



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

March 31, 2010

TO: Members of the MAG Transit Committee

FROM: Debbie Cotton, City of Phoenix, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, April 8, 2010, 1:30 p.m.
MAG Office, Suite 200, Saguaro Room
302 North 1st Avenue, Phoenix

A meeting of the MAG Transit Committee 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. 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 Marc Pearsall 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 Transit Committee. If the Transit 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 Kevin Wallace 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 11, 2010 Minutes

3. Call to the Audience

An opportunity will be provided to members of the public to address the Transit 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 Transit Committee requests an exception to this limit.

4. Transit Program Manager's Report

The MAG Transit Program Manager will review recent transit planning activities and upcoming agenda items for other MAG committees.

5. Update on High-Speed Rail Planning Activities

In June 2009, MAG joined the Western High Speed Rail Alliance to determine the viability of developing and promoting a high-speed rail network throughout the Intermountain West. MAG staff will provide a brief summary of current and future activities of the Alliance. Please see Attachment One for additional information, or visit <http://www.whsra.com> to learn more about the Western High-Speed Rail Alliance.

6. Acceptance of Commuter Rail Planning Studies

Since November 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 of implementing commuter rail

COMMITTEE ACTION REQUESTED

2. Approve Draft minutes of the March 11, 2010 meeting.

3. For information and discussion.

4. For information and discussion.

5. For information and discussion.

6. 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 2) revise the corridor ranking included in the Commuter Rail System

service along the Burlington Northern/Santa Fe (BNSF) Phoenix Subdivision between Phoenix and Wickenburg, a distance of approximately 54 miles. The study identifies the elements necessary to successfully implement commuter rail transit service in the Grand Avenue corridor.

The Union Pacific (UP) Yuma West Commuter Rail Corridor Development Plan provides a detailed evaluation of the feasibility of implementing 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 study identifies the elements necessary to successfully implement commuter rail transit service along this corridor.

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.

7. Request for Future Agenda Items

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

8. Next Meeting Date

The next regular Transit Committee meeting will be scheduled Thursday, May 13, 2010 at 1:30 p.m. in the MAG Office, Saguaro Room.

Study upon the completion of update regional socioeconomic forecasts.

7. For information and discussion.

8. For information.

DRAFT MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
TRANSIT COMMITTEE

March 11, 2010
Maricopa Association of Governments Office
302 North First Avenue, Suite 200, Saguaro Room
Phoenix, Arizona

MEMBERS ATTENDING

Phoenix: Debbie Cotton, Chair	*Paradise Valley: William Mead
ADOT: Mike Normand	Peoria: Maher Hazine
Avondale: Rogene Hill	*Queen Creek: Wendy Kaserman
*Buckeye: Andrea Marquez	Scottsdale: Theresa Huish
Chandler: Dan Cook for RJ Zeder	+ Surprise: Joy Grainger for Michael Celaya
*El Mirage: Pat Dennis	Tempe: Robert Yabes for Jyme Sue McLaren
Gilbert: Michelle Gramley for Tami Ryall	*Tolleson: Chris Hagen
Glendale: Cathy Colbath	Valley Metro Rail: Wulf Grote
Goodyear: Cato Esquivel	Regional Public Transportation Authority:
Maricopa County: Mike Sabatini for Mitch Wagner	Carol Ketcherside
Mesa: Mike James	

EX-OFFICIO MEMBERS ATTENDING

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

OTHERS PRESENT

Kevin Wallace, MAG	Joe Bowar, Phoenix
Alice Chen, MAG	Jorie Bresnahan, Phoenix
Patty Camacho, MAG	Ken Kessler, Phoenix
Marc Pearsall, MAG	Jorge Luna, Phoenix
Kristen Sexton, Avondale	Dave Meadows, Phoenix
Anne Marie Riley, Chandler	Nick Sharkey, Phoenix
Jenna Goad, Glendale	Bob Antila, RPTA
Jeff Martin, Mesa	

1. Call to Order

The meeting was called to order at 1:36p.m. by Chair Debbie Cotton of the City of Phoenix. Chair Cotton welcomed everyone in attendance and announced that a Quorum was present.

Chair Cotton introduced one members of the Transit Committee who was participating remotely for this meeting, Committee member Joy Grainger (Surprise) via teleconference.

Chair Cotton asked if there were any public comment cards and if there were any members of the public who would like to comment. Chair Cotton stated that she had not received any request to speak cards from the audience and proceeded to the next item on the agenda.

2. Approval of Draft February 11, 2010 Minutes

Chair Cotton asked if there were any comments, changes or corrections to the meeting minutes. Hearing none, Chair Cotton called for a motion to approve the draft minutes from February 11.

Mr. Mike James moved to approve the draft February 11, 2010 meeting minutes as written. Vice Chair Cathy Colbath seconded and the motion passed unanimously. The Draft February 11, 2010 meeting minutes were approved as written.

Chair Cotton stated that there were no additional comments and proceeded to the next item on the agenda.

3. Call to the Audience

There being no 'request to speak' cards from the audience, Chair Cotton proceeded to the next item on the agenda.

4. Transit Program Manager's Report

Chair Cotton introduced Mr. Wallace, MAG Transit Program Manager, for this agenda item.

Mr. Wallace stated that information on the potential sweep of LTAF funds by the Arizona State Legislature had been provided at each Committee member's place. He then noted that in February, the Committee had recommended a policy on the distribution of ARRA-2 funds, if the program was authorized by Congress. Mr. Wallace then explained that at yesterday's MAG Management Committee meeting, the Management Committee had referred the policy back to the Transit Committee and the Transportation Review committee for review, in light of the potential sweep of the LTAF funds. Because there was not enough time to place this item on the agenda for action, the Committee was being asked for comments only, and the issue would

be heard later in the month by the Transportation Review Committee. Mr. Wallace noted that the policy recommended by the Committee did include provisions to allow for funding to be allocated to transit and ADA operations, but the distribution of funds could potentially be changed to a population based formula, as was the case with the LTAF program.

Chair Cotton asked if there were any comments.

Ms. Rogene Hill noted that there is some confusion on Small Urbanized (UZA) Area and how it fits into these policies. She inquired if Avondale were to receive separate ARRA funds as it is a separate Small Urbanized Area. Mr. Wallace replied that this policy applies to entire region. Mr. Ken Kessler, City of Phoenix staff, clarified that the original ARRA program included separate allocations for the Avondale and Phoenix UZAs. Ms. Alice Chen, MAG staff, specified that the funds would only be for operations and preventative maintenance. Discussion followed. Mr. Wallace reiterated that the item was not on the agenda for action.

Chair Cotton asked if there were any further comments.

Mr. Cato Esquivel inquired if MAG knows what the funding amount will be between two urbanized areas. Mr. Wallace responded that the funding levels had not been set, but it was assumed that they would be similar to the original ARRA program.

Chair Cotton stated that there were no additional comments and moved onto the next item on the agenda.

5. Programming 2009 and 2010 for the FY 2008-2012 MAG Transportation Improvement Program (TIP), and the Transit Component of the Draft 2011-2015 MAG TIP.

Chair Cotton introduced Mr. Wallace, MAG Transit Program Manager, for this agenda item.

Mr. Wallace explained that there were two items on the agenda for action, and that the Transit Committee had review this information at the February meeting. Mr. Wallace noted that the Committee was using the Valley Metro/RPTA project selection guidelines, and that in the future, the Committee would develop a new project evaluation and prioritization methodology. He explained that MAG staff had programmed all of the available 5307 and 5309-Fixed Guideway/Modernization funds for 2009 and 2010, and that additional funding for regionwide preventative maintenance had been programmed in the following years. At a future date, MAG staff will initiate a call for projects and the Committee will allocate these funds.

Mr. Wallace then reviewed the changes to the listing of projects that had been made since the February Committee meeting. He noted that the Valley Metro/RPTA Transit Life Cycle Program (TLCP) does not program federal funds by project, but instead identifies federal funding targets by program area, such as 80% federal funding for fleet and 50% federal funding for facilities. Mr. Wallace indicated that it was the responsibility of the MAG Transit Committee to prioritize and program 5307 and 5309-Fixed Guideway/Modernization funds in the TIP. Ms. Alice Chen added that MAG staff had reviewed at all TLCP projects and all have been accounted for in report.

Mr. Wallace noted that the funding for the Valley Metro/RPTA Origins & Destinations Survey had been programmed, as discussed by the Committee in February. Mr. Wallace then explained that a 2013 listing was included to complete the L-101/Bell Road Park and Ride, and that a federal discretionary grant would be required to fully fund the project. Ms. Chen then reviewed other minor changes from the previous month.

Chair Cotton asked if there were any comments or questions.

Mr. Dan Cook asked for further explanation of the L-101/Bell Road Park and Ride project. Mr. Wallace explained that this was a request from Glendale to move the design phase by one year. Ms. Colbath said that this park and ride has been a part of the group of Transit Center structures list for some time now, and this one in the Arrowhead Area and would serve a variety of bus, express and shuttles.

Mr. Cook asked how many parking spots were in the plans, and whether it was a shade structure or a parking structure. Ms. Colbath responded that it is proposed to be a structure due to limited footprint at mall facility, but that parking space totals were not available at the time.

Mr. Cook asked if the region has funded other structures for park and ride. Mr. Wulf Grote noted that the only other one in the Valley that has been a structure was paid for privately by a developer at METRO's Apache and McClintock station.

Mr. Yabes asked if the \$12 million in federal funds is for Glendale's park and ride. He requested that MAG foot note the sheets to differentiate local and federal funding in the description sheet. Mr. Wallace explained that this project reflected a combination of three park & ride facilities, and that the project depended a large federal discretionary allocation. Mr. Wallace also noted that MAG had not allocated 5307 funds for this project, but once this Committee has a prioritization process in place, this park and ride would be eligible for consideration.

Mr. James asked if there been any modeling for the demand of this \$16 million park and ride and mentioned that the region should also have some policy discussion for implementing structured parking. Mr. James also noted that the Federal Transit Administration is promoting mixed use projects instead of single use, so this project could be counterproductive.

Mr. Cook suggested that the description should also be changed to label this a 'structured park and ride lot'. Ms. Colbath replied that no final decisions had been made on the final design of the project, so it may be too early to re-identify this as a 'structured park and ride lot'.

Mr. Cook added that it should be listed as either surface or structured as a clarification in the description, which could be changed in the future. He stated that we need to ensure that the process is fully transparent so that the Committee can make informed decisions.

Mr. Maher Hazine asked if the \$4.4 million in right of way purchases for this specific park and ride was correct. Chair Cotton added that since there are two discretionary items (requiring a federal allocation), that it would be more prudent that these park & ride items be moved to local funding columns until such time as we can clarify their funding source in the future.

Ms. Hill inquired if the Peoria (park & ride – 2014) funding was secured. Ms. Chen replied the funding was secured because it was included in the Transit Life Cycle Program (TLCP).

Mr. Wallace added that the park & ride were in the TLCP. He added that since the cost of the Glendale park and ride facility (P&R) was higher than normal, the project would not be programmed until the Transit Committee could discuss the issue at a future meeting when a process for calling for projects was established.

Ms. Chen restated that the item was on the agenda for information, discussion, and recommendation to approve the FY 2008-2012 amendments and modifications to the MAG TIP as amended and to approve the of Listing of Projects for inclusion in the Draft FY2011-2015 TIP.

Mr. Cook requested that the pending action be modified to instead categorize the Glendale park and ride as locally funded until federal funding could be secured at a future date.

Chair Cotton asked if there were any comments. Hearing none, Chair Cotton called for a motion. Ms. Hill motioned to approve the FY 2008-2012 amendments and modifications to the MAG TIP as amended and to approve the of Listing of Projects for inclusion in the Draft FY2011-2015 TIP. Mr. Yabes seconded the motion, and the motion passed unanimously.

Chair Cotton stated that there were no additional comments and moved onto the next item on the agenda.

6. Update on METRO High Capacity Transit Planning Project Activities

Chair Cotton introduced Mr. Wulf Grote, METRO Director for Project Development, for the agenda item. Mr. Wulf Grote provided update on various High Capacity Transit corridor studies. He noted that METRO staff was working to update the rail element of the TLCP. Mr. Grote presented the current financial picture for the Proposition 400 revenue shortfall. He reported a decline of \$438 million in FY08/09 and \$62 million in FY09/10. Mr. Grote stated that local funding also had been reduced by \$260 million for FY 09/10. He explained that the federal funding obligations would be affected by lower regional and local funding available for the required local match..

Mr. Grote summarized the Future High Capacity / Revised Light Rail Future Projects Schedule for several projects. He discussed the project schedules for the for the Northwest Extension (Phase 1), the Central Mesa Light Rail Transit (LRT) Extension, the Tempe South Corridor Alternatives Analysis (AA), the Mill Ave Modern Streetcar, the Rural Road BRT, the Phoenix West Mainline, and the Glendale AA (Phase I). and noted that all of the projects have been delayed beyond their original dates in the RTP.

Chair Cotton asked who the Federal contacts were for the Streetcar project. Mr. Grote responded that the Streetcar projects was a Small-New Starts project, which was reviewed and evaluated by the Federal Transit Administration (FTA) in Washington DC. He added that the Regional FTA in San Francisco provided additional assistance with grants and environmental work.

Mr. James requested that the Committee should add a future agenda item from METRO updating the Committee on the status of cost, ridership, community issues and public input on High Capacity Corridor. Mr. Grote stated that all High Capacity Transit Corridor AA's would be presented to the MAG Transit Committee for approval in the future. He added that METRO also would provide the Committee with updates on a regular basis on regarding various High Capacity Transit corridor studies.

Chair Cotton asked if there were any questions or comments. There were none, and the Chair moved onto the next item on the agenda.

7. Commuter Rail Studies Planning Update

Chair Cotton introduced Marc Pearsall, Transit Planner III, for the agenda item. Mr. Pearsall explained that the item is for information and discussion only, but would be on the Committee's agenda for action in April. He summarized the elements of MAG's Commuter Rail Study program. He reported that the Commuter Rail Study Funding was a component of the 2004 Regional Transportation Plan (RTP). Mr. Pearsall stated the study would determine feasibility of commuter rail service in MAG Region. He added that ridership forecasting, cost effectiveness, capital/ operating cost estimates, vehicle technology recommendations and implementation steps were identified in MAG Commuter Rail Strategic Plan in 2008.

Then, Mr. Pearsall discussed three specific studies launched in November 2008. He reported on the Grand Avenue Study that focused on the area from downtown Phoenix to Wickenburg (BNSF corridor). He also discussed the Yuma West Project with a study area from downtown Phoenix Buckeye that included technical analyses to Sky Harbor and Tempe. Mr. Pearsall also addressed the System Study Project, which was added to MAG Work Program in January 2009.

The System Study would evaluate existing freight corridors and possible extensions, prioritize the implementation of commuter rail service through evaluation of: ridership potential, operating strategies, capital and operating costs and railroad owner-partnership agreements for the MAG recommended, X-shaped, 110-mile, four-line system in the MAG region.

Mr. Pearsall announced that the 'Next Steps' would be featured as recommendations in the Commuter Rail System Study. He reported that the Next Step's Five-Year Plan between 2010 and 2015 would include:

The passage of enabling legislation relative to liability and indemnification, coordination with railroads, the development of partnerships to investigate options for Memorandum of Understanding (MOU) between the commuter rail authority and the railroad.

- Advancement of the design and operating costs,
- Continued coordination between MAG with ADOT on the upcoming Phoenix-Tucson Alternatives Analysis (AA),
- 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.

Mr. Pearsall noted that long term plans for 2015 and beyond included 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. He reported that the three studies' Executive Summaries and Recommendations would be presented to the Committee in April for information, discussion, and recommendation for adoption.

Chair Cotton asked if there were any questions or comments. There were none, and the Chair moved onto the next item on the agenda.

8. Request for Future Agenda Items

Chair Cotton asked if the members of the Transit Committee had any issues that they would like to see as a future agenda item.

Mr. M. James requested MAG staff present on the Housing and Urban Development (HUD)Livability-Sustainability initiatives and requirements in relation to parking structures. He requested that MAG present the information in a few months for policy discussions on when the MAG region should prioritize and fund parking structures.

9. Next Meeting Date

Chair Cotton thanked those in attendance for attending the MAG Transit Committee meeting. She announced that the next meeting of the MAG Transit Committee would be held on Thursday, April 8, 2010 at 1:30 pm in the Saguaro Room. There being no further business, Chair Cotton adjourned the meeting at 3:00 p.m.

ATTACHMENT ONE

Agenda Item 5



We strongly believe that funding of future corridor studies is essential to the development of the robust HSR network that President Obama envisions. Future corridors must be studied now in order to lay the groundwork for additional development. After initial feasibility studies are completed, Congress can proceed with the additional authorization and appropriation for the project.



AN OPPORTUNITY FOR HSR

As highway capacity between major metropolitan centers becomes increasingly overburdened, the corresponding options for expansion are also increasingly limited. Environmental challenges, right-of-way constraints, escalating costs and the limits of highway technology all contribute to the demise of unlimited highway expansion. Connecting the western U.S. would be the first

step toward reducing air traffic and highway congestion, while in turn increasing interstate highway capacity for trucking and improving air quality by reducing greenhouse gas emissions. Connecting Western states via high-speed rail is the future of our nation.

High-speed rail will reduce our dependence on foreign oil, reduce congestion and put the U.S. even with, if not ahead of, the rest of the world in connectivity and global economic sustainability.

Developing a connection between the cities of Denver, Salt Lake City, Las Vegas, Phoenix and Los Angeles, as well as a connection between Denver, Salt Lake City, Reno and San Francisco, which ultimately connects to Portland and Seattle, will create a Western network of high-speed rail that's unparalleled in the nation and the world.

The National Surface Transportation Policy and Revenue Study Commission (NSTPRC), created by Congress in 2005 within SAFETEA-LU, recommended that the entire country should be connected by high-speed rail by 2050. And further, that the high-speed rail should connect population centers within 500 miles of each other. In November 2006, the federal General Accounting Office (GAO) concluded that: "The

existing intercity passenger rail system is in poor financial condition and the current structure does not effectively target federal funds to where they provide the greatest public benefits, such as transportation congestion relief. Routes of 750 miles or more, while providing service for some rural areas and connections between regions, show limited public benefits for dollars expended. These routes account for 15 percent of riders but 80 percent of financial losses. "Corridor" routes (generally less than 500 miles in length) have higher ridership, perform better financially, and appear to offer greater potential for public benefits."

We are not proposing to continue the current failed system of passenger rail in the West, but rather, as the NSTPRC and GAO have suggested, an entirely new approach focused on service between population centers within 500 miles of one another.

The cost of this connectivity must be measured by efficiency on many levels: not only on-time performance, but also the reduction of highway congestion that thereby reduces the need for additional highway capital projects, and lower greenhouse gas emissions that improve air quality regionally.





HIGH-SPEED RAIL: THE WESTERN CONNECTION

The Western High Speed Rail Alliance envisions a Denver-to-Los Angeles corridor via high-speed rail network, with regional hubs in Las Vegas, Salt Lake, Denver and Phoenix. The unique position of Las Vegas makes it an ideal hub, connecting Phoenix to Denver, Phoenix to Seattle, Reno to San Francisco, Salt Lake City to Reno to San Francisco, Denver to Los Angeles and Salt Lake City to Los Angeles.

The funds made available under the High-Speed Rail portion of the American Recovery and Reinvestment Act (ARRA) is just the beginning of the initial investment of a high-speed rail network in our nation. While the WHSRA was not formed at the time, we plan to participate in the new transportation authorization legislation as well as work with the administration to be designated part of the high-speed rail network. The initial steps the alliance will have to take include conducting

several studies that will provide the framework for regional high-speed rail that crosses multiple states and multiple jurisdictions. Much like the Interstate Highway System of the 1950s, this new HSR network will be borderless. The financing to conduct a multistate plan to include preliminary ridership studies, rights-of-way alignments, preliminary engineering studies, preliminary eco-system impacts, corridor connectivity and the needs of each community in order to prepare for high-speed rail, is estimated to be \$30 million to \$50 million over a three-year period. This is not just an authorization item, but should be part of a national vision for an HSR network.

MOVING FORWARD

As the Congress and administration move forward with the implementation of a national high-speed rail network, it's essential that provisions be made for future corridors like the Western High Speed Rail Alliance Corridor.



ATTACHMENT TWO

Agenda Item 6



April 8, 2010

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

TO: Members of the Transit Committee

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,

A Voluntary Association of Local Governments in Maricopa County

- 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.

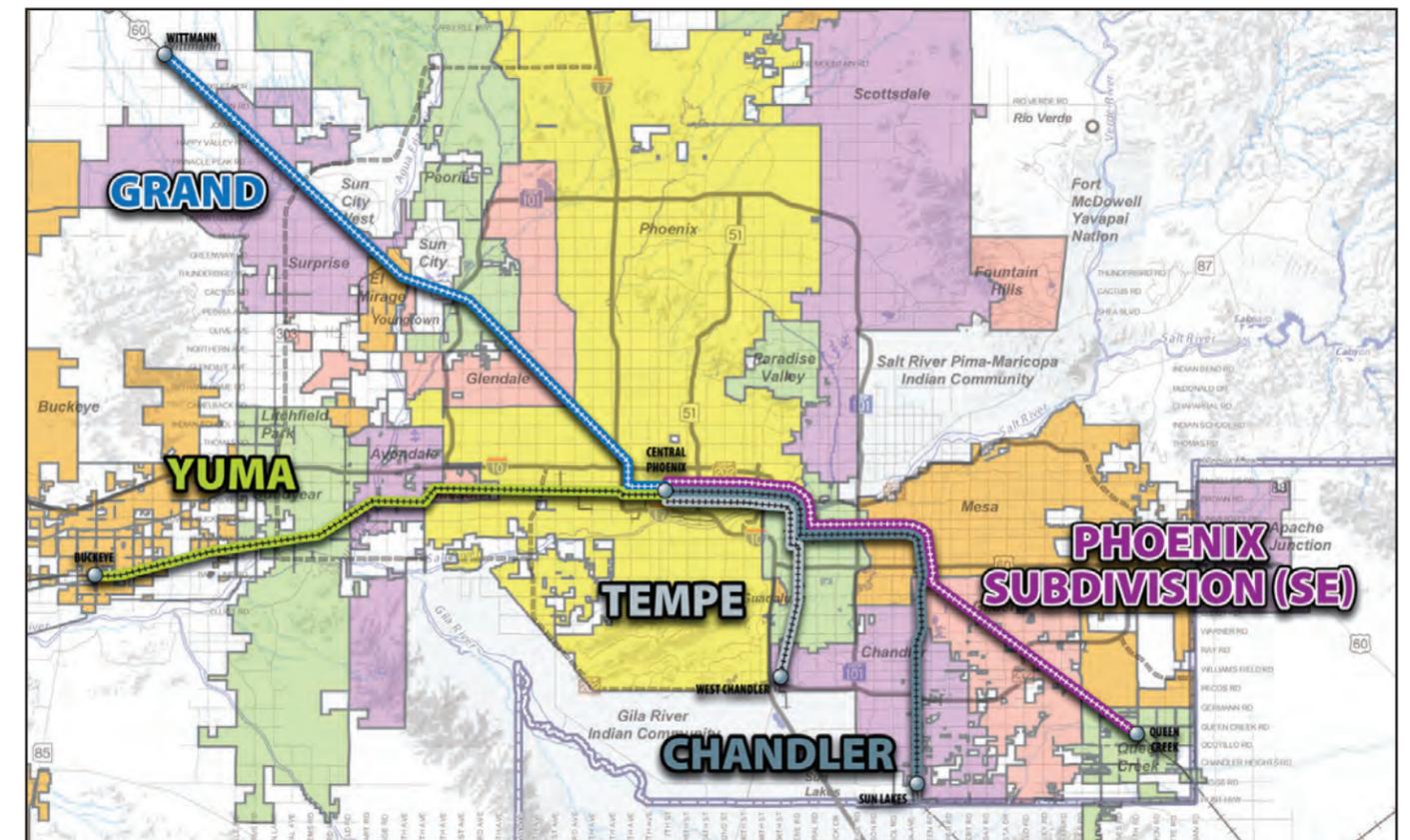
MAG COMMUTER RAIL SYSTEM STUDY

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



Maricopa Association of Governments
302 North First Avenue, Suite 300
Phoenix, AZ 85003
PH: 602.254.6300 • FX: 602.254.6490

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>9) Local Planning Efforts.</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"> ➔ Partner with the UPRR, BNSF Railway Company, and ADOT to upgrade existing at-grade railroad crossings along System Study corridors. ➔ 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. 	Local Jurisdictions	MAG ADOT	Ongoing

Source: URS Corp., 2009.

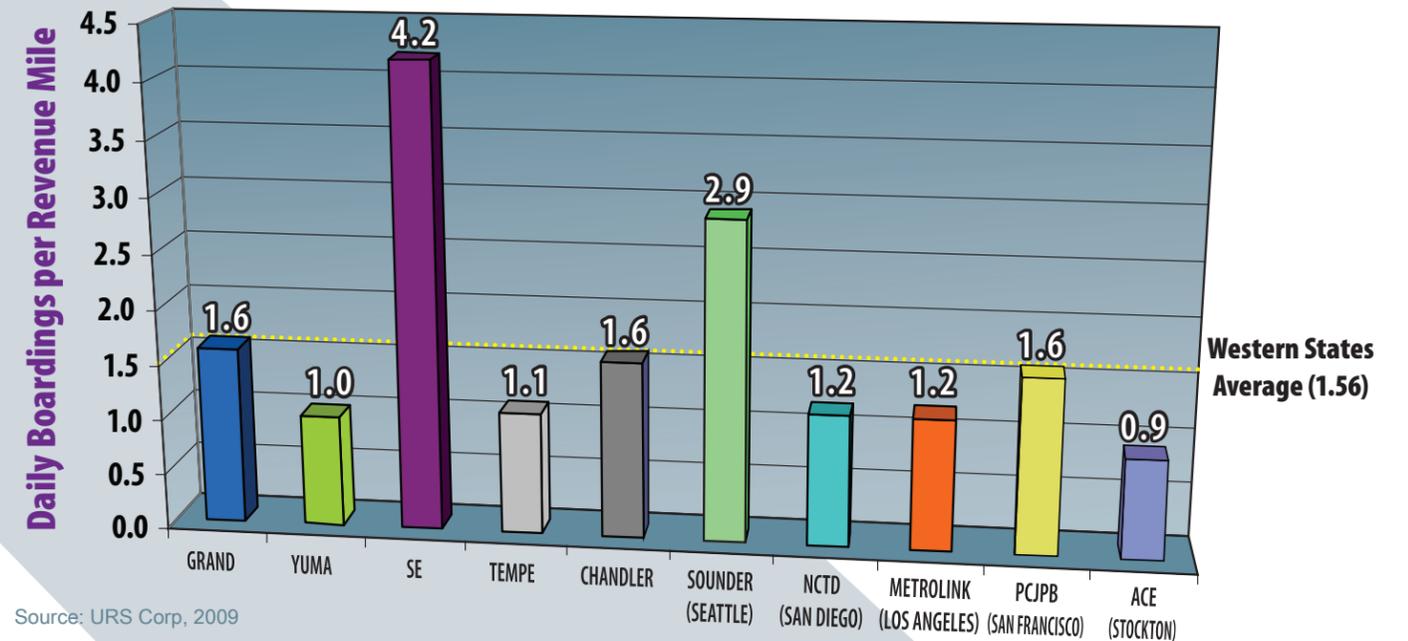
WHAT LONG TERM IMPLEMENTATION STEPS ARE NEEDED?

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>4) Coordination of Infrastructure Improvements with the Railroads, ADOT and Local Jurisdictions.</p> <ul style="list-style-type: none"> → 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. → 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. 	MAG Local jurisdictions ADOT	UPRR BNSF Railway METRO RPTA	Ongoing
<p>5) Identify Funding Commitments.</p> <ul style="list-style-type: none"> → Define new revenue streams that would be dedicated to development and ongoing operation of the commuter rail system. → A phased approach and cost-sharing agreements may segment or defer expenditures. 	MAG ADOT Legislature	Local jurisdictions	2010-2015
<p>6) Initiate Process for Federal Funding.</p> <ul style="list-style-type: none"> → Conduct required Alternatives Analysis and NEPA compliance to meet requirements for federal funding. → Local match funding should be identified prior to initiating this process with FTA. 	MAG	Local jurisdictions	Following identification of local funding commitments
<p>7) Develop and Implement Governance Plan.</p> <p>Most likely approaches include:</p> <ul style="list-style-type: none"> → Formation of a new Commuter Rail Authority, → Designation of an existing agency as the Commuter Rail Authority (RPTA, METRO, MAG, ADOT), or → Establishment of a new Joint Powers Authority (JPA) with a provision for representation appropriate to the corridor or system to be implemented. 	MAG ADOT	METRO RPTA Local jurisdictions	Following identification of local funding commitments
<p>8) Preserve Future Options.</p> <ul style="list-style-type: none"> → 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. 	Commuter Rail Authority or JPA	Local jurisdictions UPRR BNSF Railway MAG CAAG 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
PEER CITY COMMUTER RAIL SYSTEMS		
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
PEER CITY COMMUTER RAIL SYSTEMS		
Western States Average	—	\$11/rider

Source: Gannett Fleming and URS Corp., 2009.

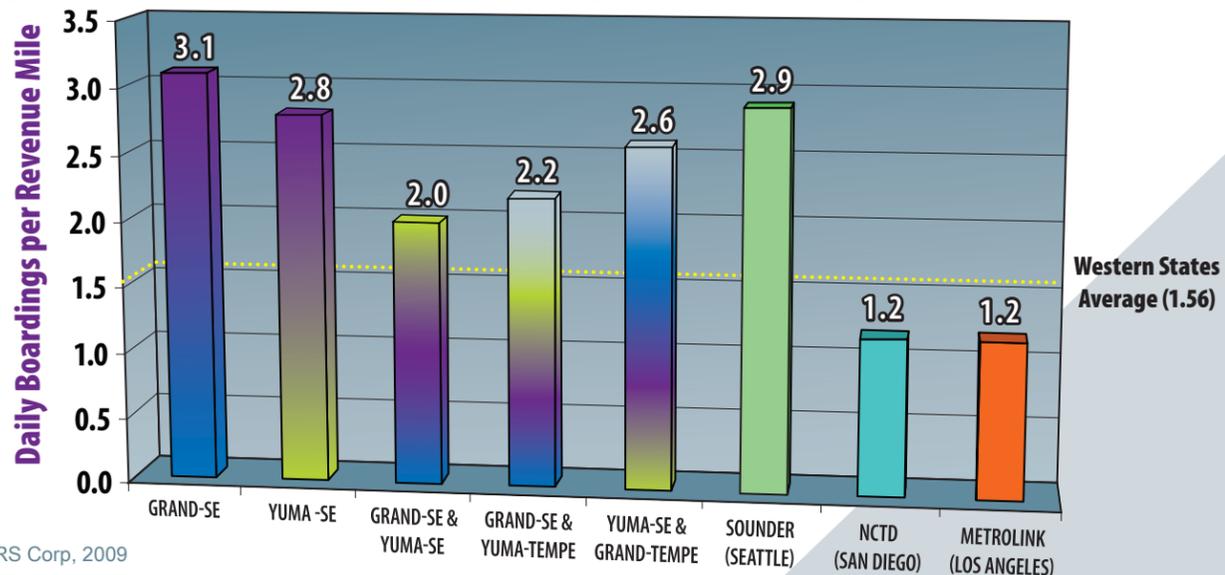
WHAT INTERLINED ALTERNATIVES WERE CONSIDERED?

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
2-Corridor Interlined Alternatives				
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
3-Corridor Interlined Alternatives*				
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.	
4-Corridor Interlined Alternatives*				
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
1) Periodic Ridership Forecasting Updates ➔ Re-run MAG ridership forecasting model with latest socioeconomic data.	MAG	Local jurisdictions	Ongoing
2) Coordination with UPRR and BNSF Railway ➔ Maintain points of contact and communication protocols. ➔ Develop partnership to investigate options for determining compensation, capacity improvements, and level of service. ➔ 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 MAG UPRR BNSF Railway	Local jurisdictions METRO RPTA	Ongoing
3) Address Enabling Legislation regarding Liability and Indemnification. ➔ Progress on this issue may facilitate more effective coordination with railroads.	ADOT (as a statewide issue)	MAG UPRR BNSF Railway	2010-2013

CONTINUED »

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.

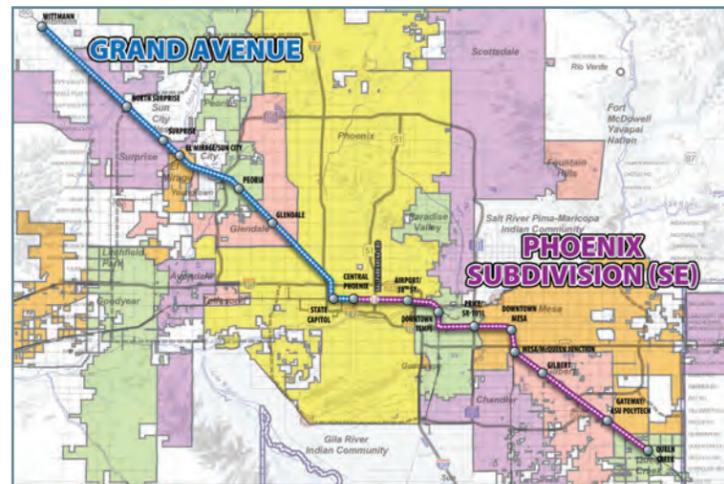
WHICH SEGMENT OF THE COMMUTER RAIL SYSTEM SHOULD BE IMPLEMENTED SECOND?

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).

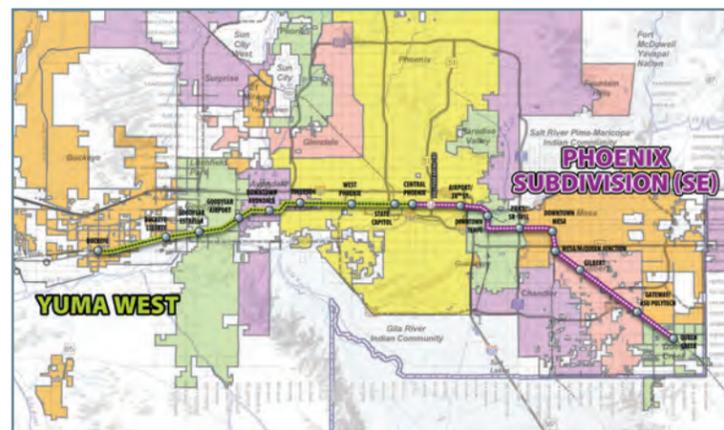
Ridership would be greatest when the most productive East Valley and West Valley Corridors, which are Grand Avenue and SE, are combined.



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
2-Corridor Interlined Alternatives				
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
3-Corridor Interlined Alternative				
Grand Interlined with SE and Yuma Interlined with SE	\$1.4 B	\$14.4M/mile	\$98.2 M	\$29/rider
4-Corridor Interlined Alternatives				
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"> • 2 to 4 times the number of boardings per revenue mile as all other corridors • 18 minute end-to-end travel time savings* • Second lowest capital cost per mile • Lowest O&M cost per rider
Grand	Middle Tier	<ul style="list-style-type: none"> • Boardings per revenue mile are close to Western States average • 24 minute end-to-end travel time savings* • Moderate capital cost per mile • Second lowest O&M cost per rider
Tempe & Chandler	Middle Tier	<ul style="list-style-type: none"> • Low to moderate boardings per mile • Moderate to high capital cost per mile • High O&M cost per user
Yuma	Lower Tier	<ul style="list-style-type: none"> • Lowest capital cost per mile due to relatively few infrastructure improvements, but lowest boardings per revenue mile • Minimal travel time savings • Highest O&M cost per rider

*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"> Highest boardings per mile High capital cost per mile Lowest O&M cost per rider
Yuma-SE	Top Tier	<ul style="list-style-type: none"> Moderate boardings per mile Lowest capital cost per mile Moderate O&M cost per rider
Grand-SE & Yuma-Tempe and Yuma-SE & Grand-Tempe	Middle Tier	<ul style="list-style-type: none"> Low to moderate boardings per mile Moderate capital cost per mile Moderate O&M cost per rider
Grand-SE and Yuma-SE	Lower Tier	<ul style="list-style-type: none"> Lowest boardings per mile Moderate capital cost per mile Highest O&M cost per rider

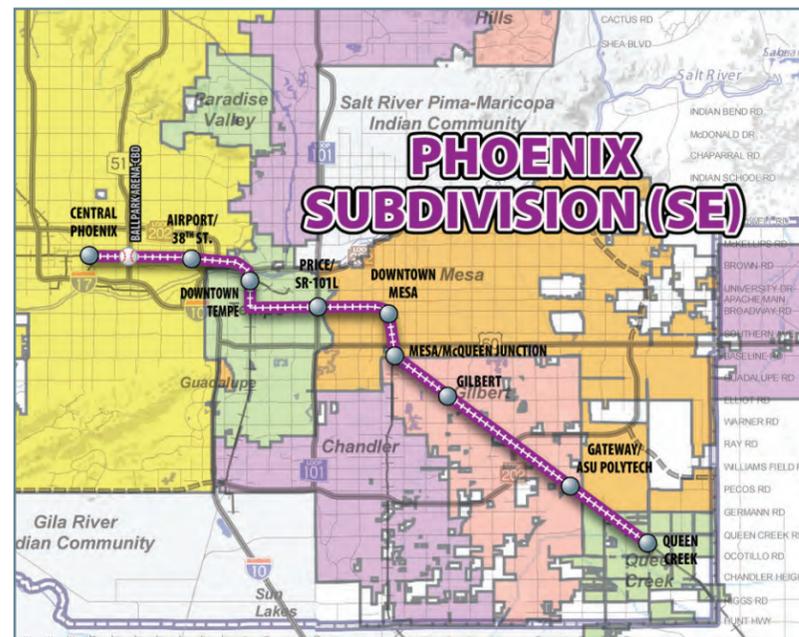
Source: URS Corp., 2009.

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.



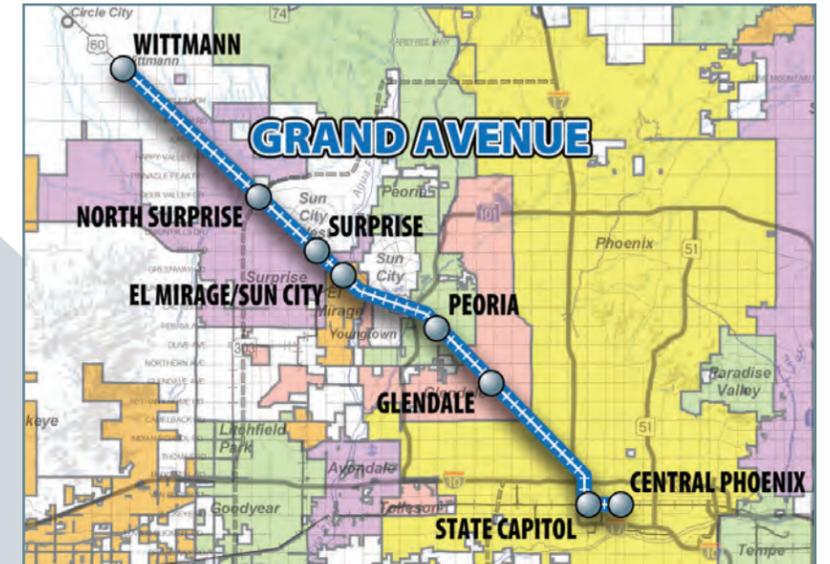
Source: URS Corp., 2009.

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.

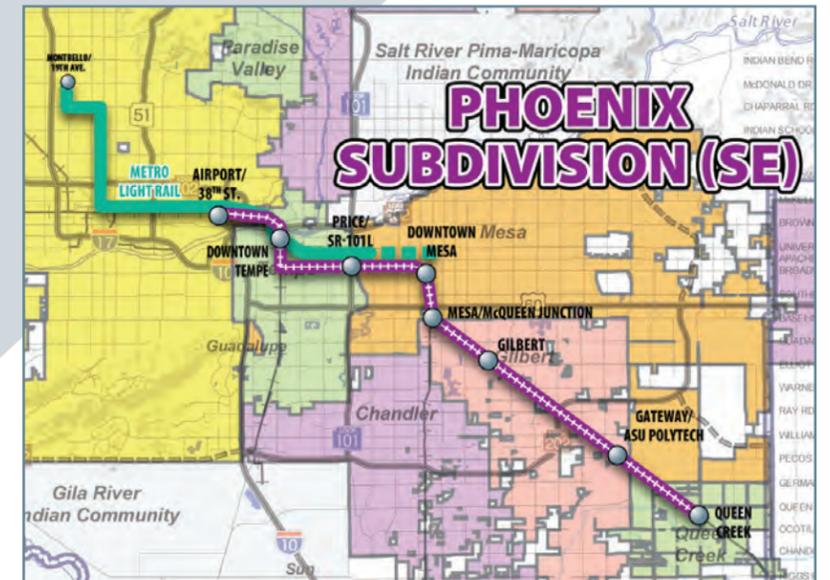


Source: URS Corp., 2009.

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.

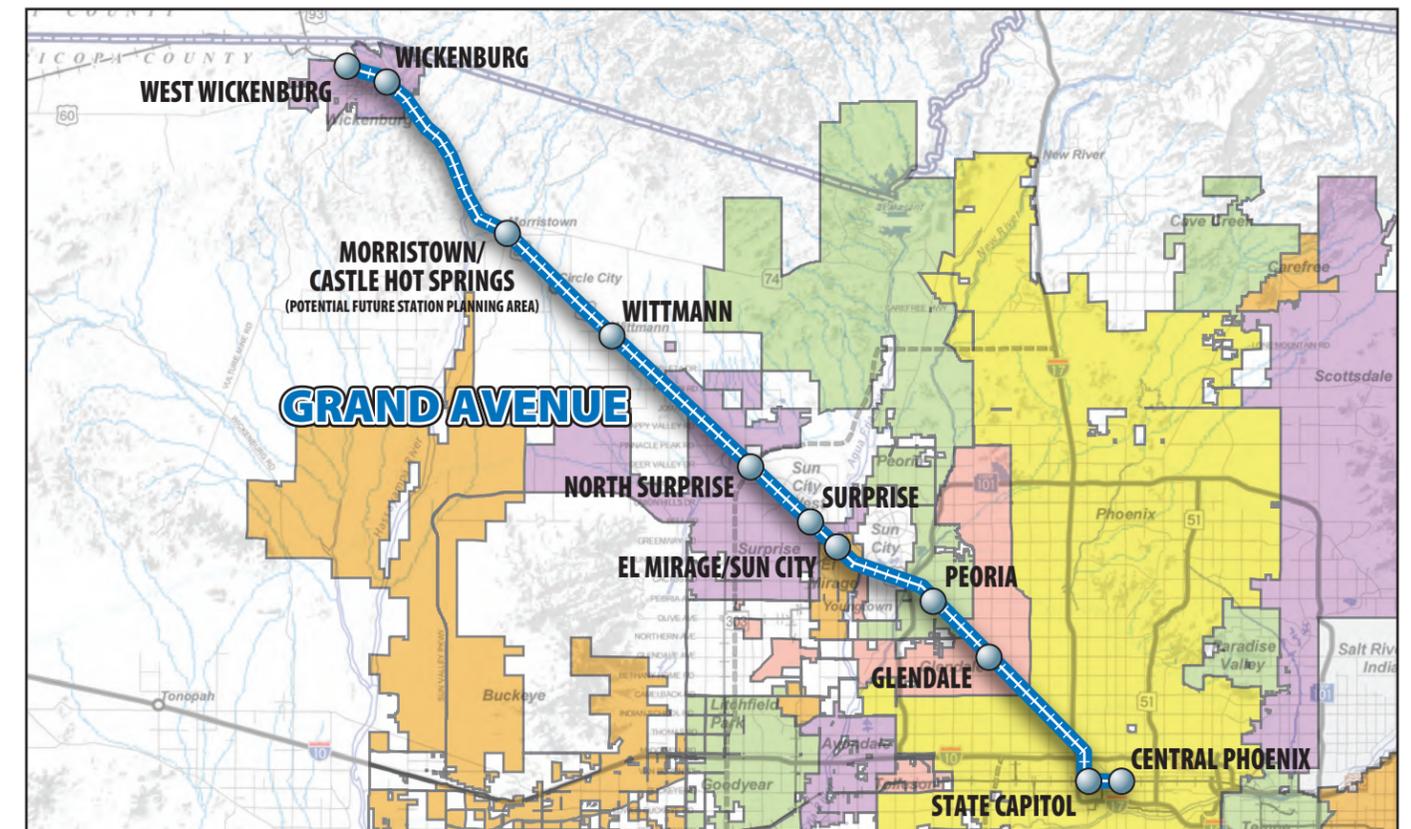
MAG GRAND AVENUE COMMUTER RAIL CORRIDOR DEVELOPMENT PLAN

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



Maricopa Association of Governments
302 North First Avenue, Suite 300
Phoenix, AZ 85003
PH: 602.254.6300 • FX: 602.254.6490

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.



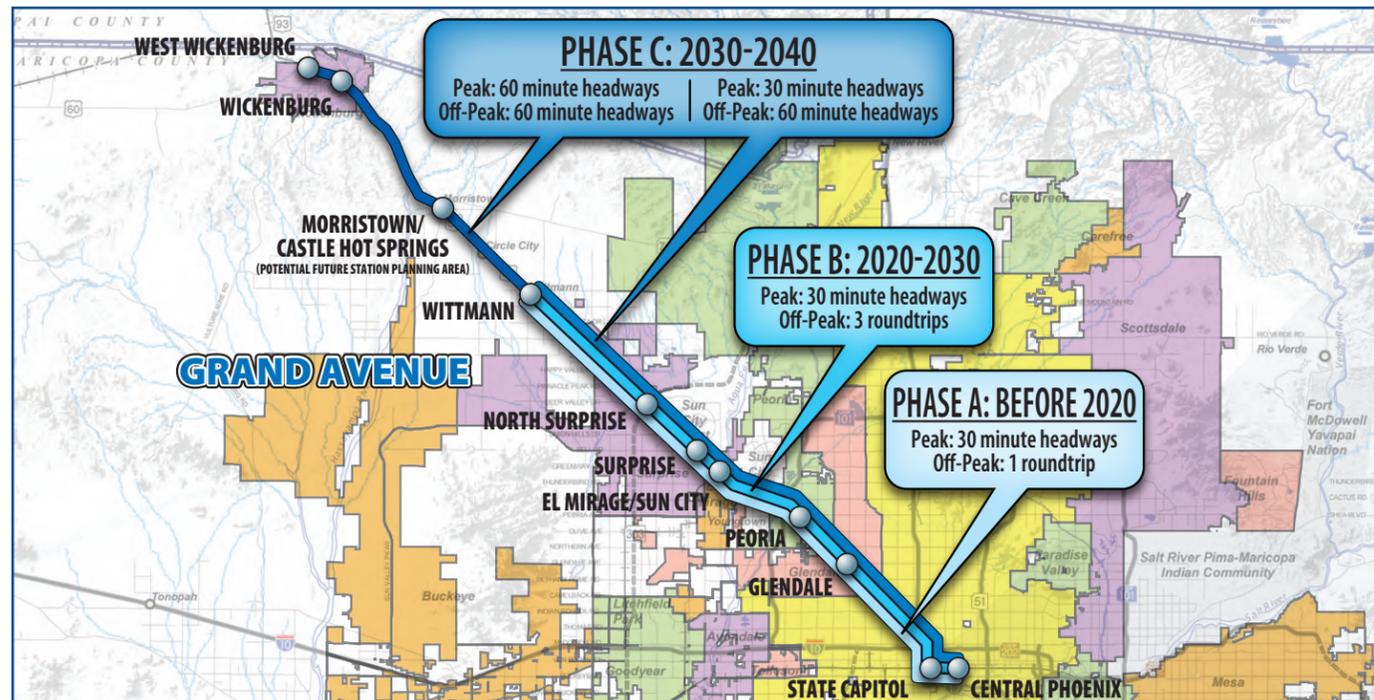
Rail Runner Express Commuter Train; Albuquerque, NM
Source: MRCOG/HDR.



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 → Maintain point of contact and communication protocols → Develop partnership to investigate options	ADOT MAG BNSF Railway Company	Local jurisdictions METRO RPTA	Ongoing
Address Enabling Legislation (Liability and Indemnification)	ADOT (as a statewide issue)	MAG BNSF	2010-2013
Identify Funding Commitments	MAG ADOT Legislature	Local jurisdictions	2010-2015
Develop and Implement Governance Plan	MAG ADOT	METRO RPTA Local jurisdictions	Following identifications of local funding commitments
Preserve Future Options	Commuter Rail Authority or JPA	Local jurisdictions BNSF Railway Company MAG CAAG ADOT	Ongoing
Local Planning Efforts	Local Jurisdictions	MAG 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.

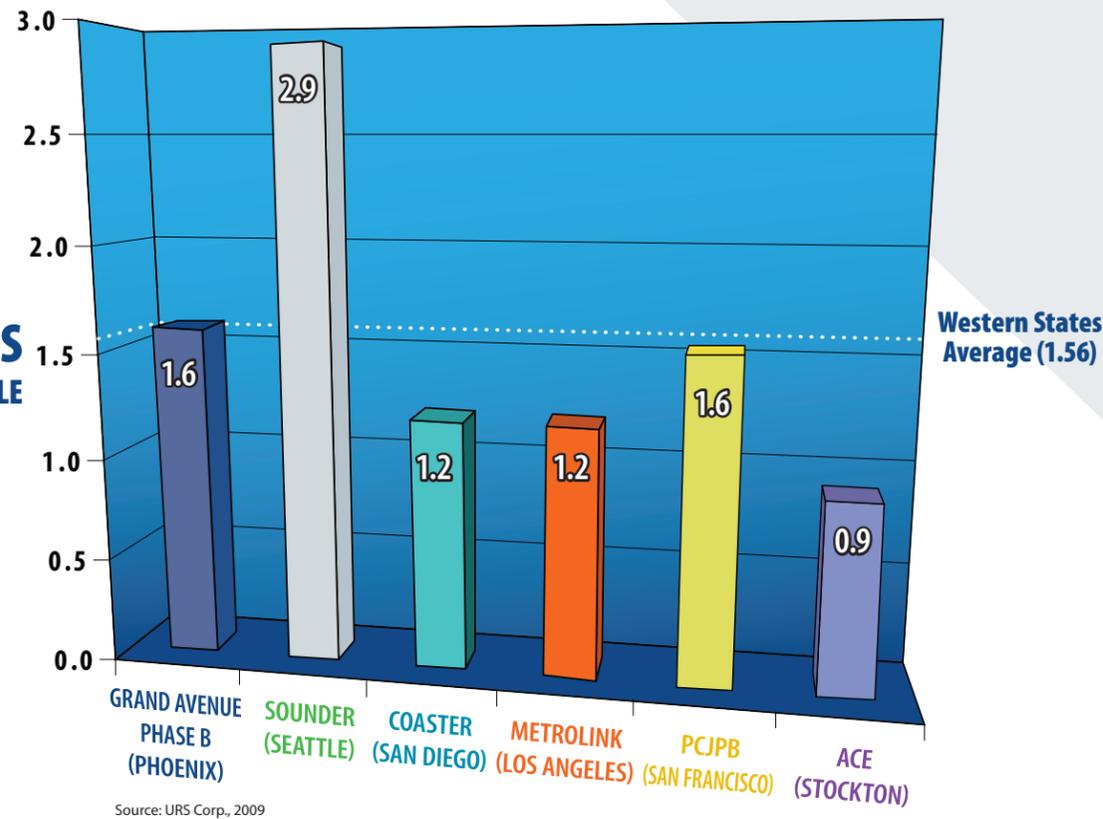
WHAT RIDERSHIP COULD BE EXPECTED ON COMMUTER RAIL?

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.

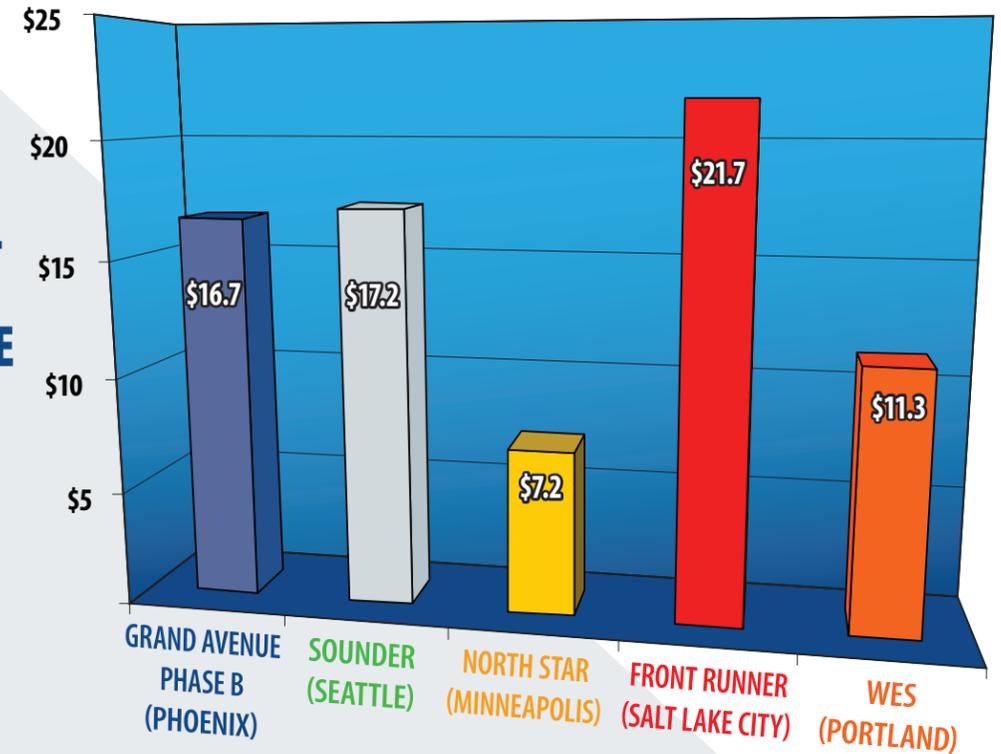
FEDERAL FUNDING

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.

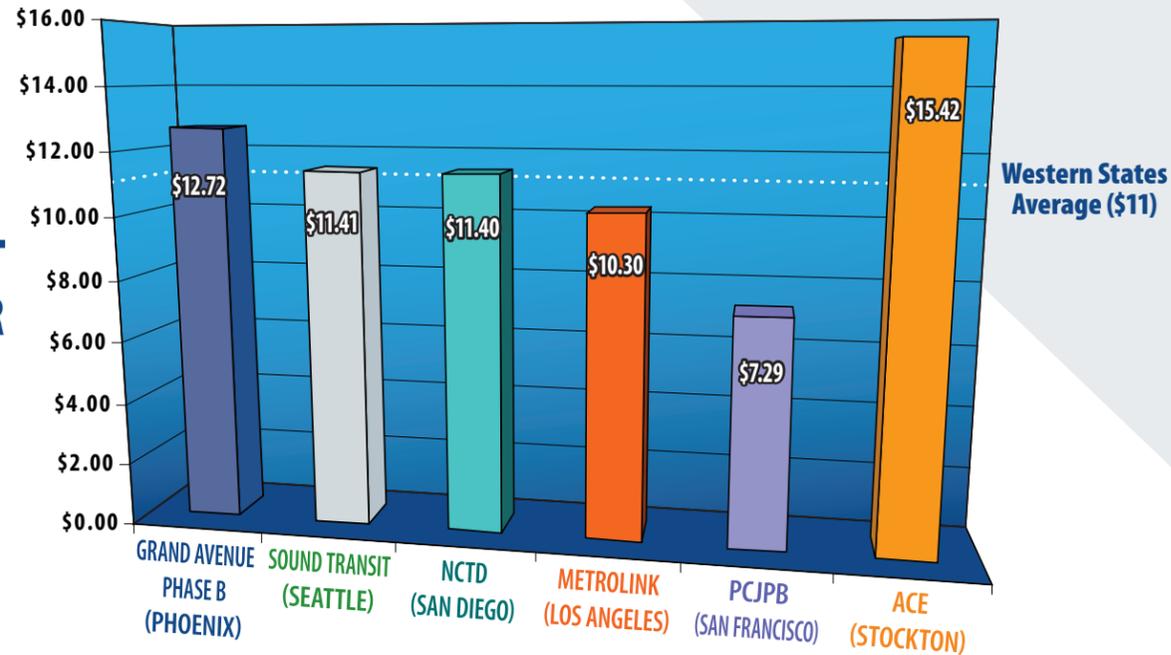
CAPITAL COST PER MILE (MILLIONS)



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.