

FY 2016 – 2020
Draft Tentative Five-Year
Transportation Facilities Construction
Program

Scott Omer, Director
Multimodal Planning Division

2016-2020 Tentative Program Discussion

- ▶ Background
- ▶ Planning to Programming (P2P)
- ▶ Overview of Asset Condition
- ▶ STB; Tentative 5-Year Highway Delivery Program
- ▶ ADOT; 6-10 Year Highway Development Program
- ▶ PAG; Tentative Program
- ▶ MAG; Tentative Program
- ▶ STB; Airport Program
- ▶ Next Steps

Background

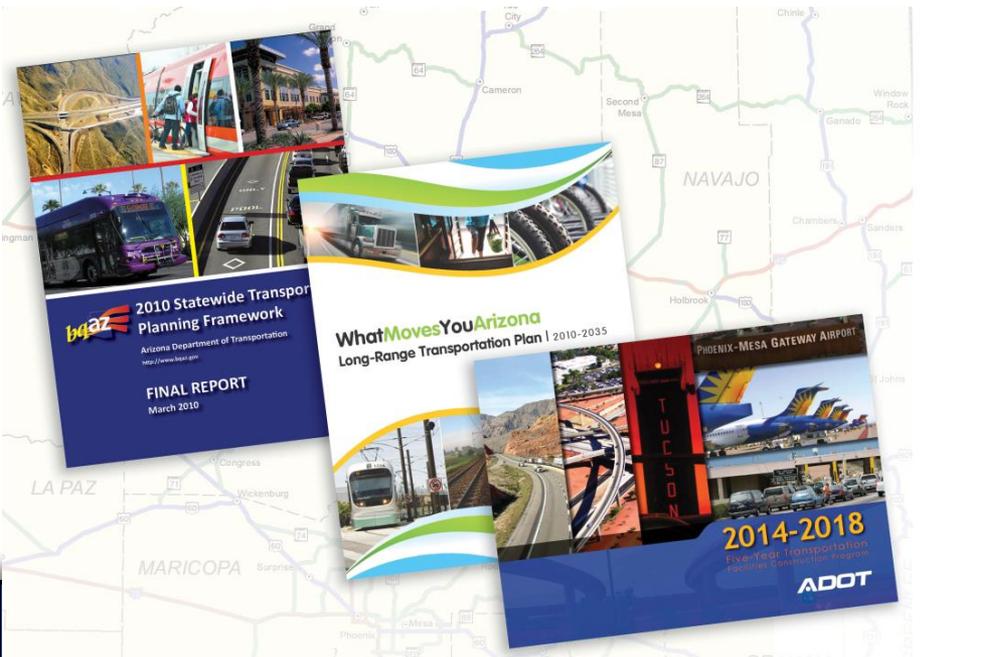
- ▶ Developed collaboratively with STB, ADOT (ITD, FMS, MPD) and Regional Partners
- ▶ Demonstrates how federal and state dollars will be obligated over the next five years, and planned over the following 5 Years.
- ▶ Approved annually
- ▶ Fiscal year starts each July 1
- ▶ Must be fiscally constrained – STB Five Year Program
- ▶ Must be financially constrained – ADOT, Development Program

MAP-21

- ▶ Federal Transportation Reauthorization; enacted October 1, 2012
- ▶ Requires a National Highway Performance Program
 - “It is in the interest of the United States to focus the Federal-aid highway program on the following national goals:”*
 - Safety
 - Infrastructure Condition
 - Congestion Reduction
 - System Reliability
 - Freight Movement and Economic Vitality
 - Environmental Sustainability
- ▶ Planning to Programming Linkages (P2P)
 - Preparation for MAP-21 Performance Program

Planning to Programming Linkage (P2P)

ADOT Vision and Long-Range Plan
Prototyping P2P
Implementation for Performance Based Programming



VISIONING to PROGRAMMING

March 2011



How do transportation projects move from initial visioning stages to programming (funding for construction)?

VISION

PLAN

PROGRAM

UNIVERSE OF PROJECTS

The existing universe of projects was defined through the **bqAZ** Statewide Transportation Planning Framework. www.bqAZ.gov



PROJECT TYPE

Projects are sorted into four main project categories

PERCENTAGE OF FUNDS

Goals and objectives from the Long-Range Transportation Plan are used to determine funding for projects in each category

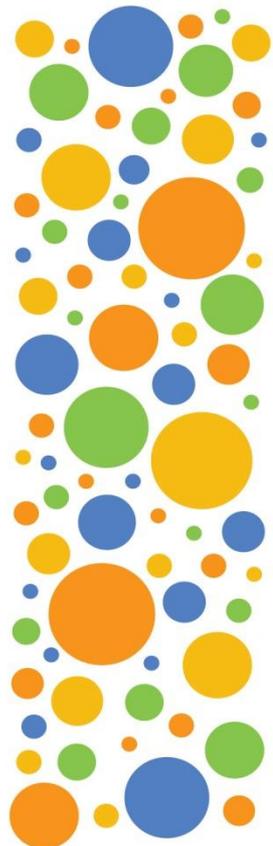
PERFORMANCE SCORING

Projects are scored based upon specific "Performance Measure" criteria (such as pavement condition, congestion levels, travel time)



PRIORITIZATION

Best performing projects are programmed to receive funding through the 5-Year Plan

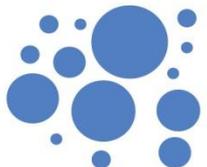


PROJECT TYPE



MODERNIZATION

add shoulders
straighten curves % →



EXPANSION

add lanes
new highways
HOV lanes % →



PRESERVATION

pavement
bridges % →



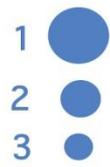
NON-HIGHWAY MODES

rail
transit
air % →

PERFORMANCE CRITERIA



5 - YEAR PLAN



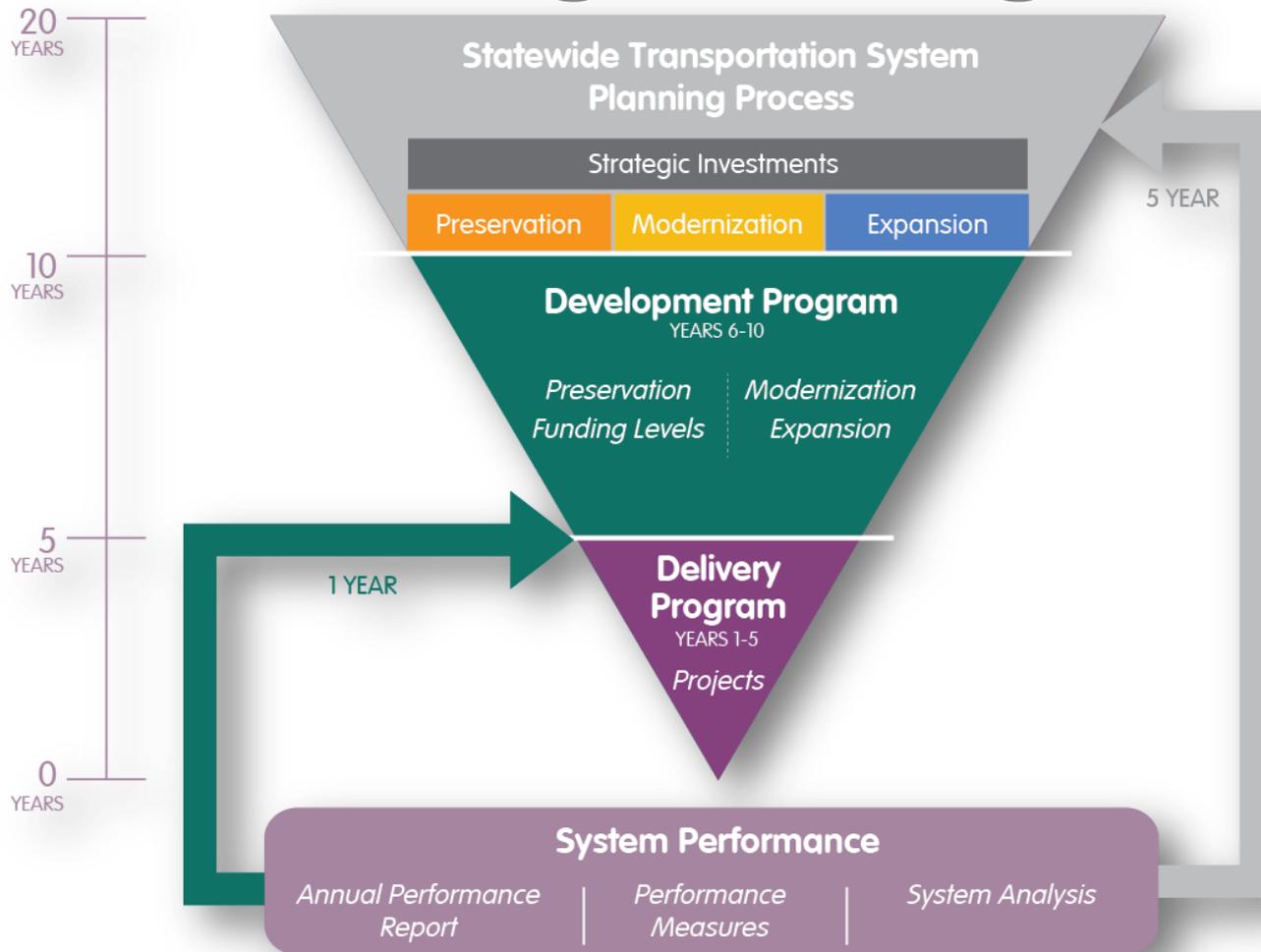
1 2 3

P2P Link Goal

To create a performance-based
process that links planning to
programming

*transparent, defensible, logical,
reproducible*

Linking Planning to Programming



Overview of Asset Condition



\$19.7 Billion = Value of State Highway System Infrastructure

\$19.7 Billion



Without a commitment to preservation, the system would cost \$200 billion to replace.

Preservation Saves Money!

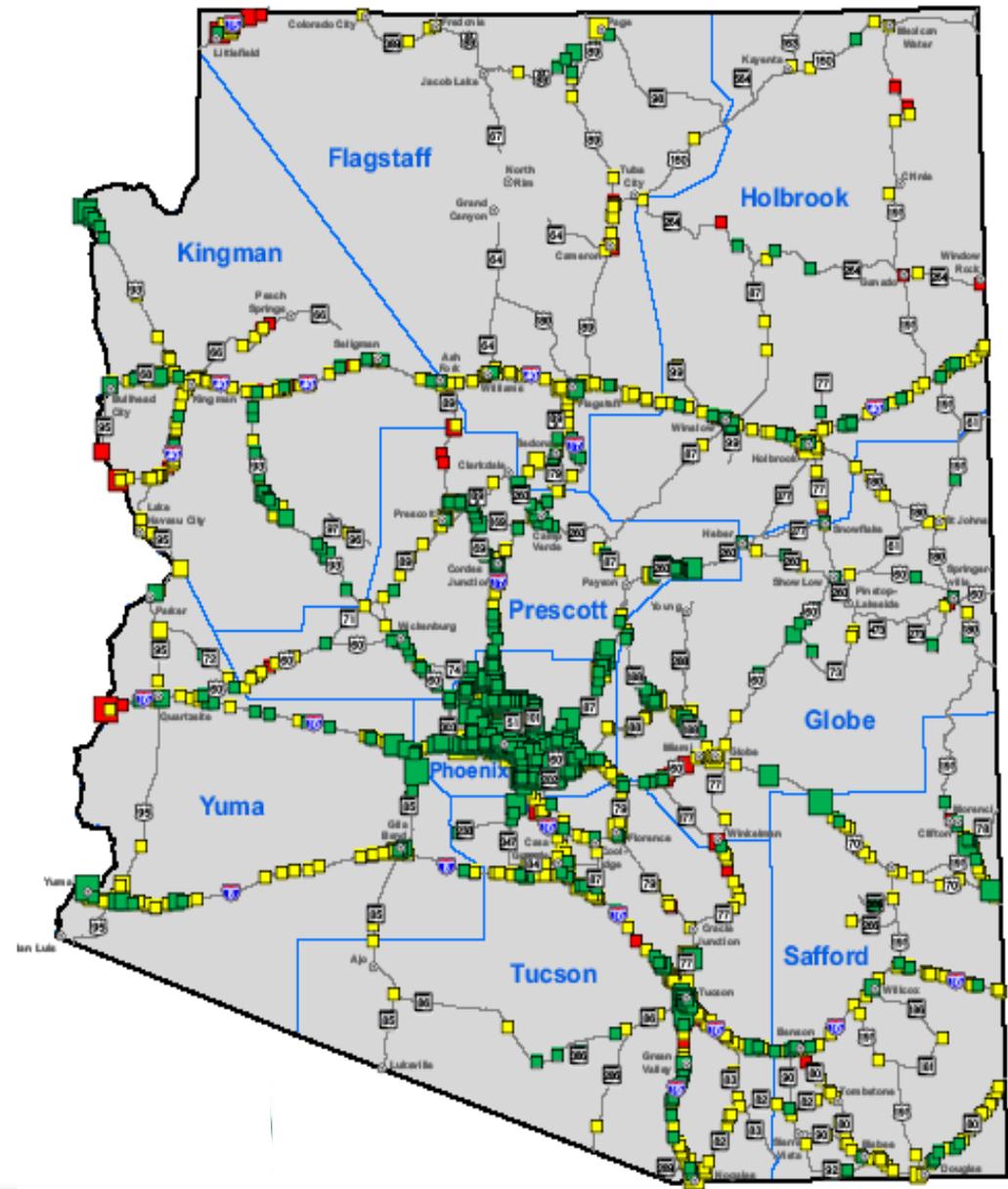
- ▶ Pay now or pay much more later
- ▶ Public feedback continuously indicates that maintaining the current transportation system in a state of good repair should be of high priority *
- ▶ MAP-21 specifically addresses system performance:
 - National performance measures are being established
 - State targets will follow
 - States will be expected to meet established targets
- ▶ MAP-21 requires a performance- and risk based approach to transportation planning and programming

* Identifying Customer-Focused Performance Measures – ATRC Report 655 – October 2010

Bridge Condition: State Highway System, 2013

Condition Count Percentage

	Good	910	42%
	Fair	1153	53%
	Poor	106	5%
	Total:	2169	



Ideal Wash On SR-186 Near Willcox

Before



After

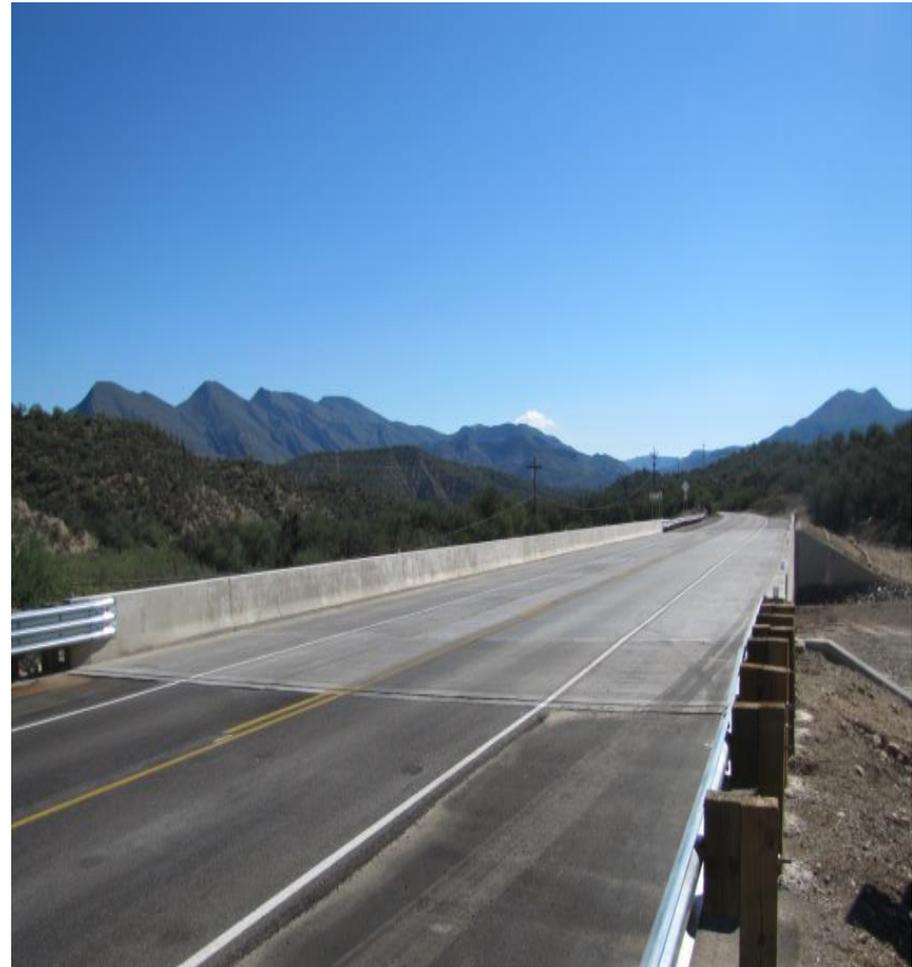


SR-77 Dripping Springs Wash Bridge

Before



After



SR-87 Limestone Wash Bridge

Before



After



I-15 Implementation Plan

I-15 Recommended Program 2019 - 2063

Construct. Year													Cumulative Bridge Cost 50-Years	Residual Bridge Value 2063
	2019	2020	2022	2025	2030	2035	2040	2043	2048	2053	2058	2063		
Bridge 1	20,548					733			1,143	241			23,398	27,563
PROGRAM	35,450													
Bridge 2			4,122		97	34,661			1,165				42,521	43,000
PROGRAM			8,900			40,000								
Bridge 3		7,861				16,722			1,185				1,846	27,614
PROGRAM						19,650								
Bridge 4	378	42			3,733			18,321		809			23,283	24,330
PROGRAM								24,450						
Bridge 5a	423					13,018		600			934	416	15,391	18,184
PROGRAM						18,275								
Bridge 5b	466					12,845		582			907	644	15,444	17,607
PROGRAM						18,275								
Bridge 7		15,859					687			1,070	371		17,987	22,501
PROGRAM		26,650												
Paving					3,225			36,825		3,225			36,825	
PROGRAM					3,225			36,825						
Climb Lane						13,450								
PROGRAM						13,450								
Program	35,450	26,650	8,900	16,675	36,550	96,475	24,450	-	-	-			165,638	172,403

Maintain Bridge Costs ONLY

(i.e. No Refurb. / Improvements)

Bridge	Cumulative Bridge Cost 50-Years	Residual Bridge Value 2063
Bridge 1	32,557	1,537
Bridge 2	24,769	14,753
Bridge 3	20,365	1,409
Bridge 4	15,152	9,878
Bridge 5a	10,178	8
Bridge 5b	11,497	2,113
Bridge 7	23,426	1,710
Totals	137,944	31,408

With only maintenance provided, the bridges will not have the structural deficiencies addressed, and are therefore still at risk to closure/ failure, with virtually no residual value after spending nearly \$140 Million to maintain them.

By comparison, an increased investment of 20% spread over the next 40 years will result in widened bridge superstructures that will provide value for at least 60 years into the future.

A 20% increase in Program Cost...

Yields 60 Years of added bridge life.

X,XXX Raw bridge costs needed to maintain bridge to current standards. (Items not programmed separately are part of ADOT Bridge Program cost.)

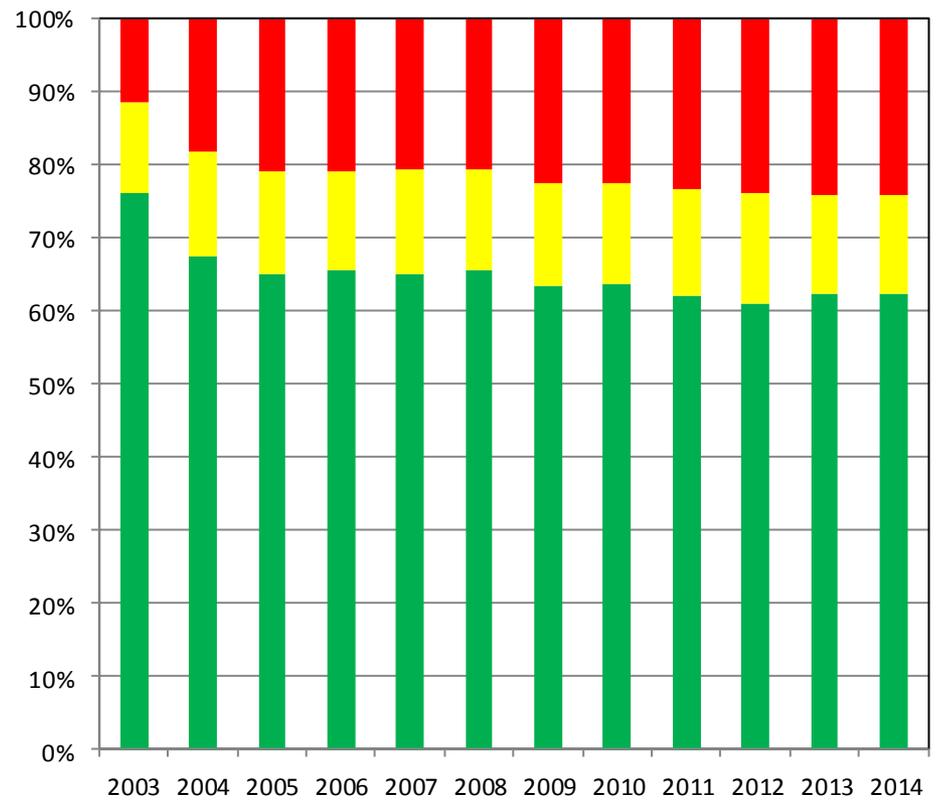
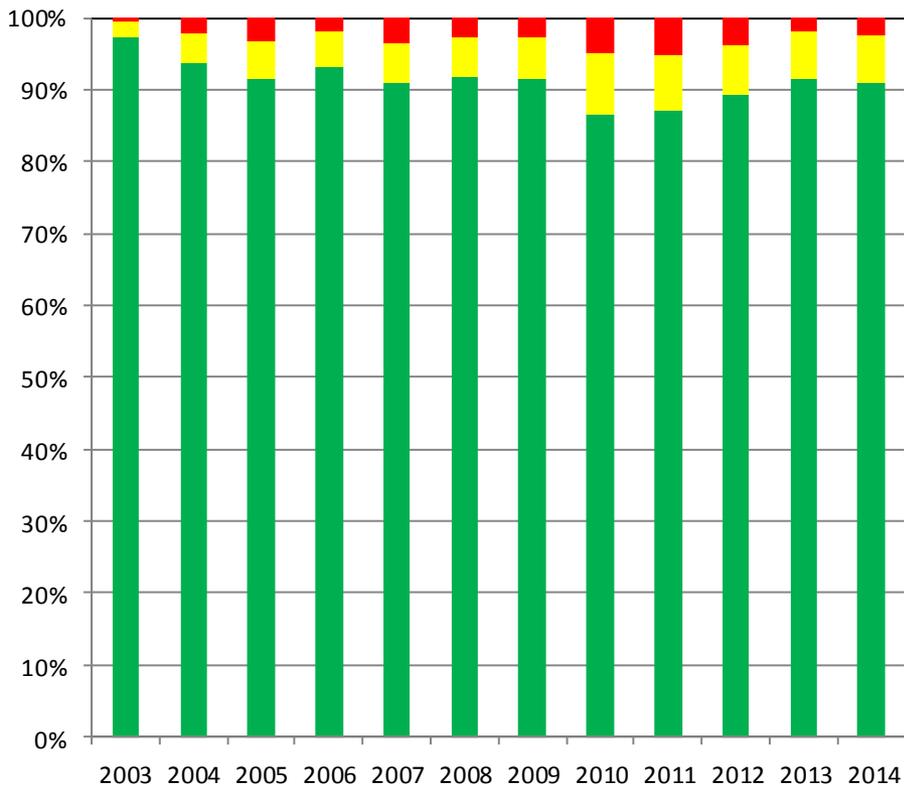
XX,XXX Programmed Recommendations, including bridge, roadway, safety, and rockfall work within the project limits.

All costs are shown in \$1,000 increments (i.e. 466 is equal to \$466,000)

Losing Ground on Pavement Conditions

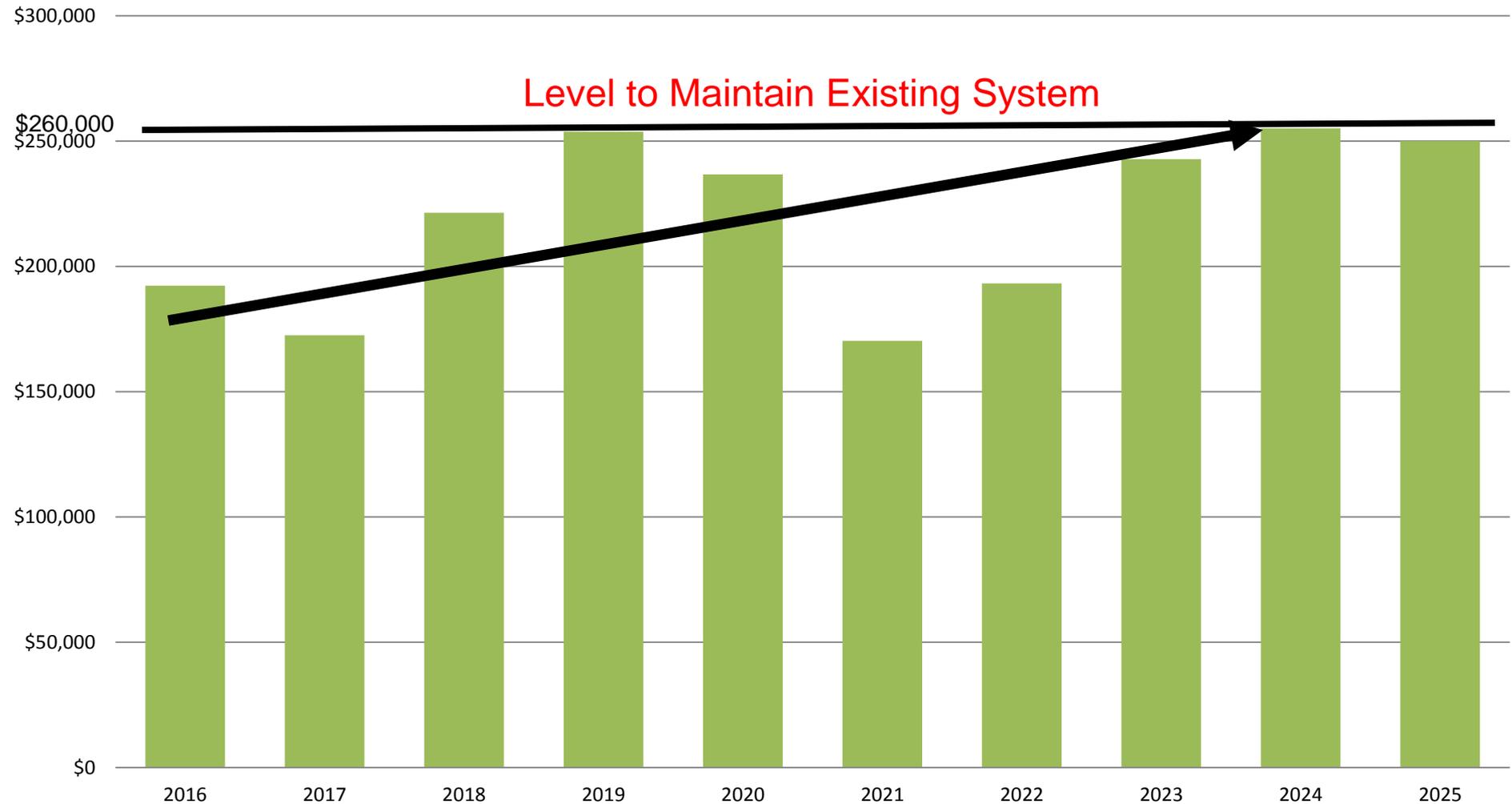
Interstate Pavement Condition – ADOT Definition

Non-Interstate Pavement Condition – ADOT Definition



Preservation funding proposed FY16-FY25

Preservation

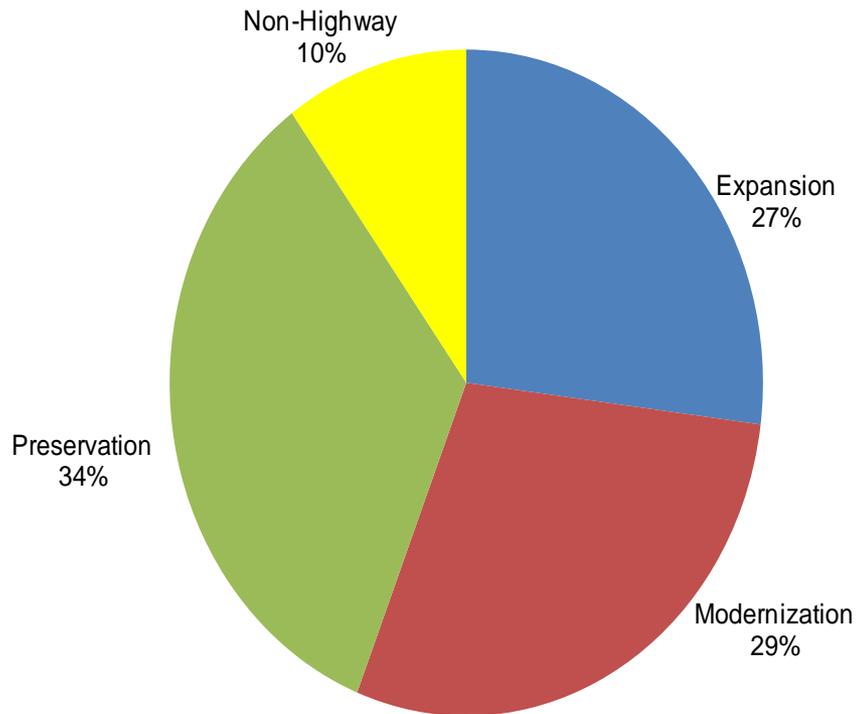


Tentative 5-Year Highway Delivery Program



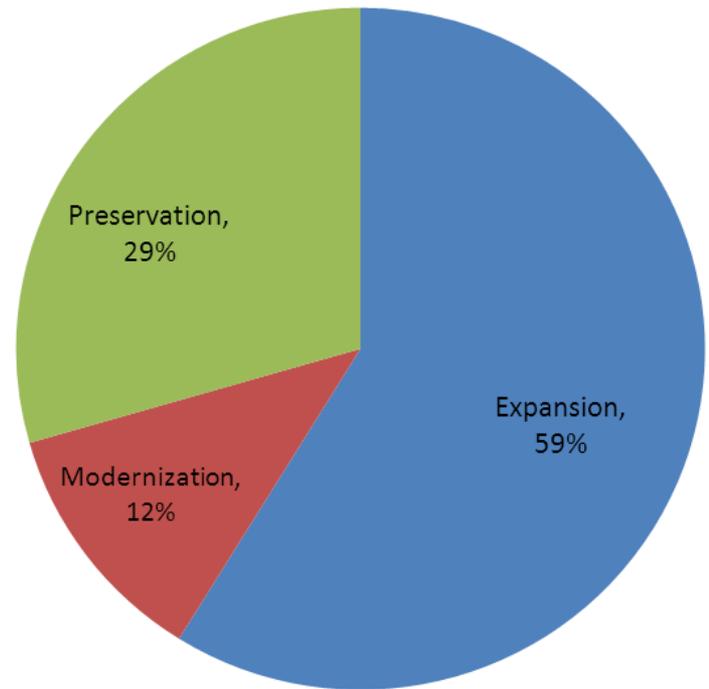
ADOT's Long Range Plan

- ▶ Recommended Investment Choice (RIC)



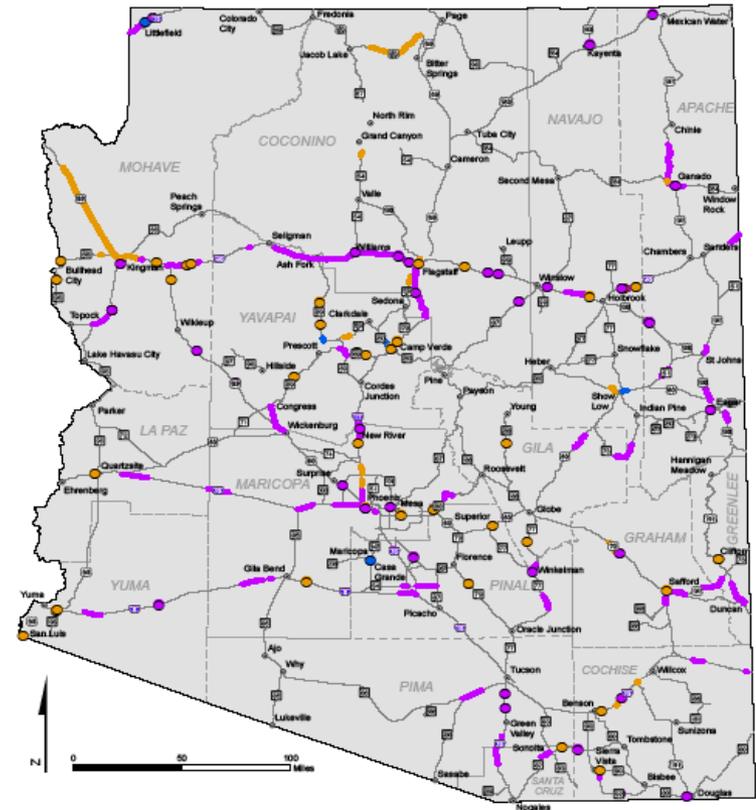
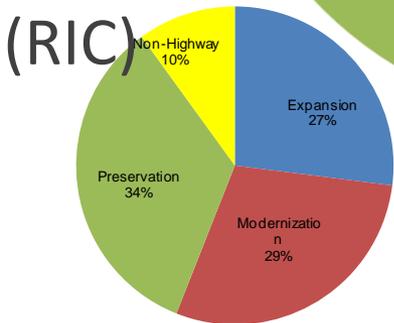
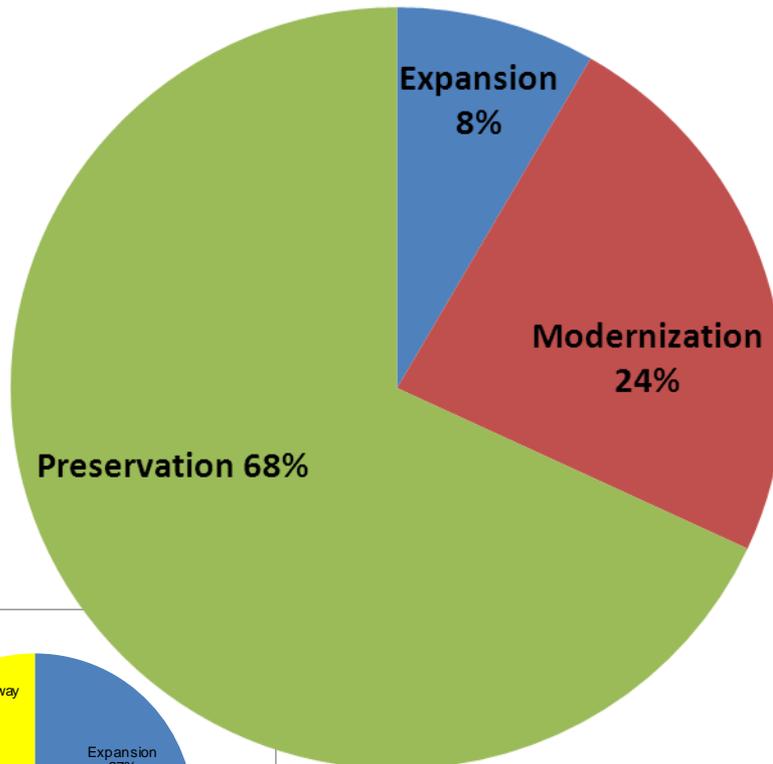
2016-2020 Tentative Facilities Construction Program

Greater AZ, MAG & PAG



Greater Arizona Tentative 5-Year Highway Delivery Program (FY16- FY20)

Tentative 2016-2020 Five-Year Transportation Facilities Construction Program



Projects

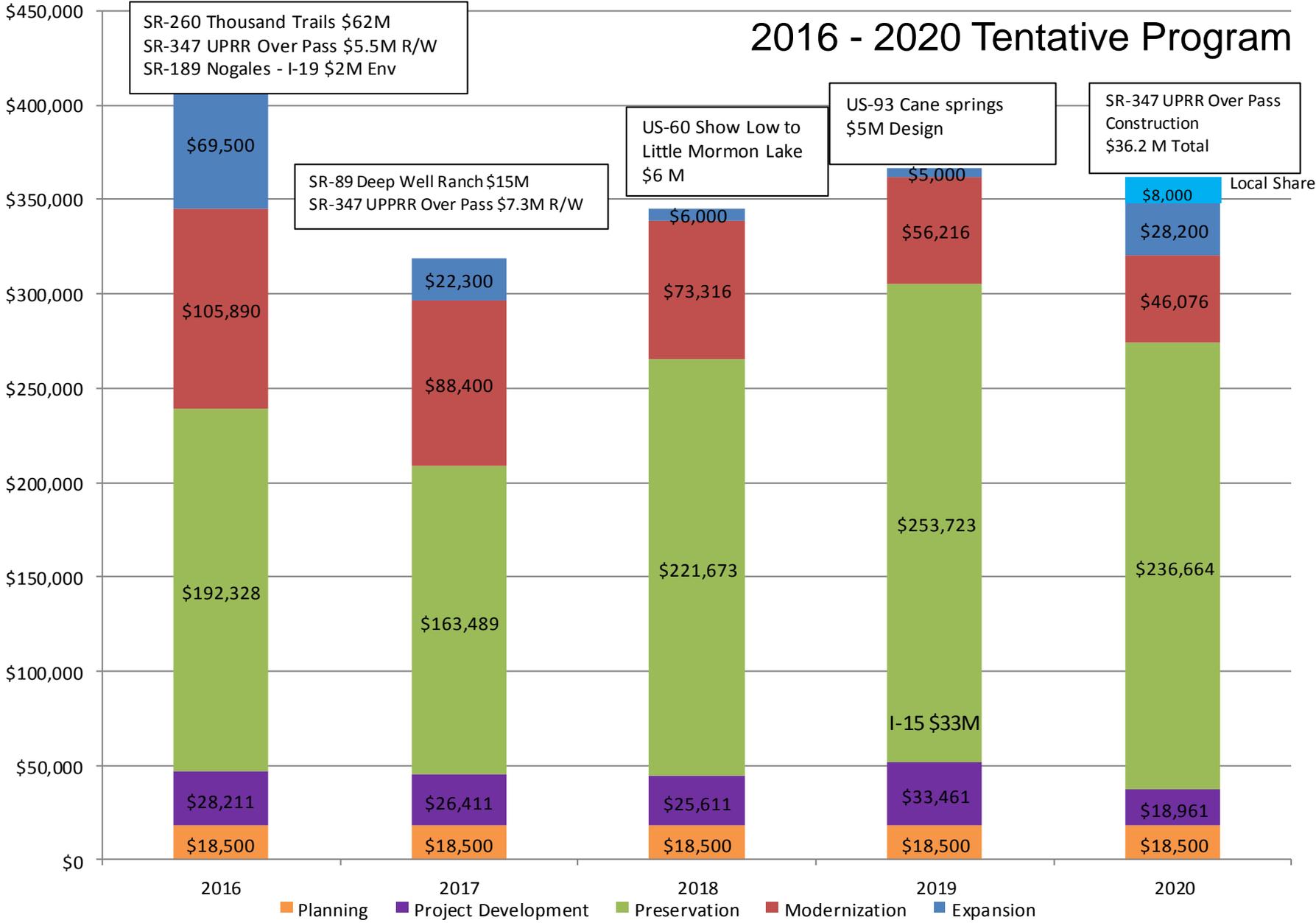
- Expansion
- Modernization
- Preservation
- Non-Highway
- Expansion
- Modernization
- Preservation
- Non-Highway
- * Cities and Towns
- State Highway System
- County Boundary
- State Boundary

Note: The State of Arizona makes no claims concerning the accuracy of this map nor assumes any liability resulting from the use of the information herein.

Prepared by:
Arizona Department of Transportation
Multimodal Planning Division
Transportation Analysis GIS Section
602.712.7333 January 2016



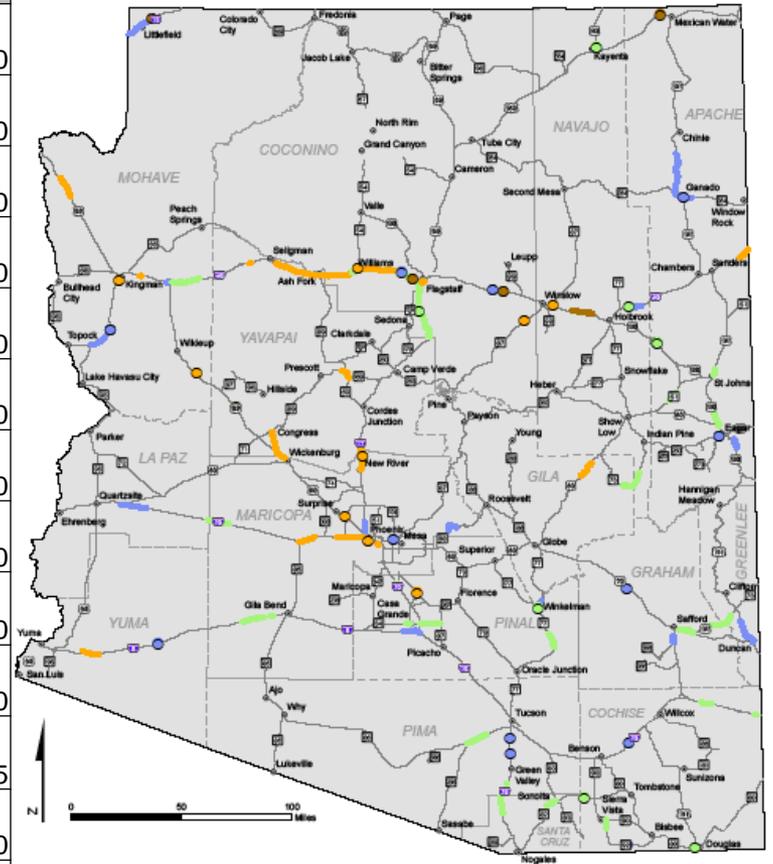
2016 - 2020 Tentative Program



Preservation Program (FY16- FY20)

RT	LOCATION	D	TypeOfWork	CFY	COST(\$000)
8	BIANCO RD - JCT I-10	T	Pavement Preservation	2016	\$12,700
10	US 60 - MP 42	Y	Pavement Preservation	2016	\$20,300
15	NEVADA STATE LINE - MP 13	F	Pavement Preservation	2016	\$18,200
17	NEW RIVER ROAD - COLDWATER ROAD	P	Pavement Preservation	2017	\$20,600
93	WILLOW BEACH - WHITE ROAD	K	Pavement Preservation	2017	\$9,800
8	MP 96 - PALOMA ROAD	Y	Pavement Preservation	2018	\$11,480
10	DYSART ROAD - BLACK CANYON HWY	E	Pavement Preservation	2018	\$26,500
10	COUNTY LINE TO SALOME ROAD	Y	Pavement Preservation	2018	\$11,480
17	YAVAPAI- COCONINO COUNTY LINE -I-40	F	Pavement Preservation	2018	\$16,360
19	MP 21.1- MP 31.8	T	Pavement Preservation	2018	\$12,230
19	CANOA RANCH REST AREA - DUVAL MINE ROAD TI	T	Pavement Preservation	2018	\$11,325
40	GARLAND PRAIRE - PARKS TI	F	Pavement Preservation	2018	\$27,400
40	PARKS TI - RIORDAN BRIDGE	F	Pavement Preservation	2018	\$13,000
40	US-93 - Willow TI	K	Pavement Preservation	2018	\$12,630
40	JACKRABBIT - JOE CITY	H	Pavement Preservation	2019	\$11,194

Tentative 2016-2020 Five-Year Transportation Facilities Construction Program Preservation Projects



Projects

- 2016
- 2017
- 2018
- 2019
- Cities and Towns
- State Highway System
- County Boundary
- State Boundary

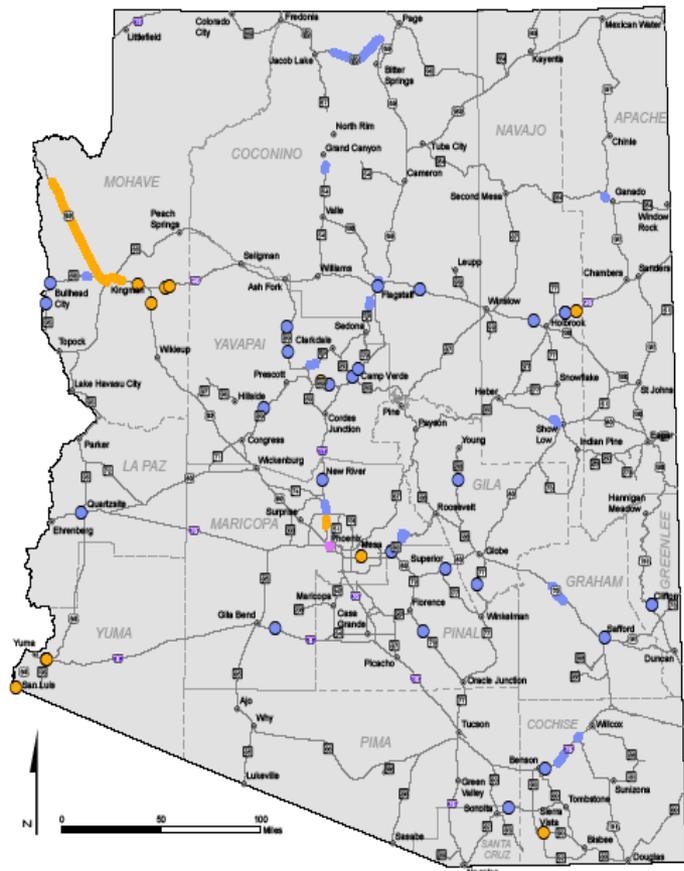
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Prepared by:
 Arizona Department of Transportation
 Multimodal Planning Division
 Transportation Analysis GIS Section
 902.712.7335 January 2016

Modernization Program (FY16- FY20)

Tentative 2016-2020 Five-Year
Transportation Facilities Construction Program
Modernization Projects

RT	LOCATION	D	Type Of Work	CFY	COST(\$000)
264	BURNSIDE - FISH WASH	H	Construct Shoulder Widening	2016	\$10,300
89	OVERLOOK - JW POWELL BLVD	F	Construct Shoulder Widening	2016	\$8,892
70	BYLAS AREA	S	SAFETY IMPROVEMENTS	2016	\$7,493
8	ARABY ROAD TI RECONSTRUCTION	Y	Construct Roundabouts	2017	\$8,045
93	WIILOW BEACH - WHITE HILLS ROAD	K	Construct Shoulder Widening	2017	\$7,500
93	WIILOW BEACH TO WHITE ROAD	K	Construct Shoulder Widening	2017	\$7,500
95	SR 95 @ MOHAVE RD	Y	Construction	2017	\$4,939
999	RURAL INTELLIGENT TRANSPORTATION SYSTEMS VARIOUS ROUTES I-10,SR 89A,US 60, US 191,I-40	N	Install DMS Signs	2017	\$4,600
40	WILLOW SPRINGS	K	Rockfall Mitigation	2017	\$4,407
95	US 95 AND 8E INTERSECTION	Y	Construct Roundabout	2017	\$4,200



Projects

- 2016
- 2017
- 2018
- 2019
- 2020
- Cities and Towns
- State Highway System
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- State Boundary

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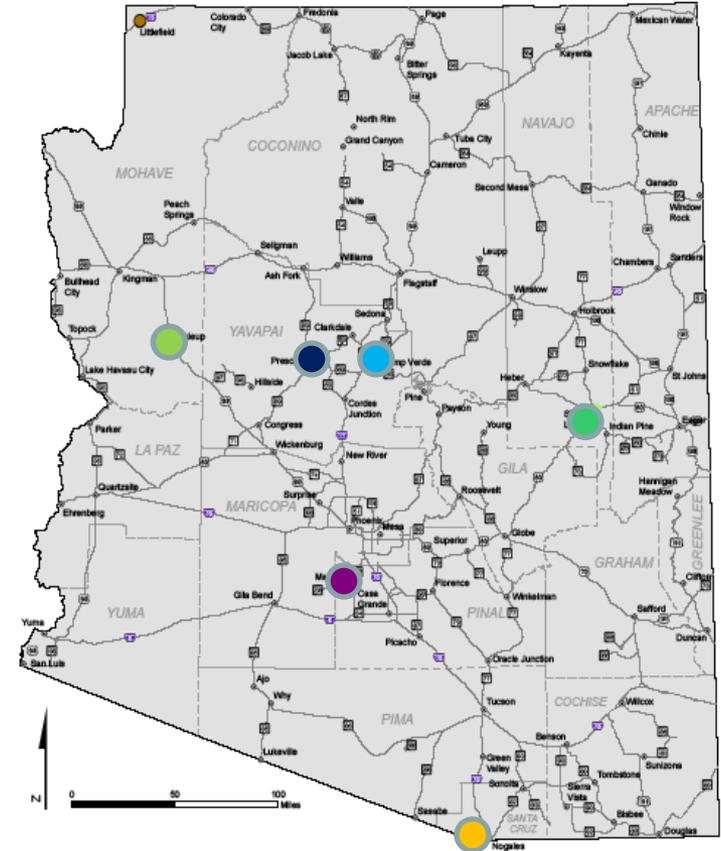
Prepared by:
Arizona Department of Transportation
Multinational Planning Division
Transportation Analysis GIS Section
902.712.7333 January 2016



Expansion Program (FY16- FY20)

RT	LOCATION	D	Type Of Work	CFY	COST(\$000)
260	THOUSAND TRAILS - I-17	P	Construct Improvements	2016	\$62,000
347	UNION PACIFIC RR CROSSING	T	Right of Way	2016	\$5,500
189	NOGALES TO I-19	T	Environmental	2016	\$2,000
89	JCT SR 89A - DEEP WELL RANCH ROAD	P	Widen corridor to improve capacity, operations and safety	2017	\$15,000
347	UNION PACIFIC RR CROSSING	T	Right of Way	2017	\$7,300
60	SHOW LOW TO LITTLE MORMON LAKE	G	Widen Roadway	2018	\$6,000
93	CANE SPRINGS	K	Design 4-lane divided highway	2019	\$5,000
347	UNION PACIFIC RR CROSSING	T	Construction	2020	\$36,200

Tentative 2016-2020 Five-Year
Transportation Facilities Construction Program
Expansion Projects



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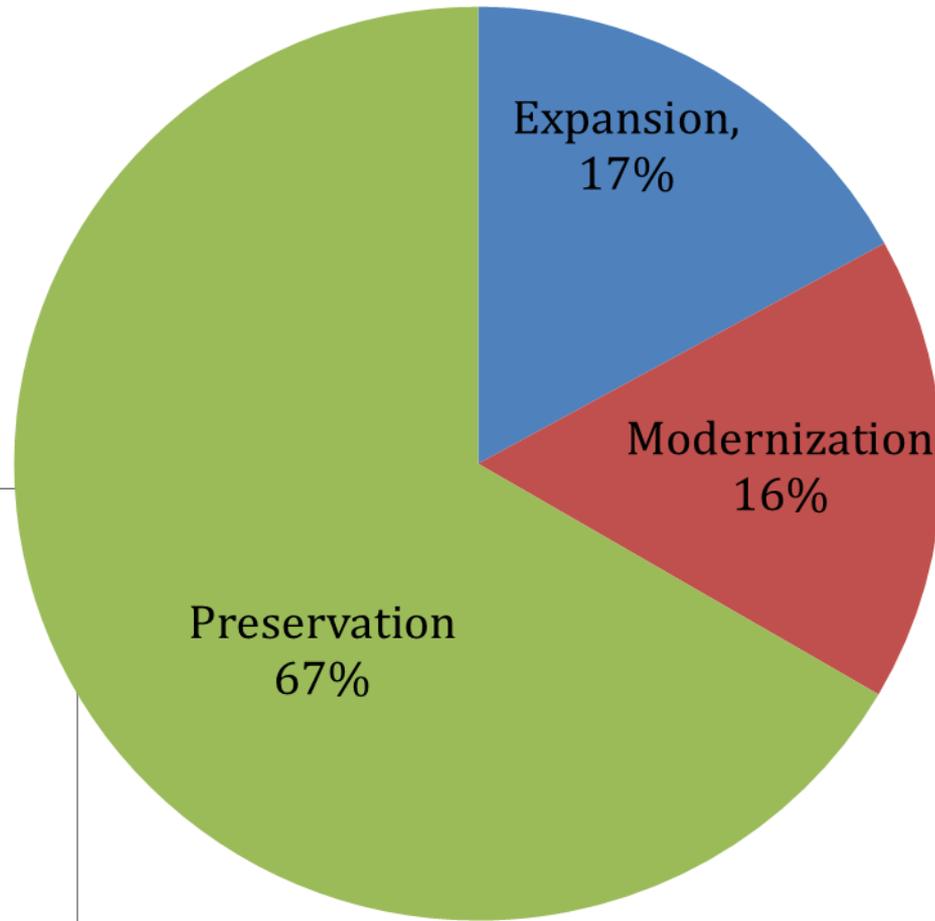


Summary of the Tentative Program FY16-20

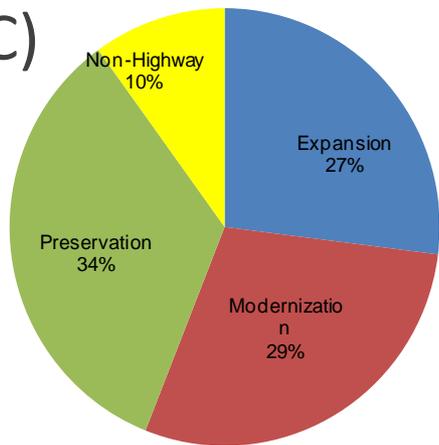
Update this slide

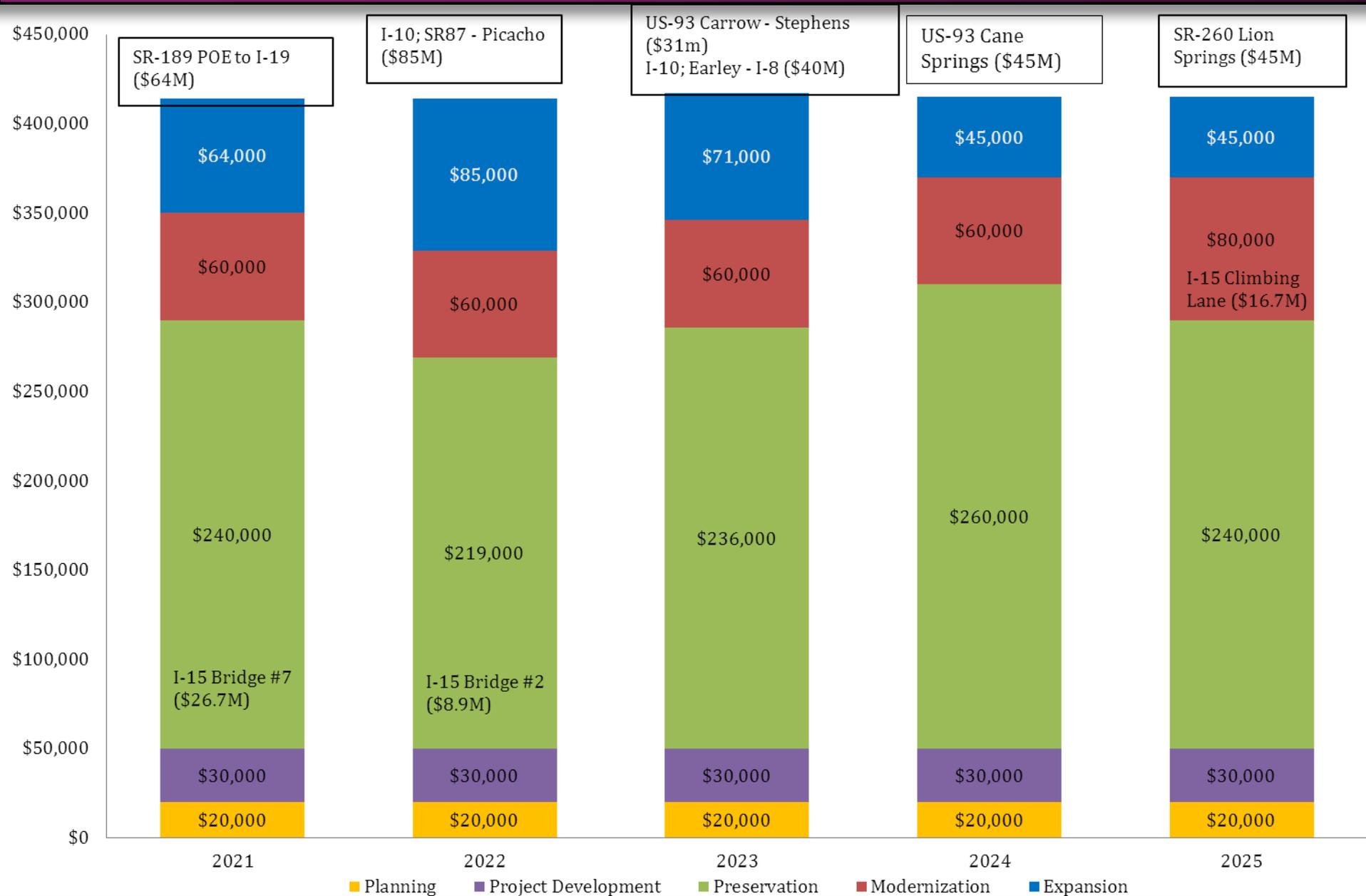
- ▶ Updated Project Costs
- ▶ Keeps SR-260 Thousand Trails in FY 2016
- ▶ Keeps SR-347 UPRR Overpass Right of way Phase in FY 2016
- ▶ Keeps SR-189 Environmental Phase in FY 2016
- ▶ Keeps SR89; Deep Well Ranch Road to SR89A in FY 2017
- ▶ Keeps US-60 Show Low to Little Mormon Lake in FY 2018
- ▶ Programs US-93 Cane Springs Design in FY 2019
- ▶ Includes I-15 Bridge #1 Replacement in FY19; \$33M
- ▶ Add Construction for the SR-347 UPRR Overpass for \$28,200 with \$8,000 to come from Local Area

Year 6-10 (FY21 – FY25)



(RIC)

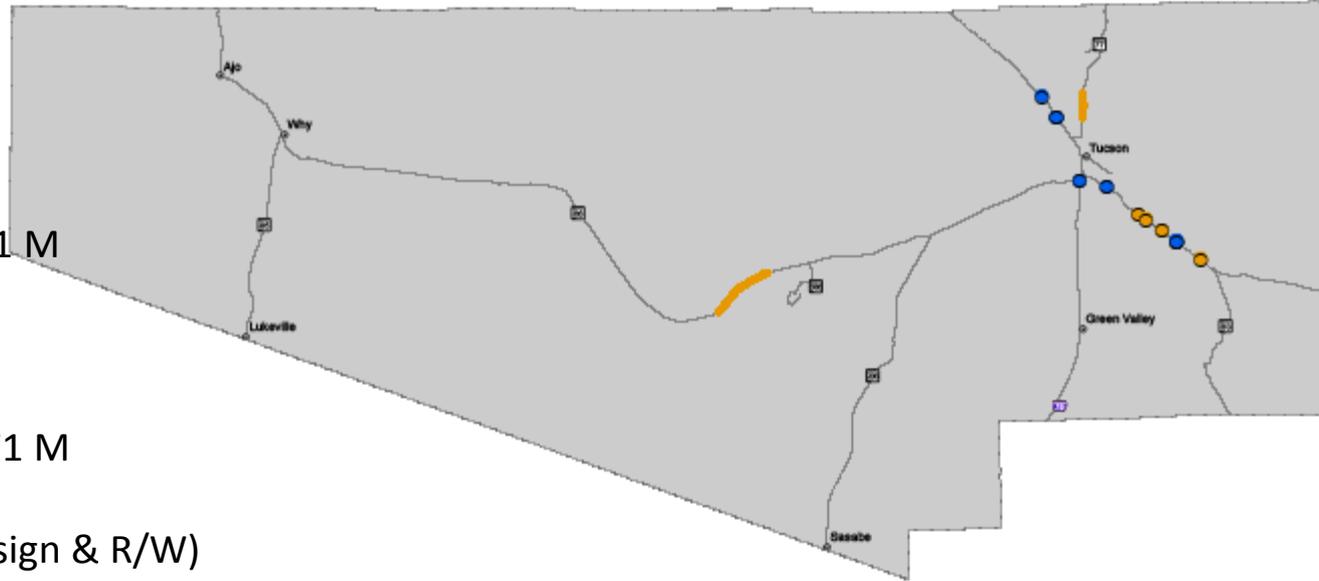




PAG; Tentative Program (FY16-20)



PAG Tentative Program(FY16- FY20)



2016 / 2017

I-10; Ina Road TI - \$85 M

2016 / 2019

I-10; Houghton Road TI - \$41 M

2017 / 2018

I-10; Ruthrauff TI - \$104 M

2018 / 2020

I-10; Country Club Rd TI - \$71 M

2019 / 2020

I-10; Kino Rd TI - \$14 M (Design & R/W)

2019 / 2020

I-10; Park Ave TI - \$5 M (Design Only)

2018

I-19; Ajo Way TI, Phase II - \$30 M

2019

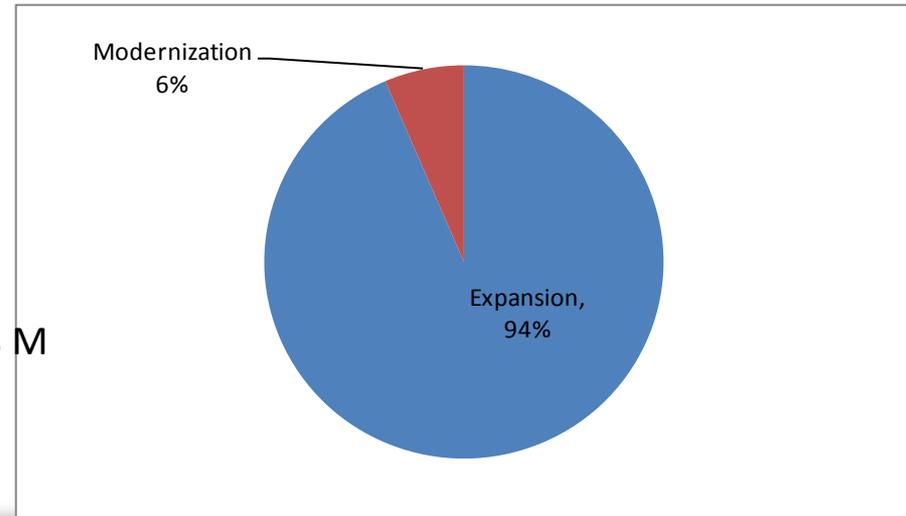
I-19; Irvington Road TI - \$10 M (Design & R/W)

2016

SR86; San Isidro Rd Segment (MP 123.9-128.8) - \$8 M

2018

SR86; Fresnal – MP 123.9 - \$10 M



MAG Area Regional Transportation Plan Freeway Program



MAG Area Freeway Program (FY16- FY20)

2016-2020

SR 202L; South Mountain - \$1.14 B

2016

US60; Thompson Ranch (Thunderbird) TI - \$7 M

2016

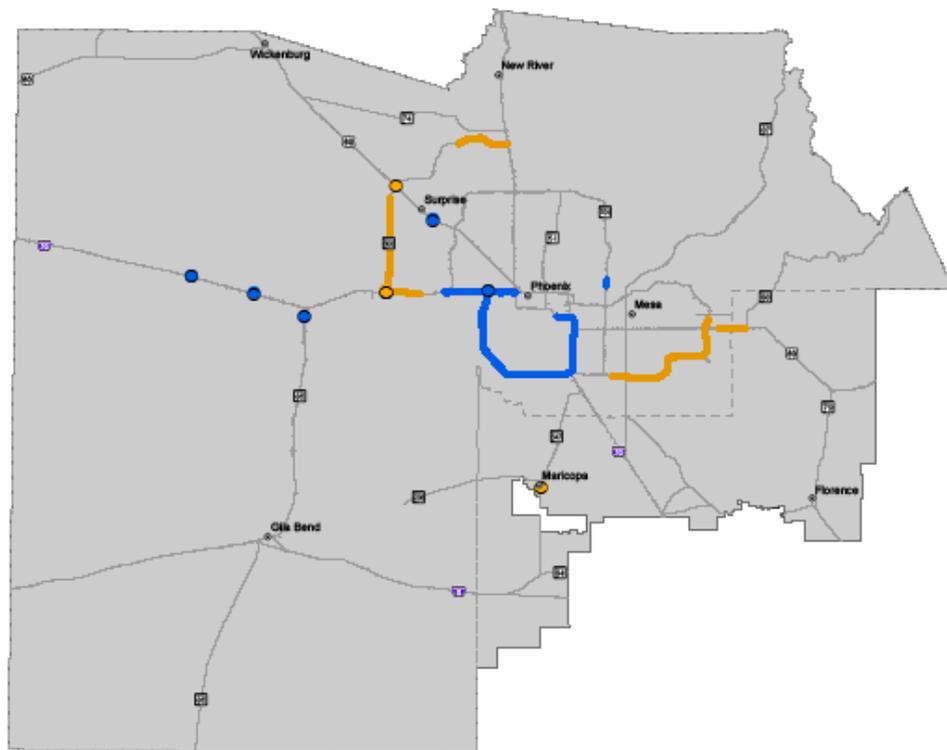
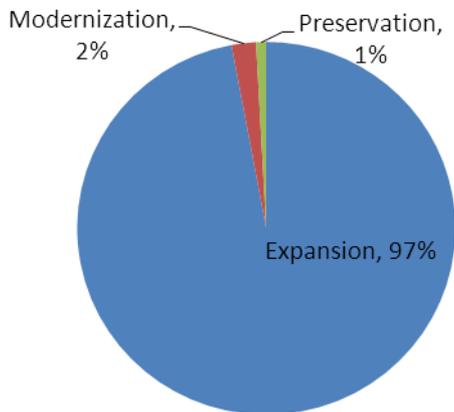
SR 303L; I-10 Interchange, Phase II - \$83 M

2016/2020

I-10; 32nd St to SR 202L - \$307 M

2020

US60; Crismon Rd – Meridian Rd - \$27 M





2016-2020 Tentative Five-Year Transportation Facilities Construction Program Airport Capital Improvement Program



Prescott Airport Ernest A. Love Field - 2014 Arizona Airport of the Year

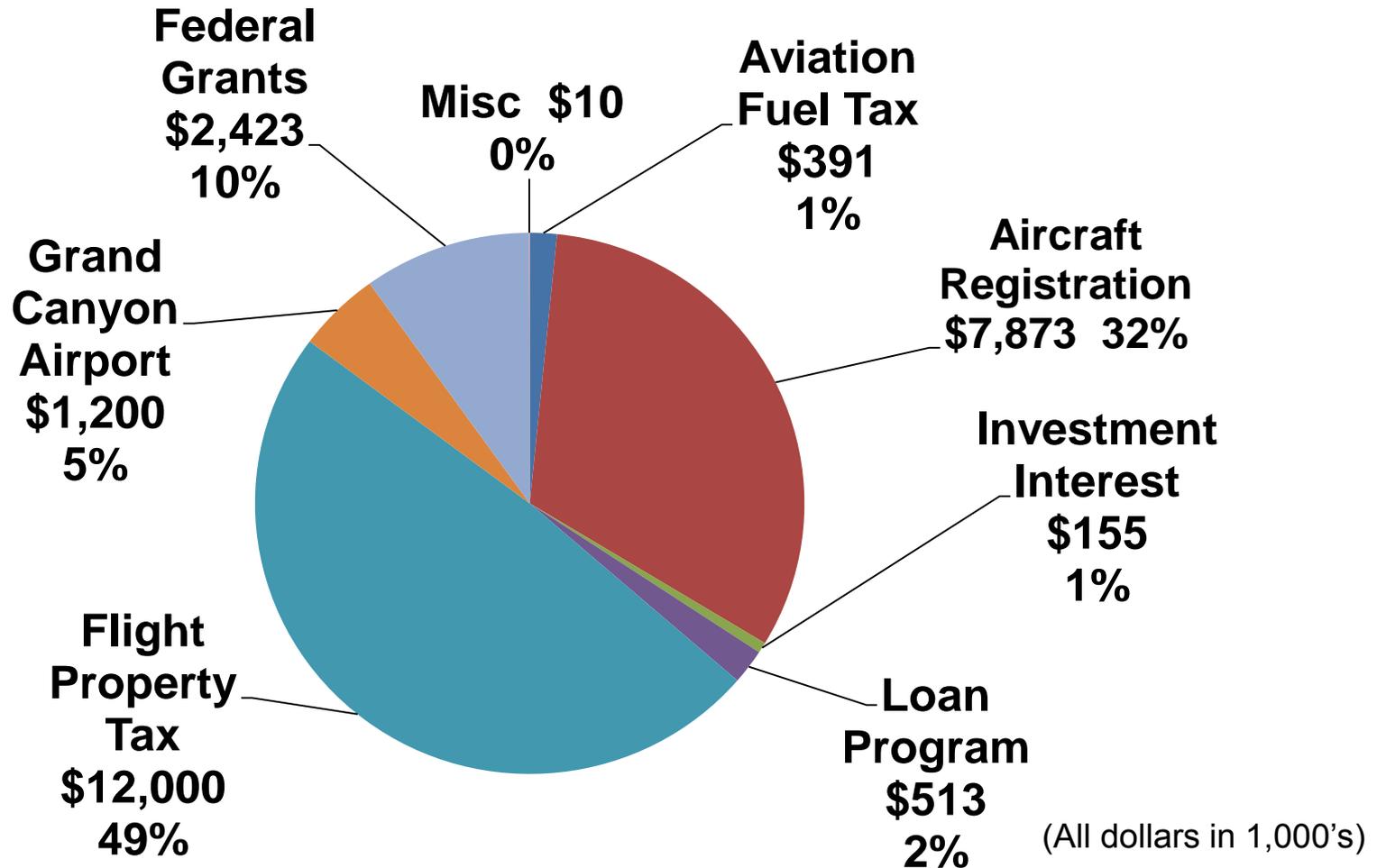
Arizona Revised Statutes

- Title 28 – Transportation, Chapter 25 - Aviation
 - ARS 28 - 8202 State Aviation Fund
 - “C. The department shall administer monies that are appropriated by the legislature from the state aviation fund.”

 - “D. The board shall distribute monies appropriated to the department from the state aviation fund...The board shall distribute these monies according to the needs for these facilities as determined by the board.”

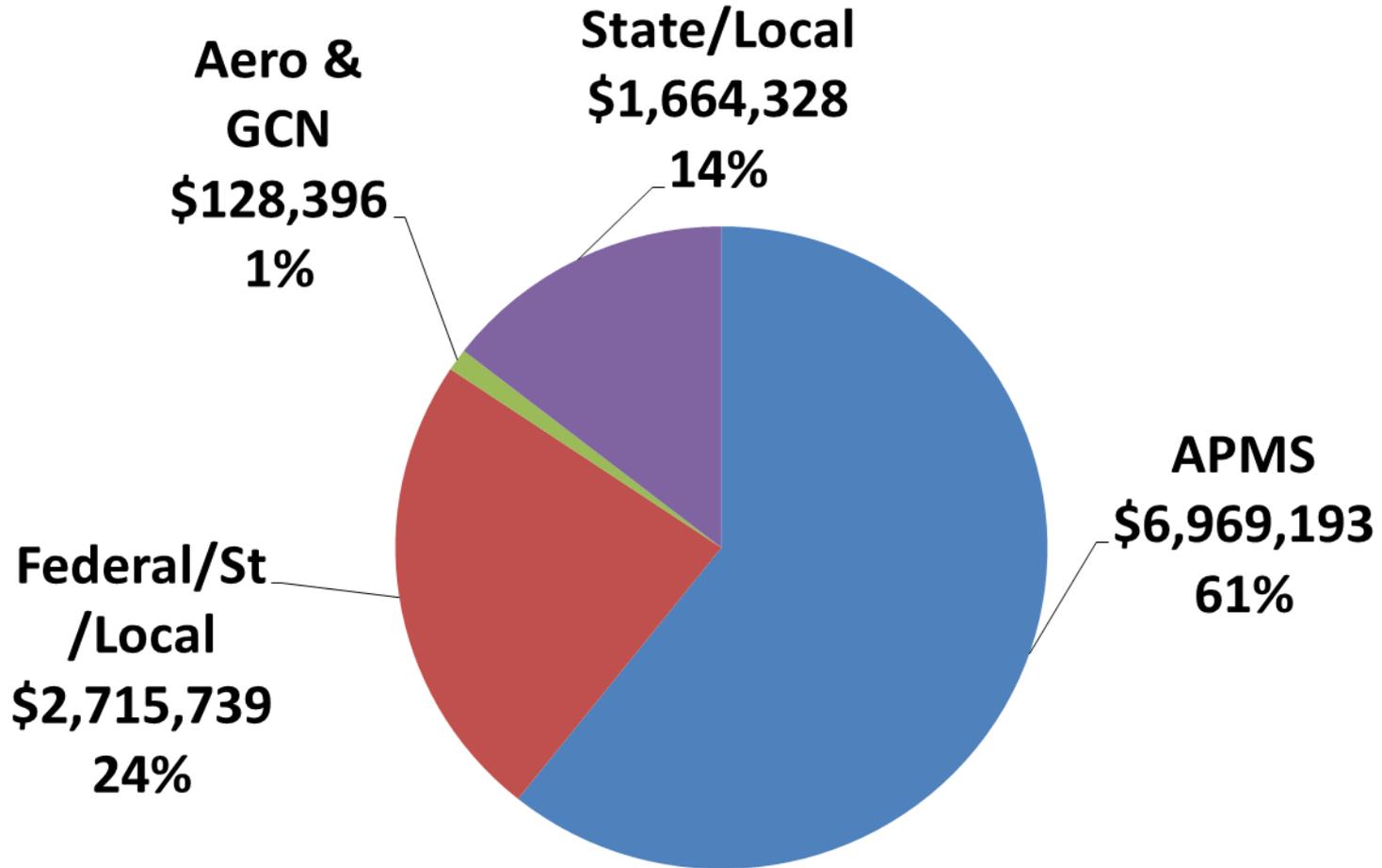
Arizona State Aviation Fund

Revenue for FY 2014 - \$24,563,000



Arizona State Aviation Fund

Expenditures for FY 2014 - \$11,478,000



(All dollars in 1,000's)

Airport Capital Improvement Program (ACIP)

Five-Year Development Program - Fiscal Year 2016

Next Steps

- ▶ Finalize Tentative 5-Year Program and present to STB; February 20, 2015
- ▶ Public Meetings
 - March 20 Tucson
 - April 17 Phoenix
 - May 15 Chino Valley
- ▶ Study Session May 26 in Phoenix
- ▶ Present Final Program to STB; June 19th for approval
- ▶ Program must be signed by Governor by June 30th
- ▶ FY 16 begins July 1st, 2015