

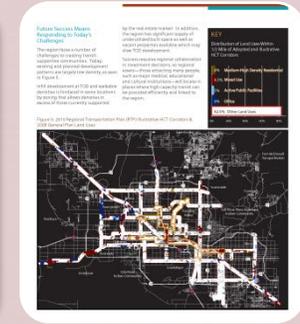
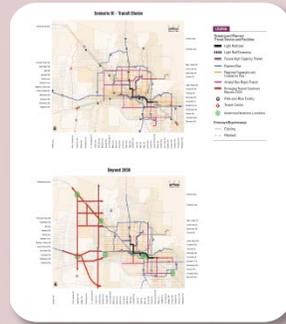
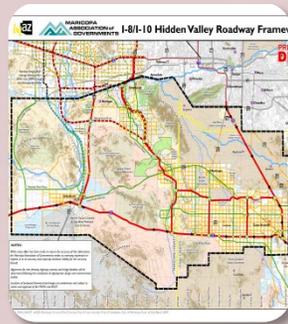
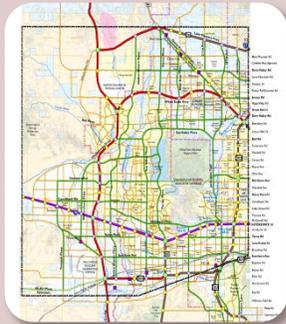
For Information and Discussion.

Outcome of the Central Phoenix Transportation Framework Study

Management Committee
October 8, 2014



MAG Framework Studies



**Interstate 10/
Hassayampa
Valley
Roadway
Framework
Study**

**Interstates 8
and 10/
Hidden Valley
Transportation
Framework
Study**

**Regional
Transit
Framework
Study**

**Central
Phoenix
Transportation
Framework
Study**

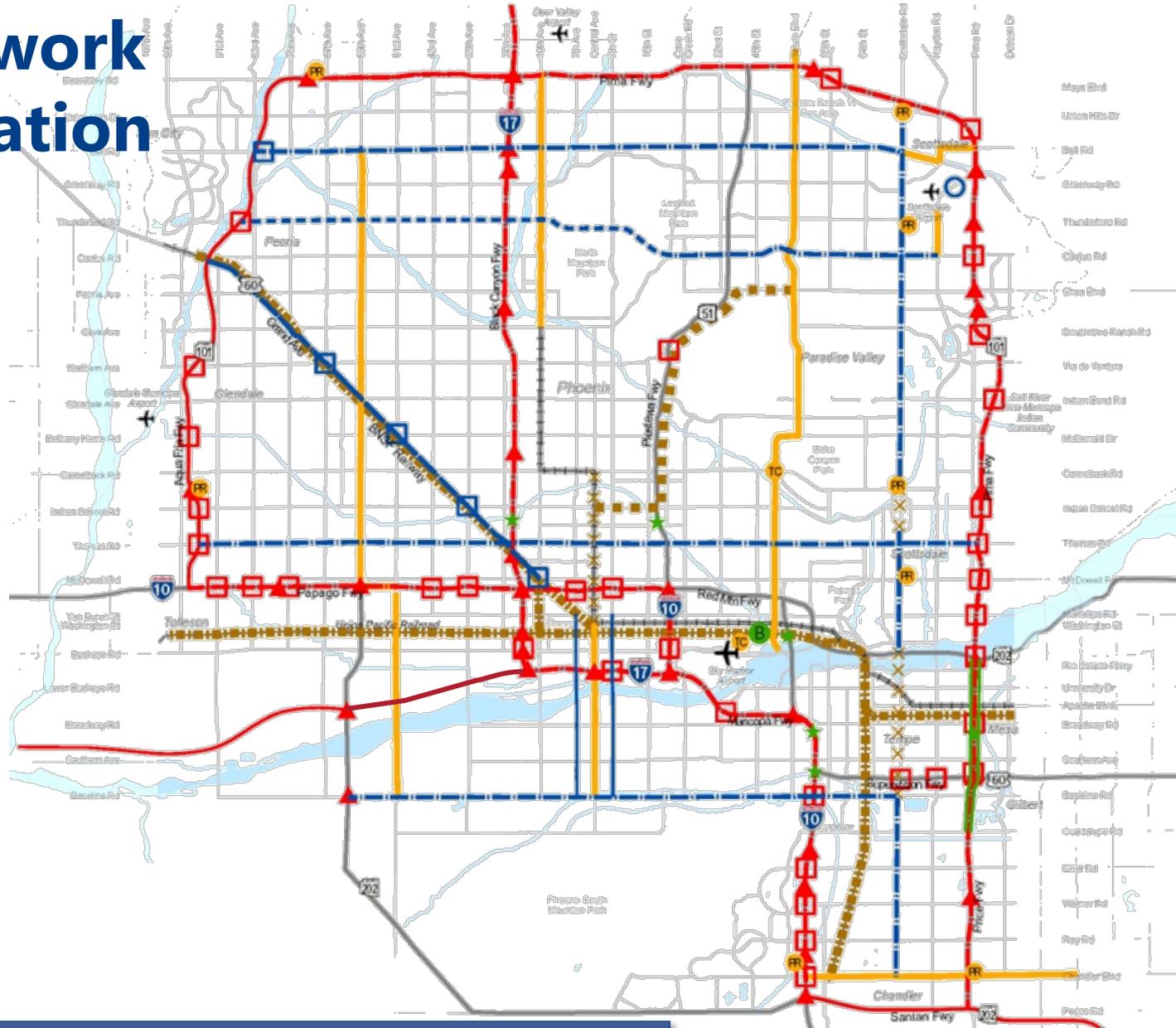
**Hassayampa
Framework
Study for the
Wickenburg
Area**

**Freight
Transportation
Framework
Study**

**Sustainable
Transportation
and Land Use
Integration
Study**

Inform the Planning Process > MAG REGIONAL TRANSPORTATION PLAN

Framework Foundation



- Legend**
- Transit_Point**
 - Improvement_Type
 - RR New Park-N-Ride Location
 - TC New Transit Center
 - PedBike_Point**
 - Improvement_Type
 - B Add Bike Parking
 - O Add Mid-Block Signalized Ped Crossing
 - ☆ Ped/Bike Crossing
 - PedBike_Link**
 - Improvement_Type
 - New Bike Route
 - New Multi-Use Path
 - New Pedestrian Route
 - Arterial_Point**
 - Improvement_Type
 - O New Roundabout
 - Urban Grade Separation
 - Arterial_Link**
 - Improvement_Type
 - Indirect-Left Corridor Conversion
 - Arterial Improvements
 - Transit Oriented Parkway Conversion
 - × Subway/Elevated
 - Freeway_Point**
 - Improvement_Type
 - Modify Traffic Interchange
 - ▲ New Direct HOV Ramps
 - ☆ New Freeway Crossing
 - New Traffic Interchange
 - Freeway_Link**
 - Improvement_Type
 - Add Frontage Road
 - Add General Purpose Lanes
 - Add HOV Lanes
 - Add Managed Lanes
 - Transit_Link**
 - Improvement_Type
 - Intercity Rail
 - New Commuter Rail
 - New Express Service
 - New High Capacity Transit
 - New Light Rail Transit
 - × × Subway/Elevated

Transit

Bicycles and Pedestrians

Arterials Intersections and Links

Freeway Interchanges and Links

Transit

More than 200 Project Possibilities Identified.

Work Products



BUILDING A QUALITY ARIZONA
www.bqaz.org



Improvement Strategies



"Spine Corridor"



Freeway System Plan



SR-30 Corridor Extension



DHOVs and Park-n-Rides



DHOVs



ATM Deployment



Roadway Maintenance



Freeway Interchange Options



Arterial Improvement Strategies



Transit Improvement Concepts

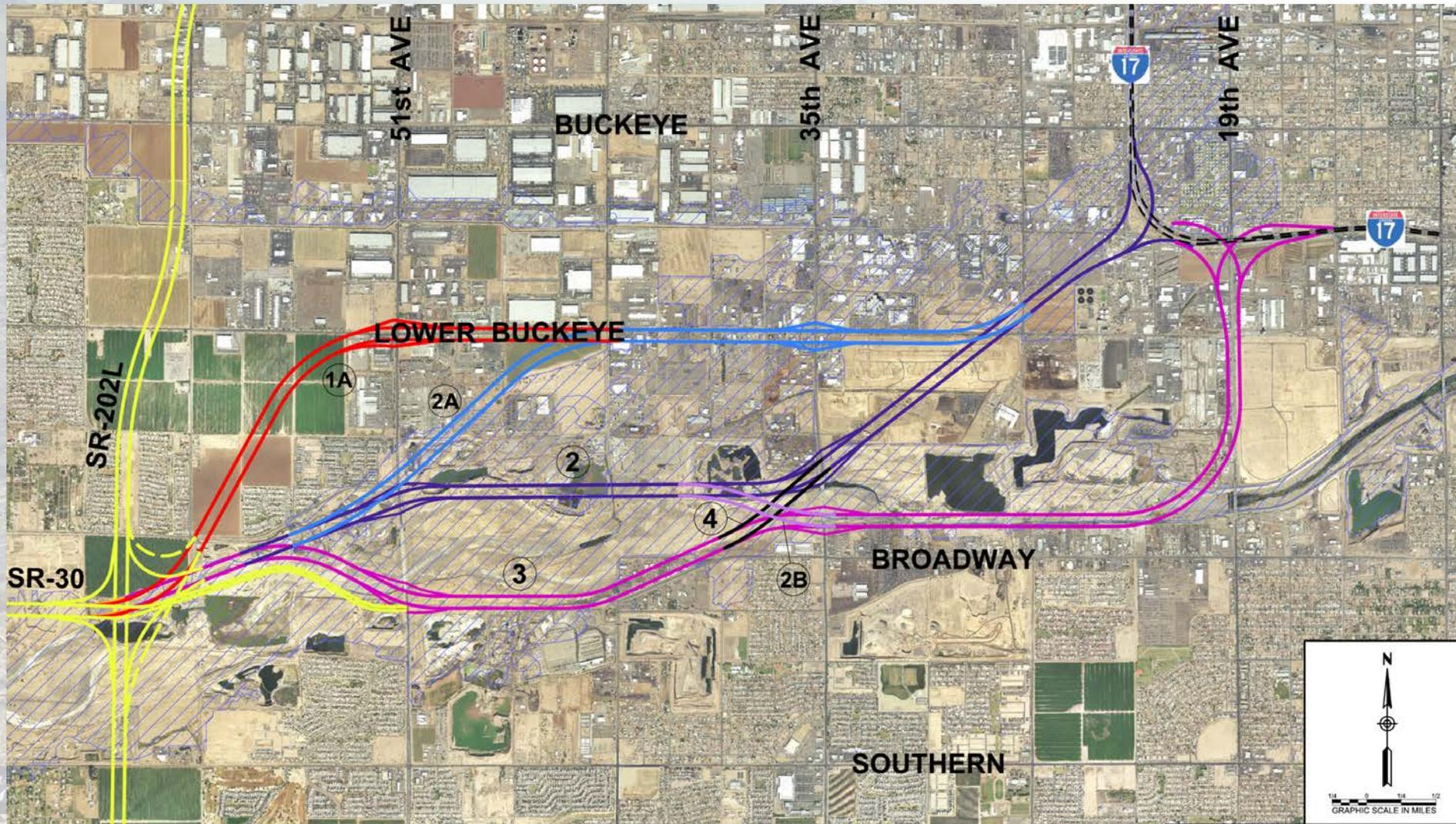


Pedestrian/Bicycle Concepts



Executive Summary Poster

SR-30 Corridor Extension



What and where are DHOVs?



- I-10 Westbound – 3rd St
- I-10 Eastbound – 3rd Ave/5th Ave
- I-10 Westbound -79th Ave



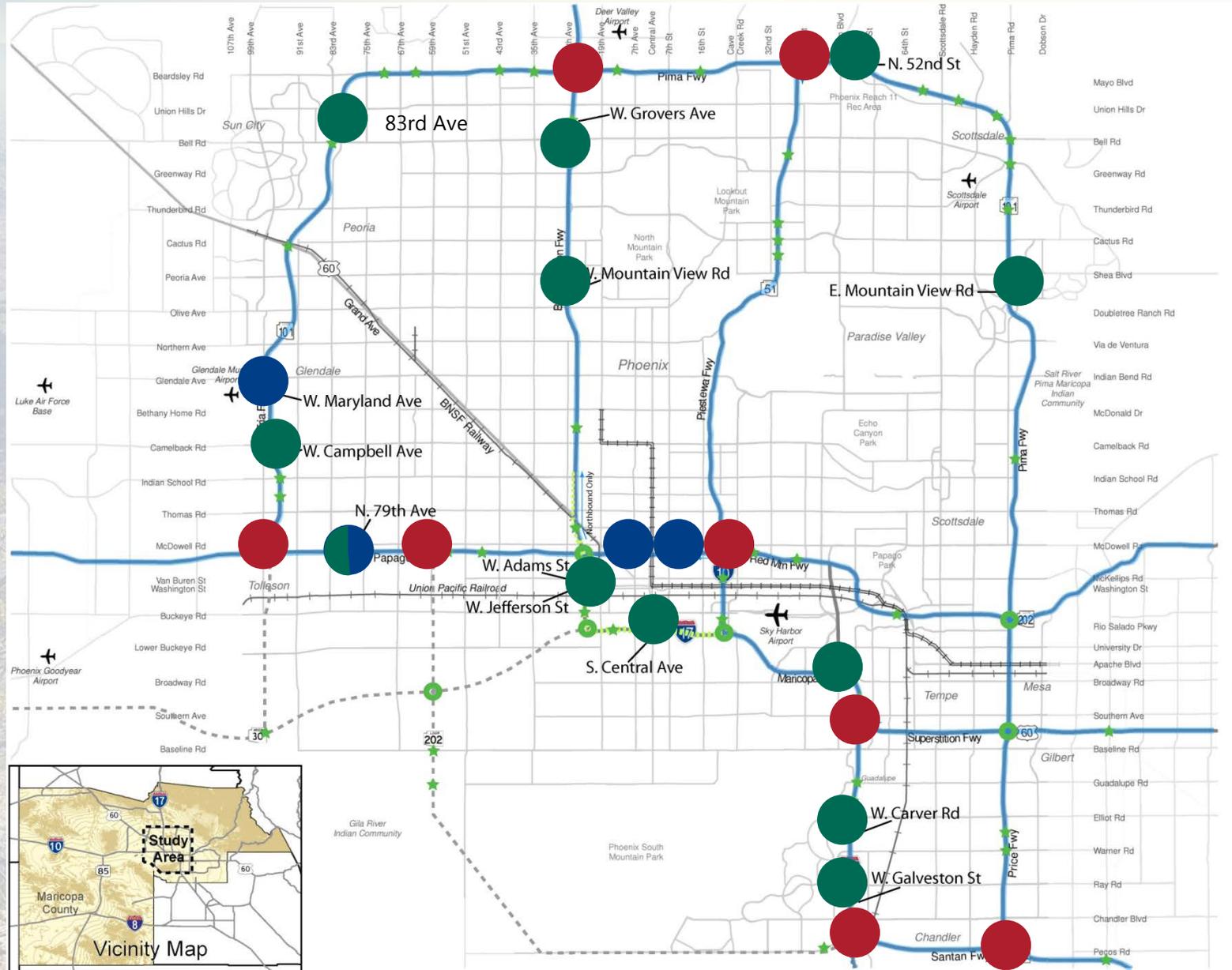
- I-10 West to/from SR-202L East
- I-10 East to/from SR-51 North
- I-10 West to/from US-60 East



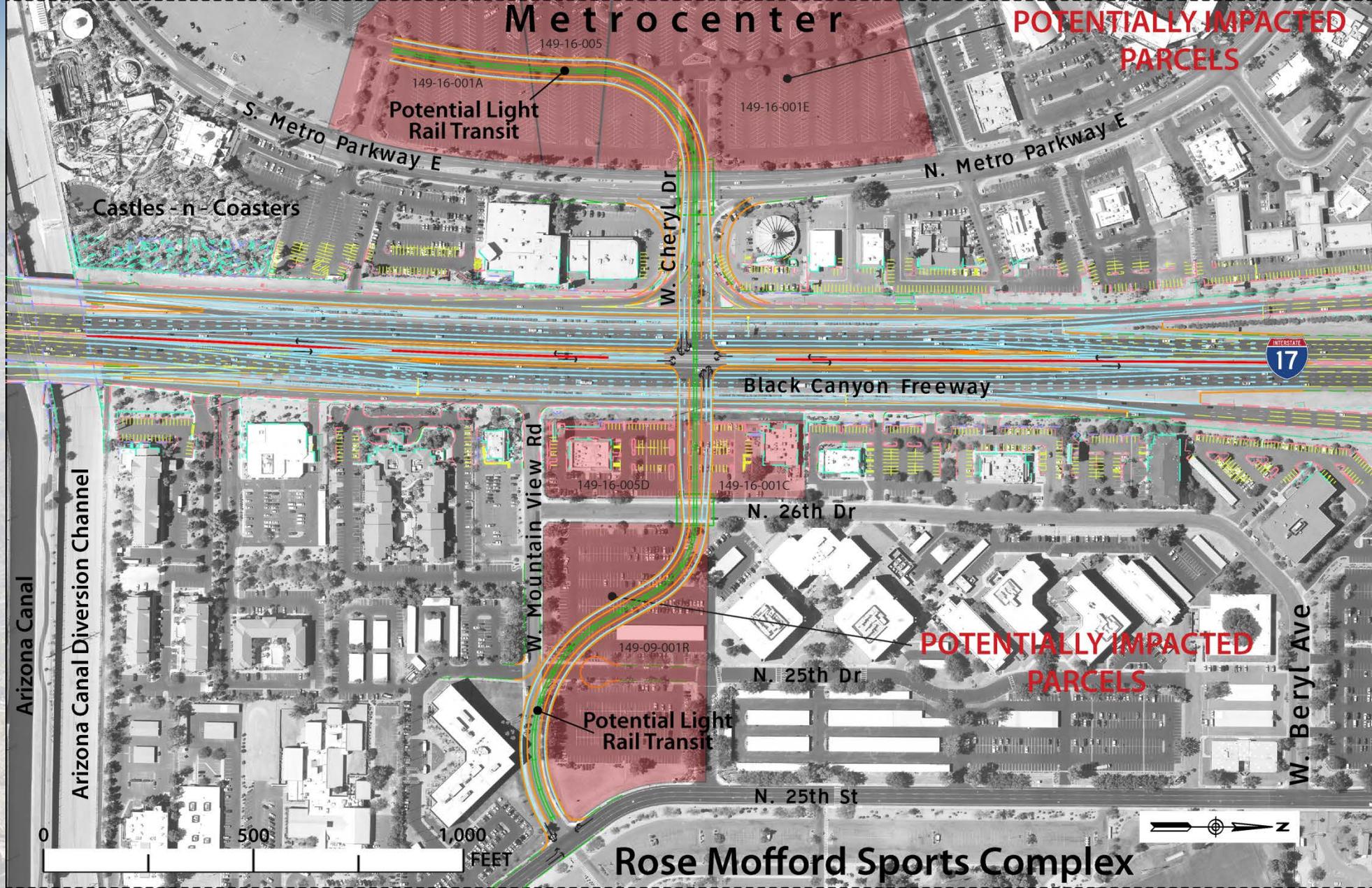
- SR-51 South to/from SR-101L Pima
- I-10 West to/from SR-202L Santan
- SR-101L Price to/from SR-202L Santan
- SR-101L/Maryland Ave

DHOV Ramps

- RTP existing and proposed DHOV ramp locations.
- RTP existing and proposed DHOV ramp arterial locations.
- Candidate DHOV ramp locations.



DHOV = Direct High Occupancy Vehicle Ramp and Interchange



Potential DHOV at Mountain View Rd and Interstate 17

Park-and-Ride

Case studies of Best Practices were conducted for **San Diego, Denver, and Seattle** to:

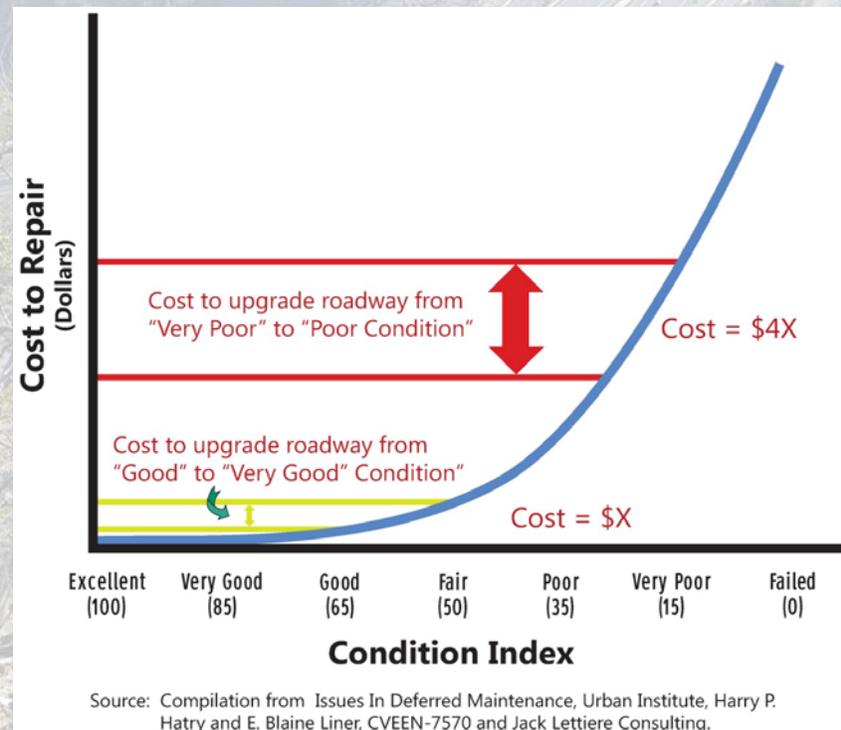
- Define integration with freeway system.
- Establish background for **development and character of future Direct HOV (DHOV) Ramps** on the freeway system, including:
 - Physical features.
 - Operational conditions.
 - Benefits.



Roadway Maintenance

2013 Maintenance and Operations (in \$Millions)

	Identified Need	Actual Budgeted	Deficit	% Unfunded
Entire MAG Program	\$80.8	\$49.6	\$31.2	38.6%
Central Phoenix Study Area	\$35.1	\$21.5	\$13.6	38.7%



Local Agency Operations and Maintenance

- Average cost for municipal street operations and maintenance is **\$15,000 per lane-mile per year.**
- Central Phoenix study opportunities to **address known bottlenecks** while at the same time consider potential **complete streets** and provisions for **transit and pedestrian friendly amenities.**
- Should there be a distinction to **identify surface street improvements** and maintenance that is **regionally significant?**

Major Regional Improvements			
PROGRAM	FUNDED	UNFUNDED	TOTAL
Arterial Streets	\$715,000,000	\$753,000,000	\$1,468,000,000
Bridges (New)	\$112,000,000	\$751,000,000	\$863,000,000
Bridges (Maint/Rehab/Replacement)	\$34,000,000	\$52,000,000	\$86,000,000
Intersection Restoration	\$17,000,000	\$94,000,000	\$111,000,000
Regional Transportation Plan	\$229,000,000	\$313,000,000	\$542,000,000
Rehabilitation Program	\$468,000,000	\$357,000,000	\$825,000,000
Total Major Regional Improvements	\$1,575,000,000	\$2,320,000,000	\$3,895,000,000
Major Drainage Improvements			
PROGRAM	FUNDED	UNFUNDED	TOTAL
Detention Basins and Channels	\$83,000,000	\$489,000,000	\$572,000,000
Storm Sewers/Storm Sewer Rehab	\$125,000,000	\$341,000,000	\$466,000,000
Total Major Drainage Improvements	\$208,000,000	\$830,000,000	\$1,038,000,000
Other Local Improvements			
PROGRAM	FUNDED	UNFUNDED	TOTAL
ADA Compliance	\$6,000,000	\$28,000,000	\$34,000,000
Bikeway/Pedestrian Bridge/Tunnel	\$22,000,000	\$21,000,000	\$43,000,000
Dam and Levee Safety Program	\$2,000,000	\$15,000,000	\$17,000,000
Dust Control	\$32,000,000	\$8,000,000	\$40,000,000
Landscape Retrofit/Screen Walls	\$53,000,000	\$18,000,000	\$71,000,000
Local Drainage	\$47,000,000	\$154,000,000	\$201,000,000
Local Street Modernization	\$139,000,000	\$161,000,000	\$300,000,000
Safety Projects/Traffic Calming	\$42,000,000	\$26,000,000	\$68,000,000
Signals (New)	\$77,000,000	\$23,000,000	\$100,000,000
Signal System Upgrade	\$25,000,000	\$52,000,000	\$77,000,000
Total Other Local Improvements	\$445,000,000	\$506,000,000	\$951,000,000
Total Infrastructure Needs	2,228,000,000	3,656,000,000	5,884,000,000

Arterial Improvement Strategies

Railroad Grade Separations

- 66 crossings examined.
- 9 Locations determined feasible for grade separation.
- Additional local review required.
- US-60/Grand Ave COMPASS addressing this corridor.

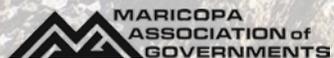




CENTRAL PHOENIX TRANSPORTATION
FRAMEWORK STUDY

Downtown Phoenix Core Connections and Operations Study

A CENTRAL PHOENIX TRANSPORTATION
FRAMEWORK STUDY INITIATIVE



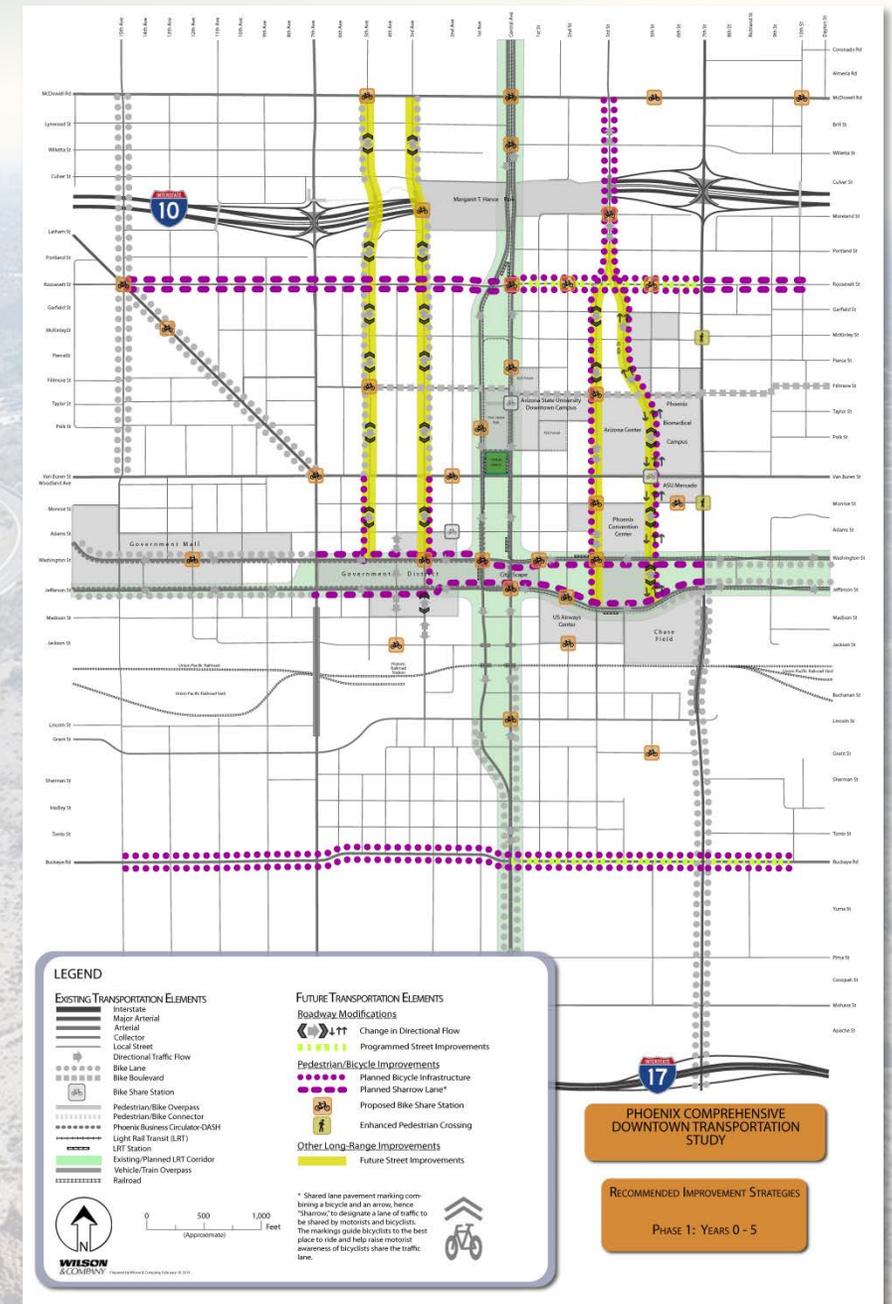
Analysis of Special Topics

- One-way versus two-way streets.
- Roadway restriping for bike lanes.
- Future of Central Avenue.
- Potential Light Rail Transit turnaround on 5th Street.
- Minor modifications to enhance event management plan (Sunburst Plan).
- Complete Streets.
- Parking Strategies.



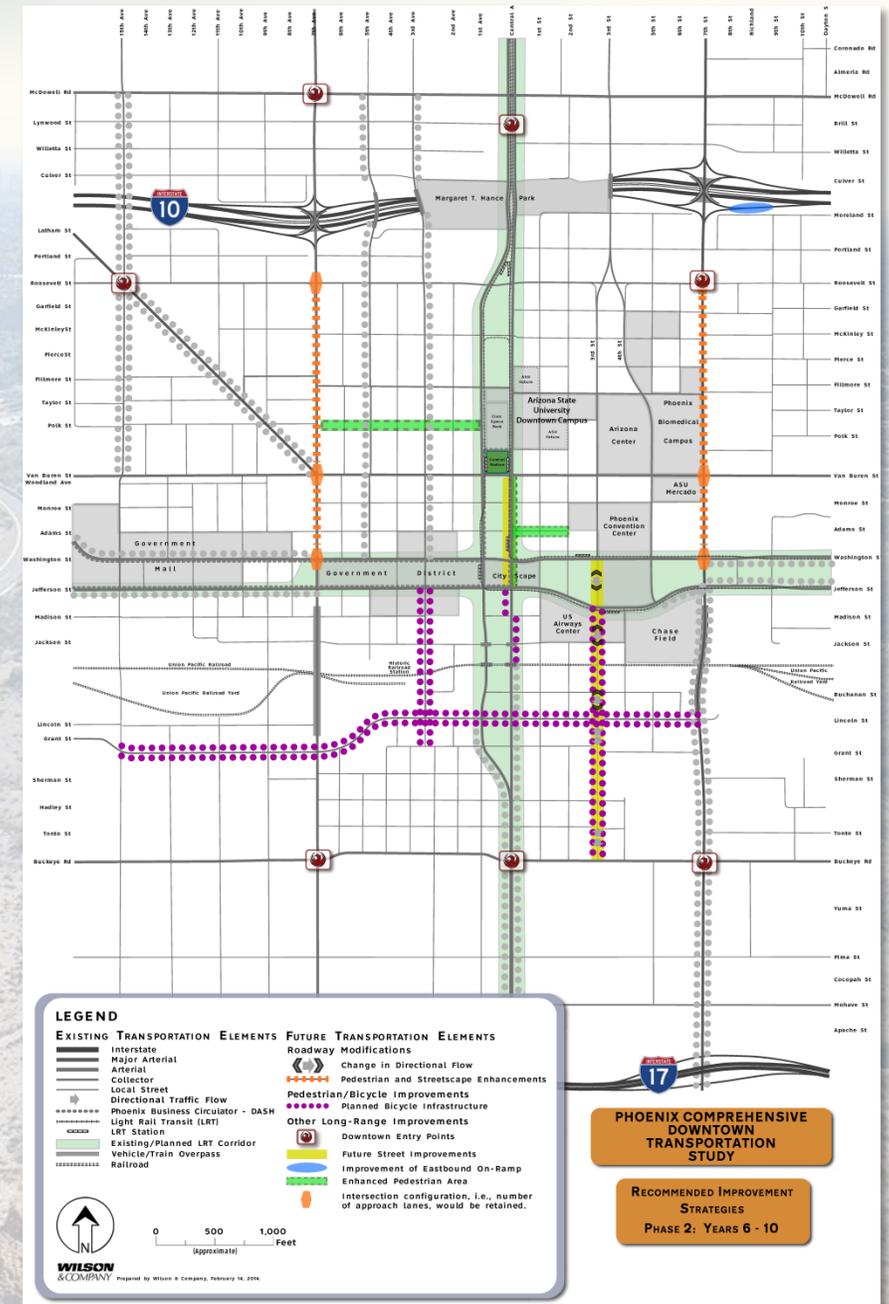
Phase 1 Recommendations First Five Years

- Addresses:
 - Roosevelt Street.
 - Buckeye Road.
 - Bike Share Expansion.
- 3rd and 5th Streets changed to **two-way streets with bike facilities** with extensions.
- **Bike facilities** on Washington and Jefferson Streets between 7th Avenue and 7th Street.



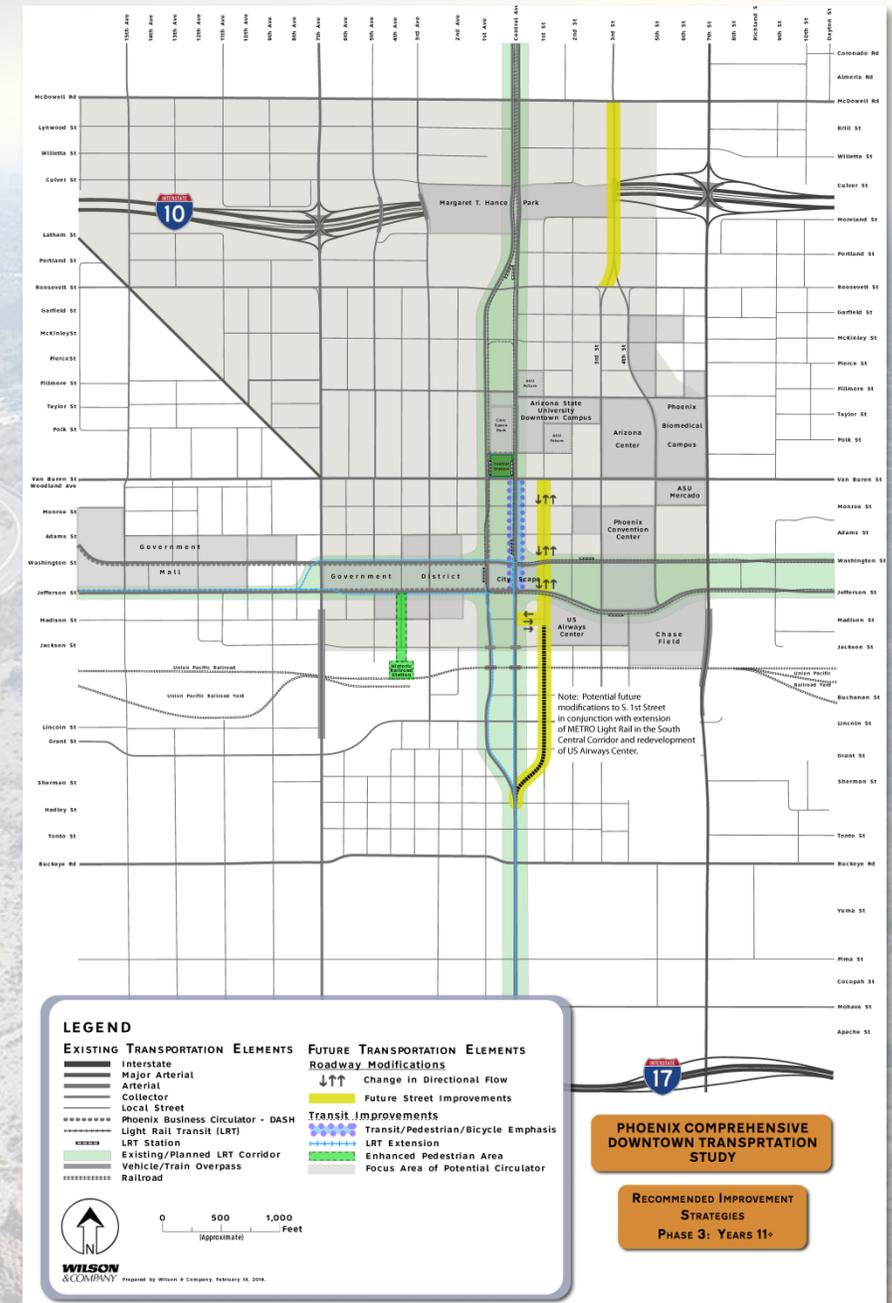
Phase 2 Recommendations Second Five Years

- Gateways.
- 7th Avenue and 7th Street modifications.
- Beginning phases of converting **Central Avenue into transit/bicycle/pedestrian mall** begins.
- Bike lanes along 3rd Avenue south of Jefferson Street to Grant Road and Lincoln Street.
- **Address entrance ramp** from 7th Street to Eastbound Interstate 10.



Phase 3 Recommendations After Ten Years

- 3rd and 5th Avenues changed to two-way streets. Regional bus traffic removed.
- **Final transition** of Central Avenue into **transit/bicycle/pedestrian mall** between Jefferson Street and Van Buren Street.
- First Street emphasis expands with change to Central Avenue.
- Downtown circulator.



For Information and Discussion.

Outcome of the Central Phoenix Transportation Framework Study

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