



Tempe South Project Update

MAG Transit Committee

October 14, 2010





High Capacity Transit System

57-Mile System





Tempe South Study Area

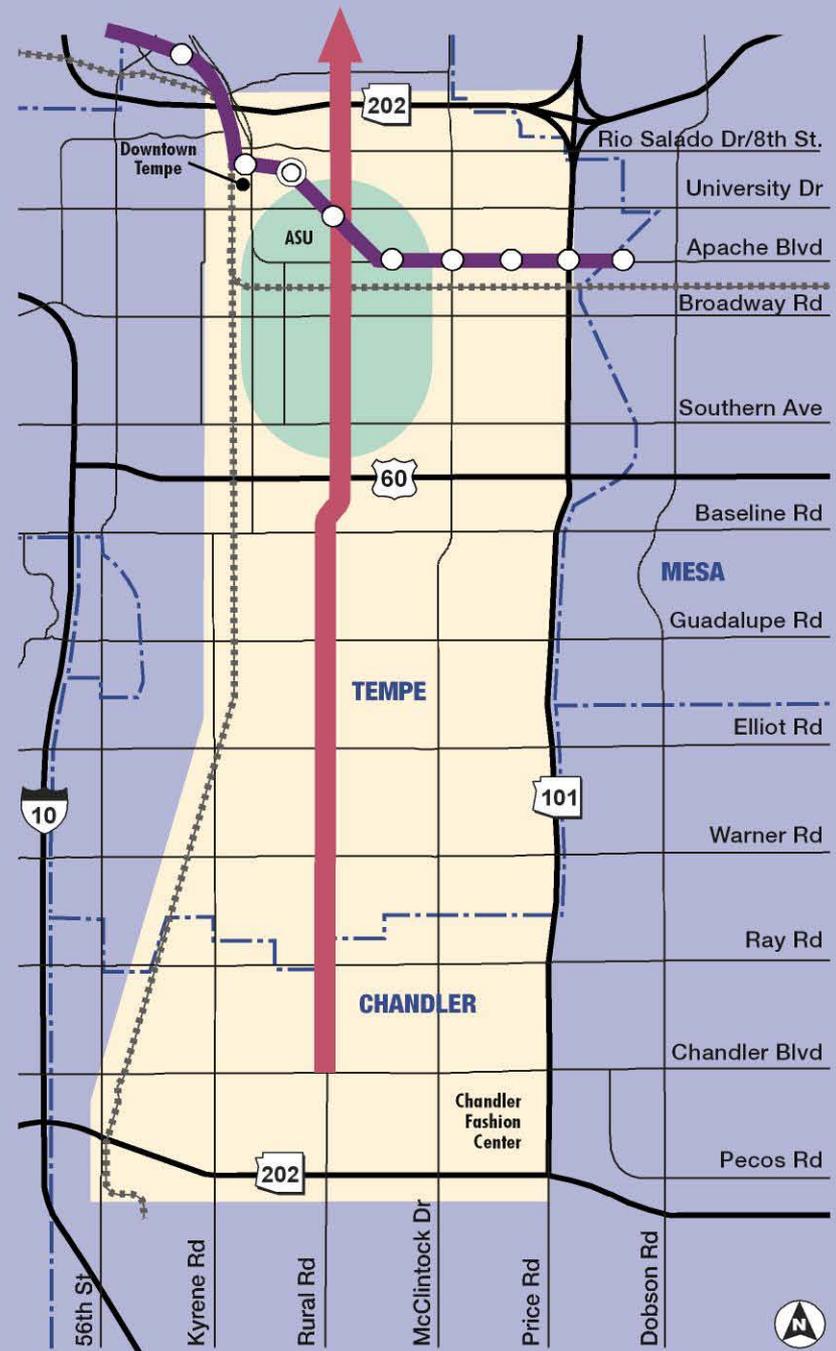
Proposition 400 sales tax (2004) included two projects per the MAG Regional Transportation Plan:

- High Capacity Transit: 2 miles
 - FUNDED
- Rural Rd Bus Rapid Transit: 12 miles
 - UNFUNDED - Prop 400 revenue shortfall
 - BRT was funded for 2015 completion

Recommendations for both projects are included in this study

LEGEND

- | | | | |
|--|-----------------------------------|--|------------------------|
| | Light Rail Starter Line / Station | | Study Area |
| | Tempe Transportation Center | | City Boundary |
| | High Capacity Transit Area | | Union Pacific Railroad |
| | Scottsdale/Rural BRT | | |





Project Goals

- Improve mobility of residential and business communities
- Develop an efficient transportation system
- Accommodate future travel demand
- Develop a transportation system that supports local and regional development goals and TOD strategies
- Develop transportation strategies that reinforce the cities general plan
- Develop a transportation system that is affordable to build, operate, and maintain
- Develop a transportation system that provides connectivity to/from neighborhoods, employment, and recreational opportunities



Travel Characteristics of Tempe South Corridor

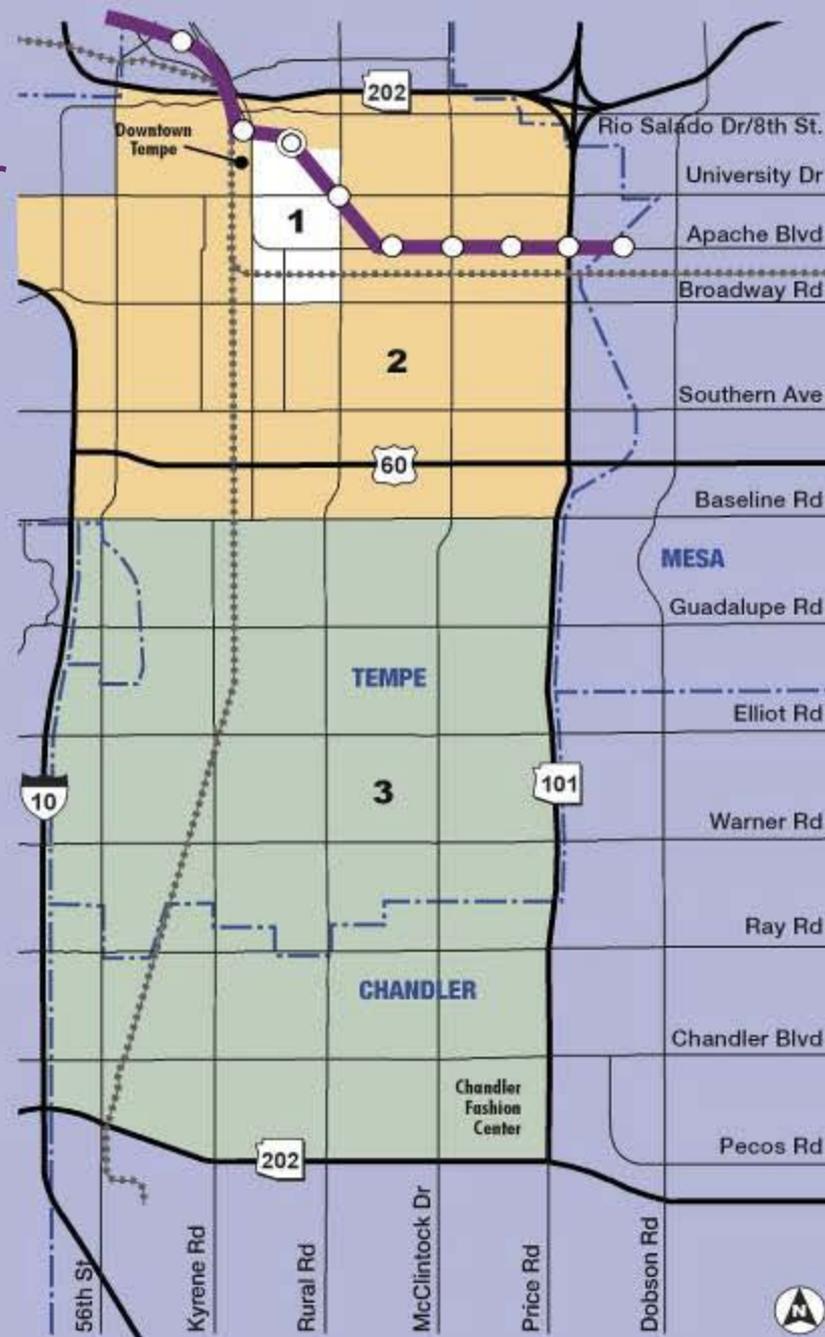
- North Tempe (2)
 - CBD
 - Pedestrian/Transit Friendly
 - High Density Neighborhoods
 - Regional Employment Center
- ASU (1)
 - Region-wide Special Generator
 - Unique Trip Patterns
 - Non Peak Trip Patterns
- South Tempe/Chandler (3)
 - Commute Corridor
 - Higher Income
 - Low Density Housing
 - Low Density Employment
- One solution will not fit all

LEGEND

- Light Rail Starter Line / Station
- Tempe Transportation Center
- City Boundary
- ++++ Union Pacific Railroad

Districts

- 1 ASU
- 2 North Tempe
- 3 South Tempe





Alternatives Analysis: Purpose

■ Transit Technologies

- Light Rail Transit
- Commuter Rail
- Modern Streetcar
- Bus Rapid Transit



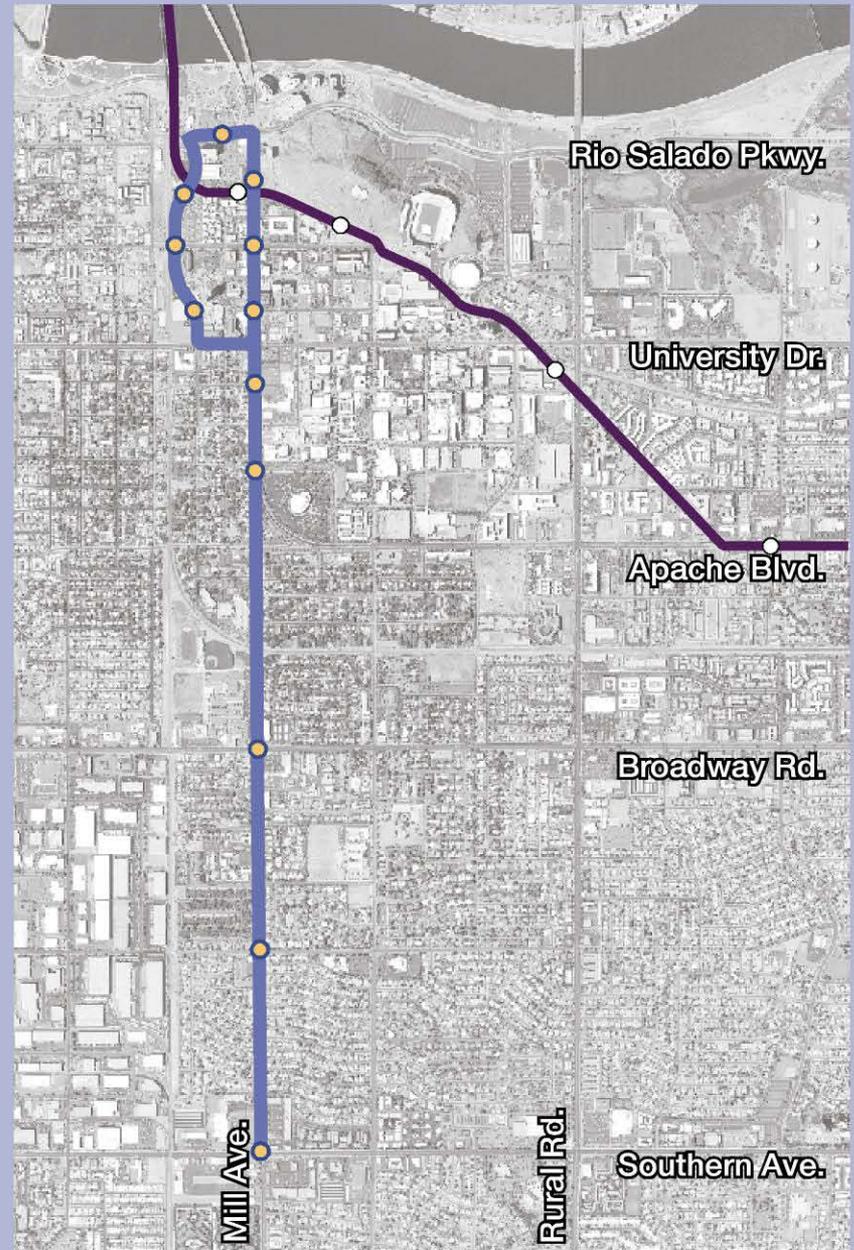
■ Alignment/Route

- Rural
- McClintock
- Mill
- Kyrene
- Tempe Branch UPRR





Proposed Tempe South Locally Preferred Alternative



LEGEND

-  METRO Light Rail Line/Station
-  Modern Streetcar/Stop - Mill/Ash Loop



Downtown Tempe

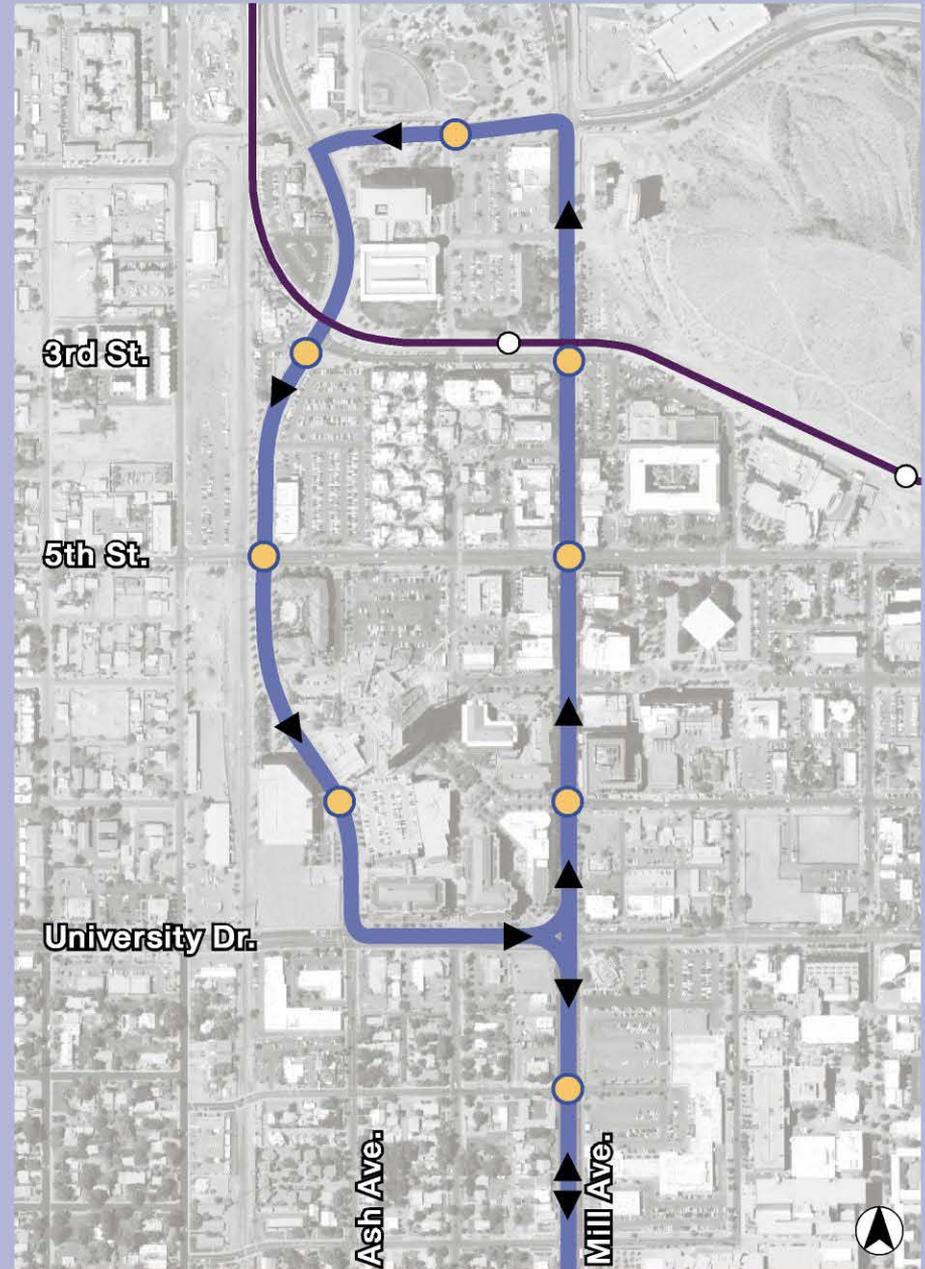
Recommendation

Why Mill/Ash Avenue Loop?

- Helps define downtown
- Opportunity to stimulate development/redevelopment
- Avoids utility impacts
- Reduces parking impacts
- Offers flexibility for special events
- Minimizes construction impacts
- Flexibility for future expansion
- Lowest cost

LEGEND

- METRO Light Rail Line/Station
- Modern Streetcar/Stop - Mill/Ash Loop





Proposed Tempe South Modern Streetcar



LEGEND

- | | | |
|-------------------------------|-------------------------------|------------------------|
| METRO Light Rail Line/Station | Modern Streetcar Phase 1/Stop | Park-and-Ride |
| Transit Center | Future Phase | City Boundary |
| Study Area | Future High Capacity Transit | Union Pacific Railroad |





What is Modern Streetcar?

- Fixed-guideway electric rail system
- Operates in mixed traffic
- Articulated for tight radii turns
- Smaller than light rail vehicle
- 130 passengers per vehicle (35 seated / 95 standing)
- Typically operates as a single car unit
- Simple stations
- Catalyst for economic development





Why Advance Streetcar?

- Streetcar will...
 - Increase transit ridership in the corridor
 - Connect neighborhoods to downtown Tempe
 - Connect downtown residents to neighborhood services
 - Encourage redevelopment of underutilized parcels
 - Encourage reinvestment in neighborhoods
 - Promote livable city and green initiatives
 - Provide seamless connection to LRT
 - Support ASU travel demand
 - Improve service for special events





Modern Streetcar Ridership & Cost Estimate



- Ridership (opening day):
 - 1,100 to 1,600 per day
 - Doesn't include special events

- Capital: TLCP Budget = \$162 m (YOE \$'s)
 - 27% Regional (Prop 400)
 - 73% Federal (Small Starts, CMAQ)
 - Cost Estimate - \$151 m to \$160 m

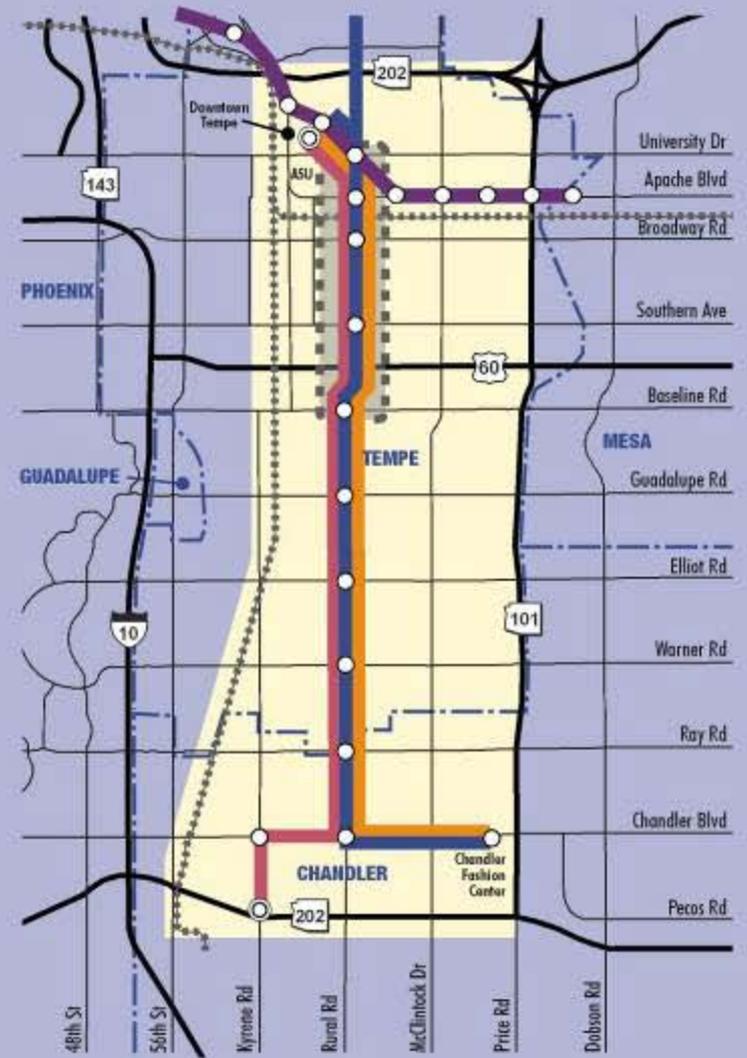
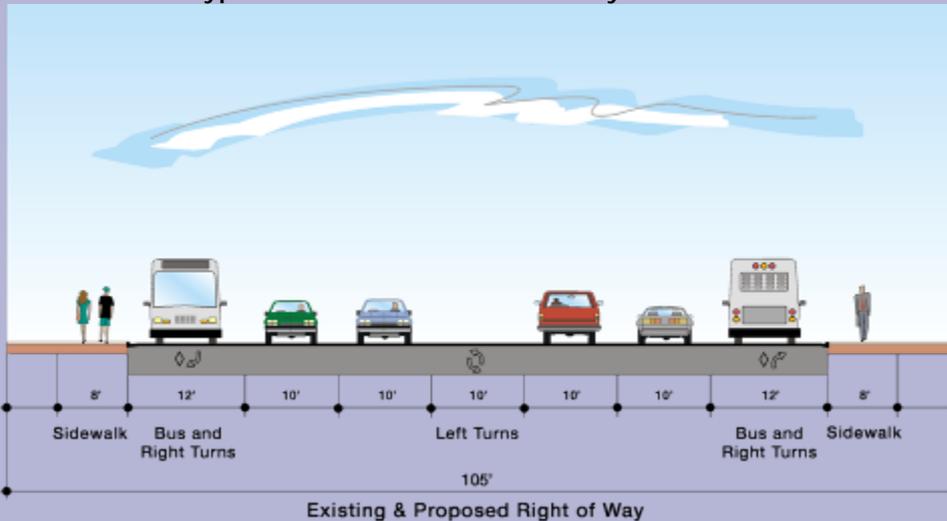
- O & M: \$3.6 m per year (in \$2017 dollars)
 - City of Tempe
 - Farebox



Rural Road BRT



Typical Cross Section - University to Baseline



LEGEND

- Light Rail Starter Line / Station
- Semi-exclusive Lane
- Bus Route 72
- BRT - Chandler Mall to Tempe Transportation Center
- BRT - Kyrene/202 to Tempe Transportation Center
- BRT Station
- Transit Center
- Study Area
- Union Pacific Railroad
- City Boundary



Why Advance BRT?

BRT will...

- Enhance bus service levels
- Relieve Rural Road bus overcrowding
- Improve bus operating speeds in the corridor
- Attract a significant number of new transit riders
- Provide seamless connections to LRT and other transit modes
- Better serve ASU, downtown Tempe and Chandler Fashion Mall travel destinations





Rural Road BRT Ridership & Cost Estimate (2010\$'s)

- Ridership (opening day):
 - Rural Road BRT - 5,200 to 5,700 / day
 - Route 72 (Rural Road) - 1,200 to 1,300 / day
- Capital cost: \$60 - \$65 million
 - 12 miles
 - 11 vehicles
 - 14 stations
 - 2 park-and-rides
- Annual operations and maintenance costs: \$3.1 million
 - Tempe - \$2.1 million; Chandler - \$1.0 million
- Project unfunded





Tempe South Study – Public Process

- Ten Public Meetings – 446 attended
 - Scoping
 - Tier 1 & 2
 - Project Update
 - Alternatives Analysis Preliminary Staff Recommendations
- Presentations – over 47 given to date
 - Advisory Committees
 - Neighborhood Associations
 - Civic Organizations
- Project updates via website, e-mail, newsletter



Next Steps – Approval Process

- Council Actions
 - Tempe October 21
 - Chandler November 18
- Regional Actions
 - METRO Board November 17
 - MAG Regional Council December 8
- Small Starts Application Spring 2011



Recommendations

- A Locally Preferred Alternative for the Tempe South project, including a modern streetcar on a Mill Avenue alignment with a one-way loop in downtown Tempe;
- Inclusion of a potential future modern phase of modern streetcar east along Southern Avenue to Rural Road as an Illustrative Transit Corridor in the MAG Regional Transportation Plan;
- Future consideration for increased service levels and capital improvements for Rural Road BRT, per the description provided herein, through the regional transportation system plan process;



Recommendations

- Future consideration for high capacity transit needs north of downtown Tempe along Rio Salado Parkway and south of Southern Avenue along Rural Road to the vicinity of Chandler Boulevard through the regional transportation system planning process; and
- Further consideration of commuter rail along the Tempe Branch of the Union Pacific Railroad, through the regional transportation system planning process, and pending results from the Arizona Department of Transportation's (ADOT's) Phoenix-Tucson Intercity Rail Alternatives Analysis.



METRO

