



MSI

MAG Freight Transportation Plan Stakeholder Meeting

August 22, 2017



Today's Agenda

- Welcome and Introductions
- Quick background on the Freight Plan
- Draft Freight Network
- Draft Top 60 Lane Miles
- Subarea Project Assessments
- Next Steps

Freight Network: What It Does and Means

- Basis to satisfy federal requirements
 - *Critical Urban Freight Corridors*
- Focus for Freight related improvement projects
- Efficient routes to support first miles, last miles, cross-town travel
- Routes to accommodate trucks so they do not use others
- Suitable physical geometry
- Safer locations for truck volumes
- Locations for ITS installation
- Roads to monitor in traffic operations

Major Advantages of Core Freight Network

Concentrates limited financial and management resources to generate greatest returns

Anticipates and prepares for the future

Manages supply chain performance

A 21st Century System should:

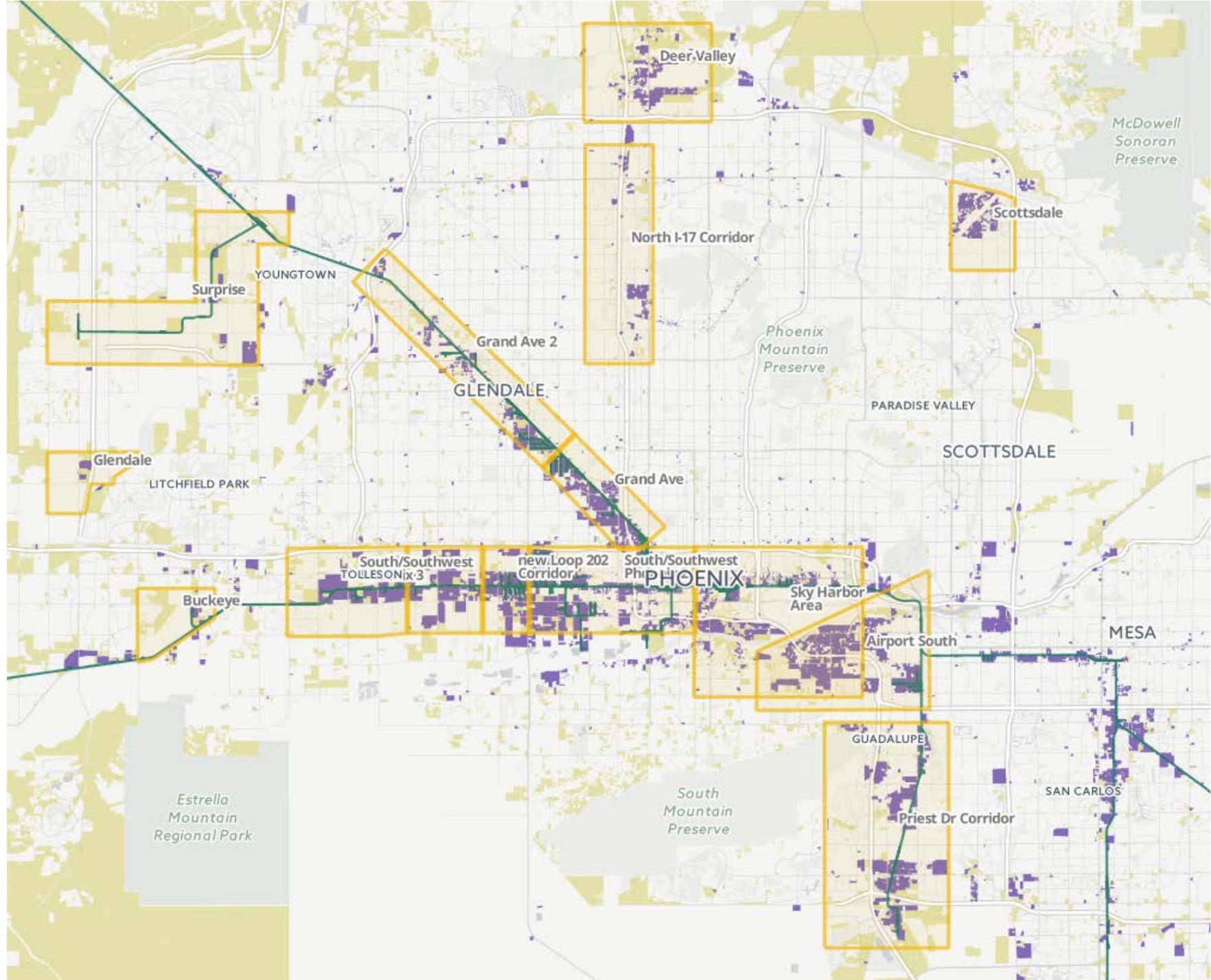
- Improve and protect productivity
- Build for growth
- Leverage technology for safety and reliability
- Provide redundancy for resiliency and reliability

Regional Freight Network Development Factors

- Industrial clusters
- Land uses
- Safety
- Truck counts
- Truck routes
- Development potential
- Performance

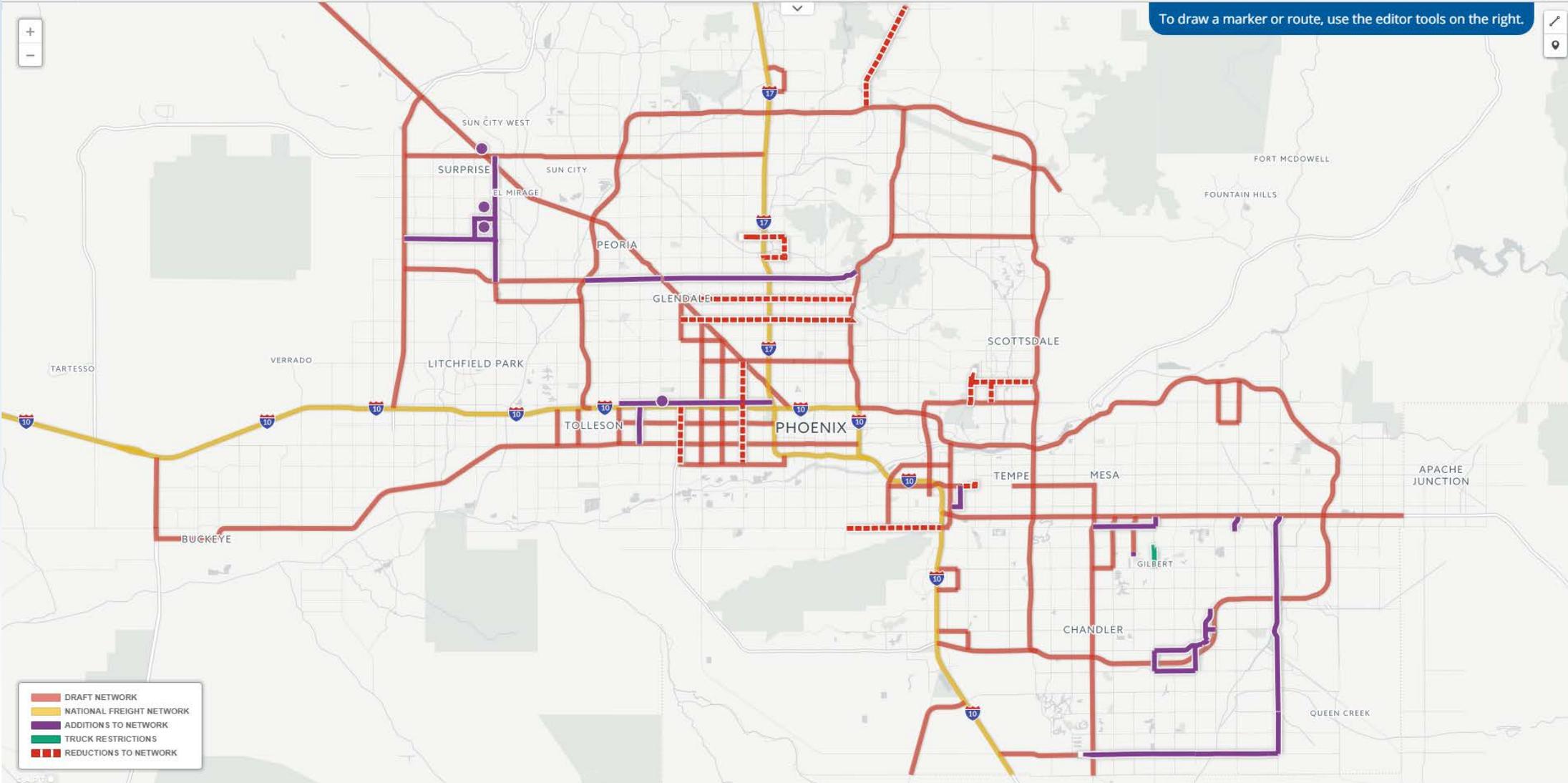
Industrial Clusters

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MAG Regional Roadway Freight Network

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Project and Stakeholder Engagement

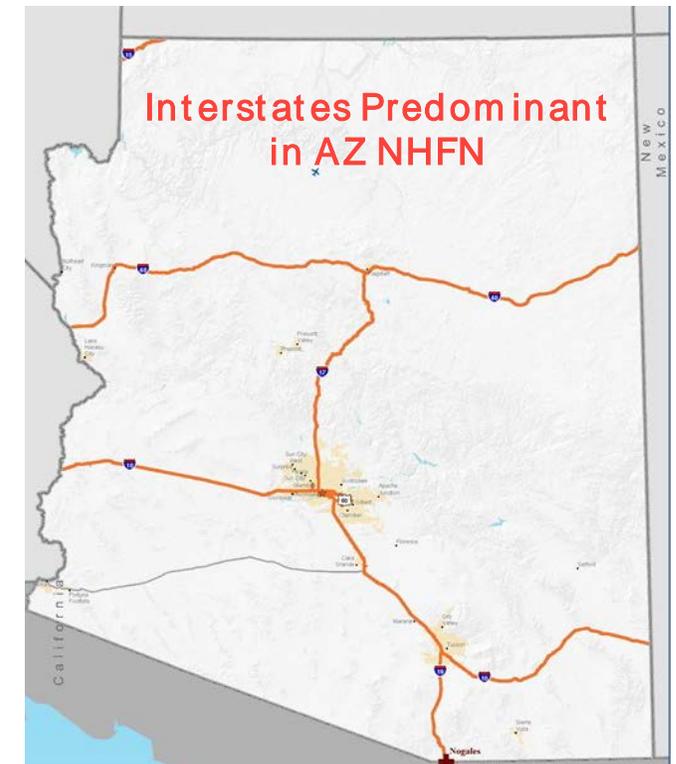
- Coordination within MAG & Members, ADOT, Region
- Communication Strategy and Public Education: Smart Moves
- Stakeholder targets:
 - *Chambers of Commerce*
 - *Economic Development Committee(s) and Agencies*
 - *Logistics Service Providers*
 - *Supply Chain Managers*

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FAST Act Funds and Freight Network Designation

- FAST Act gives Arizona an average \$23 mil. per year in freight formula funds
- Funds useable on 1,333 National Highway Freight Network (NHFN) miles statewide, of which 988 miles are interstates
- MAG will designate 60 of 103 total state NHFN miles for Critical Urban Freight Corridors (CUFCs)
 - *Designation affects eligibility for INFRA (formerly FASTLANE) grants as well as freight formula money*



FAST Act CUFC Criteria

A public road designated in an urbanized area that meets one or more of the following

- Connects an intermodal facility to:
 - The Interstate System, or
 - An intermodal freight facility
 - Located within a corridor on the PHFS (interstate) and provides an alternative highway option important to goods movement;
 - Serves a major freight generator, logistic center, or manufacturing and warehouse industrial land; or
 - Is important to the movement of freight within the region, as determined by the MPO or the State
- ➔ Selected by MPOs in consultation with AZ DOT

CUFC Designation Issue and Solution

- 386 non-interstate miles of the MAG Roadway Freight Network are urban and qualify for CUFC designation
 - *Thus very many more miles qualify than can be designated*
- Solution stems from ability to change CUFC designation: it isn't permanent
- Since the value of designation is eligibility for money, designation should go to top priority Freight Network segments where improvements most needed
- Designation is then moved over time to next priority segments as improvements are completed

Prioritization Methodology - Review

- Goals matched to MAG Regional Transportation Planning
- Categories:
 - *Goal 1 System Preservation and Safety*
 - *Goal 2 Access and Mobility*
 - *Goal 3 Sustaining the Environment*
 - *Goal 4 Accountability and Planning*
- The MAG Freight Transportation Plan also identifies and prioritizes projects that may become part of the MAG Regional Transportation Plan. The method is based on the region's four transportation goals interpreted in terms of freight.

Application of Prioritization

- Evaluation performed for segments of the Draft Regional Freight Network
- Project priorities are a function of segment priorities
- 154 Segments
- 702 Centerline miles

	Urban	Rural	Total
Interstate	72	57	129
Non-Interstate	386	187	573
TOTAL	458	244	702

Prioritization Methodology

Goal 1

Transportation infrastructure that is properly maintained and safe, preserving past investments for the future.

- *One truck every 20-seconds (Daily average truck counts of 4,320 or greater) OR truck proportion of all vehicle traffic at 20% or greater*
- *Signalized or stop sign controlled intersection density five or greater per mile (at least one signalized intersection or stop sign controlled intersection per quarter-mile)*
- *Freight-related crashes 25 or greater per mile annually*

Measurement method: 9 = three criteria met; 3 = two criteria met; 1 = one criterion met; 0 = no criteria met

Prioritization Methodology

Goal 2

Transportation systems and services that provide accessibility, mobility and modal choices for residents, businesses and the economic development of the region.

9 = In a designated freight cluster or adjacent to intermodal facility (within one mile) and containing a bus route with 30-minute or greater frequencies

3 = In a designated freight cluster or adjacent to intermodal facility (within one mile)

1 = Not in a designated freight cluster but provides connection to external markets

0 = no criteria met

Prioritization Methodology

Goal 3

Transportation improvements that help sustain our environment and quality of life.

9 = Motor vehicle peak hour travel time is 3X the travel time during typical traffic (median speed) and location provides redundancy to the Primary Highway Freight System (measured as adjacency within 1 mile straight line distance)

3 = Motor vehicle peak hour travel time is 3X the travel time during typical traffic

1 = Motor vehicle peak hour travel time is 2X percent higher than the travel time during typical traffic

0 = no criteria met

Prioritization Methodology

Goal 4

Transportation decisions that result in effective and efficient use of public resources and strong public support.

9 = Carries greater than \$900 M in annual product value

3 = Carries greater than \$300 M in annual product value

1 = Carries greater than \$100 M in annual product value

0 = no criteria met

Prioritization Methodology Weighting

Assign weights to transportation goals according to their impact and stakeholder policy preferences.

Allow the resulting set of priorities to improve freight system performance.

35% Goal 1: System Preservation and Safety

30% Goal 2: Access and Mobility

25% Goal 3: Sustaining the Environment

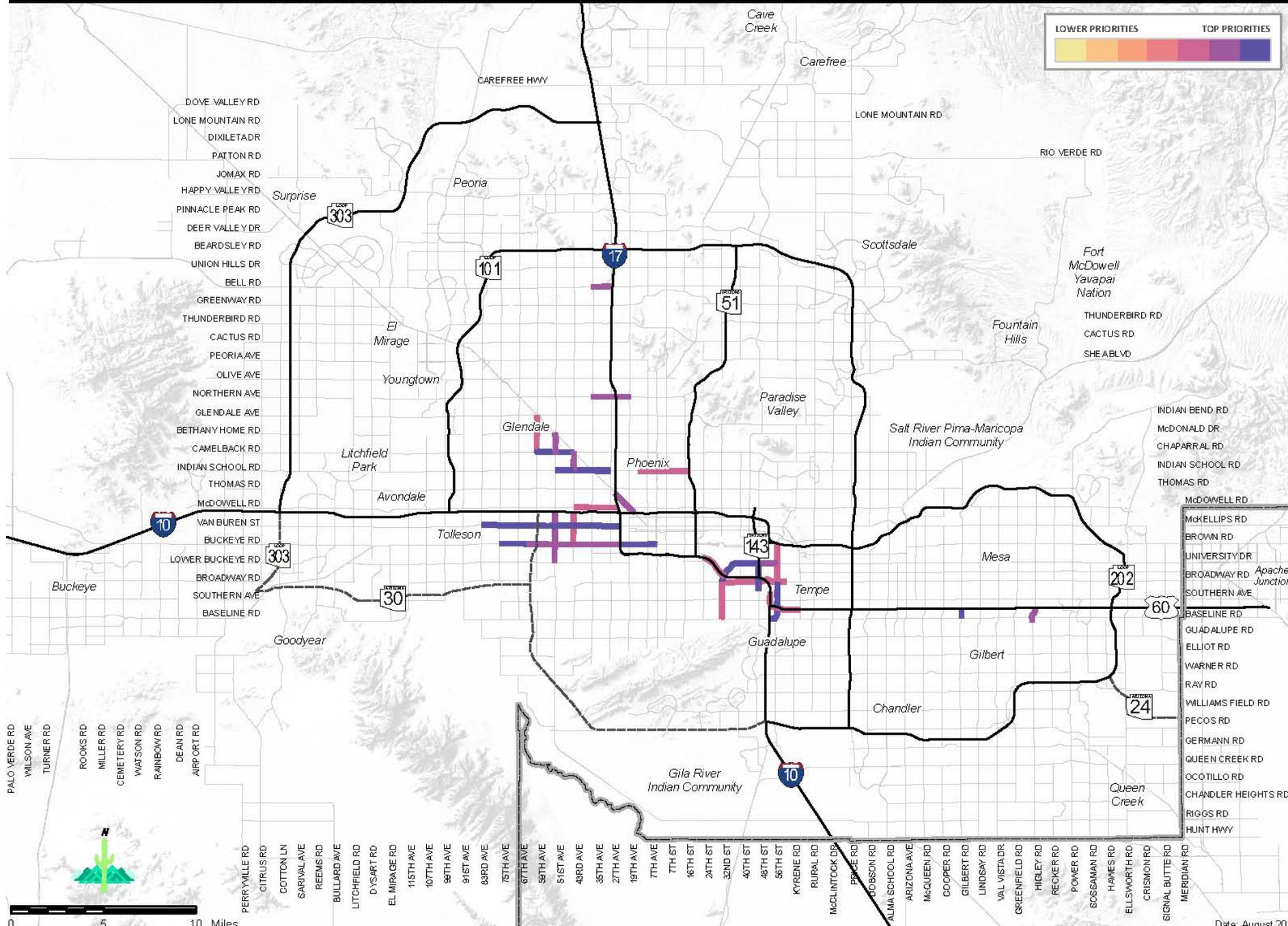
10% Goal 4: Accountability and Planning

Top 60 Lane Miles: 34 Route Segments

Rank	Route ID#	MAG Facility Type	Urban Miles	Route Name	Route Start	Route End	City Start	City End
1	98	Major Arterial	0.9	Indian School Rd	N. 51st Ave.	N. 43rd Ave.	Phoenix	Phoenix
2	25	Major Arterial	0.9	S. Priest Dr.	I-10	US 60	Tempe	Tempe
3	68	Major Arterial	2.0	Buckeye Rd.	I-17	S. Central Ave.	Phoenix	Phoenix
4	23	Major Arterial	2.0	Camelback Rd.	N. 59th Ave.	N. 43rd Ave.	Glendale	Phoenix
5	55	Major Arterial	2.1	Indian School Rd	N. 43rd Ave.	N. 27th Ave.	Phoenix	Phoenix
6	143	Major Arterial	1.4	S. Priest Dr.	W. Broadway Rd.	US 60	Tempe	Tempe
7	122	Freeway/Major Arterial	1.5	S. 48th St.	E. Roeser Rd.	W. University Dr.	Tempe	Tempe
8	70	Major Arterial	1.5	W. Van Buren St.	N. 63rd Ave.	N. 51st Ave	Phoenix	Phoenix
9	111	Major Arterial	0.5	S. Gilbert Rd.	US 60	E. Baseline Rd.	Mesa	Mesa
10	64	Major Arterial	1.5	Buckeye Rd.	S. 75th Ave.	S. 63rd Ave.	Phoenix	Phoenix
11	28	Major Arterial	2.6	University Dr.	E. Broadway Rd.	SR 143	Phoenix	Tempe
12	36	Major Arterial	1.5	W. Van Buren St.	N. 75th Ave.	N. 63rd Ave.	Phoenix	Phoenix
13	69	Major Arterial	3.5	W. Van Buren St.	N. 51st Ave	I-17	Phoenix	Phoenix
14	71	Major Arterial	1.0	W. Van Buren St.	N. 83rd Ave.	N. 75th Ave.	Phoenix	Phoenix
15	83	6-Leg Arterial	1.5	US 60	I-10	I-17	Phoenix	Phoenix
16	81	Major Arterial	1.1	N. 43rd Ave.	US 60	W. Indian School Rd.	Phoenix	Phoenix
17	82	Major Arterial	1.0	N. 51st Ave.	US 60	Camelback Rd.	Glendale	Glendale
18	78	Major Arterial	1.0	W. University Dr.	SR 143	S. Priest Dr.	Tempe	Tempe
19	7	Major Arterial	1.8	S. 51st Ave	I-10	Buckeye Rd.	Phoenix	Phoenix
20	22	Major Arterial	1.0	S. 51st Ave	Buckeye Rd.	Lower Buckeye Rd.	Phoenix	Phoenix
21	66	Major Arterial	1.5	Buckeye Rd.	S. 63rd Ave.	S. 51st Ave	Phoenix	Phoenix
22	67	Major Arterial	3.5	Buckeye Rd.	S. 51st Ave	I-17	Phoenix	Phoenix
23	95	Major Arterial	1.2	W. Bell Rd.	N. 35th Ave.	I-10	Phoenix	Phoenix
24	118	Major Arterial	2.3	W. Northern Ave.	N. 35th Ave.	N. 19th Ave.	Phoenix	Phoenix
25	109	Major Arterial	0.8	N. Higley Rd.	US 60	E. Merrill Ave.	Mesa	Gilbert
26	58	Major Arterial	2.0	S. 32nd St.	E. Baseline Rd.	E. Broadway Rd.	Phoenix	Phoenix
27	30	Major Arterial	2.8	Indian School Rd	N. 15th Ave.	SR 51	Phoenix	Phoenix
28	9	Major Arterial	3.5	E. Broadway Rd.	S. 32nd St.	S. Hardy Dr.	Phoenix	Tempe
29	37	Major Arterial	1.7	N. 43rd Ave.	Buckeye Rd.	I-10	Phoenix	Phoenix
30	141	Freeway	1.6	I-10	I-17	S. 32nd St.	Phoenix	Phoenix
31	1	Major Arterial	2.0	N. 59th Ave.	US 60	Camelback Rd.	Glendale	Glendale
32	24	Major Arterial	2.1	S. Priest Dr.	W. Broadway Rd.	SR 202	Tempe	Tempe
33	126	Major Arterial	2.4	W. McDowell Rd.	N. 43rd Ave.	I-17	Phoenix	Phoenix
34	103	Freeway	1.7	US 60	I-10	S. Mill Ave.	Tempe	Tempe
		TOTAL MILES	59.4					



Top 60 Lane Miles: 34 Route Segments



Discussion

wsp.com

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Top 60 Lane Miles: 3 Adjustments, 5 Miles

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1	98	Major Arterial	0.9	Indian School Rd	N. 51st Ave.	N. 43rd Ave.	Phoenix	Phoenix
2	25	Major Arterial	0.9	S. Priest Dr.	I-10	US 60	Tempe	Tempe
3	68	Major Arterial	2.0	Buckeye Rd.	I-17	S. Central Ave.	Phoenix	Phoenix
4	23	Major Arterial	2.0	Camelback Rd.	N. 59th Ave.	N. 43rd Ave.	Glendale	Phoenix
5	55	Major Arterial	2.1	Indian School Rd	N. 43rd Ave.	N. 27th Ave.	Phoenix	Phoenix
6	143	Major Arterial	1.4	S. Priest Dr.	W. Broadway Rd.	US 60	Tempe	Tempe
7	122	Freeway/Major Arterial	1.5	S. 48th St.	E. Roeser Rd.	W. University Dr.	Tempe	Tempe
8	70	Major Arterial	1.5	W. Van Buren St.	N. 63rd Ave.	N. 51st Ave	Phoenix	Phoenix
9	111	Major Arterial	0.5	S. Gilbert Rd.	US 60	E. Baseline Rd.	Mesa	Mesa
10	64	Major Arterial	1.5	Buckeye Rd.	S. 75th Ave.	S. 63rd Ave.	Phoenix	Phoenix
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21	66	Major Arterial	1.5	Buckeye Rd.	S. 63rd Ave.	S. 51st Ave	Phoenix	Phoenix
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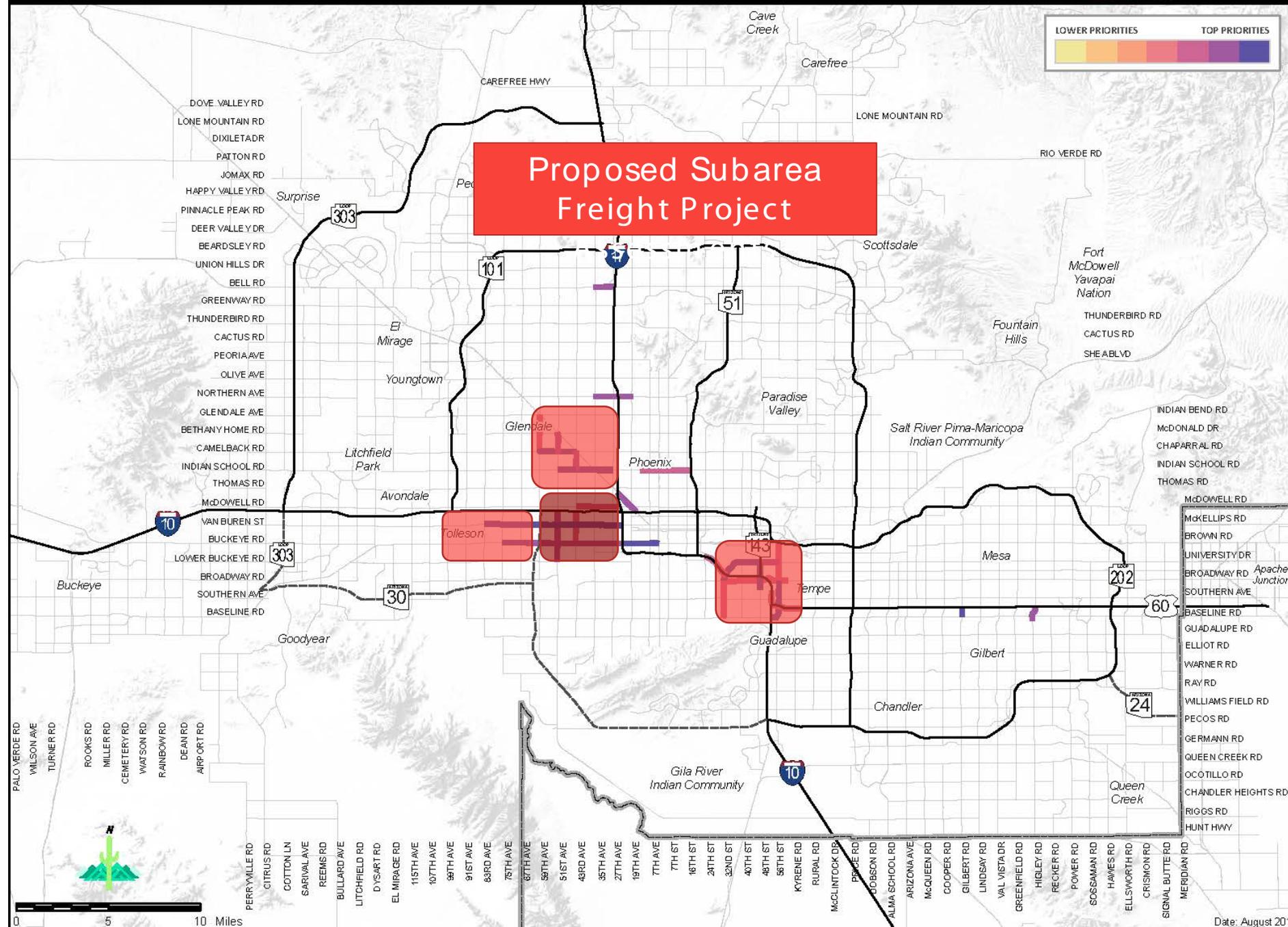


Top 60 Adjusted Lane Miles: 33+ Segments, 2-3 New

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32	52	Major Arterial	1.8	83rd Ave.	I-10	Buckeye Rd.	Phoenix	Tolleson
33	113	Major Arterial	1.8	N. 75th Ave.	I-10	W. Buckeye Rd.	Phoenix	Phoenix
		TOTAL MILES	58.2					
34	130	Major Arterial	3.1	W. Elliot Rd. Loop	I-10	W. Warner Rd.	Tempe	Tempe
35	106	Collector	1.4	S. Hardy Dr.	W. Broadway Rd.	S. Priest Dr.	Tempe	Tempe

4 Subareas for Project Assessment

Draft MAG Freight Network (Critical Urban Freight Corridors) - Top 60 Lane Miles



Next Steps

— Approval of Network, CUFCs, Subarea Project Assessments

➔ By: MAG Management, Regional Council, FHWA