Transportation Funding Options: Thinking Outside of the Box!

Transportation Summit
November 15, 2013
2035 Regional Transportation Plan

Fig. I-1

MAG Region

- Metropolitan Planning Area
- County Boundary
- Indian Communities
- Existing Freeway
- Planned Freeway/Highway
- Highways
- Other Roads

MAP AREA

While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.
Projects Recently Completed and Underway

MAG REGIONAL FREEWAY AND HIGHWAY PROGRAM

Loop 303
13-mi of New Freeway

US-60 Widening to 6-lanes from 83rd Ave to Loop 303

Loop 303
Interstate 10 to US-60 Construction Complete by 2014

31-Miles of new HOV Lanes on Loop 101

US-60 Reconstruction from 83rd Ave to 19th Ave

New DHOV Ramp
I-10 at Loop 202 (Pecos Stack)

New DHOV Ramp
Loop 101 at Loop 202

11-Miles of new HOV Lanes on Loop 202

SR-24
Loop 202 to Ellsworth Rd
Projects Still to Come

Loop 303, US-60 to Happy Valley Rd
Add Lanes

US-60/Grand Ave
Loop 303 to Loop 101
Intersection Improvements

I-10/I-17 Spine, Loop 101 to Loop 202
Add Lanes

Loop 303, Interstate 10 to MC-85
New Freeway

Loop 202/South Mountain
New Freeway

Loop 101, I-17 to Loop 202
Add Lanes

Loop 202, Loop 101 to Broadway
Add HOV and General Lanes

Loop 101, US-60 to Loop 202
Add Lanes

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Regional Transit Program

- Planned Service Improvements:
  - Bus Rapid Transit
  - Super Grid Bus System Expansion
  - High Capacity Transit
    - Northwest LRT Phase I and II
    - Central Mesa (to Mesa Dr)
    - Central Mesa (to Gilbert Rd)
    - Tempe Streetcar
    - Phoenix West (planning)
Arterial Life Cycle Program
MORE THAN 30 PROJECTS COMPLETED

- Arizona Ave. at Chandler Blvd.: Intersection Improvements
- Arizona Ave. at Elliot Rd.: Intersection Improvements
- Arizona Ave. at Ray Rd.: Intersection Improvement
- Beardsley Rd.: Loop 101 to 83rd Ave/Lake Pleasant Parkway
- Chandler Blvd. at Dobson Rd.: Intersection Improvements
- Dobson Rd. at Guadalupe Rd.: Intersection Improvements
- El Mirage Rd.: Bell Rd to Deer Valley Dr.
- El Mirage Rd.: Deer Valley Drive to Loop 303
- Gilbert Rd. at University Dr.: Intersection Improvements
- Gilbert Rd.: SR-202L/Germann Road to Queen Creek Rd.
- Greenfield Rd.: Baseline Rd. to Southern Ave.
- Guadalupe Rd./Cooper Rd.: Intersection Improvements
- Happy Valley Rd.: Lake Pleasant Pkwy to 67th Ave.
- Happy Valley: I-17 to 35th Ave.
- Hawes Rd.: Santan Freeway to Ray Rd.
- Lake Pleasant Pkwy.: Union Hills to Dynamite Rd.
- Loop 101 at Beardsley Rd/Union Hills Dr.
- Loop 101 Frontage Rd.: Hayden Rd to Scottsdale Rd.
- Pima Rd.: SR101L to Thompson Peak Pkwy.
- Pima Rd./Happy Valley Rd.: Intersection Improvements
- Power Rd at Pecos: Intersection Improvements
- Power Rd.: Baseline Rd. to East Maricopa Floodway
- Queen Creek Rd.: Arizona Ave. to McQueen Rd.
- Ray Rd.: Sossaman Rd. to Ellsworth Rd.
- Shea Blvd. at 90th/92nd/96th: Intersection Improvements
- Shea Blvd. at Mayo/134th St.: Intersection Improvements
- Shea Blvd. at Via Linda (Phase1): Intersection Improvements
- Shea Blvd.: Palisades Blvd. to Fountain Hills Blvd.
- Warner Rd. at Cooper Rd.: Intersection Improvements
- Val Vista Dr.: Warner Rd to Pecos Rd.
Metro Phoenix Congestion

Comparing Phoenix to Houston, Atlanta, Dallas-Ft. Worth and Portland
2013 TomTom Traffic Index

Phoenix is **56 of 61** metro areas in the Americas

**Phoenix #56: Congestion Level 12%**

**Los Angeles #4: Congestion Level 35%**

**Portland #13: Congestion Level 25%**

**Houston #20: Congestion Level 22%**

**Atlanta #23: Congestion Level 22%**

**Dallas –Ft Worth #39: Congestion Level 16%**

Source: TomTom Americas Traffic Index 2013 Report
Interstate 10/Interstate 17 Corridor

**Near-Term Improvements**
- Immediate Needs addressing bottlenecks.
- Within ADOT Rights-of-Way (ROW).
- Near Term Construction.

**CORRIDOR MASTER PLAN**
- Joint Project Management.
- MAG Procurement.
- Identify Corridor Operating Principles.
- Coordinate with Stakeholders.
- Frame next environmental and design efforts.

**Environmental Studies**
- Joint Project Management.
- ADOT Procurement.
- Multiple Studies and Efforts.
- Consistent with Corridor Master Plan.

**Design, Construction, Operation**
- Implementation.

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2014-2015

2014-2017

2017-2021

After 2021

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Sales tax revenues $6.0 billion below 2003 forecast

Statewide HURF revenues $7.5 billion below 2003 forecast
Impact of Funding Loss on BRT/Express and Grid Routes

2003 Regional Transportation Plan

- By 2011, 18
- 2011 to 2025, 45

Current Transit Life Cycle Program

- After 2025, 24
- By 2011, 18
- 2011 to 2025, 21
ADOT Roadways within MAG Region

7,000 Lane-Miles
5,300 Freeway Lane-Miles
2,700 Highway Lane-Miles
2013 Operations and Maintenance Costs

- Pavement Preservation (not Quiet Pave).
- Bridge Scour and Deck Maintenance.
- Drainage/Pumps.
- Deck Park Tunnel.
- Lighting.
- Traffic Operations.
- Litter/Graffiti.
- Signs, Signals, and Striping.

Operations and Maintenance Costs with New Corridors

$80.8 million

Existing System

With Opening of Loop 303, Loop 202, I-10/I-17

$91.6 million

Total Operations and Maintenance thru 2040

$2.4 billion

2013

by 2025
“Big Budget” Maintenance Items

By 2040:

- Quiet Pavement Replacement – up to three applications.

- Interstate 10/Interstate 17 traffic interchange - “The Stack” - structure rehabilitation and deck replacement.

- Deck Park Tunnel Maintenance.

- Pump Replacement and Rehabilitation.

Rough Estimate - $1.0 billion
I-11/Hassayampa
New Freeway, Interstate 10 to US-93

Arizona SR-30
Freeway Conversion, SR-85 to Loop 303
Add Lanes, Loop 303 to Loop 202
New Freeway, Loop 202 to I-17

Loop 303
New Freeway, SR-238 to SR-30

SR-238
Add Lanes, Loop 303 to SR-347

SR-347
Add Lanes, Maricopa to I-10

Interstate 17
Add Lanes, Anthem Way to Yavapai County

Interstate 10/Interstate 17 Spine
Add Lanes, Loop 202 to Loop 101

SR-24/Gateway
Meridian Rd to US-60/SR-79

Pinal North-South
New Freeway, SR-287 to US-60

Interstate 10
Add Lanes, Riggs Rd to SR-387

SR-79
Add Lanes, SR-79B (South) to Hunt Hwy

Final determination will be completed with the fiscally-constrained NexGen Regional Transportation Plan.
Scenario 1

- Minimal service expansion: Many deficiencies not addressed.
- Shifts Light Rail operation costs to regional service.
- New Express routes and increase frequencies (32 to 192 trips) for select express routes.
Scenario 2

- Higher speed options: Express, Bus Rapid Transit, Light Rail and Commuter Rail.
- Improves regional transit service levels.
- Suburban activity centers connected by frequent express routes.
- Peer Region: Denver.
Scenario 3

- Provides a comprehensive regional transit system.
- Nearly all deficiencies are addressed.
- Most aggressive service expansion with many of high speed options.
- Peer Regions: Seattle and Salt Lake City.
Needs Summary

Regional Freeways and Highways

- Base Case: $15.6 billion
- Scenario 1: $6.3 billion
- Scenario 2: $8.2 billion
- Scenario 3: $21.7 billion

Regional Transit Options

- Base Case: $6.3 billion
- Scenario 1: $8.2 billion
- Scenario 2: $21.7 billion
- Scenario 3: $32.7 billion

Regional Arterials-Parkways

- Scenario 3: $3 billion
Potential Highway Revenue Sources
Projected 2025 to 2040

Federal Highway Funds
• MAG STP and MAG CMAQ

ADOT Funds
• Includes Highway Users Revenue Fund (HURF) and Federal Aid

Regional Area Roadway Fund (RARF)
• Half Cent Sales Tax

Source: MAG 2035 Regional Transportation Plan (2013 Draft), September 2013.
Federal and State Gas Rates

Source: American Petroleum Institute, July 2013.

US Average 49.5¢/gal
Western USA 47.2¢/gal
Arizona #43 37.4¢/gal
Major Components and Revenue Categories

- Operations and Maintenance funding for transit, streets and highways – permanent and sustainable.
- Capital program – project specific and limited term for the tax (20-year sunset?).
- Tools – redevelopment and value capture.
## Annual Average Net New Statewide Revenue
### 2013 to 2022 (millions of dollars)

<table>
<thead>
<tr>
<th>Option</th>
<th>Percent Increase</th>
<th>Revenue Increase</th>
</tr>
</thead>
</table>
| $10 drivers’ license fee increase                                      | 0.9%             | $13.1
| 10% Surcharge on Luxury Tax Collections                               | 3.0%             | $42.6
| $10 registration fee increase                                          | 3.8%             | $53.4
| Property tax for transportation                                        | 6.8%             | $96.8
| 5 Cent Local Option Fuel Tax in Maricopa County Indexed                | 7.7%             | $108.6
| Index current state fuel tax to CPI                                   | 8.1%             | $115.2
| Replace fuel tax with state sales tax                                 | 8.2%             | $116.0
| Add 5 cents to fuel tax                                               | 12.6%            | $178.0
| Index current state & federal fuel tax to CPI (state & federal)        | 16.2%            | $228.7
| Add 5 cents and index state fuel taxes to CPI                         | 22.4%            | $316.4
| Replace fuel tax with state & local sales tax                         | 23.8%            | $337.0
| Add 5 cents and index state & federal fuel taxes to CPI               | 30.4%            | $429.8
| Replace state & local sales tax in addition to current fuel taxes     | 42.8%            | $604.9
| Replace state & local sales tax in addition to current fuel taxes     | 58.0%            | $820.1
| Add state sales tax in addition to current fuel taxes                 | 73.6%            | $1,041.2

Source: Maricopa Association of Governments, August 2013.
Phased Fuel Tax Increase

- 7.5-cents to 10-cents per gallon increase to meet average of Western states.
- 10-cents, phased in at 2-cents per year for five years, indexed for inflation.
  - Average annual increase of $434 million over next 10 years, increasing HURF by 30 percent.
- Total new revenues: $4.3 billion (2013 to 2022)
  - ADOT: $2.2 billion
  - Cities: $1.3 billion
  - Counties: $0.8 billion
- Provides short-term funding to support road maintenance needs while alternatives to fuel taxes explored.

Source: Maricopa Association of Governments, September 2013.
What is the Big Picture?

1955
551,000

2000
3.25 Million

2010
4.2 Million

2040
7.1 Million
Freeway Opening Dates

This map shows the initial opening dates for segments of the regional freeway system. It also includes the planned opening dates for future freeways, including the South Mountain Loop 202 and the Loop 303 in the West Valley.
Population 2012

Phoenix MSA
4.3 million
(66% of AZ)

Phoenix + Tucson
5.3 million
(81% of AZ)

82% of AZ
Tax receipts
Population 2040

Phoenix MSA
7.1 million
(70% of AZ)

Phoenix + Tucson
8.4 million
(83% of AZ)
Employment 2012

Phoenix MSA
1.8 million
(71% of AZ)

Phoenix + Tucson
2.2 million
(86% of AZ)
Employment 2040

Phoenix MSA
3.4 million
(75% of AZ)

Phoenix + Tucson
3.9 million
(88% of AZ)
Megapolitan 2000
Long Range Planning

Hassayampa and Hidden Valley Framework Studies

Highway and Parkways
Impact of the Economy on Sales Tax Revenues

Annual Percent Change in Quarterly Transportation Sales Tax Revenues
Fiscal Year Quarter / Same Quarter Previous Fiscal Year
Residential Completions by Year and Unit Type

Source: MAG Analysis. *1990 Data is from April 1 to December 31.
Combined (State, County, and Local) Sales Tax Rates for Cities within MAG Planning Area

Source: The Tax Foundation (TaxFoundation.org)
Combined State and Local Sales Tax Rates

Sources: Sales Tax Clearinghouse; Tax Foundation calculations; state revenue department websites

Notes: Three states levy mandatory, statewide, local add-on sales taxes at the state level: CA (1%), UT (1.25%), VA (1%). The sales taxes in Hawaii, New Mexico and South Dakota have broad bases that include many services. Due to data limitations, map does not include sales tax data for Montana. Some counties in New Jersey are not subject to statewide sales tax rates and collect a local rate of 3.5. Published August 26, 2013. Data updated July 1, 2013.

taxfoundation.org/maps
State Lands Will Guide Future Development

Land Development Status: Central Arizona

- 40% developable
- 26% remaining developable

State Land is 64% of remaining developable land
Some Integration Movements
America’s Trade Corridor

Connecting Canada, the United States, and Mexico
Commodity Flows to and From Arizona

**2011 Commodity Flows from Arizona**

Source: Freight Analysis Framework 3 Database, Projections from 2007 Base Year

Commodities circulating in Arizona: 156,761

<table>
<thead>
<tr>
<th>Destination</th>
<th>Millions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>25,276</td>
</tr>
<tr>
<td>Texas</td>
<td>11,784</td>
</tr>
<tr>
<td>Nogales</td>
<td>6,931</td>
</tr>
<tr>
<td>New Mexico</td>
<td>6,789</td>
</tr>
<tr>
<td>Michigan</td>
<td>4,630</td>
</tr>
<tr>
<td>Nevada</td>
<td>4,375</td>
</tr>
</tbody>
</table>

Freight to Nogales originates throughout USA. Commodity values are indexed to 2007 US dollars.

**Commodity Flows**

- 26 - 1,500
- 1,501 - 5,000
- 5,001 - 10,000
- 10,001 - 30,000
- 30,001 - 156,761

**2011 Commodity Flows to Arizona**

Source: Freight Analysis Framework 3 Database, Projections from 2007 Base Year

Commodities circulating in Arizona: 156,761

<table>
<thead>
<tr>
<th>Origin</th>
<th>Millions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>35,031</td>
</tr>
<tr>
<td>Nogales, Mexico</td>
<td>15,074</td>
</tr>
<tr>
<td>Washington</td>
<td>9,982</td>
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<tr>
<td>Texas</td>
<td>8,361</td>
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<tr>
<td>New York</td>
<td>4,330</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>4,161</td>
</tr>
</tbody>
</table>

Freight from Nogales has a destination throughout USA. Commodity values are indexed to 2007 US dollars.

Commodity Flows

- 10 - 1,500
- 1,501 - 5,000
- 5,001 - 10,000
- 10,001 - 30,000
- 30,001 - 156,761

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Arizona Losing Share in Trade with Mexico’s Fast-Growing Economy
Composition of Arizona Exports

Source: Arizona State University

Color represents percentage change between 2009-11
Transportation Funding Options: Thinking Outside of the Box!

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