE**



**PARTNERS IN PROGRESS**

# ARTERIAL LIFE CYCLE PROGRAM (ALCP)

## POLICIES AND PROCEDURES

**December 9, 2009**



**MARICOPA  
ASSOCIATION of  
GOVERNMENTS**

- B. An administrative adjustment is needed when:
  - 1. Project expenditures for a Project work phase or a Project segment are lower than the estimate, causing the 70% regional reimbursement to be less than the amount programmed in the current ALCP.
  - 2. The remaining regional reimbursement funds may be moved within the original Project, to another work phase or a Project Segment that is programmed in that fiscal year or a later fiscal year.
- C. At that time, the ALCP and Project budgets will be adjusted to reflect the remaining Project funds.
- D. Administrative Adjustments may occur each fiscal quarter. Changes will be reported in the ALCP Status Report, and the ALCP will be reprinted.

### **SECTION 260: ALCP RARF CLOSEOUT**

- A. Annually, MAG Staff will determine the availability of RARF funds to be used for the ALCP RARF Closeout.
  - 1. MAG Staff will demonstrate the fiscal constraint of the ALCP with proposed ALCP RARF Closeout options.
  - 2. A Project or Project segment in the ALCP may not be adversely impacted, delayed, reduced or removed as a result of the reimbursement of RARF funds in the Closeout process to another Project, portion or segment.
  - 3. Lead Agencies and other agency(ies)/jurisdiction(s) listed in a Project Agreement that receive RARF Closeout funds will not be liable to reimburse the RARF funds to the Program if a Program deficit occurs in the future.
- B. Lead Agencies should submit a RARF Closeout Notification to MAG per eligible project.
  - 1. MAG Staff will provide a RARF Closeout Notification Form on the MAG ALCP website.
- C. The ALCP RARF Closeout Process will begin at the April TRC and continue through the MAG Committee process in May, one month before the annual update of the ALCP.
  - 1. The ALCP Schedule published annually in the MAG Transportation Programming Guidebook will specify all deadlines pertaining to the ALCP RARF Closeout Process, including due dates to submit RARF Closeout Notification forms and ALCP Project Requirements.
  - 2. MAG Staff will notify the ALCP Working Group, in advance, if a change in the ALCP Project Schedule is required.
- D. To be considered as an eligible project for reimbursement with RARF Closeout funds:
  - 1. The Project or Project segment must be completed/closed out.
  - 2. The Lead Agency must completed the following Project Requirements:
    - a. Project Overview
    - b. Project Agreement, and
    - c. Project Reimbursement Request.
  - 3. All three requirements must be accepted by MAG Staff as complete.

- E. The determination and allocation of ALCP RARF Closeout funds for eligible completed projects will be made according to the following priorities (in sequential order):
  - 1. Projects scheduled for reimbursement in the next fiscal year;
  - 2. All other Projects according to the chronological order of the programmed reimbursements.
- F. If two or more eligible projects are programmed for reimbursement in the same fiscal year, the reimbursement of the eligible projects will be made according to the following additional priorities (in sequential order):
  - 1. The date of the Project's final invoice.
  - 2. The date the Project Reimbursement Request was accepted by MAG Staff.

**SECTION 270: USE OF SURPLUS OR DEFICIT PROGRAM FUNDS**

- A. If a surplus Program funds occurs, existing Projects may be accelerated. Any acceleration will occur according to priority order of the ALCP.
  - 1. For Projects to be accelerated, matching local funds must be committed.
  - 2. If there are no current Projects ready for acceleration, the next Project scheduled for reimbursement may be accelerated.
  - 3. If there are surplus funds available upon the full completion of the ALCP, the MAG Transportation Policy Committee will discuss options regarding additional Projects.
- B. ALCP Projects may be delayed if there is a deficit of Program funds. ALCP Projects will be delayed in priority order of the ALCP.

# **ATTACHMENT TWO**

TO: Members of the Transportation Review Committee (TRC)

FROM: Marc Pearsall, Transit Planner III

SUBJECT: ACCEPTANCE OF THE COMMUTER RAIL STUDY FINDINGS

In 2008, the MAG Regional Council approved the Commuter Rail Strategic Planning Study that identified the need for three additional commuter planning studies (Studies) to further define requirements and steps to plan and implement commuter rail service in the MAG region. Since November 2008, MAG has been developing these commuter rail studies to further evaluate the feasibility of the technology in the region. A brief summary of each study follows.

The Commuter Rail System Study reviews potential corridors and options identified in the Commuter Rail Strategic Plan and explores parallel existing freight and commuter rail. The System Study establishes priorities for implementing commuter rail service and evaluates ridership potential, ridership forecasting, operating strategies, cost effectiveness, capital and operating costs, vehicle technology, and implementation strategies in creating a recommended 110-mile system. Additionally, revising the corridor ranking included in the Commuter Rail System Study will commence upon the completion of updated regional socioeconomic forecasts.

The Grand Avenue Commuter Rail Corridor Development Plan Study evaluates the potential to implement commuter rail service within the existing BNSF Railway (formerly Burlington Northern Santa Fe) right of way between the Town of Wickenburg and downtown Phoenix. The planning process includes a review of the existing and future conditions, an inventory of the existing rail infrastructure as well as necessary infrastructure improvements to implement parallel commuter rail service. A conceptual commuter rail operating plan has been developed as a part of the study.

The Yuma West Corridor Plan evaluates the potential to implement commuter rail service within the existing Union Pacific Railroad right of way between downtown Phoenix and the community of Arlington in the Southwest Valley. The planning process includes a review of existing and future conditions, an inventory of the existing rail infrastructure as well as necessary infrastructure improvements to implement parallel commuter rail service. A conceptual commuter rail operating plan has been developed as a part of the study.

The studies also present a timetable for next steps. The first set of recommendations between 2010 and 2015 specify the following:

- Passage of enabling legislation relative to liability and indemnification,
- Coordination with railroads and develop of partnerships to investigate options for a Memorandum of Understanding (MOU),
- Advancement of the design and operating costs,
- MAG coordination with ADOT on the upcoming Phoenix-Tucson Alternatives Analysis,

- Initiation of collaborative local planning efforts,
- Identification of funding commitments,
- Initiation of the process for federal funding,
- Development of a governance plan and,
- Preserving future corridor options.

The studies also present longer term next step plans for 2015 and beyond, including:

- A formalized partnership with railroads,
- Obtaining committed funding sources such as local and federal,
- Designing, constructing, and operating an initial commuter rail system and,
- Further planning to develop a seamless transportation system and meet regional sustainable goals.

#### REQUESTED ACTION

- I. 1) Accept the findings of the MAG Commuter Rail System Study, Grand Avenue Commuter Rail Corridor Development Plan Study and Yuma West Commuter Rail Corridor Development Plan Study for the MAG region and; 2) Revise the corridor ranking included in the Commuter Rail System Study upon the completion of updated regional socioeconomic forecasts.

If you have any questions or comments please contact me at by telephone at (602) 254-6300 or by email at [mpearsall@mag.maricopa.gov](mailto:mpearsall@mag.maricopa.gov).

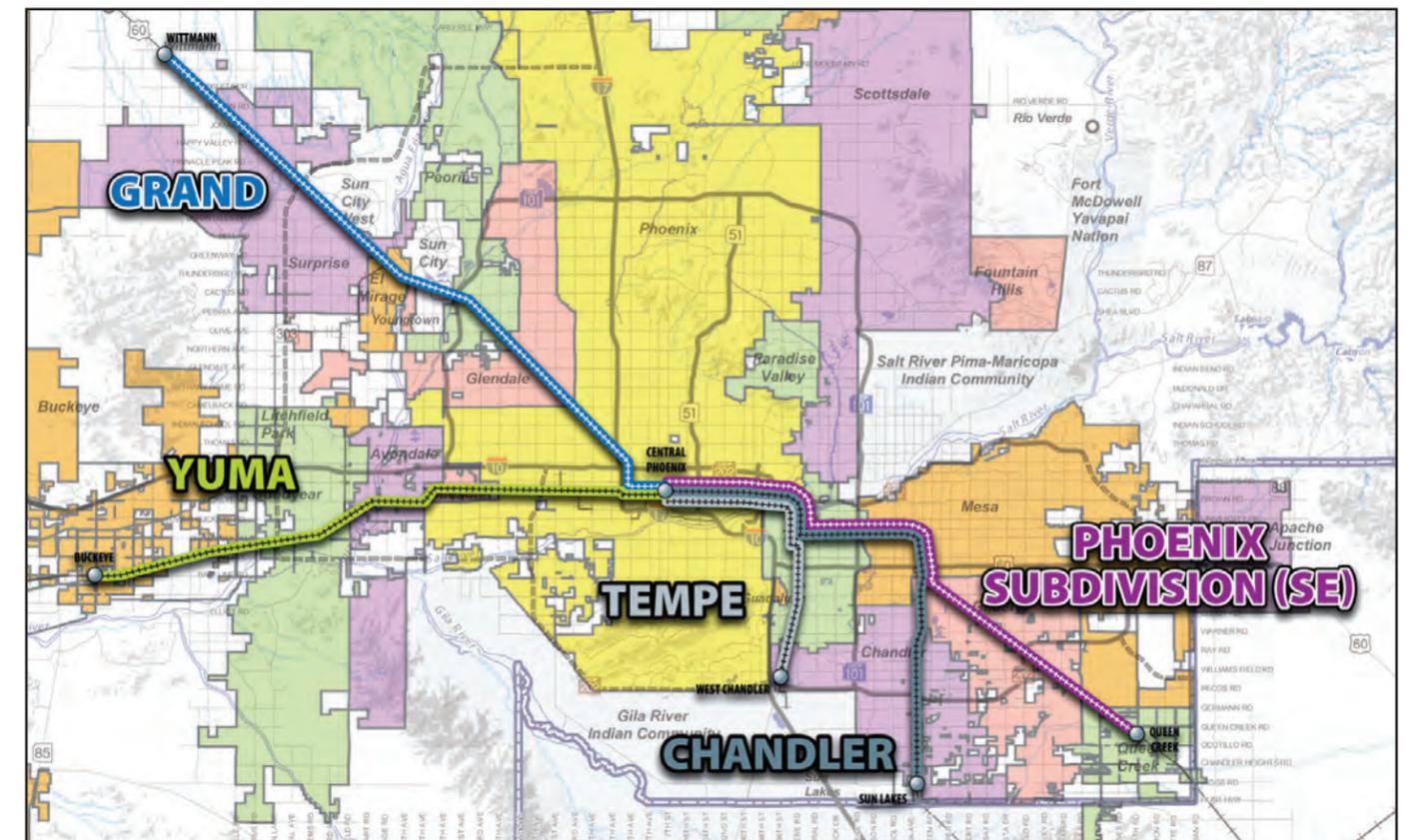
# MAG COMMUTER RAIL SYSTEM STUDY

EXECUTIVE SUMMARY 2010

## COMMUTER RAIL SYSTEM STUDY OVERVIEW

The purpose of this Commuter Rail System Study is to define an optimized network of commuter rail corridors and the elements needed to implement a regional commuter rail system. As envisioned, a commuter rail system would radiate from downtown Phoenix and would share existing freight track along five corridors. The System Study provides a detailed evaluation of potential commuter rail links to the East Valley (including the Tempe, Chandler, and Southeast Corridors) and links to the West Valley by incorporating the findings of the Grand Avenue (Grand) and Yuma West (Yuma) Corridor Development Plans, both of which are being produced in conjunction with this System Study.

Potential commuter rail corridors along existing railroad lines are shown below.



Source: URS Corp, 2009



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**DESCRIPTION OF COMMUTER RAIL**

**WHY IS THERE A NEED FOR A COMMUTER RAIL SYSTEM?**

Commuter rail systems are generally used in congested urban areas to improve travel time, mitigate congestion, add convenience, and provide an alternative means of travel – particularly in times of increasing energy prices. Commuter rail trains typically provide service between suburbs to urban centers for the purpose of reaching activity centers, such as employment, special events, and intermodal connections. Designed to primarily meet the needs of regional commuters in the AM and PM peak travel times, commuter rail service typically occurs at lower frequency than light rail transit. The distance of most commuter rail corridors is also longer than that of light rail, ranging from 30 to 40 miles, with passenger stations generally spaced 5 to 10 miles apart. A number of cities throughout the US operate commuter rail service, including Seattle, Salt Lake City and Dallas-Fort Worth.



Rail Runner Express Commuter Train; Albuquerque, NM  
Source: MRCOG/HDR.



Sounder Commuter Train; Seattle, WA  
Source: MAG.

**DESCRIPTION OF SYSTEM STUDY ALTERNATIVES**

**WHAT STAND-ALONE ALTERNATIVES WERE CONSIDERED?**

The Project Team developed Stand-Alone Alternatives as single commuter rail lines, each with 30-minute peak and 60-minute off-peak frequency and specified travel times. The table below lists the characteristics of each Stand-Alone Alternative.

| CORRIDOR | ROUTE DESCRIPTION  | DISTANCE | TRAVEL TIME | 2030 DAILY BOARDINGS |
|----------|--|----------|-------------|----------------------|
| Grand    | Service between Central Phoenix and Downtown Wittmann*   | 36 miles | 42 min.     | 2,830                |
| Yuma     | Service between Central Phoenix and Downtown Buckeye**   | 31 miles | 47 min.     | 1,420                |
| SE       | Service between Central Phoenix and Downtown Queen Creek | 34 miles | 50 min.     | 6,450                |
| Tempe    | Service between Central Phoenix and West Chandler        | 18 miles | 29 min.     | 950                  |
| Chandler | Service between Central Phoenix and Sun Lakes            | 31 miles | 53 min.     | 2,240                |

Source: URS Corp., 2009.

| ITEM  | RESPONSIBLE PARTY   | PARTNERS    | TIMEFRAME |
|---|---------------------|-------------|-----------|
| <p><b>9) Local Planning Efforts.</b></p> <p>Prior to securing project financing, local governments can take steps to lay the foundation for commuter rail implementation, including:</p> <ul style="list-style-type: none"> <li>➔ Partner with the UPRR, BNSF Railway Company, and ADOT to upgrade existing at-grade railroad crossings along System Study corridors.</li> <li>➔ Control regulatory actions within station areas, including the planning, zoning, and development permitting process, to facilitate the development of commuter rail stations.</li> <li>➔ Use other implementation tools such as infrastructure construction (for example, streets and utilities), land purchase and assembly, and creation of urban design guidelines to facilitate transit-supportive development.</li> </ul> | Local Jurisdictions | MAG<br>ADOT | Ongoing   |

Source: URS Corp., 2009.

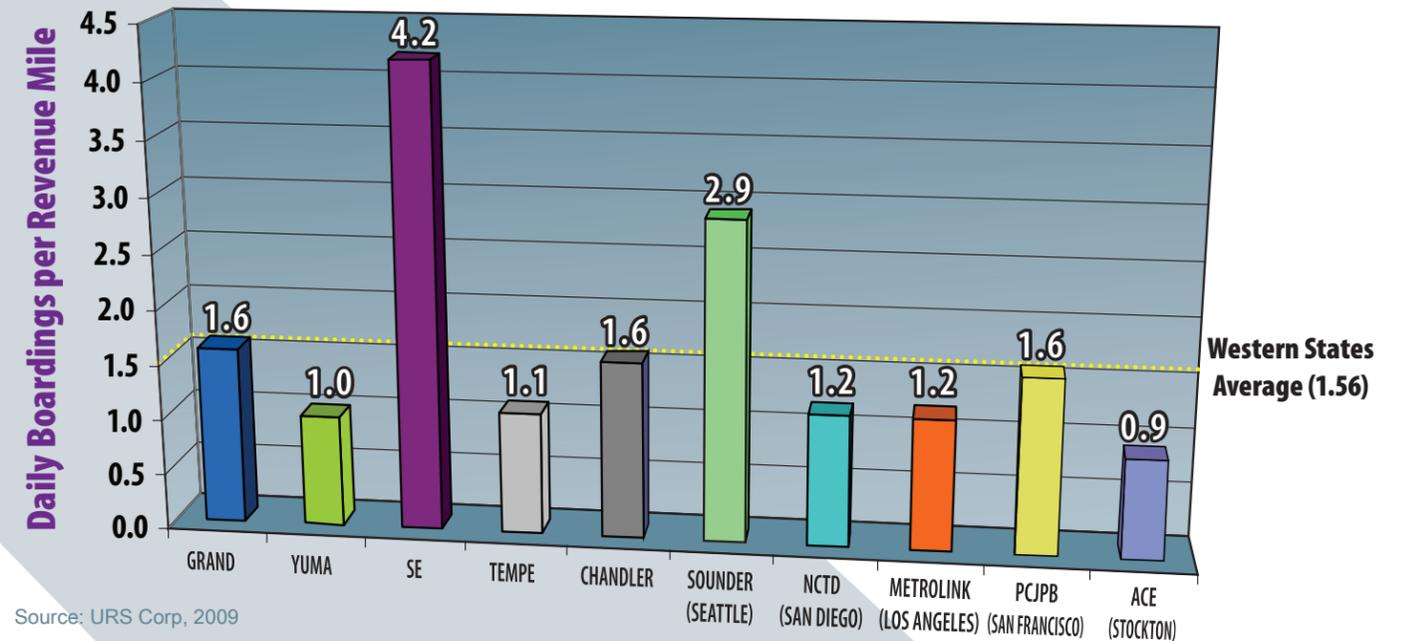
**WHAT LONG TERM IMPLEMENTATION STEPS ARE NEEDED?**

The identification of funding commitments and determination of the appropriate governance structure for commuter rail, which are likely to influence each other, will set the stage for moving into the next level of investment in commuter rail within the MAG region. With progress on these key steps, the region will be in a position to move forward on other recommendations described below.

- ➔ Formalize partnership with the railroads.
- ➔ Secure sources of funding including federal, state, regional and local public funding, as well as private sector participation.
- ➔ Design, construct, and operate initial commuter rail system.
- ➔ Continue planning to develop seamless transportation system and meet regional sustainability goals.

| ITEM  | RESPONSIBLE PARTY                  | PARTNERS   | TIMEFRAME   |
|---|------------------------------------|--|---|
| <p><b>4) Coordination of Infrastructure Improvements with the Railroads, ADOT and Local Jurisdictions.</b></p> <ul style="list-style-type: none"> <li>→ BNSF Railway is planning freight rail infrastructure improvements that would reduce freight activity into downtown Phoenix and thereby free up space on the rail mainline.</li> <li>→ ADOT and local jurisdictions are planning for extensive roadway upgrades throughout the region that may improve the viability and safety of corridors for both freight and passenger rail service.</li> </ul> | MAG<br>Local jurisdictions<br>ADOT | UPRR<br>BNSF Railway<br>METRO<br>RPTA                              | Ongoing   |
| <p><b>5) Identify Funding Commitments.</b></p> <ul style="list-style-type: none"> <li>→ Define new revenue streams that would be dedicated to development and ongoing operation of the commuter rail system.</li> <li>→ A phased approach and cost-sharing agreements may segment or defer expenditures.</li> </ul>   | MAG<br>ADOT<br>Legislature         | Local jurisdictions  | 2010-2015   |
| <p><b>6) Initiate Process for Federal Funding.</b></p> <ul style="list-style-type: none"> <li>→ Conduct required Alternatives Analysis and NEPA compliance to meet requirements for federal funding.</li> <li>→ Local match funding should be identified prior to initiating this process with FTA.</li> </ul>  | MAG                                | Local jurisdictions  | Following identification of local funding commitments |
| <p><b>7) Develop and Implement Governance Plan.</b></p> <p>Most likely approaches include:</p> <ul style="list-style-type: none"> <li>→ Formation of a new Commuter Rail Authority,</li> <li>→ Designation of an existing agency as the Commuter Rail Authority (RPTA, METRO, MAG, ADOT), or</li> <li>→ Establishment of a new Joint Powers Authority (JPA) with a provision for representation appropriate to the corridor or system to be implemented.</li> </ul>   | MAG<br>ADOT                        | METRO<br>RPTA<br>Local jurisdictions                               | Following identification of local funding commitments |
| <p><b>8) Preserve Future Options.</b></p> <ul style="list-style-type: none"> <li>→ System Study commuter rail corridors are assumed to occur within the existing railroad right-of-way; however right-of-way preservation of future commuter rail extensions may reduce the costs for growing a future regional system.</li> </ul>  | Commuter Rail Authority or JPA     | Local jurisdictions<br>UPRR<br>BNSF Railway<br>MAG<br>CAAG<br>ADOT | Ongoing   |

HOW DO THE STAND-ALONE ALTERNATIVES PERFORM COMPARED TO PEER CITIES?



WHAT IS THE COST OF THE STAND-ALONE ALTERNATIVES AND HOW DO THEY COMPARE TO PEER CITIES?

| STAND-ALONE ALTERNATIVE                | CAPITAL COST/MILES | CAPITAL COST PER MILE |
|--|--------------------|-----------------------|
| Grand                                  | \$600 M/36 miles   | \$16.7 M/mile         |
| Yuma                                   | \$365 M/31 miles   | \$11.8 M/mile         |
| SE                                     | \$477 M/33.5 miles | \$14.9 M/mile         |
| Tempe                                  | \$372 M/18 miles   | \$20.7 M/mile         |
| Chandler                               | \$449 M/31 miles   | \$15.5 M/mile         |
| <b>PEER CITY COMMUTER RAIL SYSTEMS</b> |                    |                       |
| Sounder (Seattle)                      | \$1.4 M/83 miles   | \$17.2 M/mile         |
| North Star (Minneapolis)               | \$289 M/40 miles   | \$7.2 M/mile          |
| Front Runner (Salt Lake City)          | \$954 M/44 miles   | \$21.7 M/mile         |
| Westside Express (Portland)            | \$166 M/14.7 miles | \$11.3 M/mile         |

| STAND-ALONE ALTERNATIVE                | ANNUAL OPERATION & MAINTENANCE (O&M) COST | O&M COST PER RIDER |
|--|---|--------------------|
| Grand                                  | \$11 M                                    | \$13/rider         |
| Yuma                                   | \$12 M                                    | \$28/rider         |
| SE                                     | \$18 M                                    | \$9/rider          |
| Tempe                                  | \$5 M                                     | \$16/rider         |
| Chandler                               | \$11 M                                    | \$17/rider         |
| <b>PEER CITY COMMUTER RAIL SYSTEMS</b> |   |                    |
| Western States Average                 | —   | \$11/rider         |

Source: Gannett Fleming and URS Corp., 2009.

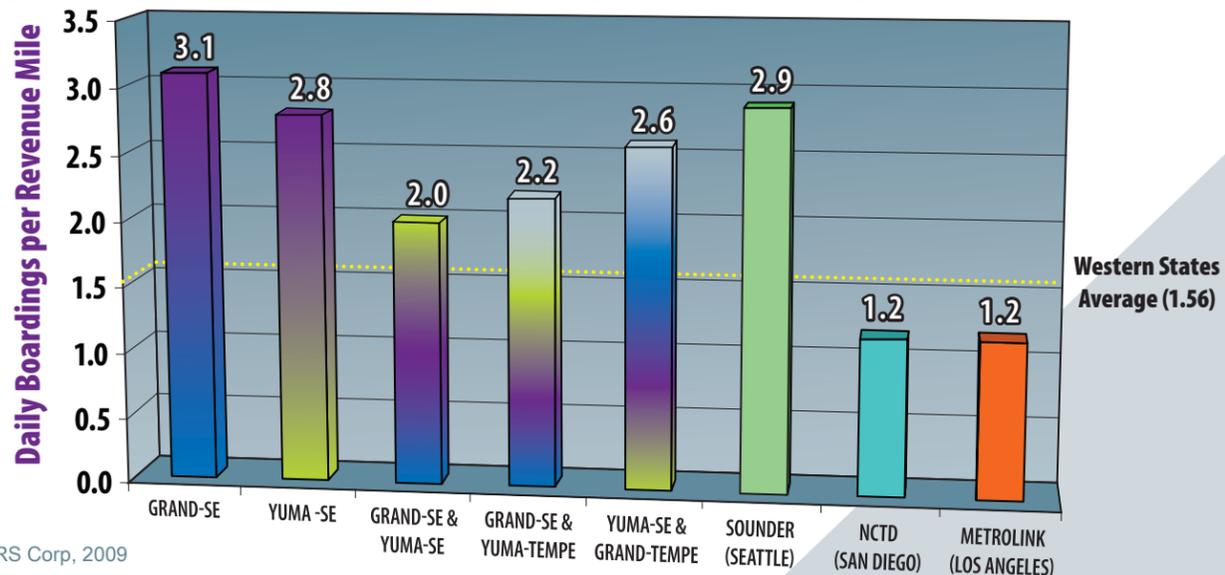
**WHAT INTERLINED ALTERNATIVES WERE CONSIDERED?**

The Project Team developed Interlined Alternatives by connecting two or more corridors together into several series of continues routes. Interlined Alternatives would provide a one-seat ride between corridors. The table below lists the characteristics of each Interlined Alternative.

| CORRIDORS   | ROUTE DESCRIPTION   | DISTANCE | TRAVEL TIME | 2030 DAILY BOARDINGS |
|---|---|----------|-------------|----------------------|
| <b>2-Corridor Interlined Alternatives</b>               |   |          |             |                      |
| Grand Interlined with SE                                | Service between Downtown Wittmann and Downtown Queen Creek with a stop in Central Phoenix | 68 miles | 89 min.     | 9,980                |
| Yuma Interlined with SE                                 | Service between Downtown Buckeye and Downtown Queen Creek with a stop in Central Phoenix  | 63 miles | 93 min.     | 8,530                |
| <b>3-Corridor Interlined Alternatives*</b>              |   |          |             |                      |
| Grand Interlined With SE and Yuma Interlined With SE    | Service between Downtown Wittmann and Downtown Queen Creek with a stop in Central Phoenix | 68 miles | 89 min.     | 11,290               |
|   | Service between Downtown Buckeye and Downtown Queen Creek with a stop in Central Phoenix  | 63 miles | 93 min.     |                      |
| <b>4-Corridor Interlined Alternatives*</b>              |   |          |             |                      |
| Yuma Interlined with SE and Grand Interlined with Tempe | Service between Downtown Buckeye and Downtown Queen Creek with a stop in Central Phoenix  | 63 miles | 93 min.     | 17,960               |
|   | Service between Downtown Wittmann and West Chandler with a stop in Central Phoenix        | 54 miles | 72 min.     |                      |
| Grand Interlined with SE and Yuma Interlined with Tempe | Service between Downtown Wittmann and Downtown Queen Creek with a stop in Central Phoenix | 68 miles | 89 min.     | 15,100               |
|   | Service between Downtown Buckeye and West Chandler with a stop in Central Phoenix         | 48 miles | 76 min.     |                      |

\*The Project Team developed ridership forecasts that substituted the Chandler Corridor for the SE Corridor in the 3-Corridor and 4-Corridor Alternatives. Ridership forecasting results however indicated that substituting the Chandler Corridor for the SE Corridor would result in significantly fewer daily boardings, (62 percent to 74 percent of those estimated for the SE Corridor in 2030), and were therefore not carried forward for further consideration. Source: URS Corp., 2009.

**HOW DO THE INTERLINED ALTERNATIVES PERFORM COMPARED TO PEER CITIES?**



Source: URS Corp, 2009

**IN WHAT ORDER SHOULD THE REMAINING SEGMENTS OF THE COMMUTER RAIL SYSTEM BE IMPLEMENTED?**

Phased implementation of the remainder of the corridors will be highly dependent on a number of factors. The alternatives evaluation revealed no single outstanding performer among the Tempe, Chandler, and Yuma Corridors. Therefore, considerations for future phasing to achieve build-out of the regional commuter rail system will include such factors as:

- ➔ Development patterns;
- ➔ Changes in travel demand;
- ➔ Community support;
- ➔ Potential funding sources; and
- ➔ Potential integration with Phoenix/Tucson intercity rail.

**IMPLEMENTATION STEPS**

**WHAT NEAR-TERM IMPLEMENTATION STEPS ARE NEEDED?**

| ITEM   | RESPONSIBLE PARTY                   | PARTNERS                             | TIMEFRAME |
|--|-------------------------------------|--------------------------------------|-----------|
| <b>1) Periodic Ridership Forecasting Updates</b><br>➔ Re-run MAG ridership forecasting model with latest socioeconomic data.   | MAG                                 | Local jurisdictions                  | Ongoing   |
| <b>2) Coordination with UPRR and BNSF Railway</b><br>➔ Maintain points of contact and communication protocols.<br>➔ Develop partnership to investigate options for determining compensation, capacity improvements, and level of service.<br>➔ Advance design and operating concepts. Plan drawings should be further developed in coordination with the UPRR and BNSF Railway to form the basis for any long-term agreement with railroads. | ADOT<br>MAG<br>UPRR<br>BNSF Railway | Local jurisdictions<br>METRO<br>RPTA | Ongoing   |
| <b>3) Address Enabling Legislation regarding Liability and Indemnification.</b><br>➔ Progress on this issue may facilitate more effective coordination with railroads.   | ADOT (as a statewide issue)         | MAG<br>UPRR<br>BNSF Railway          | 2010-2013 |

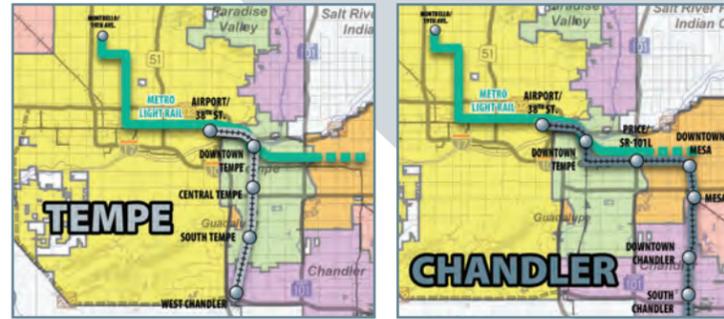
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**START-UP SERVICE SCENARIO 1C:**

**Build Tempe Corridor segment between West Chandler and downtown Tempe/Airport & 38th St.**

- or -

**Build Chandler Corridor segment between Sun Lakes and downtown Mesa/downtown Tempe/Airport & 38th St. or**



Source: URS Corp., 2009.

Like Scenario 1B, this scenario would require a transfer to LRT either in downtown Mesa (for the Chandler Corridor), downtown Tempe, or the vicinity of the airport. While ridership on these corridors is not as strong as on the SE corridor, if (1) right-of-way constraints limit use of the SE Corridor, or (2) inter-city rail plans suggest these corridors are suitable for passenger service between Phoenix and Tucson, the Tempe or Chandler may become higher priority commuter rail corridors.

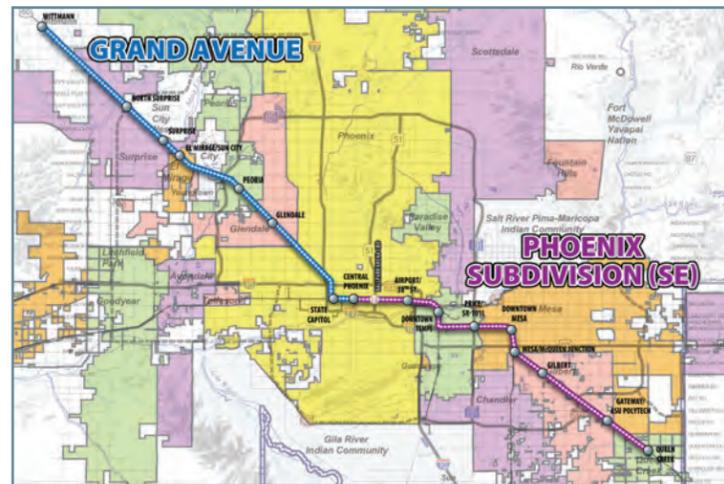
**WHICH SEGMENT OF THE COMMUTER RAIL SYSTEM SHOULD BE IMPLEMENTED SECOND?**

The ranking of Interlined Alternatives could help to determine which combination of corridors would be most effective and should therefore be considered first for interlining with the Start-Up Corridor. If, as in Scenario 1A, the SE Corridor is built first, then the Project Team recommends the following:

**INTERLINED SERVICE SCENARIO 1:**

**Build the Grand Avenue Corridor (interline with the SE Corridor).**

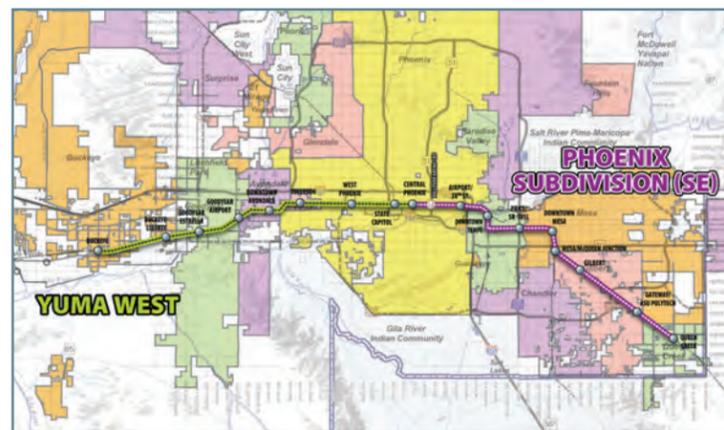
Ridership would be greatest when the most productive East Valley and West Valley Corridors, which are Grand Avenue and SE, are combined.



**INTERLINED SERVICE SCENARIO 2:**

**Build the Yuma West Corridor (interline with the SE Corridor)**

These two corridors have the lowest capital cost per mile and good ridership when combined.



Source: URS Corp., 2009.

**WHAT IS THE COST OF EACH INTERLINED ALTERNATIVE?**

| INTERLINED ALTERNATIVE                                  | CAPITAL COST | CAPITAL COST PER MILE | ANNUAL O&M COST | ANNUAL O&M COST PER RIDER |
|---|--------------|-----------------------|-----------------|---------------------------|
| <b>2-Corridor Interlined Alternatives</b>               |              |                       |                 |                           |
| Grand Interlined with SE                                | \$1.1 B      | \$15.7M/mile          | \$56.4 M        | \$19/rider                |
| Yuma Interlined with SE                                 | \$834.4 M    | \$13.2M/mile          | \$52.1 M        | \$20/rider                |
| <b>3-Corridor Interlined Alternative</b>                |              |                       |                 |                           |
| Grand Interlined with SE and Yuma Interlined with SE    | \$1.4 B      | \$14.4M/mile          | \$98.2 M        | \$29/rider                |
| <b>4-Corridor Interlined Alternatives</b>               |              |                       |                 |                           |
| Yuma Interlined with SE and Grand Interlined with Tempe | \$1.6 B      | \$14.8M/mile          | \$104.5 M       | \$23/rider                |
| Grand Interlined with SE and Yuma Interlined with Tempe | \$1.6 B      | \$14.8M/mile          | \$102.6 M       | \$19/rider                |

Source: Gannett Fleming and URS Corp., 2009.

**COMPARISON OF SYSTEM STUDY ALTERNATIVES**

**HOW DID THE STAND-ALONE ALTERNATIVES RANK IN COMPARISON TO EACH OTHER?**

The comparison of alternatives revealed three distinct tiers of Study System alternatives – top, middle and lower – based on their performance relative to a set of evaluation factors. The evaluation factors that proved to be major discriminators consisted of Ridership; Travel Time Savings; Cost Effectiveness; and Implementation/Constructability. The table below is a summary of Stand-Alone Alternatives rankings and discriminators.

| STAND-ALONE ALTERNATIVE | RANKING     | MAJOR DISCRIMINATORS  |
|-------------------------|-------------|---|
| SE                      | Top Tier    | <ul style="list-style-type: none"> <li>• 2 to 4 times the number of boardings per revenue mile as all other corridors</li> <li>• 18 minute end-to-end travel time savings*</li> <li>• Second lowest capital cost per mile</li> <li>• Lowest O&amp;M cost per rider</li> </ul> |
| Grand                   | Middle Tier | <ul style="list-style-type: none"> <li>• Boardings per revenue mile are close to Western States average</li> <li>• 24 minute end-to-end travel time savings*</li> <li>• Moderate capital cost per mile</li> <li>• Second lowest O&amp;M cost per rider</li> </ul>             |
| Tempe & Chandler        | Middle Tier | <ul style="list-style-type: none"> <li>• Low to moderate boardings per mile</li> <li>• Moderate to high capital cost per mile</li> <li>• High O&amp;M cost per user</li> </ul>  |
| Yuma                    | Lower Tier  | <ul style="list-style-type: none"> <li>• Lowest capital cost per mile due to relatively few infrastructure improvements, but lowest boardings per revenue mile</li> <li>• Minimal travel time savings</li> <li>• Highest O&amp;M cost per rider</li> </ul>                    |

\*Compared to travel time for single-occupancy vehicle. Source: URS Corp., 2009.

HOW DID THE INTERLINED ALTERNATIVES RANK IN COMPARISON TO EACH OTHER?

| Interlined Alternative                          | Ranking     | Major Discriminators  |
|---|-------------|---|
| Grand-SE  | Top Tier    | <ul style="list-style-type: none"> <li>Highest boardings per mile</li> <li>High capital cost per mile</li> <li>Lowest O&amp;M cost per rider</li> </ul>               |
| Yuma-SE   | Top Tier    | <ul style="list-style-type: none"> <li>Moderate boardings per mile</li> <li>Lowest capital cost per mile</li> <li>Moderate O&amp;M cost per rider</li> </ul>          |
| Grand-SE & Yuma-Tempe and Yuma-SE & Grand-Tempe | Middle Tier | <ul style="list-style-type: none"> <li>Low to moderate boardings per mile</li> <li>Moderate capital cost per mile</li> <li>Moderate O&amp;M cost per rider</li> </ul> |
| Grand-SE and Yuma-SE                            | Lower Tier  | <ul style="list-style-type: none"> <li>Lowest boardings per mile</li> <li>Moderate capital cost per mile</li> <li>Highest O&amp;M cost per rider</li> </ul>           |

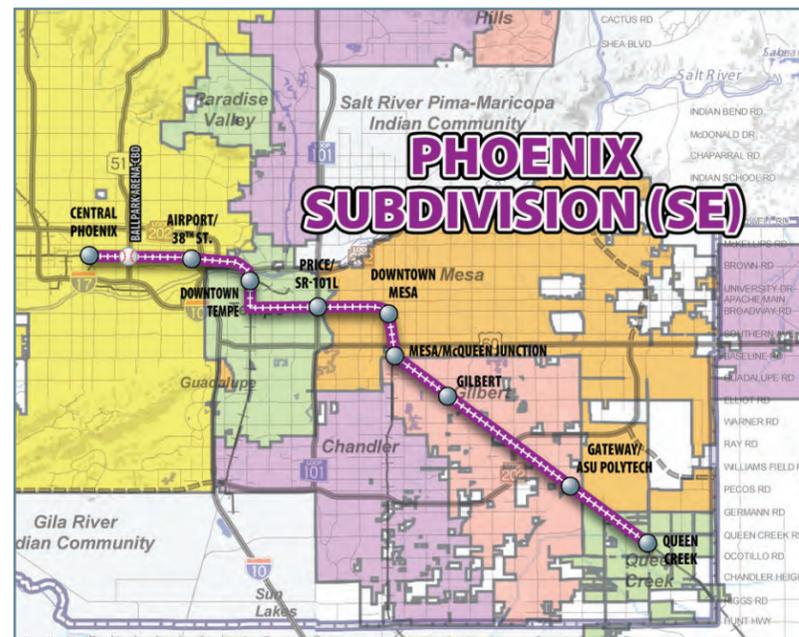
Source: URS Corp., 2009.

SYSTEM STUDY ALTERNATIVES PHASING RECOMMENDATIONS  
WHICH SEGMENT OF THE COMMUTER RAIL SYSTEM SHOULD BE IMPLEMENTED FIRST?

START-UP SERVICE SCENARIO 1A:

Build the SE Corridor.

The SE Corridor would offer the highest ridership by a significant margin, substantial travel time savings, and would be cost-effective.



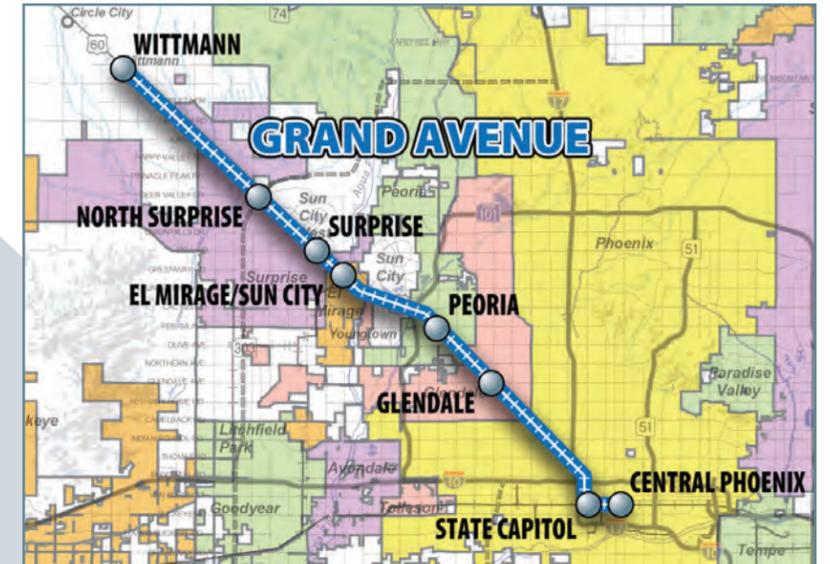
Source: URS Corp., 2009.

While the SE Corridor ranking far exceeded those of the other corridors, if use of all or a portion of the Union Pacific Railroad right-of-way is a fatal flaw due to costs and/or agreements to get through rail yards in Central Phoenix, then alternative options for the first segment of the regional commuter rail system should be considered. Alternative start-up service scenarios include the following:

START-UP SERVICE SCENARIO 1A:

Build the Grand Avenue Corridor.

Grand Avenue Corridor would offer ridership that is on par with other commuter rail systems in operation throughout the Western US, substantial travel time savings, and would be moderately cost-effective. Implementation of commuter rail may result in the relocation of some freight facilities, consistent with BNSF Railway long-range plans.

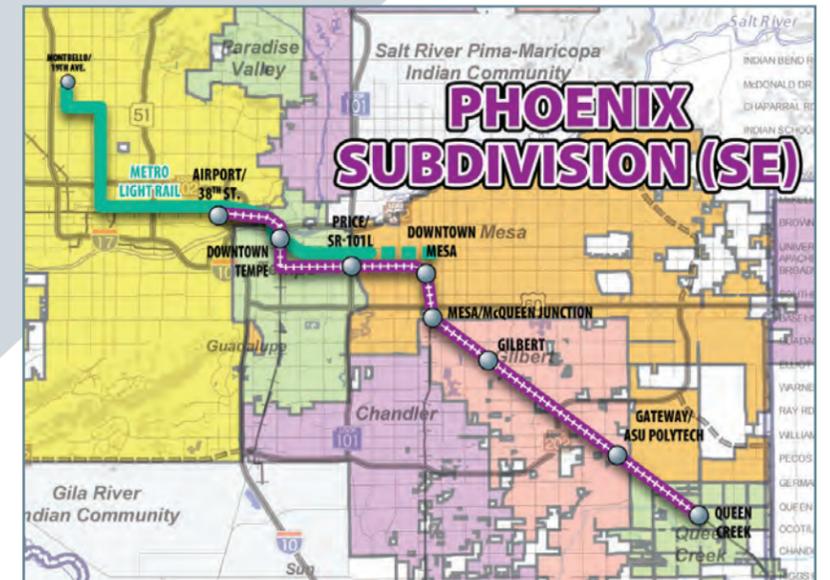


Source: URS Corp., 2009.

START-UP SERVICE SCENARIO 1B:

Build SE Corridor segment between Queen Creek and downtown Mesa/downtown Tempe/Airport & 38th St.

This scenario would require a transfer to LRT in either downtown Mesa, downtown Tempe, or the vicinity of the airport. Ridership forecasting shows large origin-destination traffic in Tempe and the airport is generally considered an emerging employment hub. A Future LRT station in downtown Mesa may also provide a possible connection to commuter rail. Either one of these options would improve mobility in the East Valley while avoiding some of the more challenging operational and right-of-way constraints in downtown Phoenix. However, Scenario 1B would require a forced transfer for many riders, which would increase travel times and decrease overall ridership.



Source: URS Corp., 2009.

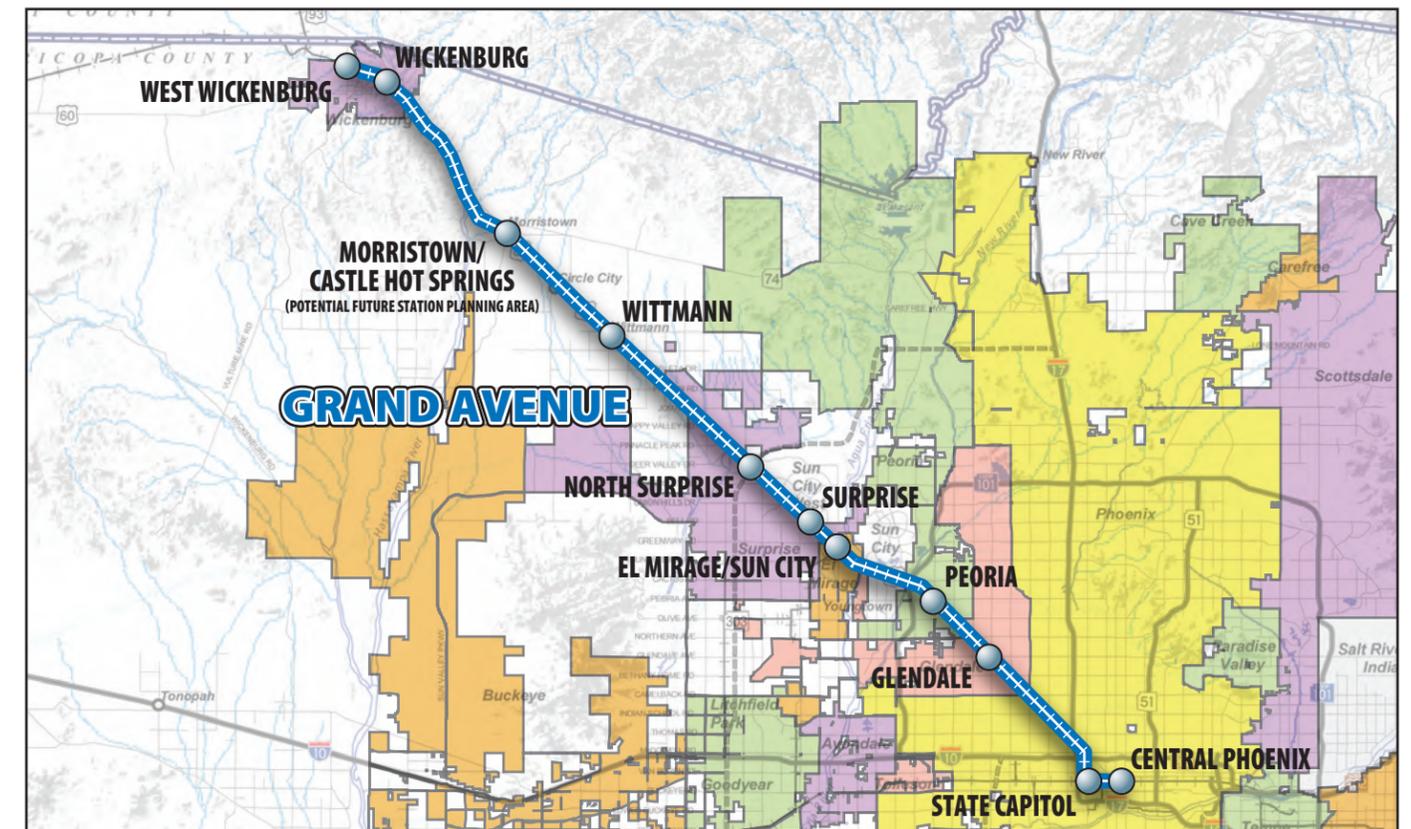
# MAG GRAND AVENUE COMMUTER RAIL CORRIDOR DEVELOPMENT PLAN

EXECUTIVE SUMMARY 2010

## COMMUTER RAIL CORRIDOR DEVELOPMENT PLAN OVERVIEW

Maricopa County has experienced unprecedented population growth over the last several decades, impacting all aspects of community development, land use, public service delivery, and particularly the demand on the region's transportation system. The Grand Avenue Corridor Development Plan explores the feasibility of commuter rail to enhance mobility in the northwestern metropolitan region. As envisioned, commuter rail would share existing right-of-way with the Burlington Northern Santa Fe (BNSF) Railway that parallels Grand Avenue.

By 2030, the Grand Avenue Corridor is expected to experience a 41 percent increase in population and a 52 percent increase in employment. As a result of this growth, and even with planned roadway improvements and transit service programmed within MAG's Regional Transportation Plan (RTP), congestion in the Grand Avenue Corridor is expected to worsen. Levels of automobile congestion are forecasted to range from moderate to severe throughout the length of the project corridor and motorists will experience increases in travel time to reach their destinations, especially during peak commuter times. Commuter rail service would provide an opportunity to improve mobility, particularly for peak period trips, by reducing travel time and providing a reliable and consistent alternative to automobile travel in a congested roadway corridor.



Source: URS Corp., 2009



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**WHAT IS COMMUTER RAIL?**

Commuter rail trains typically provide service between suburbs to urban centers for the purpose of reaching activity centers, such as employment nodes, special events, and intermodal connections. Commuter rail trains are typically optimized for maximum passenger capacity and are equipped with comfortable seating and minimal luggage capacity. Service typically occurs at a lower frequency than light rail, serving primarily peak travel needs for commuters. Travel distance between a rail line's termini may range between 30 and 50 miles. Station spacing is typically 5 to 10 miles apart.



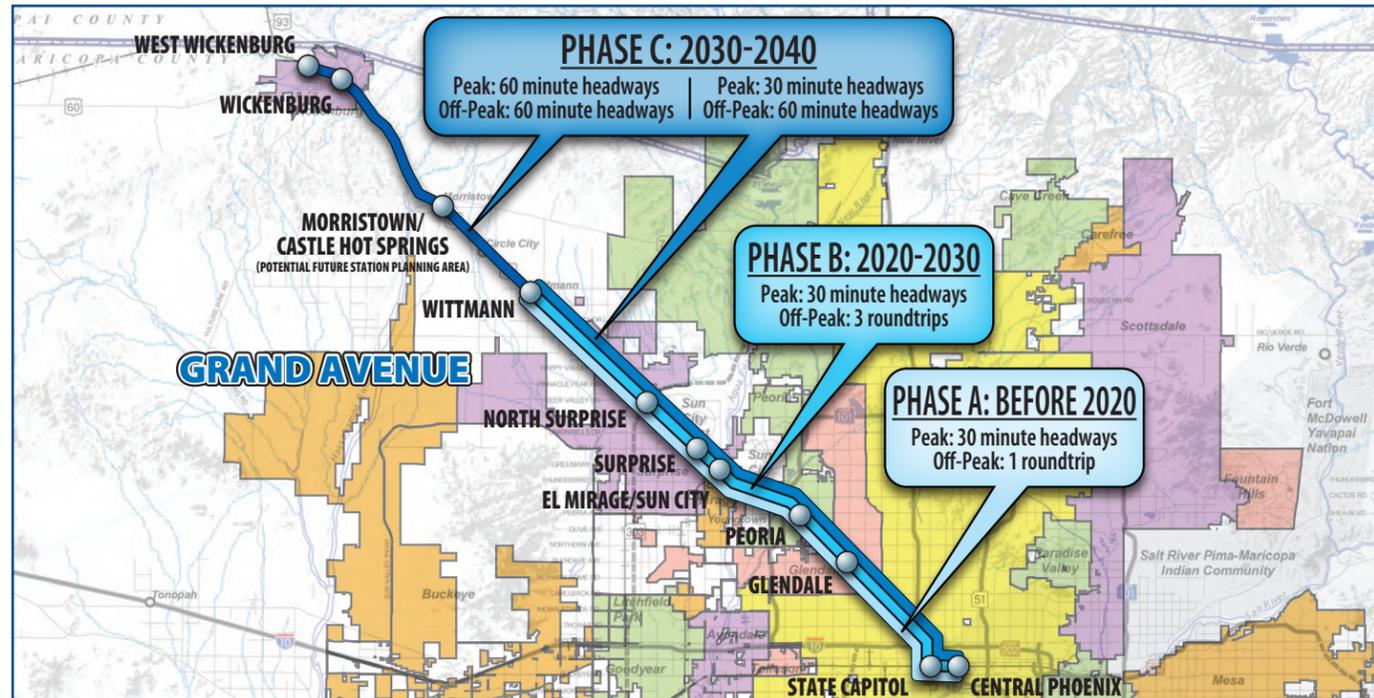
Rail Runner Express Commuter Train; Albuquerque, NM  
Source: MRCOG/HDR.



Sounder Commuter Train; Seattle, WA  
Source: MAG.

**HOW WOULD COMMUTER RAIL SERVICE BE OPERATED?**

The MAG Study Team developed three potential service levels as operating phases consisting of Phases A, B and C. Each phase increases levels of service as ridership would grow by increasing the frequency of trains (or headway) and/or expanding service areas, as shown below.



Source: URS Corp., 2009

**NEAR-TERM IMPLEMENTATION STEPS**

Near-term implementation steps to advance this corridor development plan within the next five years are shown below.

| ITEM  | RESPONSIBLE PARTY                   | PARTNERS   | TIMEFRAME  |
|---|-------------------------------------|--|--|
| Periodic Ridership Forecasting Updates  | MAG                                 | Local Jurisdictions  | Ongoing  |
| Coordinate with BNSF Railway Company<br>→ Maintain point of contact and communication protocols<br>→ Develop partnership to investigate options | ADOT<br>MAG<br>BNSF Railway Company | Local jurisdictions<br>METRO<br>RPTA                               | Ongoing  |
| Address Enabling Legislation (Liability and Indemnification)  | ADOT<br>(as a statewide issue)      | MAG<br>BNSF  | 2010-2013  |
| Identify Funding Commitments  | MAG<br>ADOT<br>Legislature          | Local jurisdictions  | 2010-2015  |
| Develop and Implement Governance Plan   | MAG<br>ADOT                         | METRO<br>RPTA<br>Local jurisdictions                               | Following identifications of local funding commitments |
| Preserve Future Options   | Commuter Rail Authority or JPA      | Local jurisdictions<br>BNSF Railway Company<br>MAG<br>CAAG<br>ADOT | Ongoing  |
| Local Planning Efforts  | Local Jurisdictions                 | MAG<br>ADOT  | Ongoing  |

**LONG-TERM IMPLEMENTATION STEPS**

The identification of funding commitments and determination of the appropriate governance structure for commuter rail, which are likely to influence each other, will set the stage for moving into the next level of investment in commuter rail within the MAG region. Recommended long-term implementation steps include:

- Formalize a partnership with the railroad
- Secure sources of funding, including federal, state, regional, and local public funding as well as private sector participation
- Design, construct, and operate an initial commuter rail system
- Conduct further planning to develop a seamless transportation system and meet regional sustainability goals

**COORDINATION OF INFRASTRUCTURE IMPROVEMENTS**

A successful commuter rail project will require a collaboration of all participants – primarily the local governments as the development regulator and financial partner, the transit agency as the transit infrastructure builder, and the BNSF Railway Company as the railroad right-of-way owner.

The BNSF Railway is planning a number of freight rail infrastructure improvements that would reduce freight activity into downtown Phoenix and thereby free up space on the rail mainline for commuter rail. Similarly, ADOT is planning for extensive roadway upgrades along US 60/Grand Avenue. These infrastructure upgrades will likely improve the operations of commuter rail service in conjunction with freight operations and in conjunction with the surrounding roadway network.

Planned roadway projects to upgrade safety and automobile travel efficiency in the Grand Avenue Corridor could also serve to jointly improve the highway system, freight operations and the development of commuter rail service. Currently, the frequency and complexity of the at-grade highway/railroad crossings between Phoenix and Glendale pose a potential safety hazard, a source of increased traffic delay, and reduced rail train speeds due to congestion. Near-term capital improvement projects that would minimize auto/train conflicts would help to advance the implementation of a commuter rail system in the Grand Avenue Corridor. MAG has identified multiple roadway improvements for Grand Avenue from SR 303 to McDowell Road in the 2007 Regional Transportation Plan (RTP) Update. The RTP improvements include the addition of general purpose lanes, grade separations, and other improvements that will be implemented throughout the planning period for the RTP.

These planned improvements will grade separate three crossings that have a high rate of train/automobile accidents and will thereby significantly reduce the BNSF Railway’s exposure to accident risks and help improve the Grand Avenue transportation corridor as a whole. Implementation of these and other improvements would indirectly benefit commuter rail by improving safety conditions in the corridor.

Prior to securing project financing, local governments within the corridor can take steps to lay the foundation for commuter rail implementation. The following is a list of such actions:

- ➔ Control regulatory actions within station areas, including the planning, zoning, and development permitting process, to facilitate the development of commuter rail stations.
- ➔ Use other implementation tools such as infrastructure construction (for example, streets and utilities), land purchase and assembly, and creation of urban design guidelines to facilitate transit-supportive development.



**Stakeholder Involvement during the Planning Process**

The stakeholder involvement component of the planning process for this Corridor Development Plan was extensive. Throughout the study process, several groups met regularly to review project information and provide feedback. These groups included:

*Project Management Team (PMT):* The PMT included representatives from MAG, the Regional Public Transportation Authority (RPTA), Valley Metro Rail, Inc. (METRO), and the Arizona Department of Transportation (ADOT). The PMT met monthly to review study information and coordinate ongoing planning activities.

*Project Review Team (PRT):* The PRT included representatives from the local jurisdictions throughout the Grand Avenue Corridor. This group met quarterly throughout the year-long study process and provided feedback on study information and updated MAG’s Study Team on ongoing planning efforts in their communities.

*Stakeholders Meetings:* Stakeholders meetings were conducted quarterly to review and provide input into the planning process. This group had the broadest representation, as it included representatives of jurisdictions from throughout the MAG region, state agencies, and interest groups.

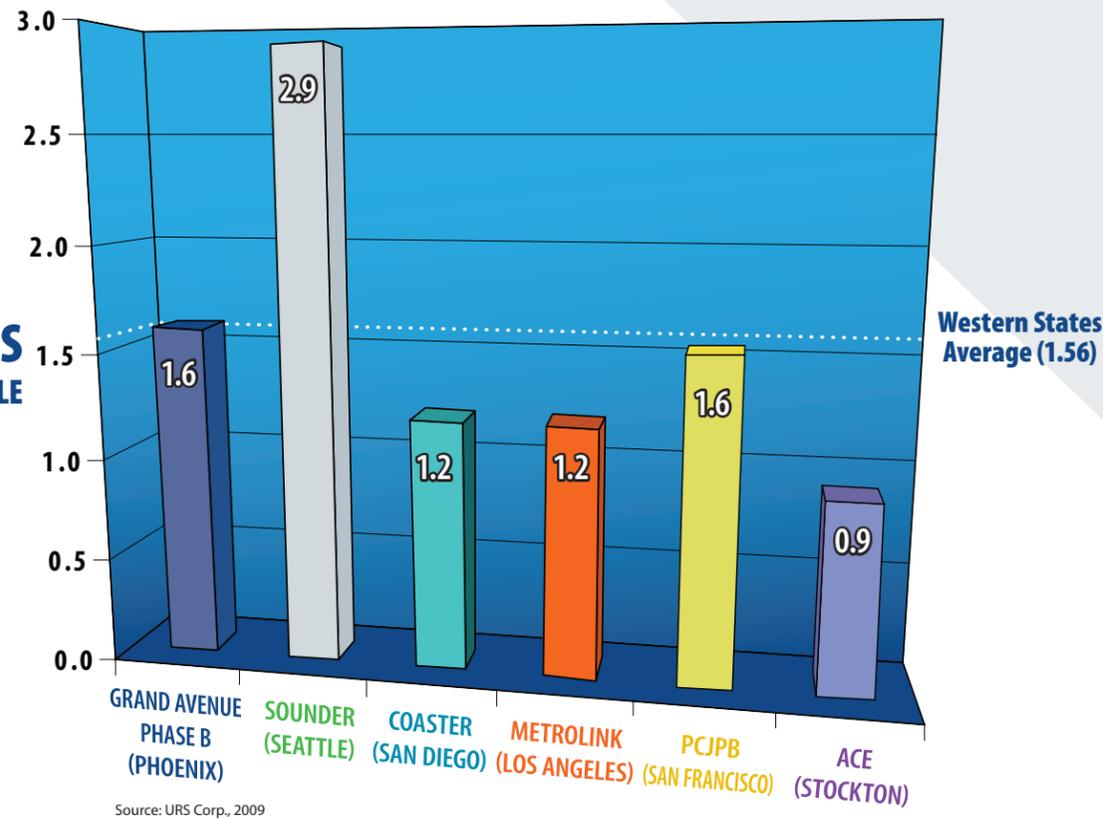
**WHAT RIDERSHIP COULD BE EXPECTED ON COMMUTER RAIL?**

Ridership modeling was conducted to evaluate the feasibility of commuter rail along the Grand Avenue Corridor. Ridership forecasting results showed strong destinations and attractions along the length of the corridor – including downtown Glendale, Peoria, El Mirage, and Surprise as well as downtown Phoenix.

| GRAND AVENUE CORRIDOR PHASES                     | GRAND AVENUE CORRIDOR DAILY BOARDINGS |
|--|---------------------------------------|
| Phase A: Phoenix – Wittmann (Before 2020)        | 2,400                                 |
| Phase B: Phoenix – Wittmann (2020 – 2030)        | 2,800                                 |
| Phase C: Phoenix – West Wickenburg (2030 – 2040) | 5,000                                 |

Projected ridership was compared to the experiences in other cities with commuter rail. With approximately 2,800 daily boardings forecast for Phase B between 2020 and 2030, the Grand Avenue Corridor would have approximately 1.6 daily boardings per revenue mile. This forecasted ridership is slightly above the average of 1.56 daily boardings per revenue mile for commuter rail systems in Western states.

**DAILY BOARDINGS PER REVENUE MILE**



**GRAND AVENUE CORRIDOR AS PART OF A LARGER COMMUTER RAIL SYSTEM**

In a multi-corridor scenario, the Grand Avenue Corridor would be connected to one or more commuter rail corridors to create one continuous route that provides a one-seat ride between corridors. Multi-corridor scenarios were considered as part of the MAG Commuter Rail System Study. Overall, combining corridors provides the opportunity to increase overall ridership and reduce per-rider costs. The recommendations that emerged from MAG's System Study included the Grand Avenue Corridor as part of the most productive and effective overall regional system. For more information, refer to the System Study Final Report or Executive Summary.

**WHAT WOULD COMMUTER RAIL COST IN THE GRAND AVENUE CORRIDOR?**

Preliminary cost estimates were prepared for the Grand Avenue Corridor by phase. These are considered to be conservative estimates, and would be expected to change as negotiations with the railroad progress and specific, needed improvements are confirmed.

| COST CATEGORY                 | PHASE A (MILLIONS) | PHASE B (MILLIONS) | PHASE C (MILLIONS) |
|-------------------------------|--------------------|--------------------|--------------------|
| Total Estimated Capital Cost* | \$434.3            | \$599.6            | \$700.9            |
| Estimated Annual O&M Costs*   | \$7.4              | \$10.8             | \$49.6             |

\* Cost in 2009 US dollars.

**LOCAL OR REGIONAL FUNDING**

| FUND SOURCE   | CAPITAL AND/OR OPERATIONS                      | VIABILITY  |
|---|--|--|
| Maricopa County Transportation Excise Tax (Sales Tax) | Supports capital and/or operations             | Moderate. Although the revenue generated from the current tax (Proposition 400) is programmed, future propositions are expected to occur.  |
| Vehicle Miles Travelled (VMT) Tax                     | Supports capital and/or operations             | Moderate. Typically used for roadway maintenance. Commonly unpopular with voters because of perceived invasion of privacy. Would be considered to be a more consistent funding alternative to a gas tax.                   |
| Payroll Tax   | Potentially support capital and/or operations. | Low. Existing State, and potentially Federal, tax codes must be modified to support these uses.  |
| Motor Vehicle Sales Tax                               | Potentially support capital and/or operations. | Low. The MAG region's allocation programmed. The revenue generated from the tax may not be a sustainable source of funding in the future.  |
| Vehicle Rental Tax                                    | Supports capital and/or operations             | Low. Special uses for the surcharges collected for this tax will require County, and possibly State, law modification for the purpose of commuter rail.  |
| Local Gas Tax   | Potentially supports capital and/or operations | Low. The MAG region's allocation is currently programmed. The revenue generated from the tax may not be a sustainable source of funding in the future. State tax codes will likely require modification to authorize uses. |
| Vehicle License Tax by District                       | Supports capital and/or operations             | Moderate. The VLT by district concept would require significant political support since it has not been implemented. State and/or County tax codes will likely require modification to authorize districts and uses.       |

**PRIVATE FUNDING**

| FUND SOURCE   | CAPITAL AND/OR OPERATIONS                          | VIABILITY   |
|---|--|---|
| Public Value Capture: Benefits Assessment Districts | Potentially support capital and/or operating uses. | Low. Setting up the finance mechanism for such a public investment will require State and County statute or code modification.  |
| Public Value Capture: Tax Increment Financing       | Potentially support capital and/or operating uses. | Low. The authorization of such a mechanism will require political support and State law modification.   |
| Public-Private Partnerships (PPP)                   | Potentially support capital and/or operating uses. | Moderate. ADOT is investigating new PPP opportunities. This approach is being used sparingly in other cities given uncertain nature of financial markets, but may be more viable in the future. |

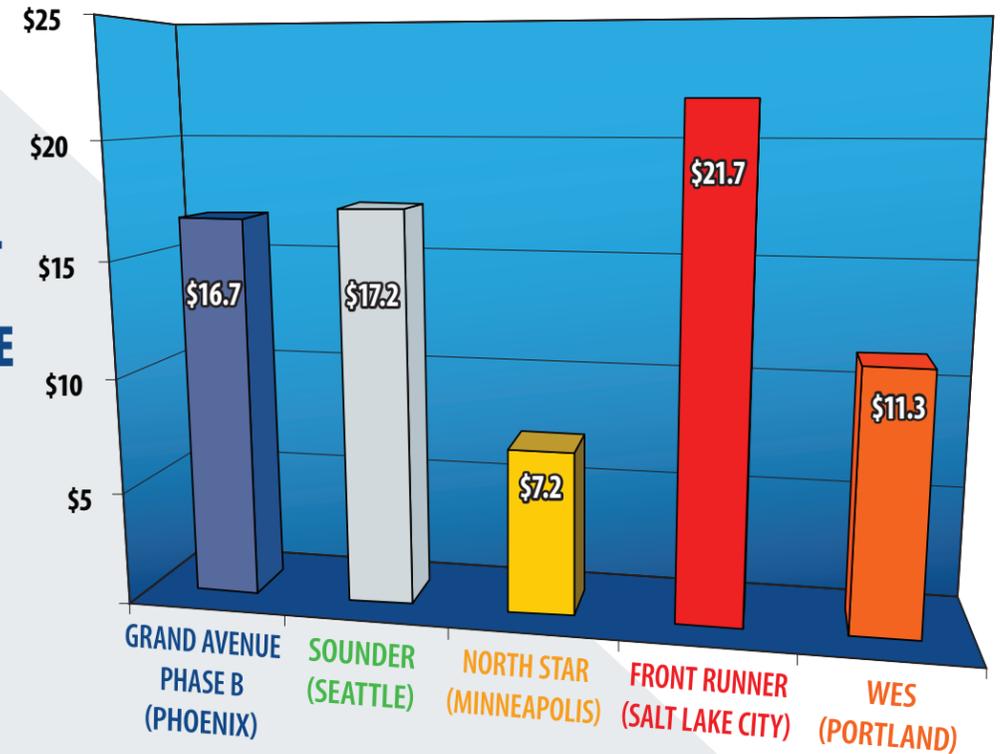
**FEDERAL FUNDING**

|   |  |   |
|---|--|---|
| Federal Railroad Administration Section 130                           | Supports transportation capital uses only, primarily for the use of improving grade crossings. | Low. The State's allocation of Section 130 funding is relatively small and may likely only support a portion of a safety improvement project. |
| Congestion Mitigation and Air Quality (CMAQ) Funds                    | Supports transportation capital uses only  | Low. A commuter rail project application will contend with many other capital projects in the MAG region.                                     |
| Surface Transportation Program (STP) Funds                            | Supports transportation capital uses only  | Low. A commuter rail project application will contend with many other capital projects in the MAG region.                                     |
| Federal Railroad Administration High Speed and Passenger Rail Program | Supports transportation capital uses only.   | Low. May only address some intercity components of commuter rail or related rail projects.  |

**STATE FUNDING**

| FUND SOURCE   | CAPITAL AND/OR OPERATIONS                         | VIABILITY  |
|---|---|--|
| Highway User Revenue Fund (HURF)                                    | Supports transportation capital uses only         | Low. Funding is driven by fuel taxes and vehicle license taxes, which may not be sustainable sources in the future. In order to use HURF, State statute changes would be required. |
| Vehicle License Tax (VLT)   | Supports transportation capital and/or operations | Low. The MAG region's allocation is currently programmed. The revenue generated from the tax may not be a sustainable source of funding in the future.                             |
| Statewide Transportation Acceleration Needs (STAN) Account          | Supports transportation capital and/or operations | Low. The STAN account was a potential source of transit funding in the recent past, however it is not considered to be a reliable funding source in the future.                    |
| New Dedicated Statewide Transportation Funding (e.g. statewide tax) | Supports transportation capital and/or operations | Low. Unclear if new tax would be considered viable in the future.  |

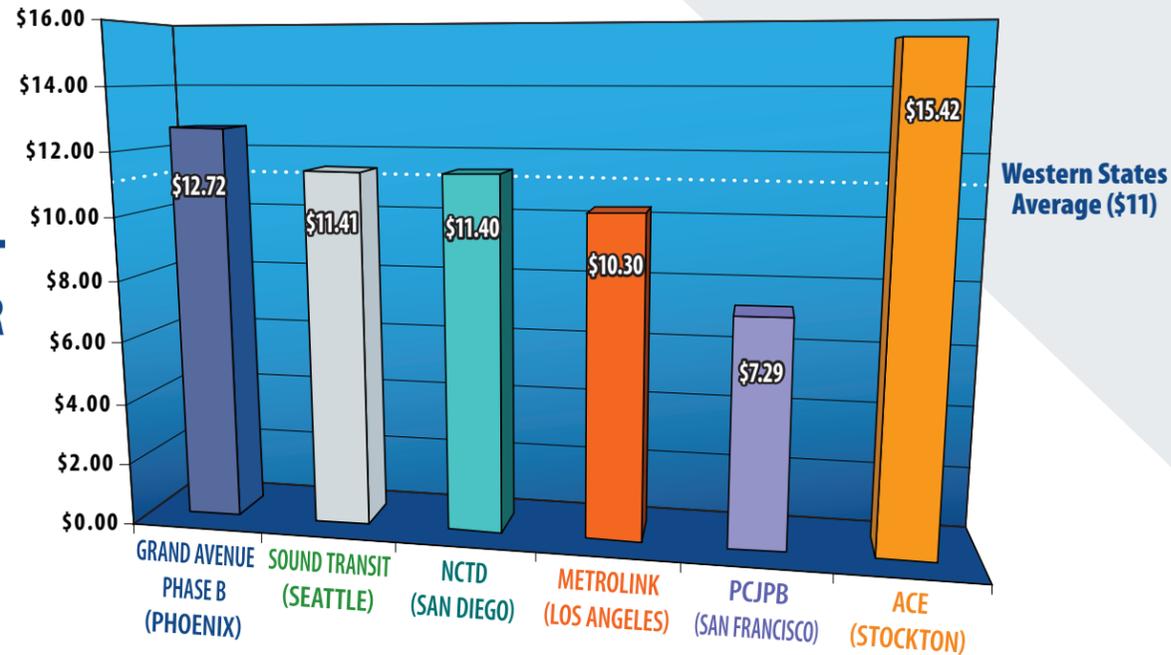
**CAPITAL COST PER MILE (MILLIONS)**



According to initial cost estimates, the Grand Avenue Corridor would be slightly more expensive to build and operate than peer city commuter rail systems, but is still comparable and within the range of what most industry experts would consider reasonable. Major observations related to cost include:

- The modestly higher capital cost of the Grand Avenue Corridor compared to peer city commuter rail systems can be attributed to the infrastructure improvements required to operate commuter rail service in an active and congested freight rail corridor with several freight facilities and numerous grade crossings.
- Cost-sharing of freight rail facility improvements with the BNSF Railway may reduce the capital costs for implementation of commuter rail service in the Grand Avenue Corridor.
- The annual operation and maintenance (O&M) costs of the Grand Avenue Corridor are comparable to peer city commuter rail systems.

**ANNUAL O&M COST PER RIDER**



Source: URS Corp., 2009

The options for an appropriate institutional structure for regional commuter rail, based on both the national experience and the local situation, are summarized below.

**Regional Transit Authority/District (Multi-Modal):** Should MAG consider this model in the implementation of commuter rail, it would likely entail a restructuring of RPTA, which was authorized in 1985 by the State legislature.

**Regional Rail Authority/District (Single-Purpose):** A newly formed regional rail authority with the sole purpose of implementing commuter rail in the region would likely involve membership by Maricopa County, and potentially Pinal County if service is expanded. This new authority would be similar to METRO.

**Joint Powers Authority (JPA):** In the MAG region, a JPA would be formed by aggregating authorities from constituent districts. For example, METRO could enter into an agreement with the cities to be served by commuter rail to form a JPA responsible for the design, construction and operation of commuter rail service.

**Division of State Department of Transportation:** While this model is primarily found in smaller states with a single metropolitan area, it may have an application in the MAG region, particularly in conjunction with a state-sponsored intercity rail connection between Tucson and Phoenix and a statewide passenger rail system.

**Division of Metropolitan Planning Organization:** This governance model would require expanding the charter of MAG to include the operation of commuter rail.

**FUNDING OPTIONS**

The initial step to develop a funding implementation strategy is to gauge possible or probable funding options from governments at the federal, state and local levels, as shown in the following tables.

**FEDERAL, STATE, LOCAL AND PRIVATE FUNDING SOURCES**

| FEDERAL FUNDING  |  |  |
|--|--|--|
| FUND SOURCE  | CAPITAL AND/OR OPERATIONS  | VIABILITY  |
| Federal Transit Administration Section 5307            | Supports transportation capital costs including preventive maintenance | Low. The MAG region's allocation is currently programmed to support a host of other transit projects; future funds could be allocated to commuter rail. This is an annual programming allocated by formula; if and when commuter rail is added to the region, its data would enter into the formula calculation.           |
| Federal Transit Administration Section 5309 New Starts | Supports transportation capital  | Moderate. The application of Section 5309 is feasible, but the New Starts alternatives analysis planning requirements will require a significant evaluation and time. However, New Starts regulations have been relaxed recently and additional funding will likely be provided nationwide in the next authorization bill. |

CONTINUED >>>

**HOW CAN COMMUTER RAIL BE IMPLEMENTED?**

**POTENTIAL GOVERNANCE STRUCTURES**

One of the most significant issues to be resolved for the implementation of commuter rail in the MAG region is the question of who will be the responsible party for managing, designing, constructing and operating the system. Implementation of a commuter rail system will require a governance structure that reflects the financial, political, and representational patterns of the areas served by commuter rail.

The existing structure of transit service providers in the Phoenix metropolitan region is a complex mix of historical operations such as the City of Phoenix transit system, the Regional Public Transportation Authority or RPTA (commonly known as Valley Metro) and Valley Metro Rail Inc. (METRO), a nonprofit, public corporation charged with the design, construction, and operation of the Valley's light rail system. In addition, ADOT is exploring intercity rail opportunities within the state. Defining appropriate governance structures for a commuter rail system would depend upon opportunities that arise for cooperation and use of railroad right-of-way. This could be for one commuter rail project or a series of projects. Each agency would have to participate in the process to define the appropriate structure.

Generally, the institutional arrangements for regional or commuter rail service throughout the country range from state-run regional rail operations to large single-purpose regional rail authorities that extend service into multiple political jurisdictions, to regional transit authorities that are responsible for multimodal services, to sub-regional agreements between cities to contribute to the management of a rail service in a common corridor. Based on the decisions regarding governance made in the most recent commuter rail projects, two key factors are likely to determine the success of a new governance structure. These factors include the ability of the institutional arrangement to (1) balance local control with the need for regional system performance; and (2) provide stable funding opportunities.

# MAG YUMA WEST

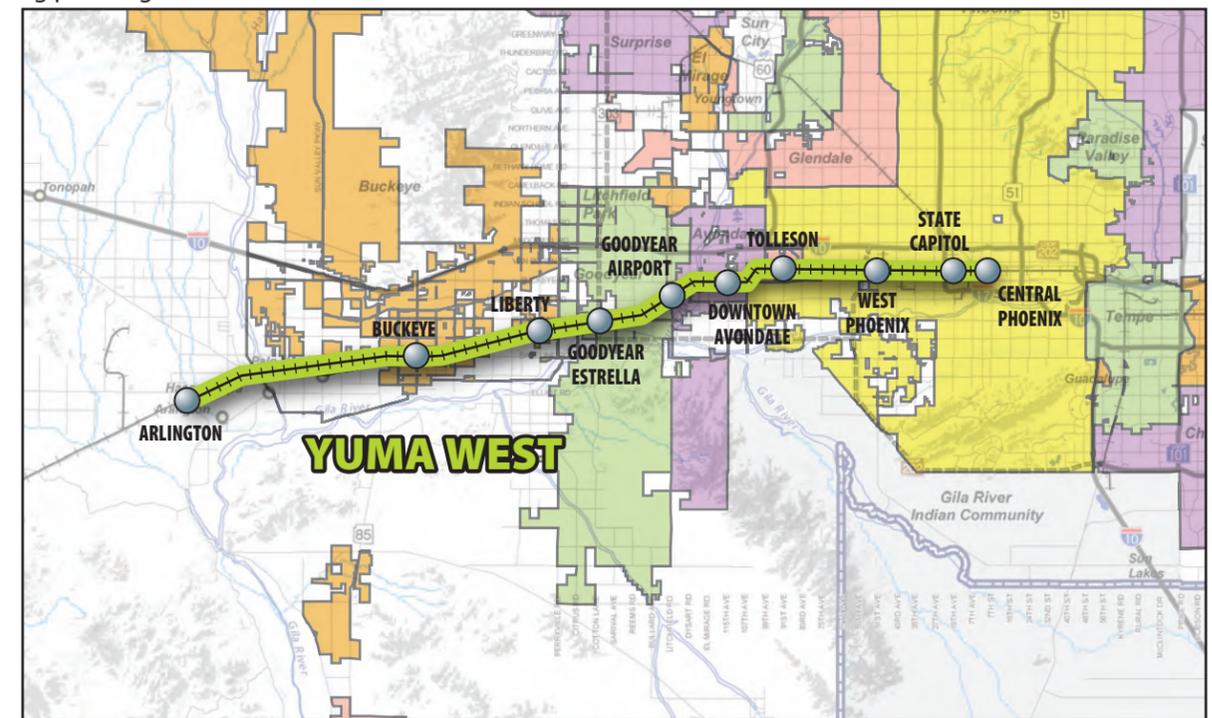
## COMMUTER RAIL CORRIDOR DEVELOPMENT PLAN

EXECUTIVE SUMMARY 2010

### YUMA WEST COMMUTER RAIL CORRIDOR DEVELOPMENT PLAN

The Phoenix metropolitan area has experienced unprecedented population growth over the last several decades, impacting all aspects of community development, land use, public service delivery, and particularly the demand on the Valley's transportation system. The western metropolitan region (or West Valley) has contributed a significant portion of the region's overall growth and, with developable land still available, is projected to continue to do so in the years ahead. The Yuma West Corridor Development Plan explores the feasibility of commuter rail to enhance mobility in the West Valley. It is assumed that commuter rail would share existing right-of-way owned by the Union Pacific Railroad (UPRR), similar to systems in other parts of the country.

Interstate 10 (I-10) is the only major freeway that connects downtown Phoenix with the communities in the West Valley. In addition to I-10, Buckeye Road is a major arterial roadway that provides a connection into downtown Phoenix and generally parallels the UPRR corridor. As the population of this area has grown, more residents are commuting along the I-10 and Buckeye Road corridors to key employment destinations in the central metropolitan area, including downtown Phoenix. Commuter rail technology can provide an additional tool to serve commuter travel demand. In addition, the implementation of commuter rail may promote economic and land use development opportunities if paired with local efforts to facilitate transit-supportive development. Many jurisdictions in the West Valley are identifying a public interest in such development in ongoing planning efforts.



Source: URS Corp., 2009



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**WHAT IS COMMUTER RAIL?**

Commuter rail trains typically provide service between suburbs to urban centers for the purpose of reaching activity centers, such as employment nodes, special events, and intermodal connections. Commuter rail trains are typically optimized for maximum passenger capacity and are equipped with comfortable seating and minimal luggage capacity. Service typically occurs at a lower frequency than light rail, serving primarily peak travel needs for commuters. Travel distance between a rail line's termini may range between 30 and 40 miles. Station spacing is typically 5 to 10 miles apart.



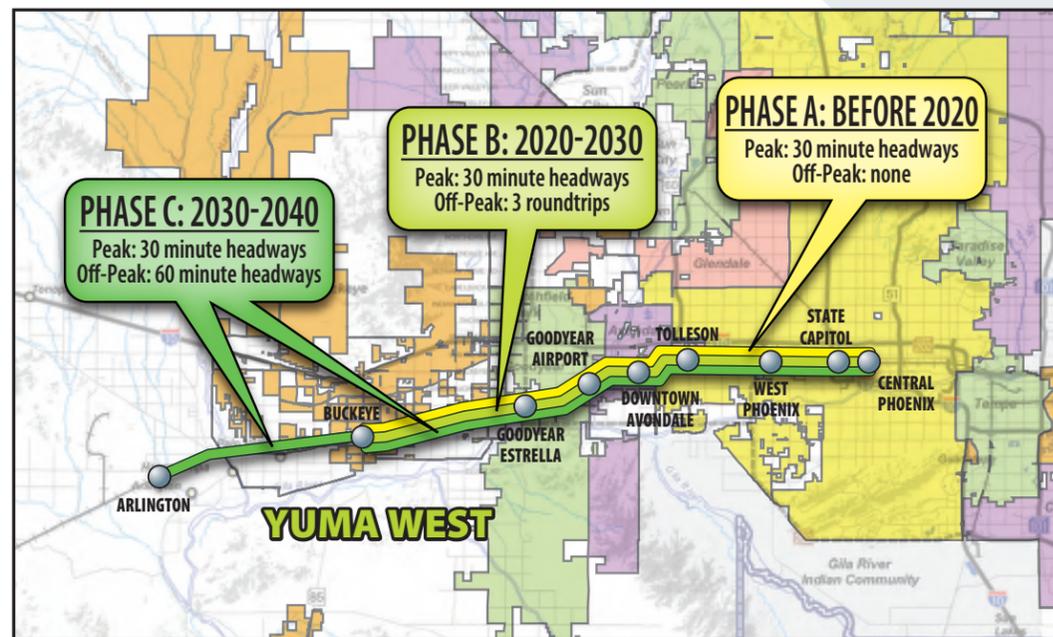
Rail Runner Express Commuter Train; Albuquerque, NM  
Source: MRCOG/HDR.



Sounder Commuter Train; Seattle, WA  
Source: MAG.

**HOW WOULD COMMUTER RAIL SERVICE BE OPERATED?**

The MAG Study Team developed three potential service levels as operating phases consisting of Phases A, B and C. Each phase increases levels of service as ridership would grow by increasing the frequency of trains (or headway) and/or expanding service areas, as shown below. Given the relatively small increase in cost between Phases A and B plus the ridership benefit of going to Phase B, it may be most cost-effective to implement both Phases A and B in any start-up scenario in this corridor.



Source: URS Corp., 2009

**IMPLEMENTATION STEPS**

Key implementation steps in the near-term include coordination with UPRR to further investigate opportunities for passenger rail service. A state-level initiative to advance legislation to address liability and indemnification issues is also a critical early step. Local jurisdictions, MAG, and transit providers also can work together to plan for the increased success of commuter rail service by promoting land use development and more robust transit connectivity options that will increase ridership potential.

**WHAT NEAR-TERM IMPLEMENTATION STEPS ARE PROPOSED TO ADVANCE PLANNING FOR COMMUTER RAIL?**

| ITEM  | RESPONSIBLE PARTY              | PARTNERS                                   | TIME FRAME  |
|---|--------------------------------|--|---|
| Periodic Ridership Forecasting Updates  | MAG                            | Local Jurisdictions                        | Ongoing   |
| Coordinate with UPRR<br>→ Maintain point of contact and communication protocols<br>→ Develop partnership to investigate options | ADOT<br>MAG<br>UPRR            | Local jurisdictions<br>METRO<br>RPTA       | Ongoing   |
| Address Enabling Legislation (Liability and Indemnification)  | ADOT<br>(as a statewide issue) | MAG<br>UPRR                                | 2010-2013   |
| Identify Funding Commitments  | MAG<br>ADOT<br>Legislature     | Local jurisdictions                        | 2010-2015   |
| Develop and Implement Governance Plan   | MAG<br>ADOT                    | METRO<br>RPTA<br>Local jurisdictions       | Following identification of local funding commitments |
| Preserve Future Options   | Commuter Rail Authority or JPA | Local jurisdictions<br>UPRR<br>MAG<br>ADOT | Ongoing   |
| Local Planning Efforts  | Local Jurisdictions            | MAG<br>ADOT                                | Ongoing   |

**LONG-TERM IMPLEMENTATION STEPS**

The identification of funding commitments and determination of the appropriate governance structure for commuter rail, which are likely to influence each other, will set the stage for moving into the next level of investment in commuter rail within the MAG region. Recommended long-term implementation steps include:

- Formalize partnership with the railroad
- Secure sources of funding, including federal, state, regional, and local public funding as well as private sector participation
- Design, construct, and operate initial commuter rail system
- Conduct further planning to develop a seamless transportation system and meet regional sustainability goals

**COORDINATION OF INFRASTRUCTURE IMPROVEMENTS**

A successful commuter rail project will require a collaboration of all participants – primarily the local governments as the development regulator and financial partner, the transit agency as the transit infrastructure builder, and the UPRR as the railroad right-of-way owner.

The Yuma West Corridor is a portion of the 208-mile Phoenix Line of the UPRR. The Phoenix Line hosted Amtrak’s Sunset Limited until June 1996, when Amtrak began to use the Gila Line south of Phoenix. When Amtrak used the line for passenger service, the maximum operating speed was 50 to 60 mph for passenger trains. Ongoing freight activity on the line today consists of local traffic only, with an average of four to six local train movements per day.

The Yuma West Corridor is a single track with few sidings and frequent industrial leads and spur tracks. Passing sidings are located at 23rd Avenue in Phoenix, Cashion, Buckeye, Dixie, and Arlington. The primary issue along this corridor with regard to concurrently operating passenger and current local freight traffic is the use of Campo Yard, which is located between 35th Avenue and 43rd Avenue in Phoenix. Campo Yard is an industrial yard that serves local industries, where rail cars coming from local industries are assembled into trains and rail cars going to local customers are broken down from incoming trains. Due to limited right-of-way, routing commuter rail tracks through or around the facility without interfering with yard activities will be a challenge. To address this issue, several infrastructure improvements are proposed and coordination with UPRR on operations will be critical.

Some infrastructure improvements that potentially would be required as the level of commuter rail service increases includes Positive Train Control, or PTC, and quiet zones may be implemented by UPRR or other parties independently of commuter rail to address FRA requirements or meet community needs. Fundamental improvements, such as upgrading the existing main line to accommodate higher train speeds, would be needed with the initial service levels of commuter rail. Sidings would also be provided at critical commuter rail stations where passenger train meets would be expected.

Prior to securing project financing, local governments within the corridor can take steps to lay the foundation for commuter rail implementation. The following is a list of such actions:

- Control regulatory actions within station areas, including the planning, zoning, and development permitting process, to facilitate the development of commuter rail stations.
- Use other implementation tools such as infrastructure construction (for example, streets and utilities), land purchase and assembly, and creation of urban design guidelines to facilitate transit-supportive development.



**STAKEHOLDER INVOLVEMENT DURING THE PLANNING PROCESS**

The stakeholder involvement component of the planning process for this Corridor Development Plan was extensive. Throughout the study process, several groups met regularly to review project information and provide feedback. These groups included:

*Project Management Team (PMT):* The PMT included representatives from MAG, the Regional Public Transportation Authority (RPTA), Valley Metro Rail, Inc. (METRO), and the Arizona Department of Transportation (ADOT). The PMT met monthly to review study information and coordinate ongoing planning activities.

*Project Review Team (PRT):* The PRT included representatives from the local jurisdictions throughout the Yuma West Corridor. This group met quarterly throughout the year-long study process and provided feedback on study information and updated MAG’s Study Team on ongoing planning efforts in their communities.

*Stakeholders Meetings:* Stakeholders meetings were conducted quarterly to review and provide input into the planning process. This group had the broadest representation, as it included representatives of jurisdictions from throughout the MAG region, state agencies, and interest groups.

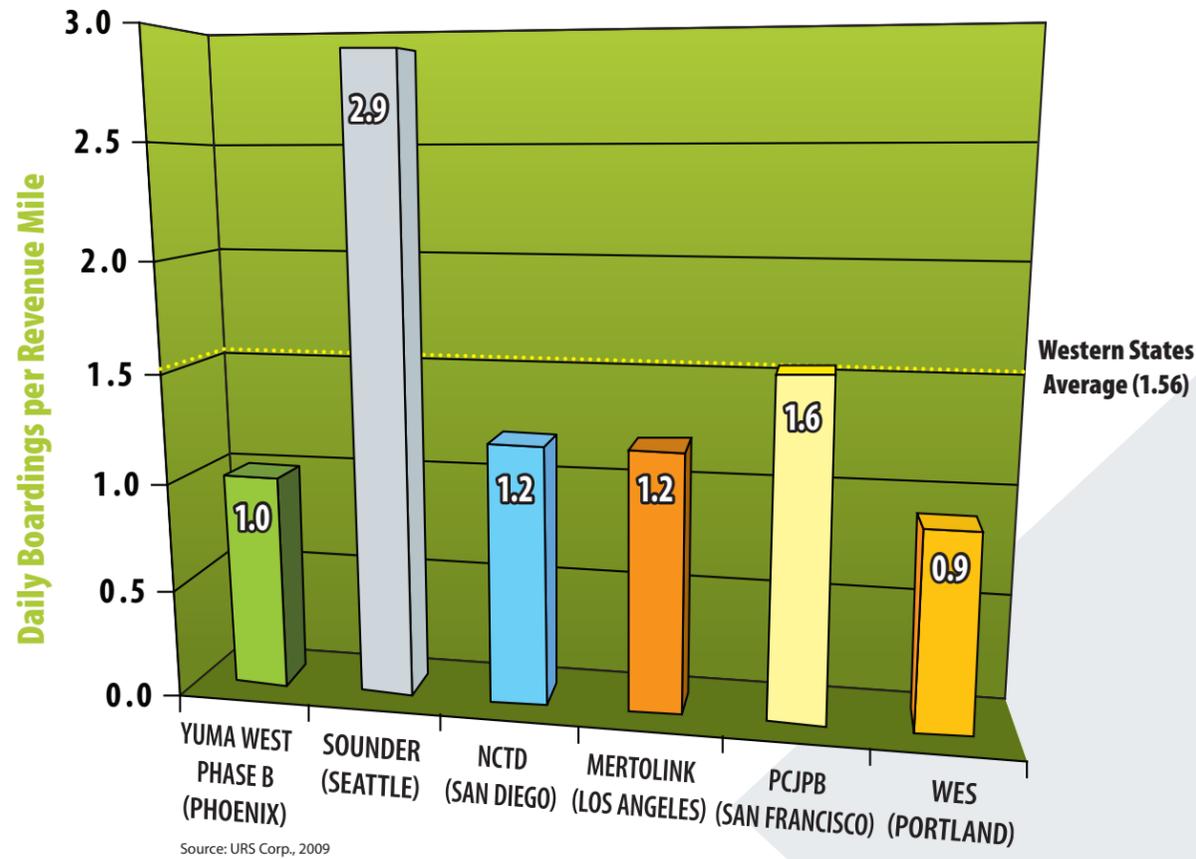
**WHAT RIDERSHIP COULD BE EXPECTED ON COMMUTER RAIL?**

Ridership modeling was conducted to evaluate the feasibility of commuter rail along the Yuma West Corridor. Phases A and B provide primarily peak period service, and the jump in ridership for Phase C reflects more frequent service as well as a longer line to Arlington.

| YUMA WEST CORRIDOR DEVELOPMENT PHASES      | YUMA WEST CORRIDOR DAILY BOARDINGS |
|--|------------------------------------|
| Phase A: Phoenix – Buckeye (Before 2020)   | 1,200                              |
| Phase B: Phoenix – Buckeye (2020 – 2030)   | 1,420                              |
| Phase C: Phoenix – Arlington (2030 – 2040) | 2,540                              |

These ridership figures were estimated through use of the MAG travel demand model. Additional potential influences on ridership in the Yuma West Corridor also were identified. Although these are not quantified in the model, potential ridership could be expanded due to the following considerations:

- Changes in planned mobility improvements in the West Valley
- Special events
- Palo Verde Generation Station commuters



**YUMA WEST CORRIDOR AS PART OF A LARGER COMMUNITY RAIL SYSTEM**

In a multi-corridor scenario, the Yuma West Corridor would be connected to one or more other commuter rail corridors to create one continuous route that provides a one-seat ride throughout the region. Multi-corridor scenarios were considered as part of the MAG Commuter Rail System Study. Overall, combining corridors provides the opportunity to increase overall ridership and reduce per-rider costs. The recommendations that emerged from MAG's System Study included the Yuma West Corridor as part of the most productive and effective overall regional system. For more information, refer to the System Study Final Report or Executive Summary.

**WHAT WOULD COMMUTER RAIL COST IN THE YUMA WEST CORRIDOR?**

Preliminary cost estimates were prepared for the Yuma West Corridor by phase. These are considered to be conservative estimates, and would be expected to change as negotiations with the railroad progress and specific, needed improvements are confirmed.

**ESTIMATED CAPITAL COSTS FOR THE YUMA WEST CORRIDOR**

| COST CATEGORY                 | PHASE A (MILLIONS) | PHASE B (MILLIONS) | PHASE C (MILLIONS) |
|-------------------------------|--------------------|--------------------|--------------------|
| Total Estimated Capital Cost* | \$356.0            | \$365.2            | \$453.5            |
| Estimated Annual O&M Costs*   | \$3.8              | \$11.9             | \$28.1             |

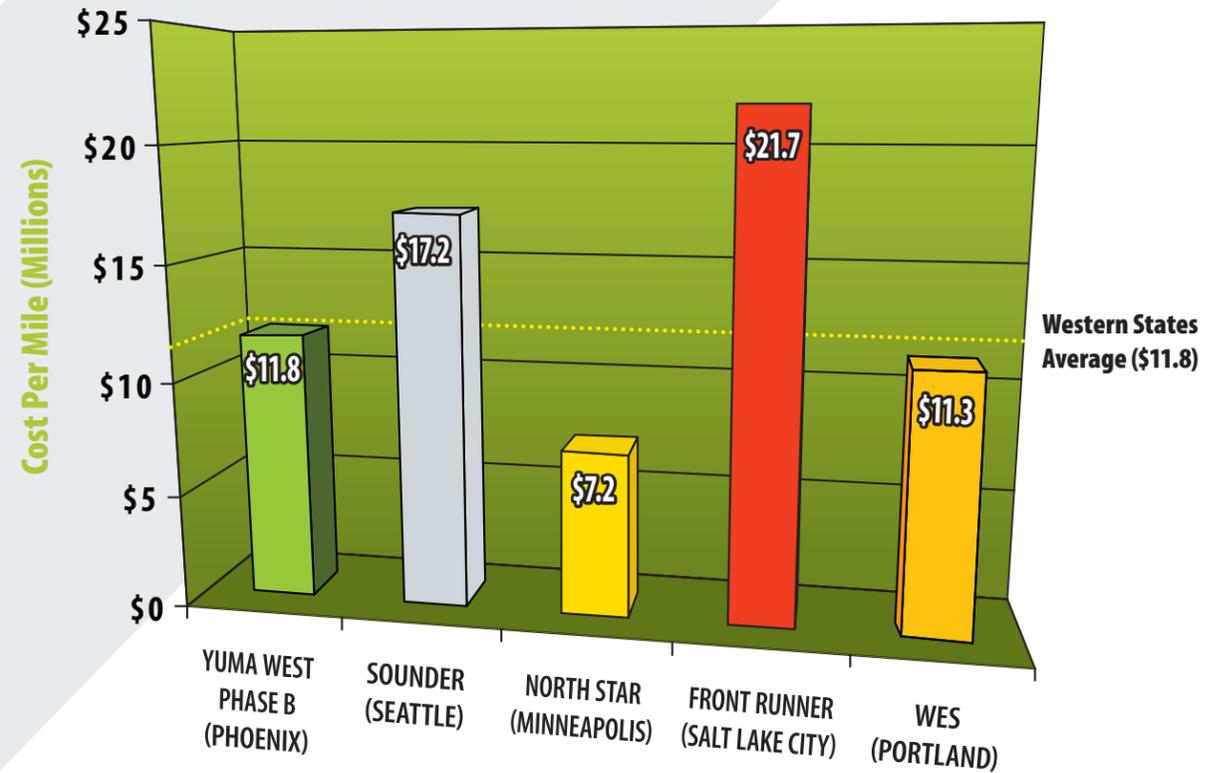
\* Cost in 2009 US dollars.

| LOCAL OR REGIONAL FUNDING                             |  |  |
|---|--|--|
| FUND SOURCE   | CAPITAL AND/OR OPERATIONS                      | VIABILITY  |
| Maricopa County Transportation Excise Tax (Sales Tax) | Supports capital and/or operations             | Moderate. Although the revenue generated from the current tax (Proposition 400) is programmed, future propositions are expected to occur.  |
| Vehicle Miles Travelled (VMT) Tax                     | Supports capital and/or operations             | Moderate. Typically used for roadway maintenance. Commonly unpopular with voters because of perceived invasion of privacy. Would be considered to be a more consistent funding alternative to a gas tax.                   |
| Payroll Tax   | Potentially support capital and/or operations. | Low. Existing State, and potentially Federal, tax codes must be modified to support these uses.  |
| Motor Vehicle Sales Tax                               | Potentially support capital and/or operations. | Low. The MAG region's allocation programmed. The revenue generated from the tax may not be a sustainable source of funding in the future.  |
| Vehicle Rental Tax                                    | Supports capital and/or operations             | Low. Special uses for the surcharges collected for this tax will require County, and possibly State, law modification for the purpose of commuter rail.  |
| Local Gas Tax   | Potentially supports capital and/or operations | Low. The MAG region's allocation is currently programmed. The revenue generated from the tax may not be a sustainable source of funding in the future. State tax codes will likely require modification to authorize uses. |
| Vehicle License Tax by District                       | Supports capital and/or operations             | Moderate. The VLT by district concept would require significant political support since it has not been implemented. State and/or County tax codes will likely require modification to authorize districts and uses.       |

| PRIVATE FUNDING                                     |  |   |
|---|--|---|
| FUND SOURCE   | CAPITAL AND/OR OPERATIONS                          | VIABILITY   |
| Public Value Capture: Benefits Assessment Districts | Potentially support capital and/or operating uses. | Low. Setting up the finance mechanism for such a public investment will require State and County statute or code modification.  |
| Public Value Capture: Tax Increment Financing       | Potentially support capital and/or operating uses. | Low. The authorization of such a mechanism will require political support and State law modification.   |
| Public-Private Partnerships (PPP)                   | Potentially support capital and/or operating uses. | Moderate. ADOT is investigating new PPP opportunities. This approach is being used sparingly in other cities given uncertain nature of financial markets, but may be more viable in the future. |

| FEDERAL FUNDING   |  |   |
|---|--|---|
| Federal Railroad Administration Section 130                           | Supports transportation capital uses only, primarily for the use of improving grade crossings. | Low. The State's allocation of Section 130 funding is relatively small and may likely only support a portion of a safety improvement project. |
| Congestion Mitigation and Air Quality (CMAQ) Funds                    | Supports transportation capital uses only  | Low. A commuter rail project application will contend with many other capital projects in the MAG region.                                     |
| Surface Transportation Program (STP) Funds                            | Supports transportation capital uses only  | Low. A commuter rail project application will contend with many other capital projects in the MAG region.                                     |
| Federal Railroad Administration High Speed and Passenger Rail Program | Supports transportation capital uses only.   | Low. May only address some intercity components of commuter rail or related rail projects.  |

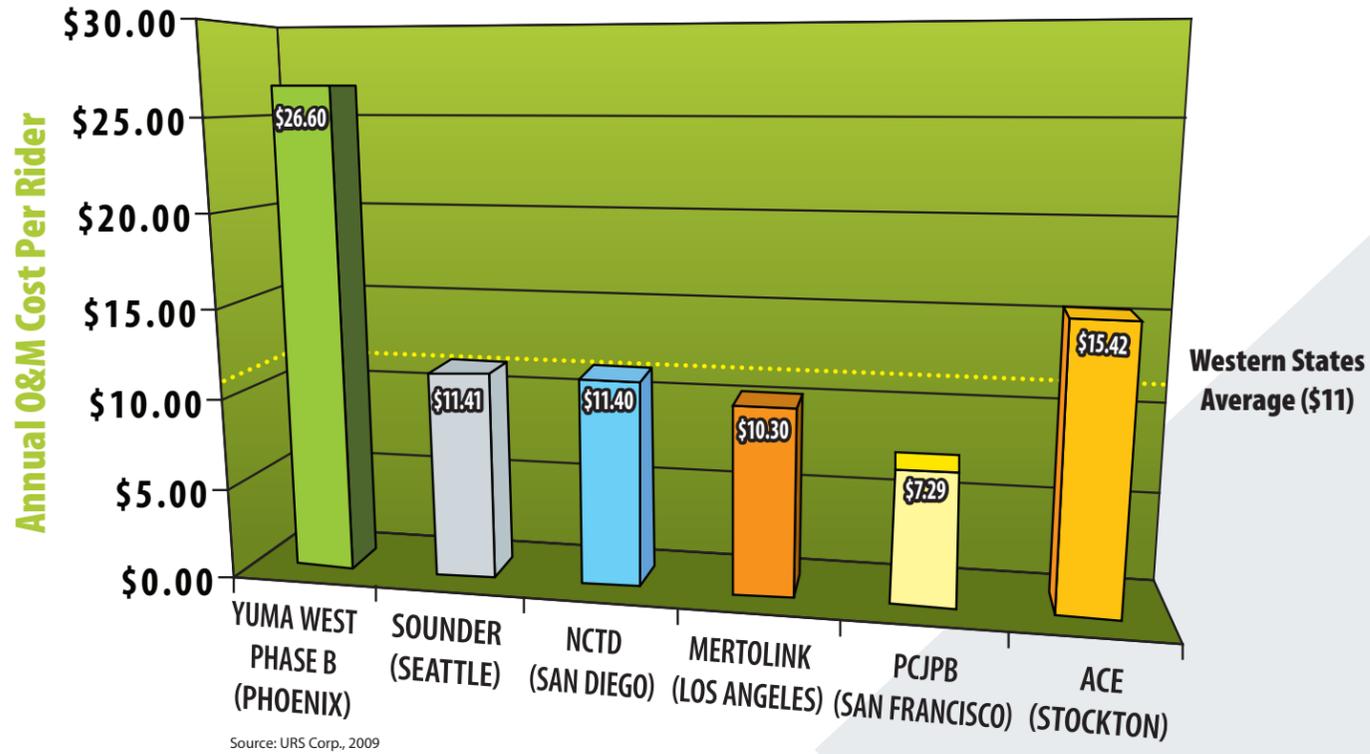
| STATE FUNDING   |   |  |
|---|---|--|
| FUND SOURCE   | CAPITAL AND/OR OPERATIONS                         | VIABILITY  |
| Highway User Revenue Fund (HURF)                                    | Supports transportation capital uses only         | Low. Funding is driven by fuel taxes and vehicle license taxes, which may not be sustainable sources in the future. In order to use HURF, State statute changes would be required. |
| Vehicle License Tax (VLT)   | Supports transportation capital and/or operations | Low. The MAG region's allocation is currently programmed. The revenue generated from the tax may not be a sustainable source of funding in the future.                             |
| Statewide Transportation Acceleration Needs (STAN) Account          | Supports transportation capital and/or operations | Low. The STAN account was a potential source of transit funding in the recent past, however it is not considered to be a reliable funding source in the future.                    |
| New Dedicated Statewide Transportation Funding (e.g. statewide tax) | Supports transportation capital and/or operations | Low. Unclear if new tax would be considered viable in the future.  |



Source: URS Corp., 2009

Capital costs to implement Phases A and B of the Yuma West Corridor are estimated to be approximately \$11.8 million per mile. A review of the capital costs to build commuter rail in peer cities indicated that capital costs ranged from \$7.2 to 21.7 million; Yuma West would be in the low-to-mid range of these peer city costs. Due to the relatively low ridership projected for the Yuma West Corridor, the estimated operations and maintenance (O&M) cost of \$26.60 per rider is relatively high compared to peer cities.

The relatively low capital costs associated with the Yuma West Corridor and higher development potential (due to more vacant land in the West Valley that may develop over time) are positive attributes of this corridor. As discussed in the MAG Commuter Rail System Study, the Yuma West Corridor is most cost-effective as part of a larger, interlined system that would spread the O&M costs among more riders.



**HOW CAN COMMUTER RAIL BE IMPLEMENTED?**

**POTENTIAL GOVERNANCE STRUCTURES**

One of the most significant issues to be resolved for the implementation of commuter rail in the MAG region is the question of who will be the responsible party for managing, designing, constructing and operating the system. Implementation of a commuter rail system will require a governance structure that reflects the financial, political, and representational patterns of the areas served by commuter rail.

The existing structure of transit service providers in the Phoenix metropolitan region is a complex mix of historical operations such as the City of Phoenix transit system, the Regional Public Transportation Authority (RPTA) and Valley Metro Rail Inc. (METRO), a nonprofit, public corporation charged with the design, construction, and operation of the Valley’s light rail system. In addition, ADOT is exploring intercity rail opportunities within the state. Defining appropriate governance structures for a commuter rail system would depend upon opportunities that arise for cooperation and use of railroad right-of-way. Each agency would have to participate in the process to define the appropriate structure.

Generally, the institutional arrangements for regional or commuter rail service throughout the country range from state-run regional rail operations to large single-purpose regional rail authorities that extend service into multiple political jurisdictions, to regional transit authorities that are responsible for multimodal services, to sub-regional agreements between cities to contribute to the management of a rail service in a common corridor. Based on the decisions regarding governance made in the most recent commuter rail projects, two key factors are likely to determine the success of a new governance structure. These factors include the ability of the institutional arrangement to (1) balance local control with the need for regional

system performance; and (2) provide stable funding opportunities. The options for an appropriate institutional structure for regional commuter rail, based on both the national experience and the local situation, are summarized below.

**Regional Transit Authority/District (Multi-Modal):** Should MAG consider this model in the implementation of commuter rail, it would likely entail a restructuring of RPTA, which was authorized in 1985 by the State legislature.

**Regional Rail Authority/District (Single-Purpose):** A newly formed regional rail authority with the sole purpose of implementing commuter rail in the region would likely involve membership by Maricopa County, and potentially Pinal County if service is expanded. This new authority would be similar to METRO.

**Joint Powers Authority (JPA):** In the MAG region, a JPA would be formed by aggregating authorities from constituent districts. For example, METRO could enter into an agreement with the cities to be served by commuter rail to form a JPA responsible for the design, construction and operation of commuter rail service.

**Division of State Department of Transportation:** While this model is primarily found in smaller states with a single metropolitan area, it may have an application in the MAG region, particularly in conjunction with a state-sponsored intercity rail connection between Tucson and Phoenix and a statewide passenger rail system.

**Division of Metropolitan Planning Organization:** This governance model would require expanding the charter of MAG to include the operation of commuter rail.

**FUNDING OPTIONS**

Another initial step to develop a funding implementation strategy is to gauge possible or probable funding options from governments at the federal, state and local levels.

**FEDERAL, STATE, LOCAL AND PRIVATE FUNDING SOURCES**

| FEDERAL FUNDING  |  |  |
|--|--|--|
| FUND SOURCE  | CAPITAL AND/OR OPERATIONS  | VIABILITY  |
| Federal Transit Administration Section 5307            | Supports transportation capital costs including preventive maintenance | Low. The MAG region’s allocation is currently programmed to support a host of other transit projects; future funds could be allocated to commuter rail. This is an annual programming allocated by formula; if and when commuter rail is added to the region, its data would enter into the formula calculation.           |
| Federal Transit Administration Section 5309 New Starts | Supports transportation capital  | Moderate. The application of Section 5309 is feasible, but the New Starts alternatives analysis planning requirements will require a significant evaluation and time. However, New Starts regulations have been relaxed recently and additional funding will likely be provided nationwide in the next authorization bill. |

CONTINUED >>>

# **ATTACHMENT THREE**



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Email: mag@mag.maricopa.gov Website: www.mag.maricopa.gov

April 19, 2010

TO: Members of the MAG Transportation Review Committee

FROM: Alice Chen, Transportation Planner

SUBJECT: Programming of Local MPO American Recovery and Reinvestment Act (ARRA) Funds – General Update

This memorandum provides an update on the status of existing American Recovery and Reinvestment Act (ARRA) projects, the process going forward as construction bids are realized, and options for utilization of unobligated ARRA funds.

#### **Existing Projects Update**

All projects and all ARRA funds in the Maricopa Association of Governments (MAG) region were obligated prior to the March 2, 2010 federally mandated deadline. In determining the amount of funds to be obligated, the Federal Highway Administration (FHWA) would not allow the Arizona Department of Transportation (ADOT) to obligate an amount greater than the construction estimate. The final obligation amount was in some cases different from what was allocated to each project or jurisdiction. As a result of the process, there was approximately \$1.3 million in excess MAG sub-allocated funds after all projects were obligated. ADOT swept the funds and applied it toward a statewide project and in exchange, gave MAG the same amount in Surface Transportation Program (STP) funds, to be used toward locally sponsored projects. These funds are available to the MAG local jurisdictions although they now have STP eligibility requirements.<sup>1</sup> One difference of note, STP funds are not limited to construction and may be used for design. The guidelines for utilization of STP funds for design are described in a section below.

#### **Deobligation Process**

Projects that are administered by ADOT will be set out to bid on a rolling basis with the last projects being bid in middle of May 2010. It is expected that final bid savings will be realized in early June 2010. ADOT will send each jurisdiction a letter (Appendix A) stating the bid amount and the amount that will be deobligated after accounting for administration and contingency fees. Each jurisdiction will have 14 days to review the letter and respond with any request for changes. The current standard for ADOT administered construction projects is to require 15 percent contract and administration funds and five percent contingency funds. Jurisdictions that have justification for a different amount, or have requests for change orders, should work with ADOT and Federal Highway Administration (FHWA) to determine the final deobligation amount. MAG staff will meet with ADOT finance to further discuss the deobligation and STP exchange process and any updates will be provided.

<sup>1</sup> To review the STP federal eligibility guidelines, please review the document [http://www4.law.cornell.edu/uscode/html/uscode23/usc\\_sec\\_23\\_00000133----000-.html](http://www4.law.cornell.edu/uscode/html/uscode23/usc_sec_23_00000133----000-.html).

### STP funds for Design Projects

On January 27, 2010, the MAG Regional Council voted to allow the exchange of ARRA funds for STP-ADOT funds. STP-ADOT funds must also be obligated by **September 30, 2010**, and projects for consideration must still adhere to the project-ready concept set forth by ARRA funding. STP-ADOT funds in some cases have greater flexibility than ARRA funds although unlike ARRA, STP-ADOT funds require a **5.7 percent local match**. While ARRA could not be applied toward design-only projects, jurisdictions may utilize STP for design if the federal process is followed and authorization is received prior to expenditure. ***While this is an option, like ARRA projects, projects that can obligate will be evaluated on a case-by-case basis.*** As well, projects which use federal funds for design must complete construction within 10 years or the design funds must be repaid to the federal government. The guidelines for utilizing STP funds for design are as follows:

1. If the design procurement followed the federal process then the jurisdiction can make a request for authorization of unspent local funds to be supplanted by federal STP funds.
2. Funds must be authorized before they can be spent. Any funds spent prior to federal authorization cannot be reimbursed.
3. For the design process to be federalized, the selection of an engineering services contract would require review by the ADOT Engineering Consultants Section (ECS) and subsequently follow the federal hiring and advertising process.
4. Certified Acceptance (CA) agencies do not require ADOT ECS review but still need ADOT review of the National Environmental Policy Act (NEPA) documentation.
5. All projects using federal funds for design must follow the environmental process required by NEPA regardless of whether or not project construction is federally or locally funded.

### New Projects/Next Steps

A call for projects was sent to members of the MAG Transportation Review Committee and Intergovernmental Representatives on Monday, March 29, 2010, for consideration of unobligated ARRA funds. Projects that require Transportation Improvement Program (TIP) numbers are included in the agenda for approval by the Regional Council meeting scheduled for April 28, 2010 (Appendix B). Inclusion in the TIP does not automatically ensure that the project will be evaluated by ADOT, can obligate by September 30, 2010, or will receive any additional ARRA funding. It will simply allow the project to move forward in the federal process, especially with respect to obtaining the required environmental clearance. ADOT will not review a NEPA document until it is in the TIP and a TRACS number is assigned. A table of projects with a TIP ID that were submitted for ARRA funding consideration will be provided at the Committee meeting scheduled for April 29, 2010. These projects may require an amendment or administrative modification to the TIP to reflect new or additional funding sources, however, those updates will not be made until the funding is identified. MAG staff will work ADOT, FHWA, and member jurisdictions to determine which projects are eligible for the use of unobligated ARRA funds. Prioritization of funds made available for sub-regional projects will be discussed after eligibility requirements have been determined.

MAG staff is available to work with your jurisdiction to answer questions. Please contact Alice Chen or Roger Herzog at (602) 254-6300.

cc: Intergovernmental Representatives

March 8, 2010

Dear

Thank you for your efforts to meet the March 2, 2010, deadline set by the American Recovery and Reinvestment Act (ARRA) to obligate 100% of the ARRA funds sent to Arizona.

We now need to work on deobligating bid savings and reobligating the funds prior to September 1, 2010, to ensure funds stay in Arizona. Once bid savings are identified, the Arizona Department of Transportation (ADOT) will notify the local project sponsor of the amount and date the funds will be deobligated (14 days from the date of the notice). The local project sponsor may provide a written justification to ADOT and the Federal Highway Administration (FHWA) if it believes the amount should differ; otherwise, ADOT will proceed with timely deobligation.

ADOT anticipates completing deobligations by June 18, 2010. On June 19, 2010, ADOT will notify each Council of Government and Municipal Planning Organization (COG/MPO) of the total amount of deobligated funds being returned to them from local projects. The COGs/MPOs will then be responsible for providing a plan to ADOT and FHWA for using these funds on new or existing ARRA projects by July 15, 2010. The projects selected must be submitted to ADOT for funding authorization by no later than July 30, 2010.

ADOT will use any unobligated funds as of August 15, 2010, on one or more state projects to ensure we do not lose any ARRA funding.

If you have any questions, please contact \_\_\_\_\_ in ADOT Intermodal Transportation Division (ITD) Local Government at 602-712-XXXX.

Sincerely,

John S. Halikowski

**APPENDIX B**

**TABLE E. Amendments and Administrative Modifications to the MAG FY2008-2012 Transportation Improvement Program (TIP)**

NOTE: Before a project can obligate, ADOT must complete the review and approval process. ADOT cannot initiate the review process until (1) the project is listed in an approved Transportation Improvement Program (TIP) and (2) a TRACS number is assigned. The listing below includes projects that have need TIP IDs to initiate the review federal process. Funding sources will be adjusted in an administrative modification contingent on (1) funding availability and (2) the project's ability to obligate in FFY 2010. These projects must be listed in an approved TIP to be candidates to receive ARRA bid savings.

**Potential ARRA Bid Savings Projects/Projects Needing TRACS Numbers to Initiate the Federal Review Process at ADOT**

| TIP ID        | Agency          | Project Location  | Project Description  | Fiscal Year | Length     | Fund Type | Local Cost | ARRA | Federal Cost | Regional Cost | Total Cost | Requested Change                                 |
|---------------|-----------------|---|--|-------------|------------|-----------|------------|------|--------------|---------------|------------|--|
| APJ10-801ABS  | Apache Junction | Ironwood Drive: 16th Avenue to Broadway Avenue  | Design and Reconstruction of Pavement  | 2010        | 0.5 mi     | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,165,000.  |
| AVN10-801ABS  | Avondale        | Avondale City Hall (Traffic Operations Center)  | Construct Interim Traffic Operations Center  | 2010        | n/a        | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$880,130     |
| BKY10-806ABS  | Buckeye         | Apache Road and UPRR  | Improve crossing at Apache Road  | 2009        | 120'       | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total cost is \$230,000. |
| CVK10-801ABS  | Cave Creek      | Various Locations - Functionally Classified Roadways  | Pre-Engineer/Design and Construct Pavement Rehab projects  | 2010        | 0          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total cost is \$136,000. |
| ELM08-801ABS  | El Mirage       | El Mirage Rd - Olive to Cactus  | Micro-seal Pavement Surface  | 2010        | 2          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$414,905.    |
| FTH11-101ABS  | Fountain Hills  | Shea Blvd: Saguaro Blvd to Fountain Hills Blvd  | Mill and Overlay   | 2010        | 2          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,081,614.  |
| GBD10-801ABS  | Gila Bend       | Maricopa Road near Mile Marker 3, North side  | Monument Signage   | 2010        | n/a        | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$175,000.    |
| GLB06-201RABS | Gilbert         | Eastern Canal: Guadalupe Rd to Elliot Rd (Santan Vista Trail phase II)  | Design and construct multi-use path  | 2010        | 795,000 ft | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$795,000.    |
| GLB07-302ABS  | Gilbert         | Eastern Canal: Elliot Rd to Warner Rd (Santan Vista Trail phase III)  | Design and construct multi-use path  | 2010        | 592,000 ft | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$592,000.    |
| GLN08-801ABS  | Glendale        | Bell Rd. Pavement Overlay: 51st Ave. to 59th Ave.   | Pavement overlay   | 2010        | 1          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$813,871.    |
| GLN08-802ABS  | Glendale        | Various Locations Citywide  | Upgrade traffic signal controllers   | 2010        | n/a        | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$250,000.    |
| GLN08-803ABS  | Glendale        | Bell Rd. Pavement Overlay: 59th Ave. to 70th Ave.   | Pavement overlay   | 2010        | 1          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,394,960.  |
| GLN08-804ABS  | Glendale        | Various Locations Citywide  | Modernize traffic signals  | 2010        | n/a        | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$750,000.    |
| GLN08-805ABS  | Glendale        | Downtown Alleyways: 58th Ave. to 57th Ave.  | Design downtown alleyways for safe pedestrian circulation  | 2010        | 0          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$211,400.    |
| GLN08-806ABS  | Glendale        | Various Locations Citywide  | 22 CCTV cameras and 6 Ethernet installations   | 2010        | n/a        | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$220,000.    |
| GUA08-801ABS  | Guadalupe       | La Cuarenta Neighborhood  | Install pavement and curb & gutter and sidewalk for five street segments in the La Cuarenta Neighborhood | 2010        | 1          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$888,074.    |
| GUA08-802ABS  | Guadalupe       | Calle Vaou Nawi from Colonia Estrella to Calle Guadalupe  | Widen the roadway and install pavement, curb & gutter, sidewalk and street lights                        | 2010        | 0          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,892,000.  |
| LPK10-801ABS  | Litchfield Park | Litchfield Rd: Wigwam Blvd to Camelback Rd  | Roadway rehabilitation and restoration, including patching and microseal                                 | 2010        | 1          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total cost is \$384,000. |
| MES13-905ABS  | Mesa            | Consolidated canal: 8th Street to Lindsay Road  | Design and Construct of a 10-foot wide concrete pathway  | 2010        | 3          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,570,000.  |
| MES08-801ABS  | Mesa            | Arterial Pavement Preservation along University Dr: Sossaman to 80th Street, 80th Street to Hawes and Hawes to 88th Street and along Southern Ave: Greenfield Rd to Higley Rd. (Group 4 - Phase 1)                              | Arterial Pavement Preservation project   | 2010        | 3          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$3,130,782.  |
| MES08-802ABS  | Mesa            | Arterial Pavement Preservation Recker Rd: Main Street to Broadway Rd, Sossaman Rd: Ray Rd to Avery, Southern Ave: Gilbert to 24th St and 24th St to Lindsay Rd, and Signal Butte Rd: US 60 to Southern Ave. (Group 4 - Phase 2) | Arterial Pavement Preservation project   | 2010        | 3          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$2,930,566.  |

**APPENDIX B**

**TABLE E. Amendments and Administrative Modifications to the MAG FY2008-2012 Transportation Improvement Program (TIP)**

NOTE: Before a project can obligate, ADOT must complete the review and approval process. ADOT cannot initiate the review process until (1) the project is listed in an approved Transportation Improvement Program (TIP) and (2) a TRACS number is assigned. The listing below includes projects that have need TIP IDs to initiate the review federal process. Funding sources will be adjusted in an administrative modification contingent on (1) funding availability and (2) the project's ability to obligate in FFY 2010. These projects must be listed in an approved TIP to be candidates to receive ARRA bid savings.

**Potential ARRA Bid Savings Projects/Projects Needing TRACS Numbers to Initiate the Federal Review Process at ADOT (Cont'd)**

| TIP ID       | Agency     | Project Location  | Project Description  | Fiscal Year | Length       | Fund Type | Local Cost | ARRA | Federal Cost | Regional Cost | Total Cost | Requested Change                                |
|--------------|------------|---|--|-------------|--------------|-----------|------------|------|--------------|---------------|------------|---|
| MES08-803ABS | Mesa       | Arterial Pavement Preservation Recker Rd., Southern Ave., Stapley Dr., and Signal Butte Rd. (Group 5) | Arterial Pavement Preservation project   | 2010        | 3            | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$3,860,422. |
| PHX08-801ABS | Phoenix    | Pavement Preservation (North Area) Phase 2  | Pavement Preservation  | 2010        | 13           | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$6,600,000. |
| PHX08-802ABS | Phoenix    | Pavement Preservation (Central Area) Phase 2  | Pavement Preservation  | 2010        | 16           | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$8,100,000. |
| PHX08-803ABS | Phoenix    | Pavement Preservation (South Area) Phase 2  | Pavement Preservation  | 2010        | 5            | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$2,400,000. |
| PHX08-804ABS | Phoenix    | Bridge Deck Rehabilitation Phase 2  | Bridge Deck Rehabilitation   | 2010        | 5 Structures | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,125,000. |
| PHX08-805ABS | Phoenix    | Bridge Joint Rehabilitation Phase 2   | Bridge Joint Rehabilitation  | 2010        | 5 Structures | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,175,000. |
| PHX08-806ABS | Phoenix    | Citywide Corridors  | Inventory/Programming & Procure/Install Traffic Control Signs- Phase III                     | 2010        | n/a          | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$2,500,000. |
| SCT08-801ABS | Scottsdale | Various Locations   | Construction for Mill & Replace  | 2010        | varies       | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$757,088.   |
| SCT08-802ABS | Scottsdale | Various Locations   | Replace traffic signal controllers and cabinets  | 2010        | varies       | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$450,000.   |
| SCT08-803ABS | Scottsdale | Various Locations   | Preliminary engineering, design and construction for Mill & Replace                          | 2010        | varies       | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$2,486,832. |
| SCT08-804ABS | Scottsdale | Pima Road: McDowell to Thomas   | Design for widening of Pima Road from two lanes to four, including intersection and drainage | 2010        | 1            | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$8,500,000. |
| TMP13-119ABS | Tempe      | Elliott Road: Kyrene Road to I-10   | Asphalt - Mill and Overlay   | 2010        | 2            | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,500,000. |
| TMP14-129ABS | Tempe      | Hardy Drive: Broadway Road to Southern Ave.   | Street Rehabilitation  | 2010        | 1            | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$620,000.   |
| TMP14-134ABS | Tempe      | Various federal functionally classified roadways  | Arterial Street Reconstruction and Improvements  | 2010        | 0            | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$1,175,900. |
| TMP15-138ABS | Tempe      | Broadway Road: Mill Avenue to Evergreen Road  | Asphalt Mill and Overlay   | 2010        | 3            | ---       | ---        | ---  | ---          | ---           | ---        | Amend: Add new project. Total Cost \$2,150,000. |