

# 2016 Arizona Pavement/Materials Conference



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MAG Executive Director  
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[www.azmag.gov](http://www.azmag.gov)







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Mayor of Phoenix



**Jackie Meck, Vice Chair**  
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Mayor of Queen Creek

# REGIONAL COUNCIL MEMBERS



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Mayor of Avondale



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Councilmember, Carefree



**Dick Esser**  
Councilmember, Cave Creek



**Jay Tibshraeny**  
Mayor of Chandler



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**Georgia Lord**  
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State Transportation Board



**Jack Sellers**  
State Transportation Board



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**Sharon Wolcott**  
Mayor of Surprise



**Mark Mitchell**  
Mayor of Tempe



**Adolfo F. Gamez**  
Mayor of Tolleson



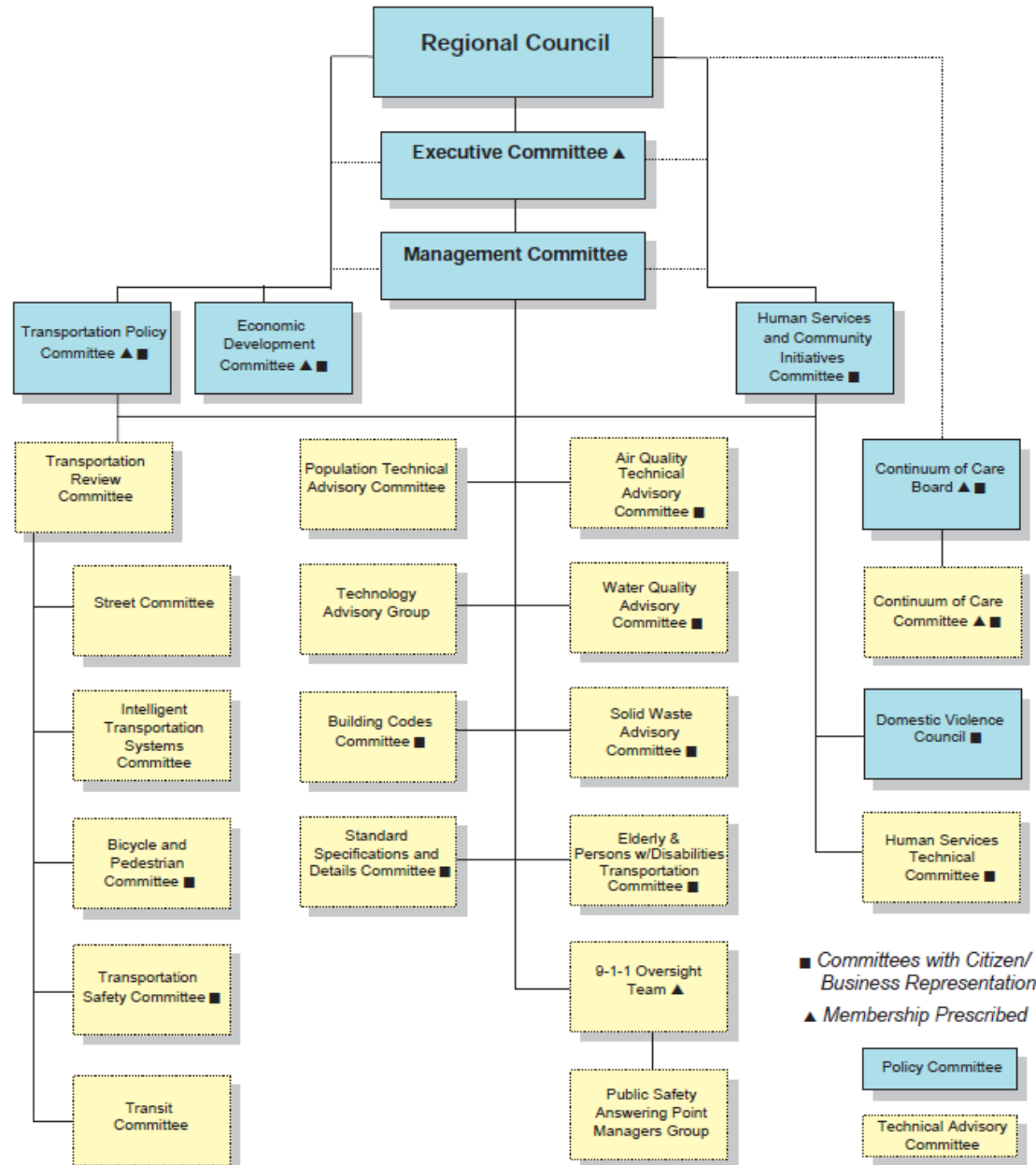
**John Cook**  
Mayor of Wickenburg



**Michael LeVault**  
Mayor of Youngtown

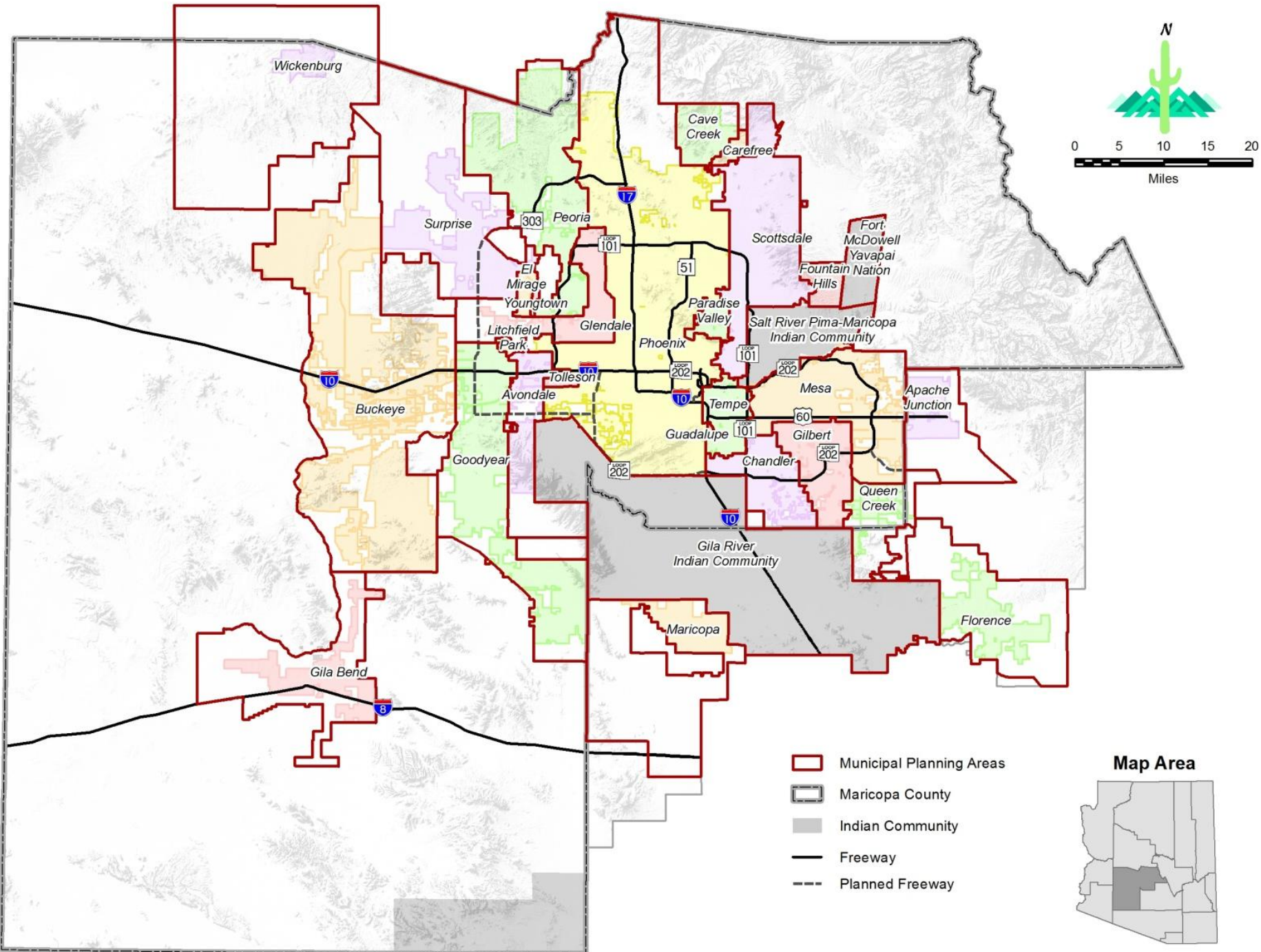


# MAG Committee Structure





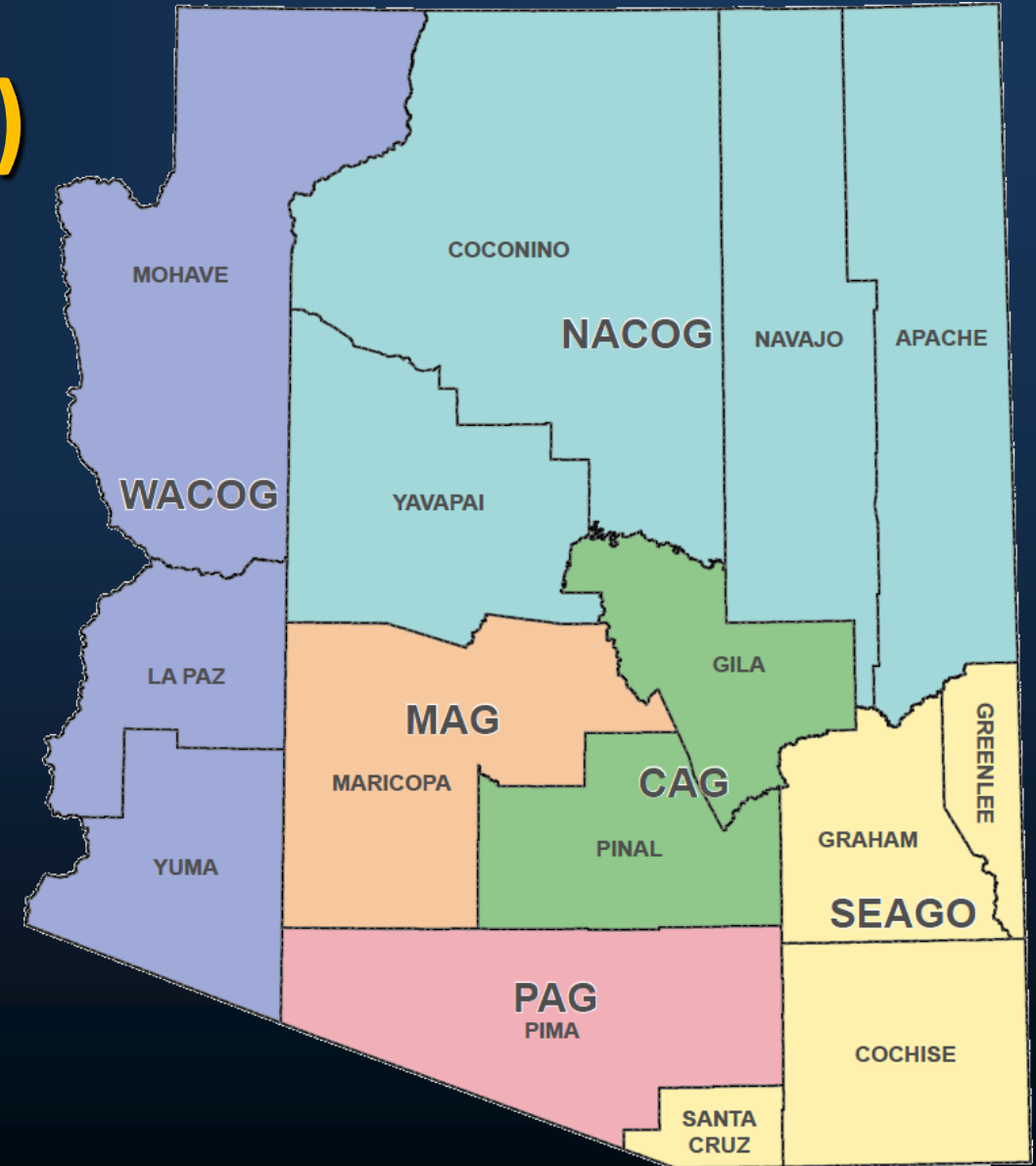
# MAG Membership



# Regional Planning Districts Councils of Governments (COGs)

Boundaries for planning defined In a Governor's Executive Order in 1970. Regional Councils comprise primarily local elected officials.

COGs are nonprofit corporations formed within the planning boundaries. Serve as overall planning agencies throughout the regions. Rural COGs assist in service delivery for the regions. Urban COGs are generally more focused on regional planning activities.



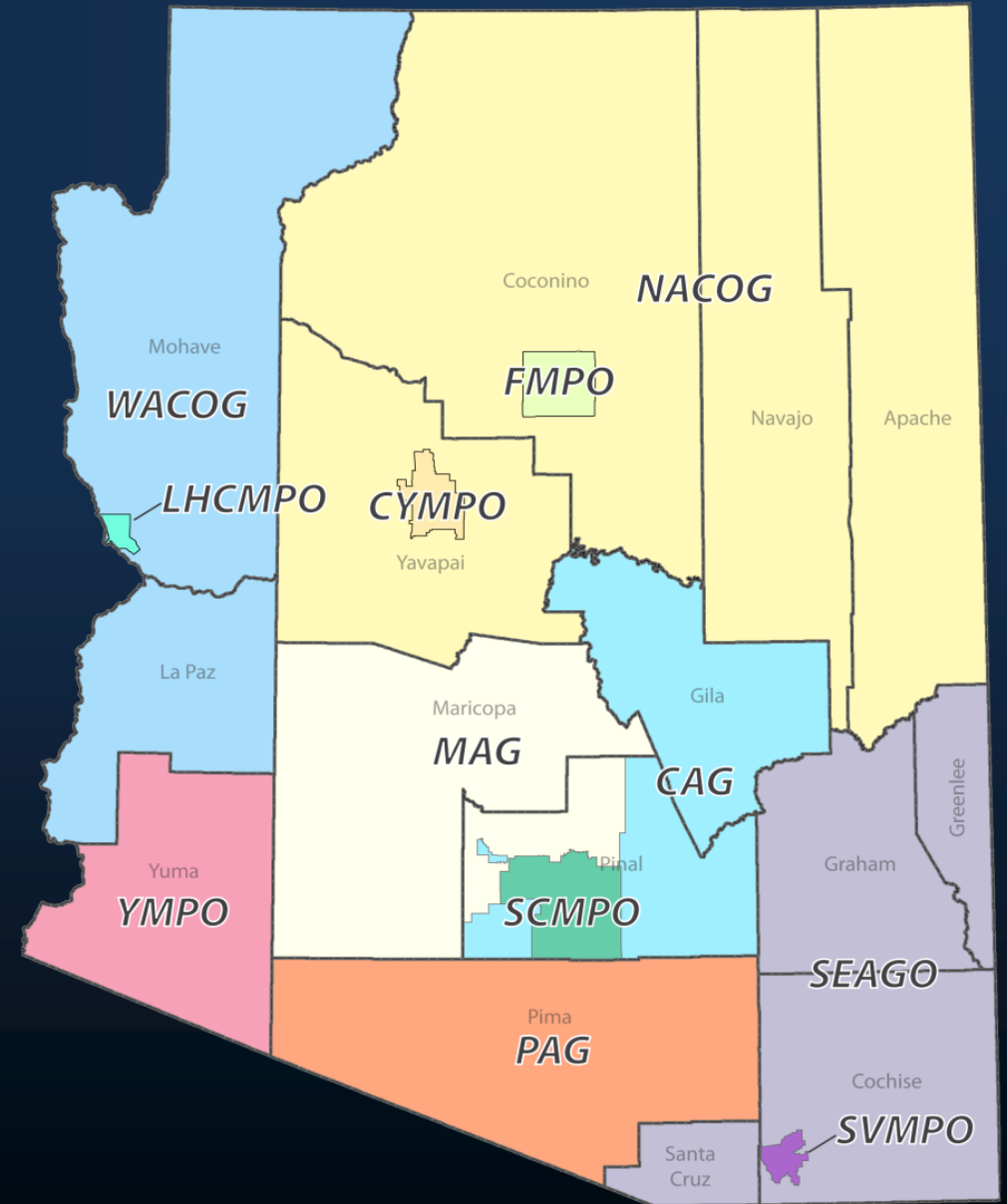
# Metropolitan Planning Organizations (MPOs)

Urbanized areas of more than 50,000 residents.

Boundary includes at a minimum, the urbanized area and the contiguous geographic area(s) likely to become urbanized within 20 years.

A forum for cooperative transportation decision making for the metropolitan planning area.

Purpose is to ensure that the expenditure of federal transportation funds is based on a continuing, cooperative & comprehensive (3-C) transportation process.



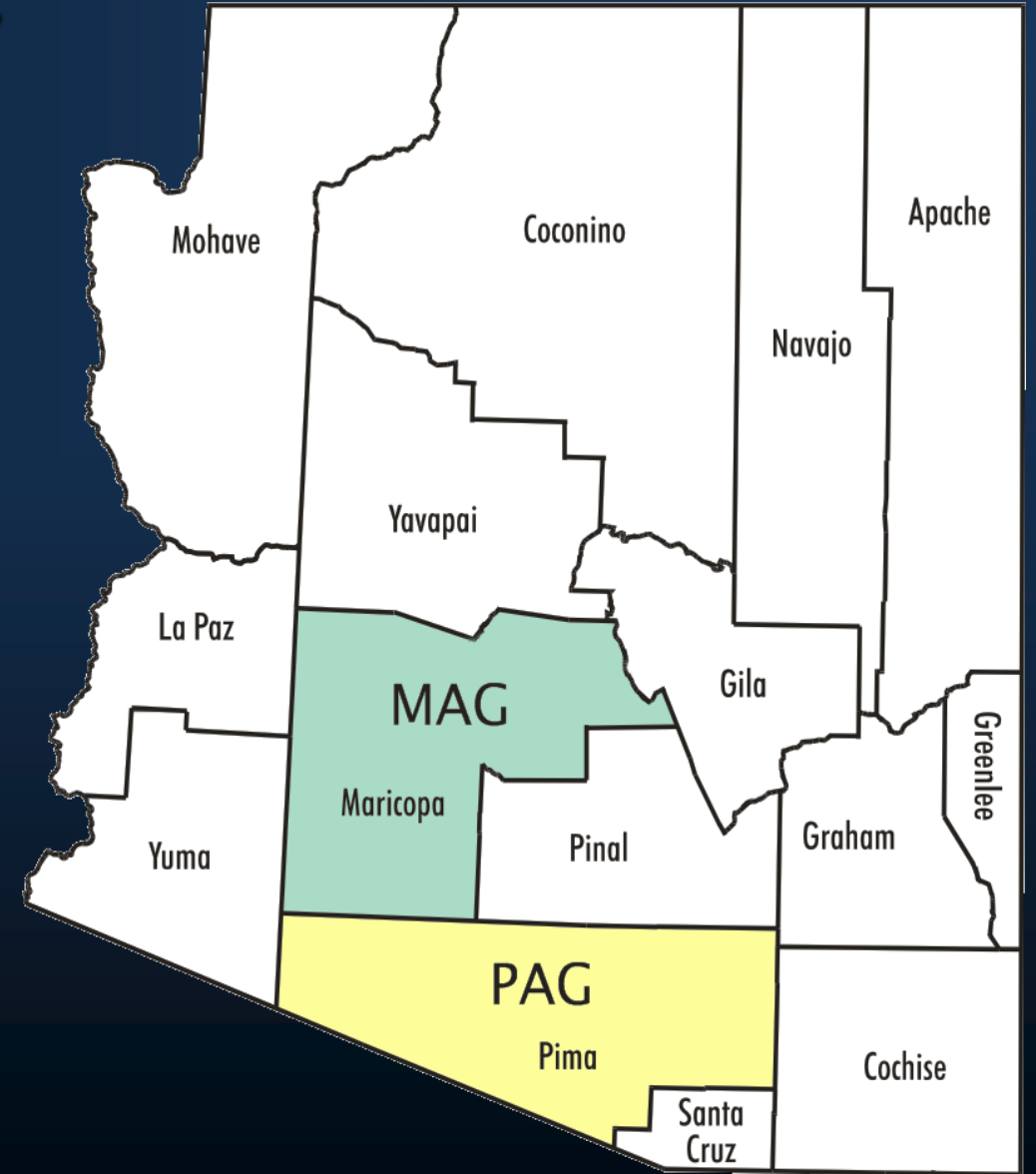
# Transportation Management Areas (TMAs)

An urbanized area over 200,000 in population designated by the U.S. Secretary of Transportation.

Greater authority is given to TMAs in project selection.

The FHWA & FTA jointly review and evaluate the transportation planning process every four years.

In nonattainment or maintenance areas FHWA & FTA review to ensure air quality conformity regulations are followed.





# Working Regionally . . .

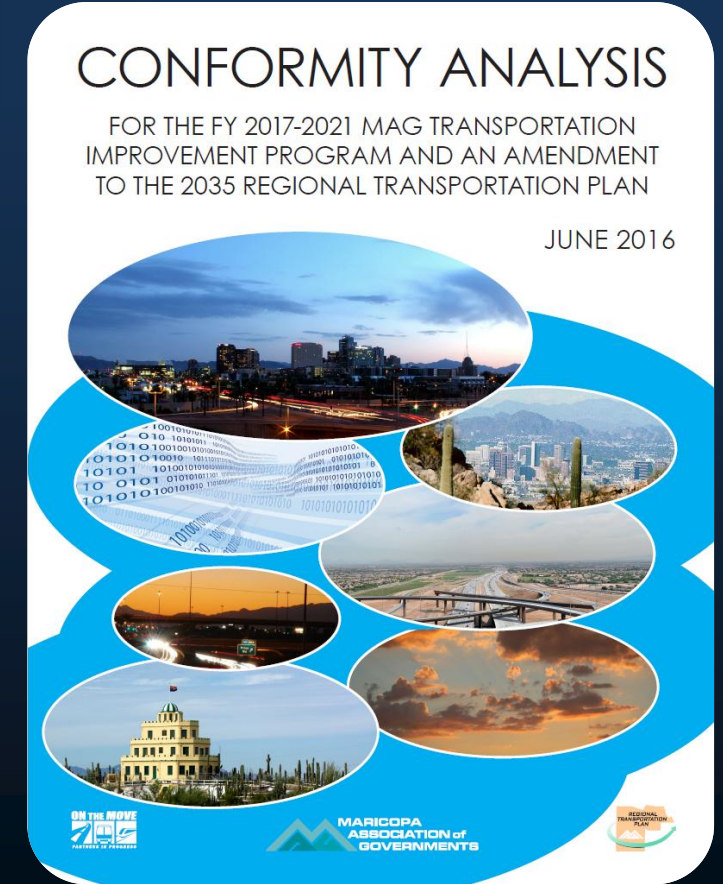
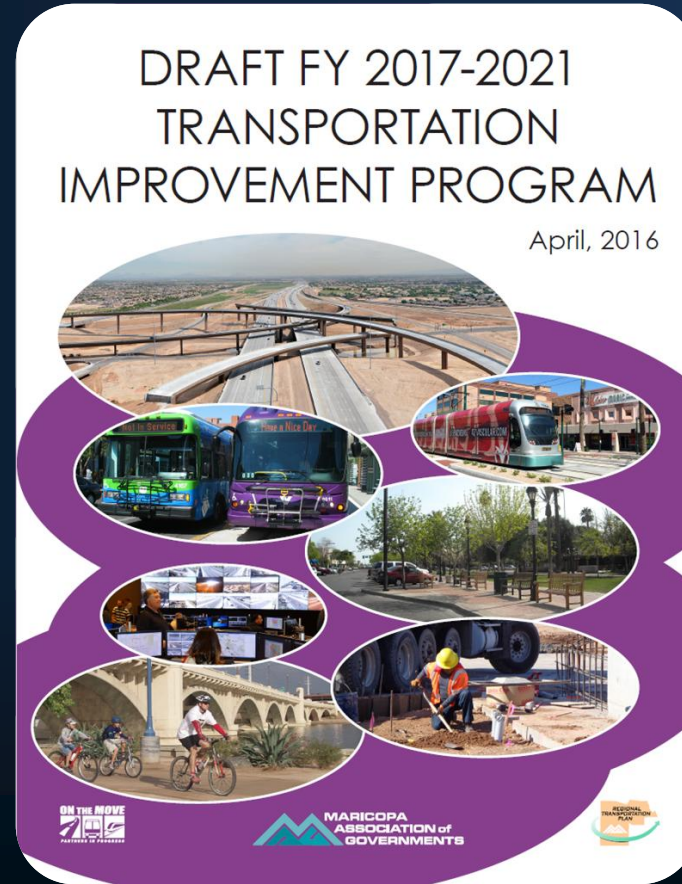
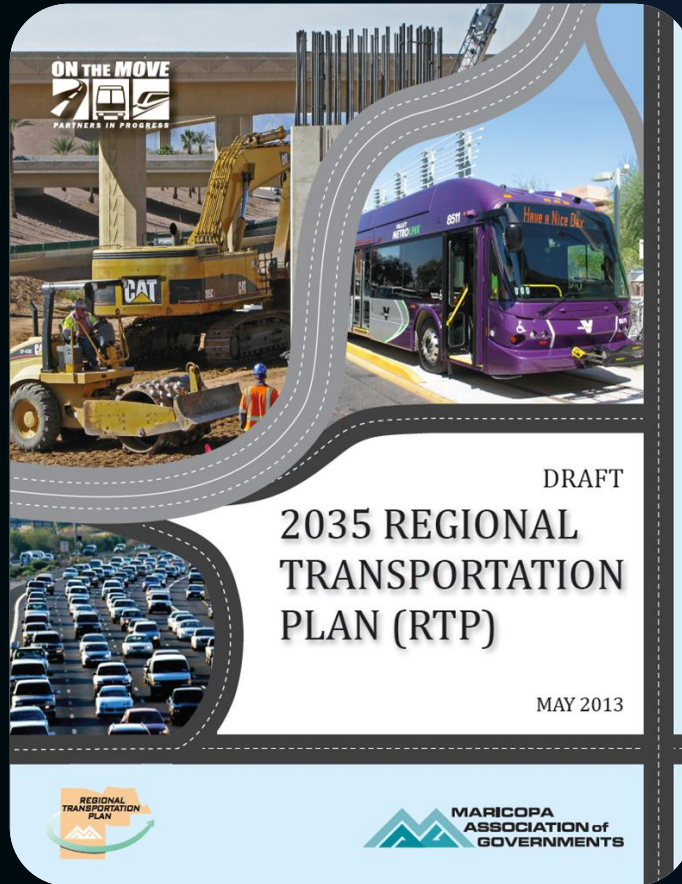
## GOVERNANCE – NOT GOVERNMENT

- Local governments represent the greatest resource for regional planning in Arizona:
  - Provide the local voice on planning
  - Partner with state and federal government
  - Offer leadership on decisions affecting local stakeholders





# Core Planning Roles Required by Federal Transportation Law



# Transportation Best Practices

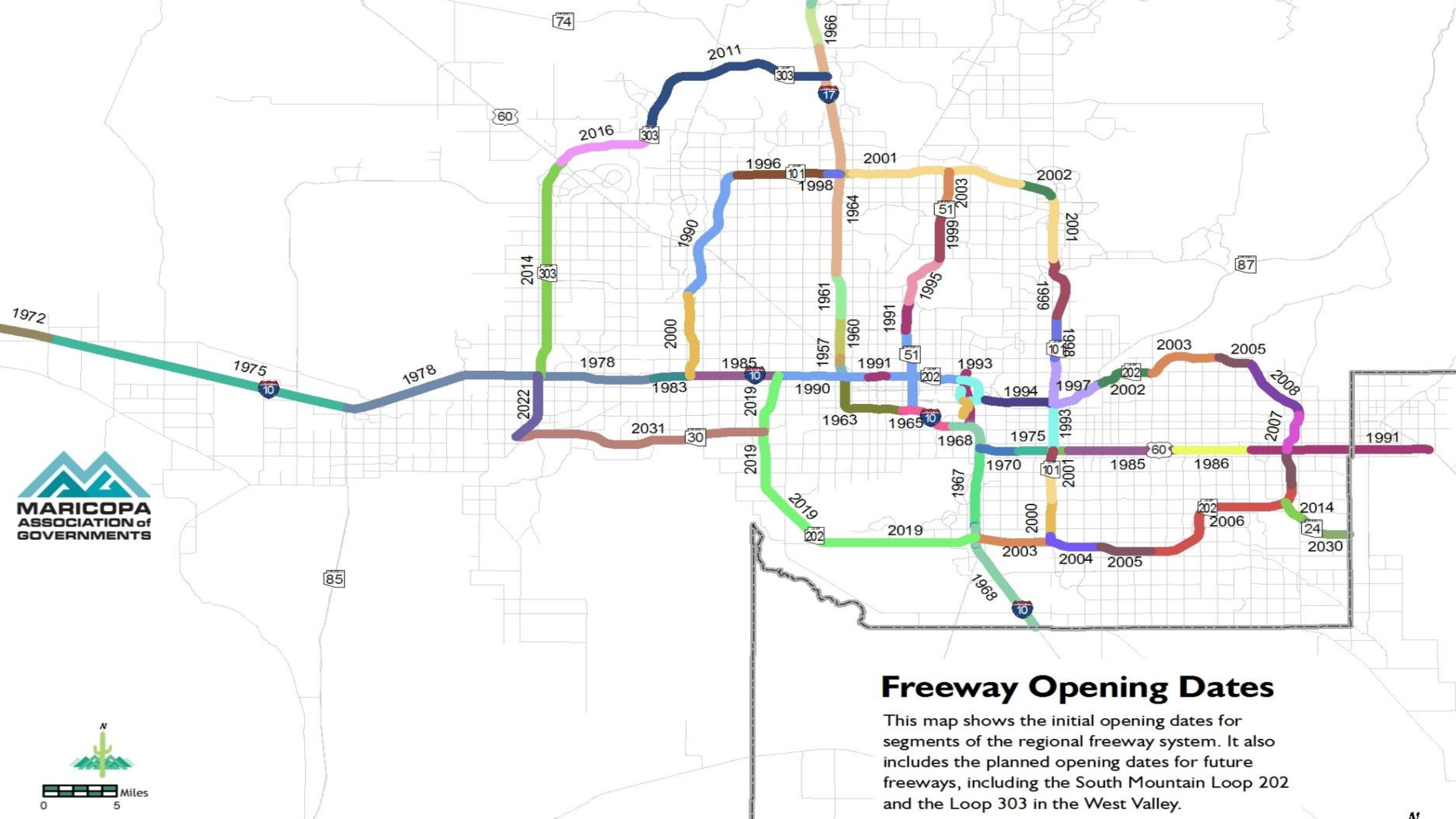
## Regional Business at the Table

### Transportation Policy Committee

- Created by the Regional Council, later recognized in state law.
- 23 Members
  - MAG members
    - Central City
    - 7 largest cities
    - Geographically balanced
    - 1 Native American Indian Community
    - 1 Maricopa County Board of Supervisors member
    - CTOC
    - ADOT
  - Six Business Representatives
    - Must be regional in nature
    - Transit representative
    - Freight representative
    - Construction representative









# Best Driving Experience in the World – Phoenix



Waze is the world's largest community-based traffic and navigation app.



1998

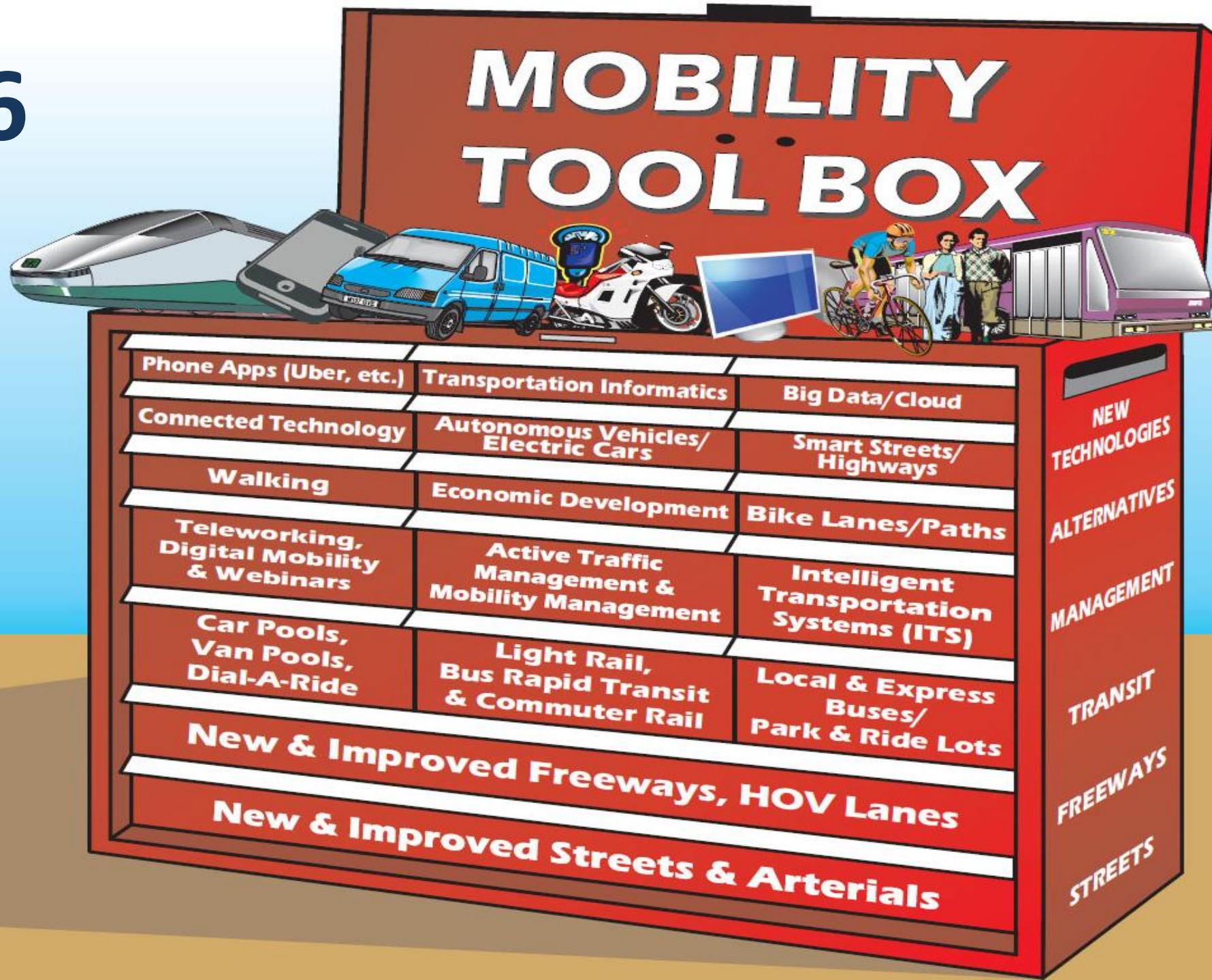
# MOBILITY TOOL BOX



Dial-a-Ride	Car Pools/Van Pools	Walking
Park and Ride Lots	Bike Lanes and Paths	
Freeway Management & Maintenance	High Occupancy Vehicle Lanes (HOV)	Intelligent Transportation Systems (ITS)
Light Rail	Local, Express and Circulator Buses	
Bus Rapid Transit		
New & Improved Freeways		
New & Improved Streets and Arterials		

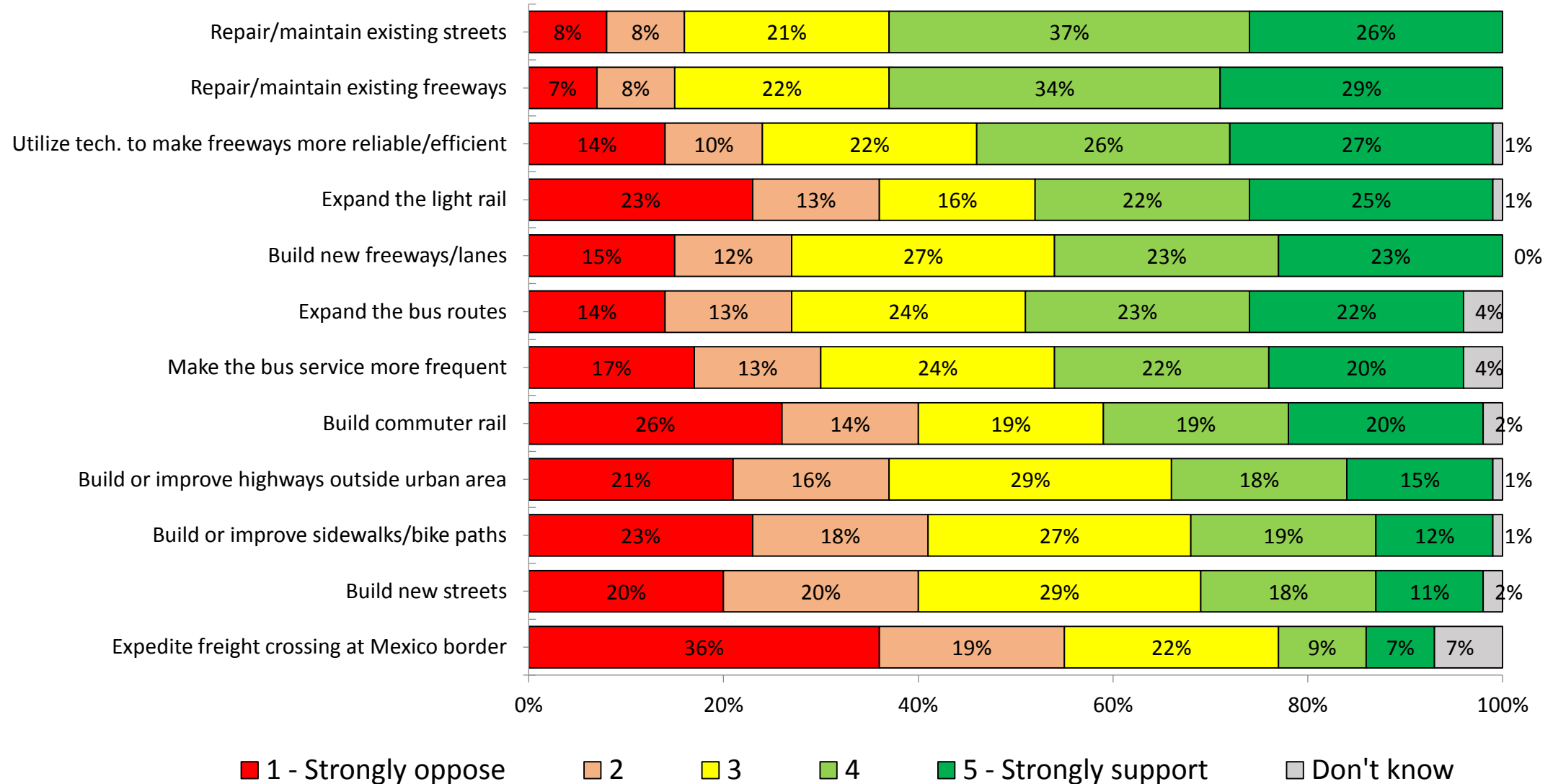


2016

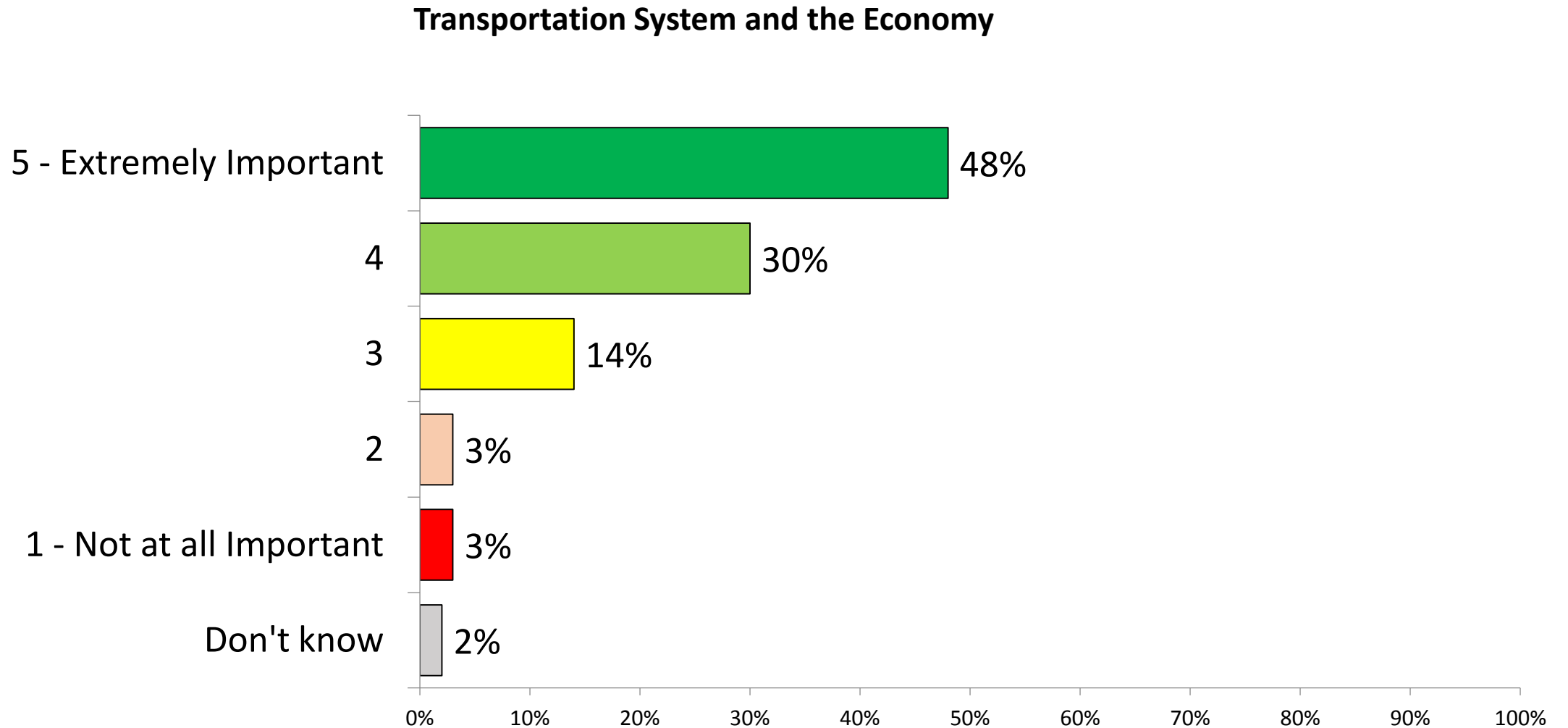




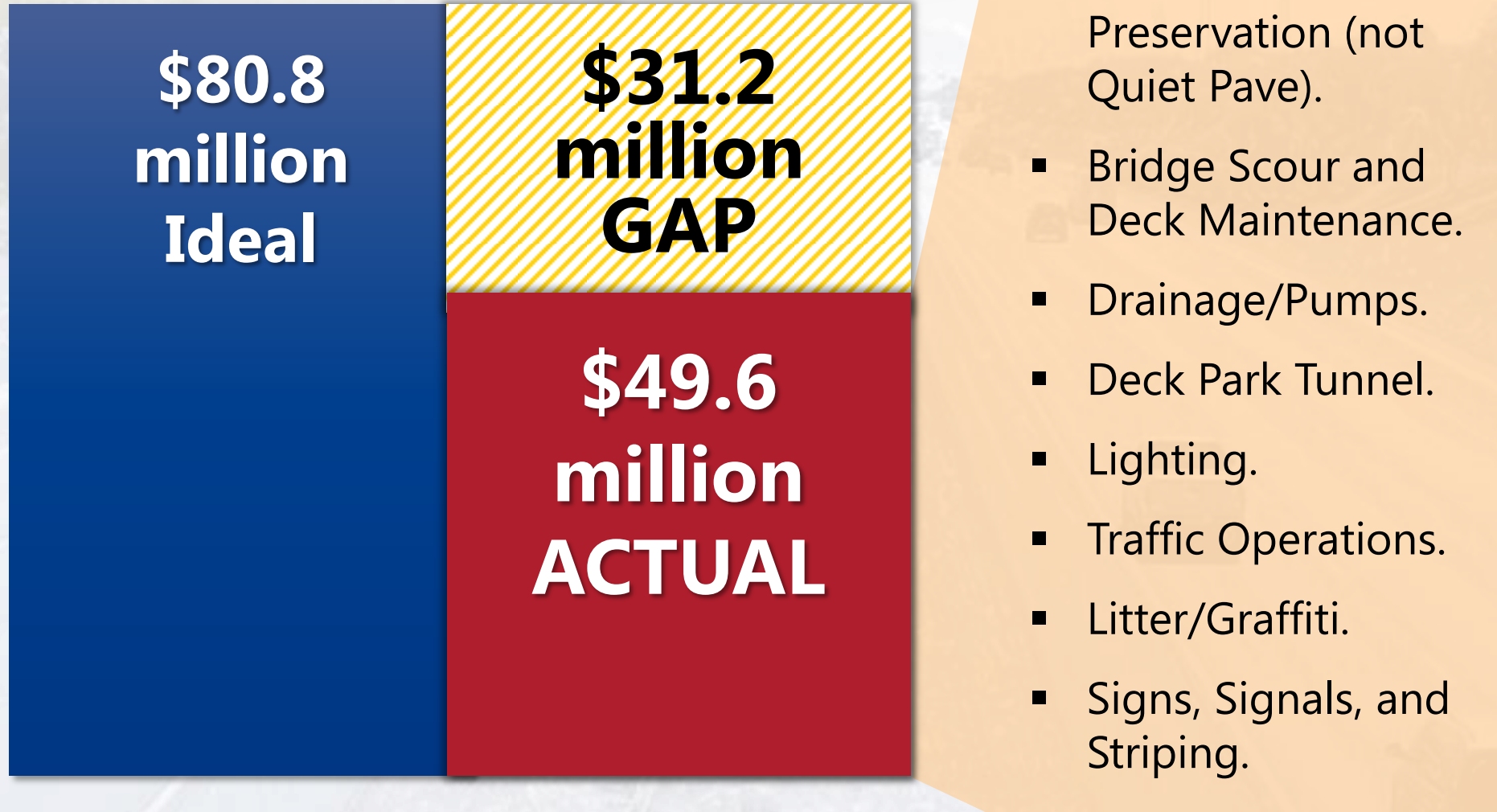
***Q12. Using a 1 to 5 scale where “1” means “not at all supportive” and “5” means “very supportive,” how supportive of additional taxes or fees would you be if the money would be used to...***



***Q7. How important is the regional transportation system for the Greater Phoenix area's economy? Please use a 1 to 5 scale where 1 means not at all important and 5 mean extremely important.***



# 2013 Operations and Maintenance Costs





# Operations and Maintenance Costs with New Corridors



# “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**





# Autonomous Vehicles





# What Does This Mean?

## PLANNING FOR CONNECTED AND AUTONOMOUS VEHICLES

### Engineering

- ❖ Traffic Engineering.
- ❖ Roadway Design.
- ❖ Speed Limits.
- ❖ Parking.
- ❖ Freight Operations.
- ❖ Safety.

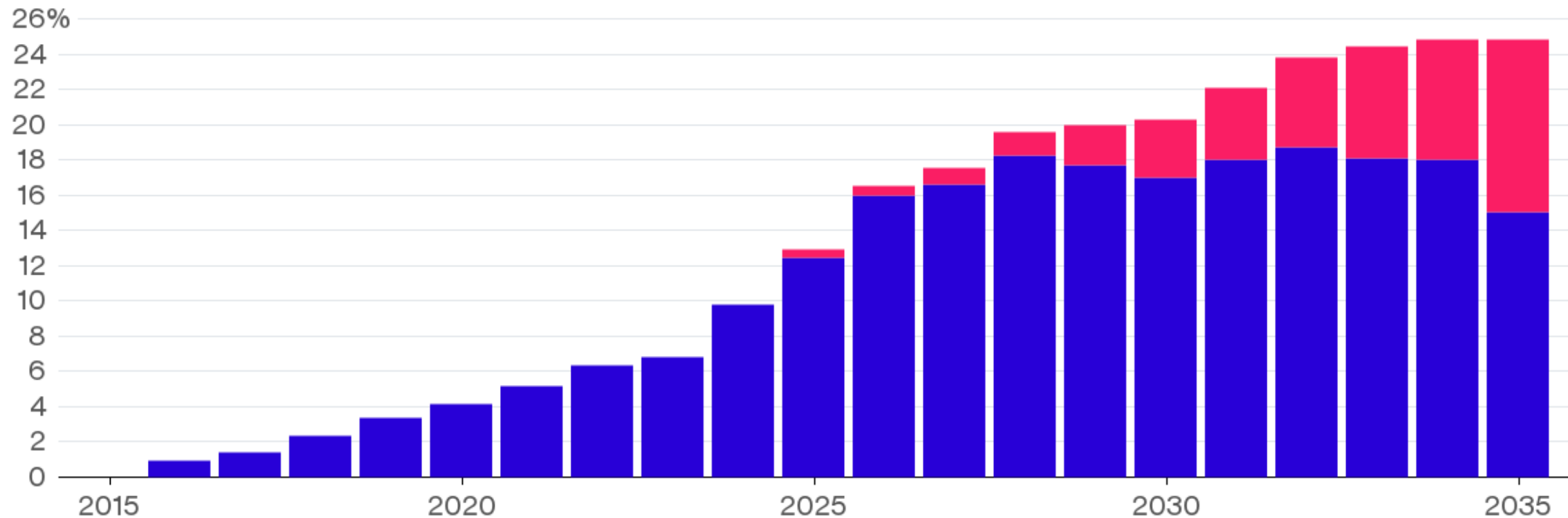
### Planning and Policy

- ❖ Long Range Transportation Plans.
- ❖ Land Use and Urban/Rural Form.
- ❖ Impact Assessment.
- ❖ Driver Education and Licensing.
- ❖ Vehicle Regulation.
- ❖ Insurance and Liability.
- ❖ Safety.

# Autonomous Car Sales Will Surge By 2035

The cars will represent 25 percent of the global market

■ Partially autonomous cars ■ Fully autonomous cars



Source: The Boston Consulting Group

Note: 2015 data

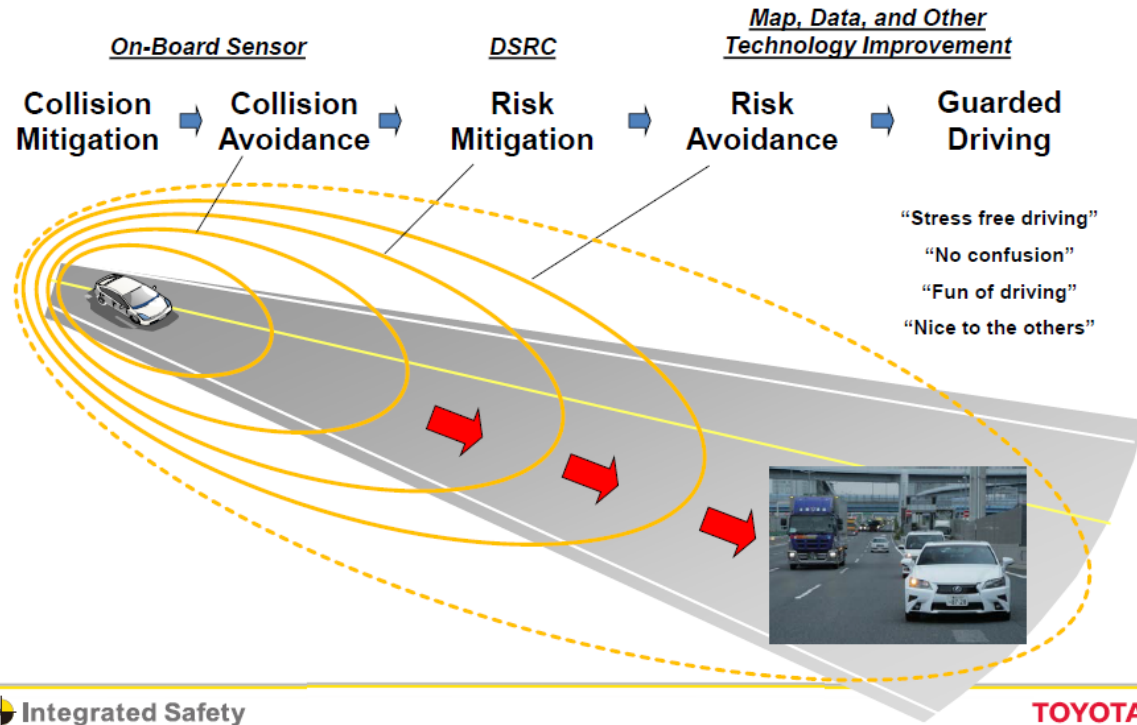
Bloomberg 

# Are We Building Smart Streets/Highways?

## Better Roads and Better Vehicles = Better Driving

18

Connected and automated driving brings good driving experience.



## Markings (Level 1)



Texas A&M  
Transportation  
Institute



# Asphalt Rubber: Making a Difference

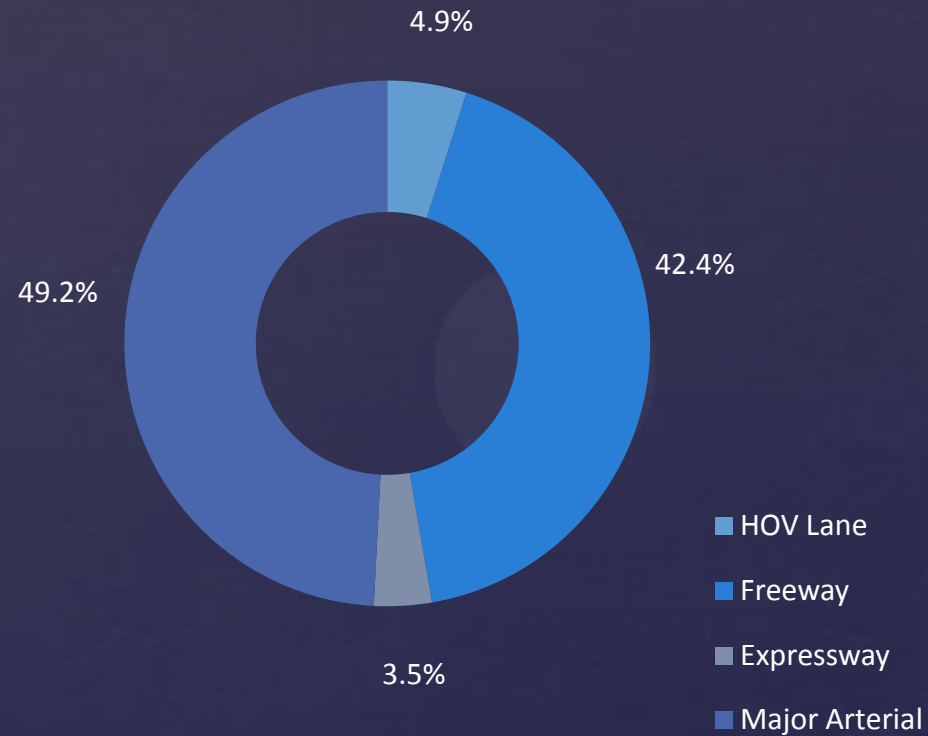
Charles McDonald – City of Phoenix



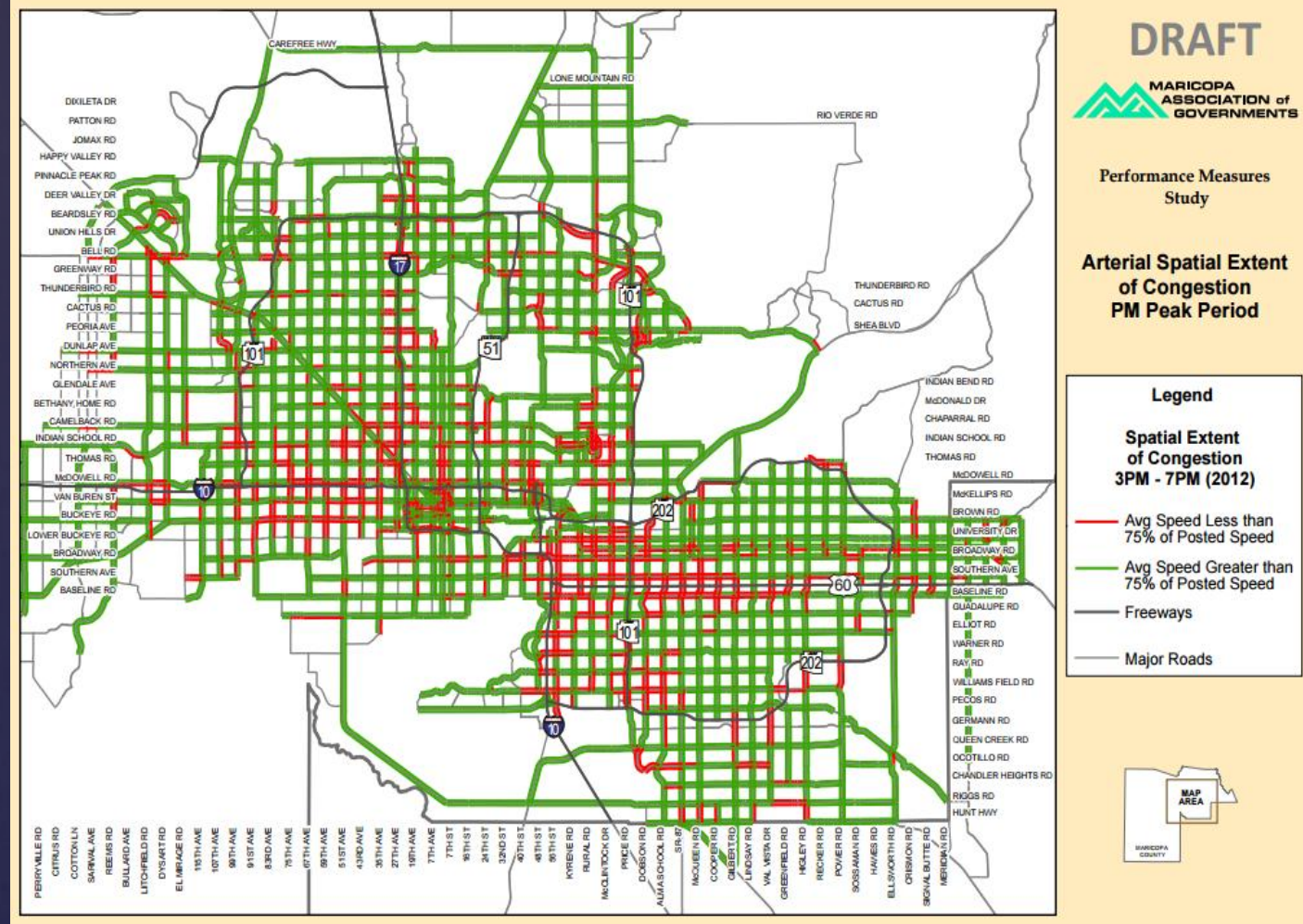




## Vehicle Miles Traveled (VMT) by Major Facility Types



Source: 2015 MAG Regional Travel Demand Model.  
Minor facilities excluded.





50<sup>th</sup>  
Anniversary



1967-2017

UNIFORM STANDARD  
SPECIFICATIONS AND DETAILS  
for  
PUBLIC WORKS  
CONSTRUCTION

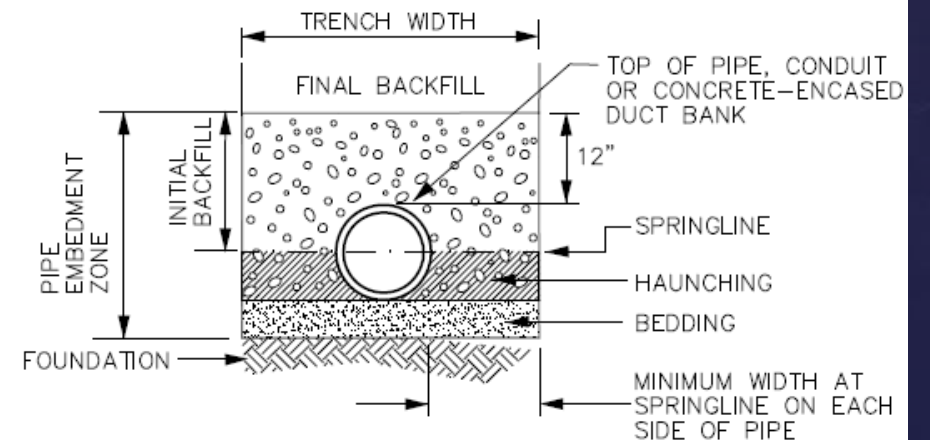
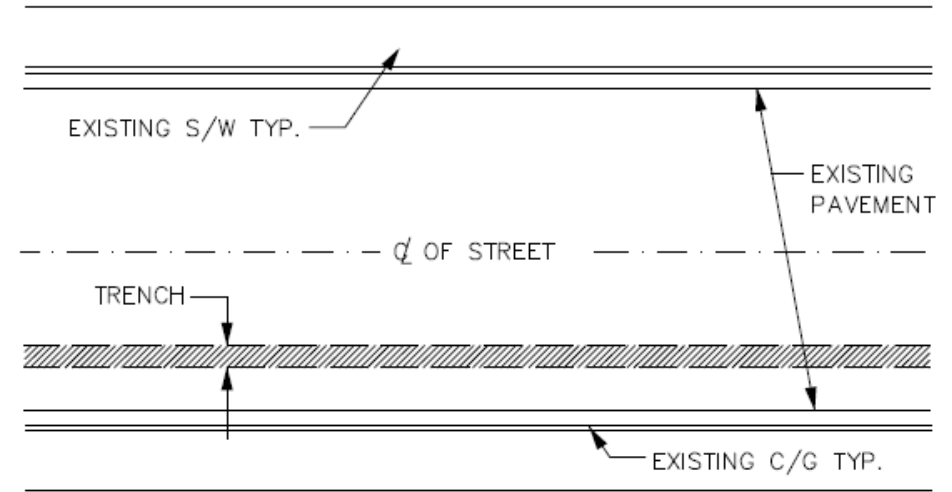
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ARIZONA

# MAG Specifications and Details

## LONGITUDINAL TRENCH (TRENCH IN PAVEMENT PARALLEL TO TRAFFIC)



TRENCH CROSS-SECTION DETAIL

# Arterial Life Cycle Program (ALCP)

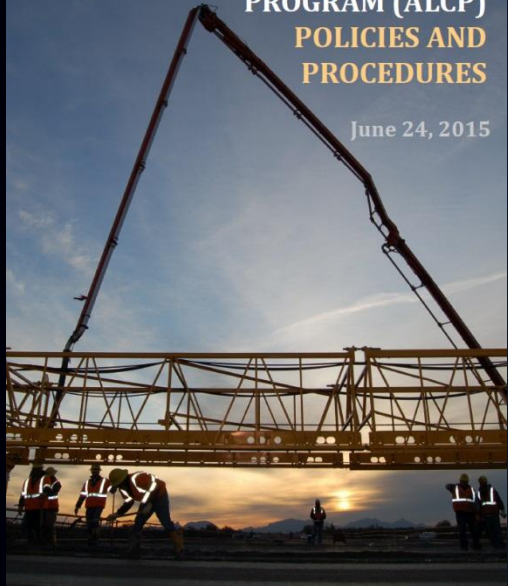
The ALCP is the financial management tool for the arterial component of the RTP and is managed by MAG.

- 63 project segments completed to date
  - Beardsley Rd Connection: L101 to 83<sup>rd</sup> Ave
  - Gilbert Rd: SR-202L to Hunt Hwy
  - Northern Parkway: L303 to Dysart Rd
  - Power Road: Santan Fwy to Pecos Rd
  - Sonoran Blvd: 15<sup>th</sup> Ave to Cave Creek
- \$942 million in regional funding remaining for Valley projects
  - Elliot Rd: Power Rd to Meridian Rd
  - Gilbert Road Bridge over the Salt River
  - Happy Valley Rd: L303 to Lake Pleasant Parkway
  - Pima Rd: Via de Ventura to McDowell
  - Scottsdale Airpark area improvements



# ARTERIAL LIFE CYCLE PROGRAM (ALCP) POLICIES AND PROCEDURES

June 24, 2015

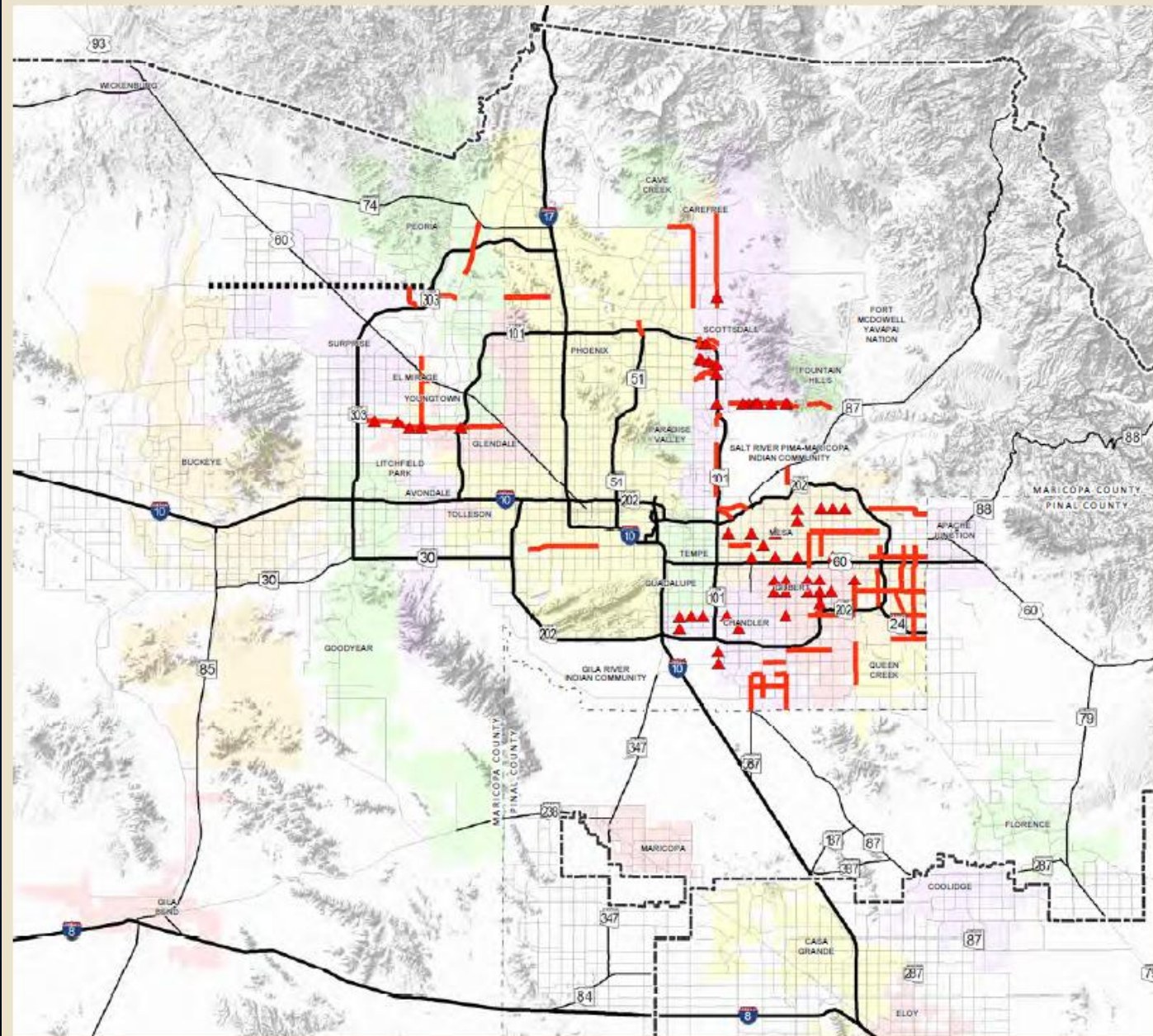


## DRAFT FY 2017 ARTERIAL LIFE CYCLE PROGRAM (ALCP)

May, 2016



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## 2035 Regional Transportation Plan

Fig. 9-3



## Regional Arterial Street Projects (FY 2014 - FY 2035)

- ▲ Improved Intersections
- New/Improved Arterials
- .... Right of Way Preservation
- Freeways
- Highways
- Other Roads
- Metropolitan Planning Area Boundary
- County Boundary

Alignments for new freeway, highway, arterial, and light rail/high capacity transit facilities will be determined following the completion of appropriate design and environmental studies.







**For More Information Contact:**

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