

FY 2021 – 2025 Tentative Five Year Program

September 18, 2021

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Director for Multimodal Planning Division**

2021-2025 Tentative Program Discussion

ADOT

Background

Overview of Asset Condition

P2P Process

Tentative 5-Year Highway Delivery Program

MAG: Tentative Program

PAG: Tentative Program

Airport Program

Next Steps

Background

- Tentative Five Year Program was presented to the STB on February 21, 2020.
- Planned public hearings for March and April were canceled due to Covid-19 restrictions.
- Revenues and future projections dramatically changed with Covid-19 restrictions.
- Recommended revisions to Tentative Five Year Program initiated with revised revenue projections.
- With revised revenue projections, recommended Tentative Five Year Program is being presented for public hearing approval.
- Projected approval of the Five Year Program scheduled for October 27th.
- Must be fiscally constrained – STB Five Year Program

Overview of Asset Condition

ADOT



\$22.9 Billion = Value of State Highway System Infrastructure

ADOT

\$22.9 Billion



Without a commitment to preservation, the system would cost \$300 billion to replace.

Bridge Ratings

Good: Primary structural components have no problems or only very minor deterioration.

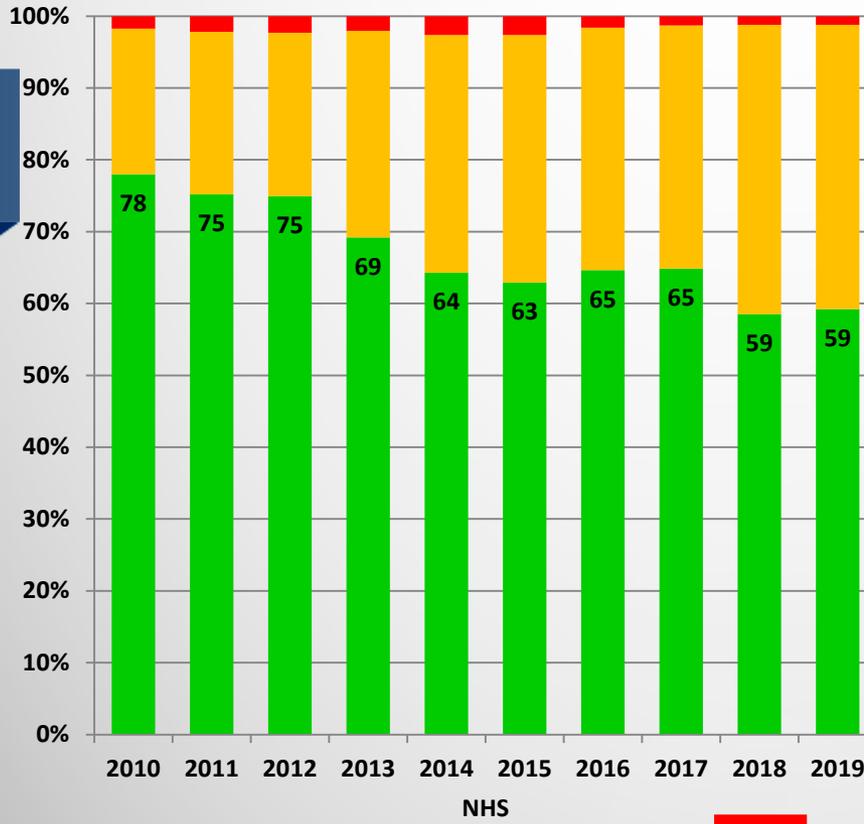
Fair: Primary structural components are sound but have some concrete deterioration or erosion around piers or abutments caused by flowing water (scour).

Poor: Advanced concrete deterioration, scour or seriously affected primary structural components. A poor condition bridge is not unsafe. Unsafe bridges are closed.

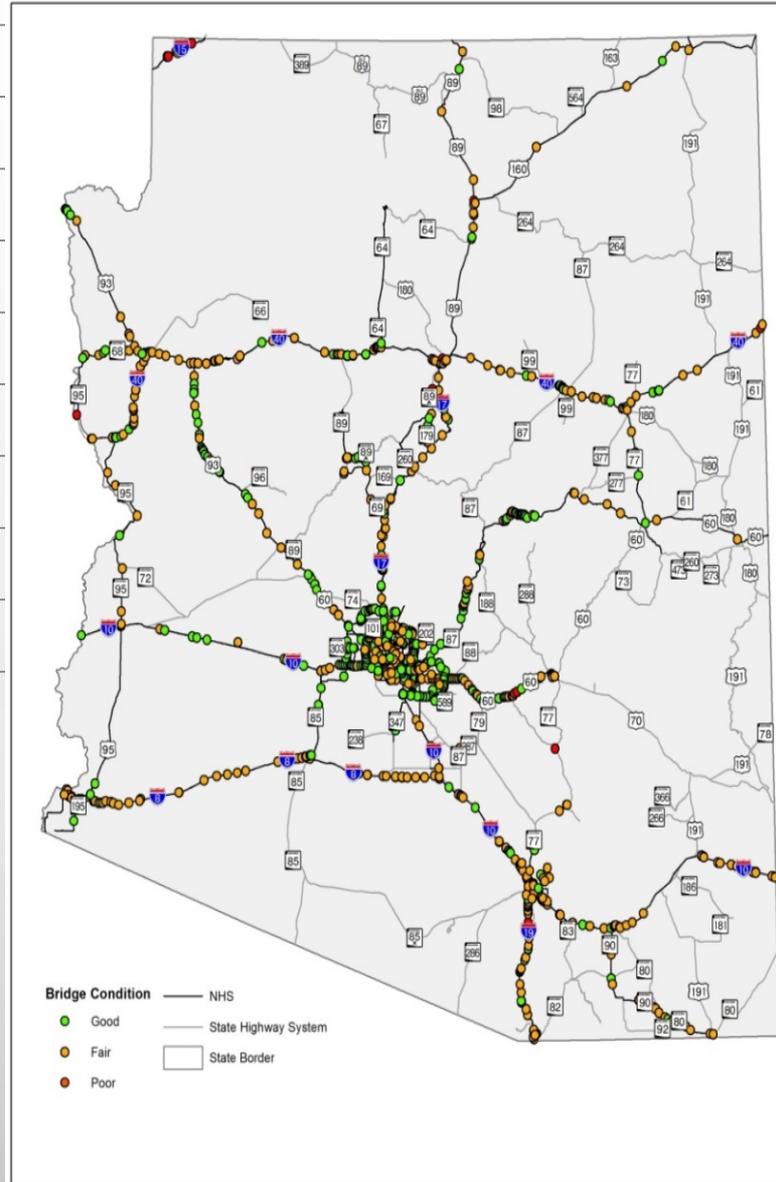
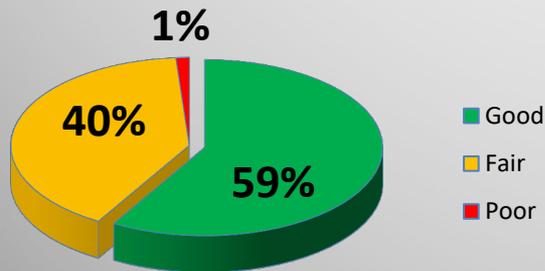
ADOT

Bridge Condition

59% Good



2019 Bridge Condition



Pavement Ratings

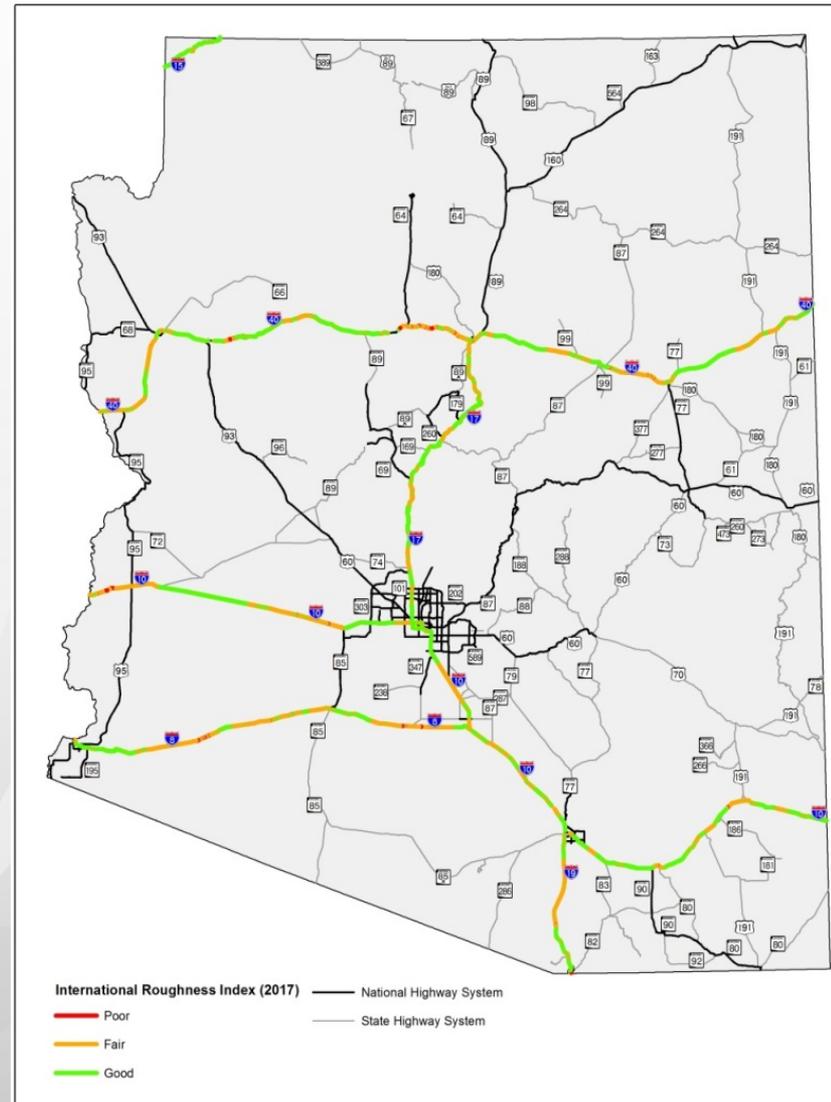
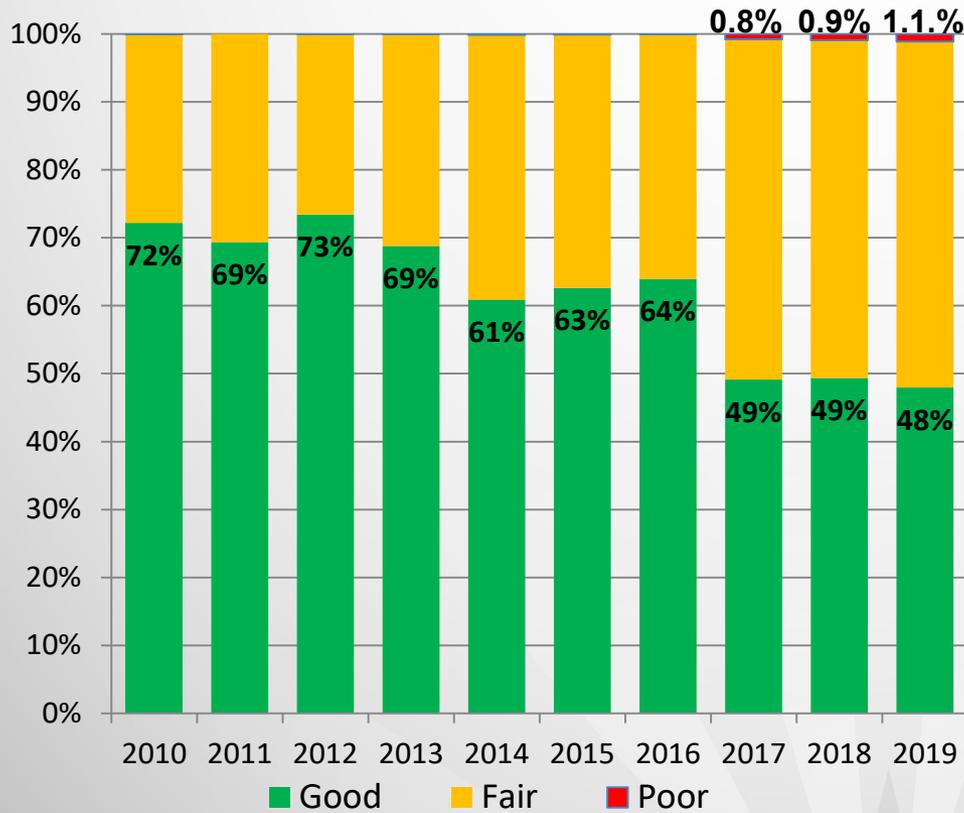
Good – Smooth road surface, with little cracking and no ruts or potholes.

Fair – Moderate amounts of cracking that lead to increased roughness of the road surface. Shallow ruts in the wheel path.

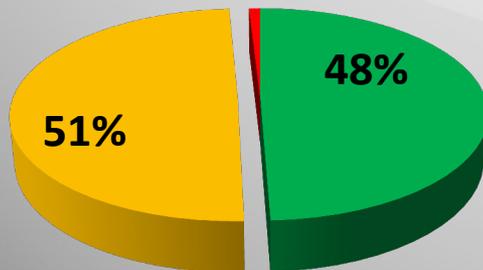
Poor – Numerous cracks, rough road surface, ruts in the wheel path, potholes and disintegration of the road surface.

Pavement Condition: Interstate

48% Good



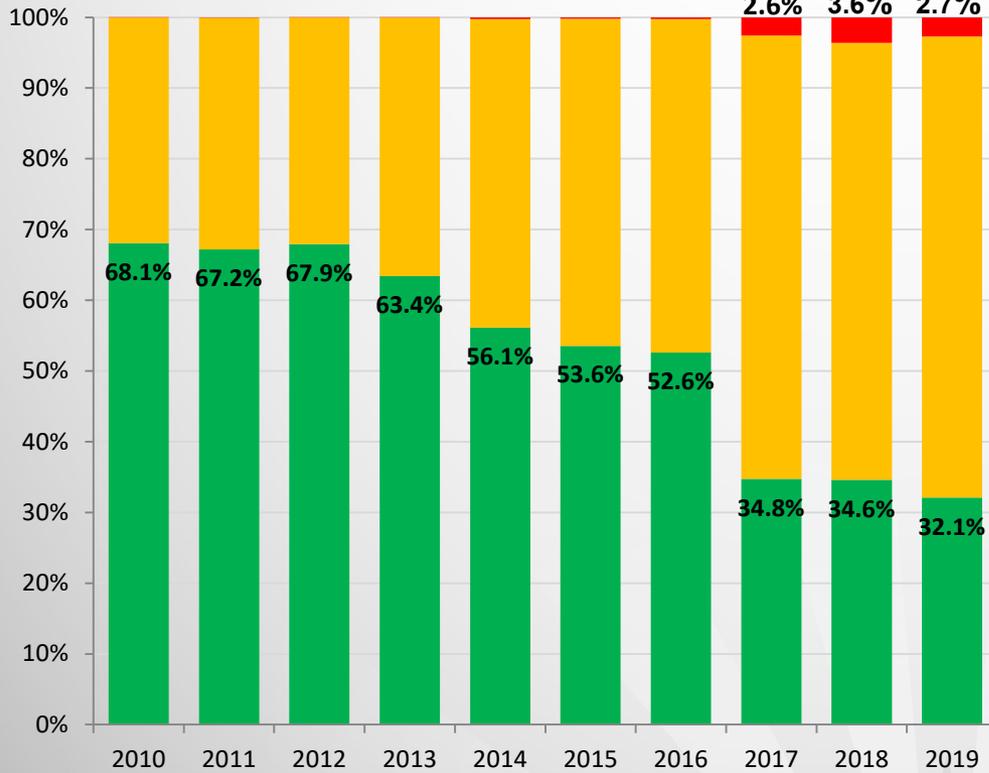
2019 Pavement Condition



Good Fair Poor

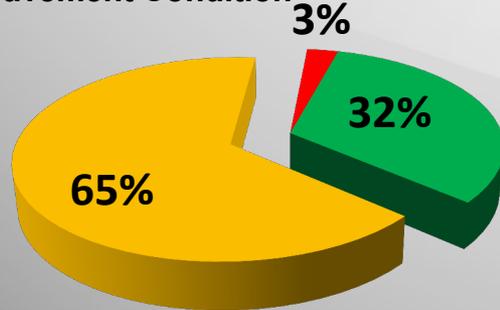


Non-Interstate NHS Condition



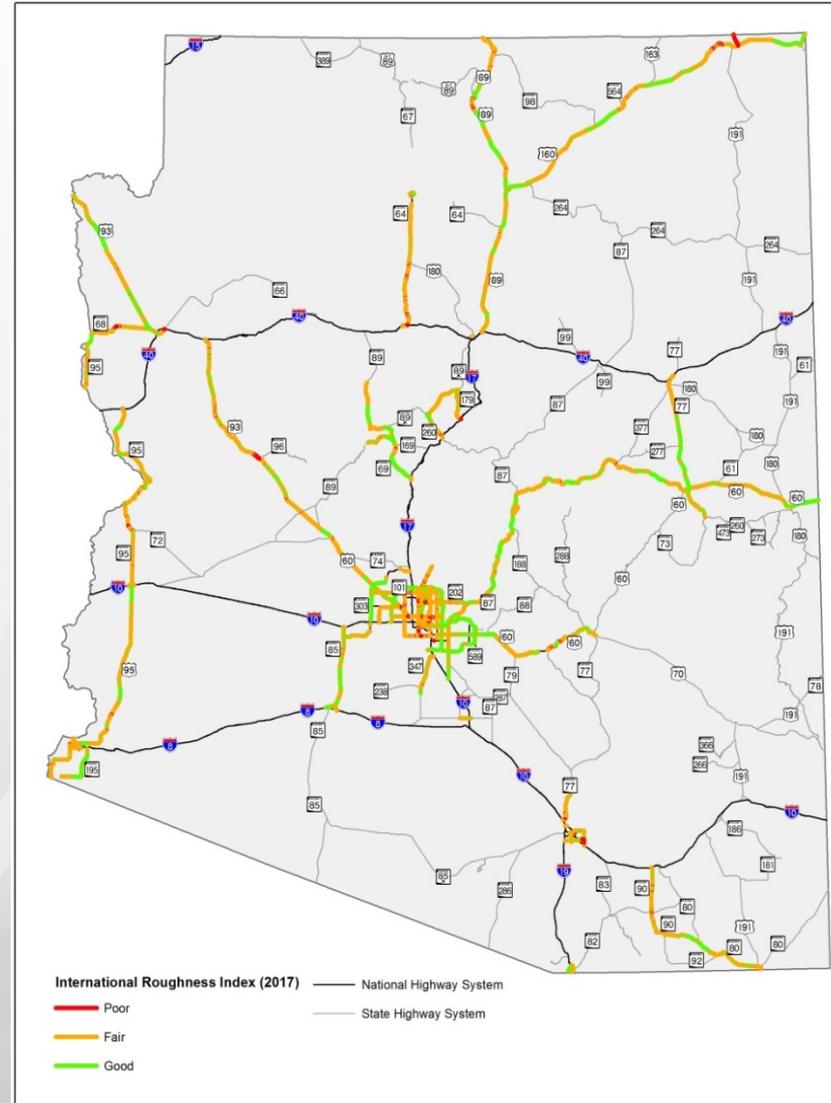
Good Fair Poor

2019 Pavement Condition



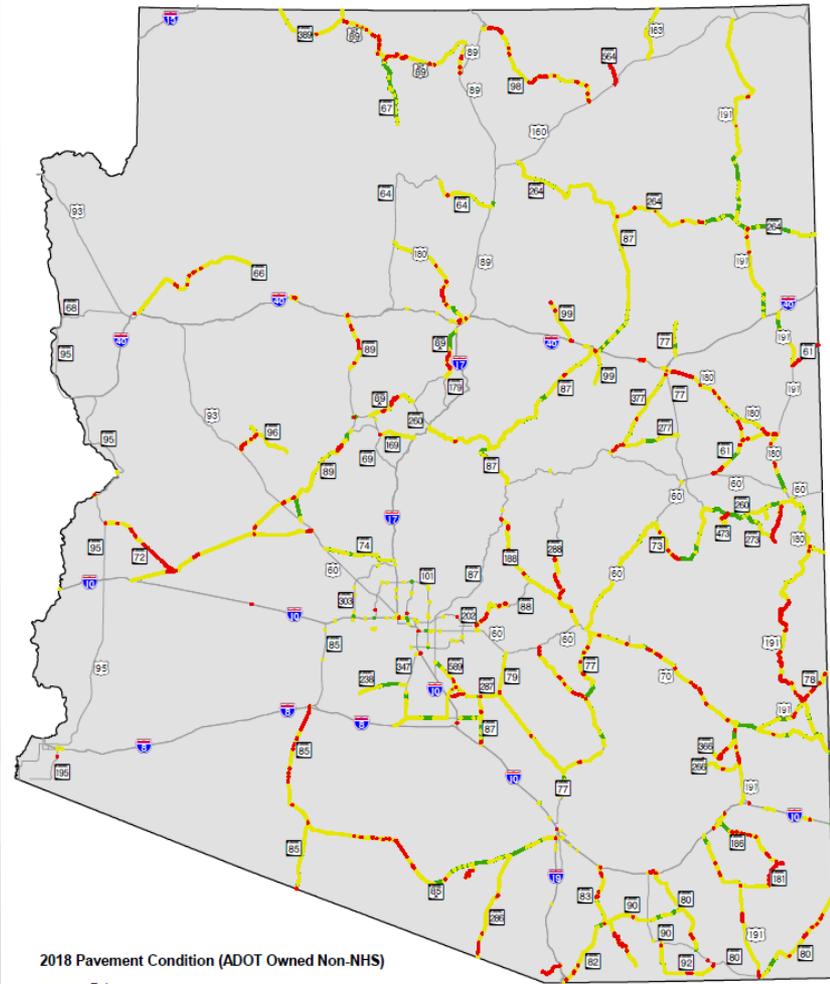
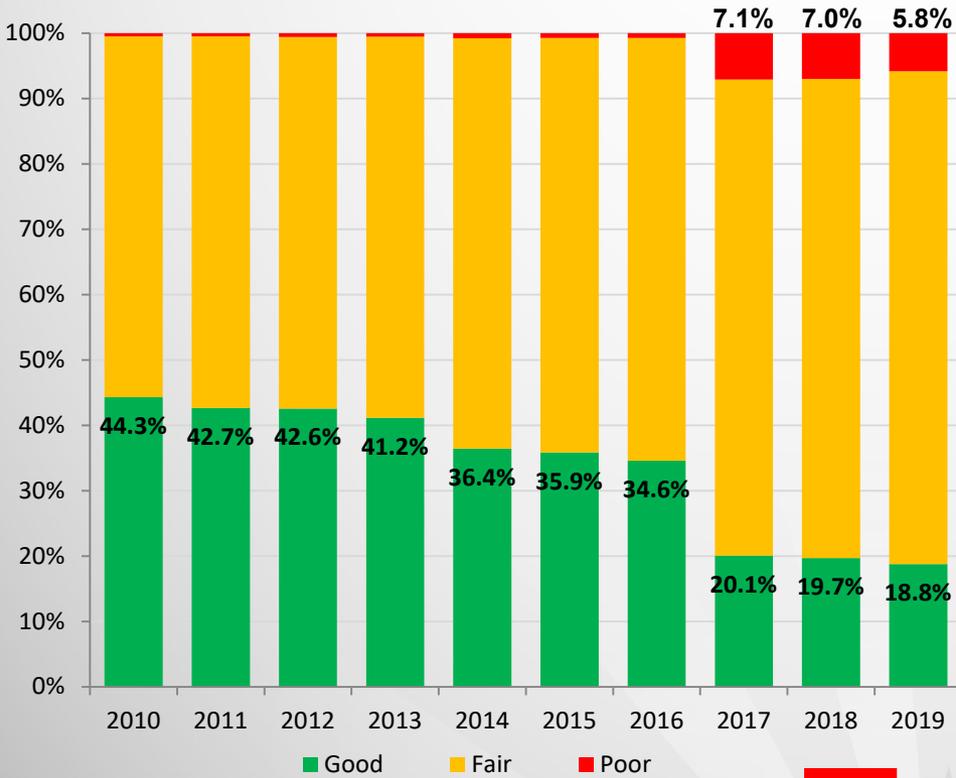
Good Fair Poor

32% Good

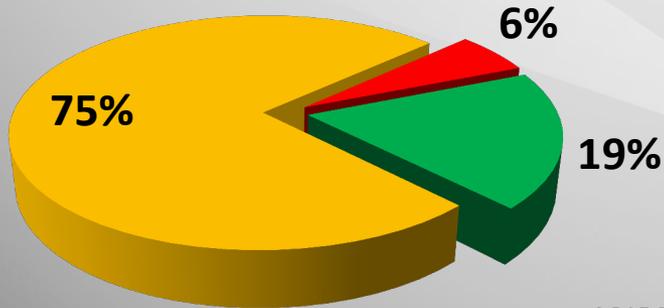


Pavement Condition: Non-NHS

19% Good



2019 Pavement Condition



Good Fair Poor

WMYA 2040

Categories of Highway Need/Investment



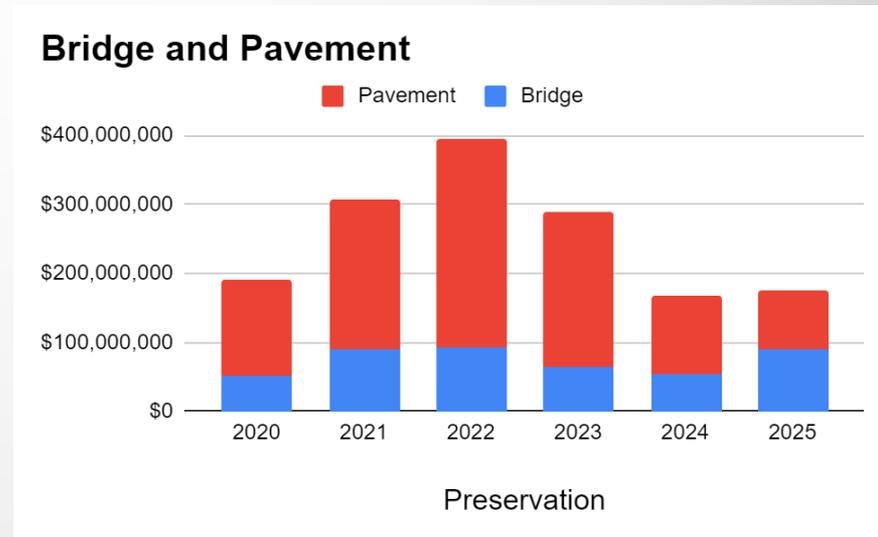
- ▶ ***Preservation:*** Investment to keep pavement smooth and maintain bridges
- ▶ ***Modernization:*** Non-capacity investment that improves safety & operations (e.g. adding shoulders or smart technology)
- ▶ ***Expansion:*** Investment that adds capacity to the highway system (e.g. new roads, added lanes or new interchanges)

Bridge and Pavement Preservation



Maintaining Current Conditions

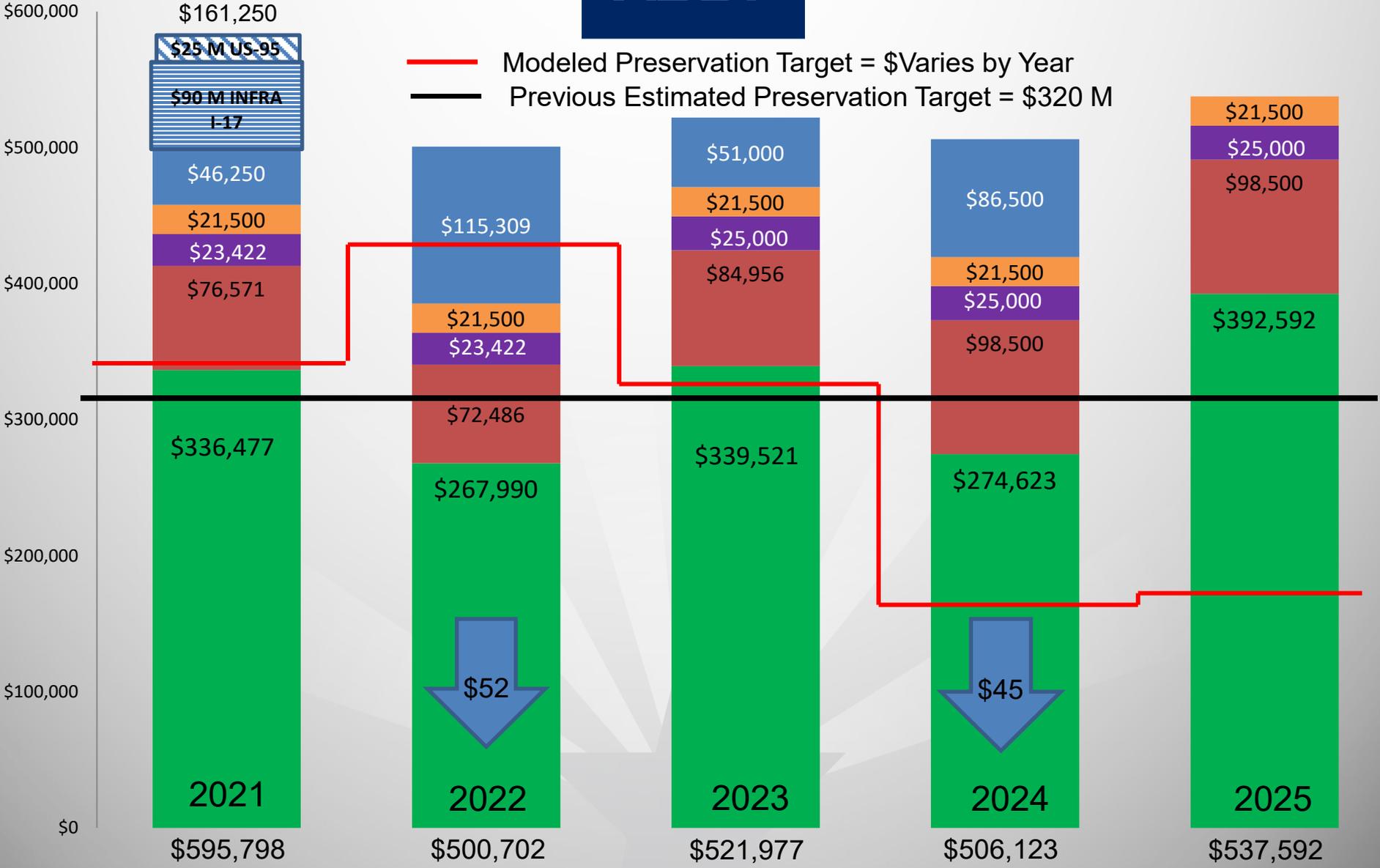
Combining the Pavement and Bridge preservation values for maintaining current conditions (2019/2018), and adding 15% for development and construction management costs gives the following.



Preservation	2020	2021	2022	2023	2024	2025
Bridge	\$51,622,910	\$89,643,000	\$91,701,000	\$63,750,000	\$53,000,000	\$90,000,000
Pavement	\$139,501,330	\$218,557,644	\$303,663,306	\$226,529,401	\$114,932,798	\$84,799,911
Sub-Total	\$191,124,240	\$308,200,644	\$395,364,306	\$290,279,401	\$167,932,798	\$174,799,911
Development @ 15%	\$28,668,636	\$46,230,097	\$59,304,646	\$43,541,910	\$25,189,920	\$26,219,987
Total	\$219,792,876	\$354,430,741	\$454,668,952	\$333,821,311	\$193,122,718	\$201,019,898

To bring all system roadways into good condition would cost \$4.2 Billion

(Construction cost only, using 2020 unit costs)



\$161,250

\$25 M US-95
\$90 M INFRA I-17

— Modeled Preservation Target = \$Varies by Year
— Previous Estimated Preservation Target = \$320 M

\$46,250

\$21,500

\$23,422

\$76,571

\$336,477

2021

\$595,798

\$115,309

\$21,500

\$23,422

\$72,486

\$267,990

2022

\$500,702

\$52

\$51,000

\$21,500

\$25,000

\$84,956

\$339,521

2023

\$521,977

\$86,500

\$21,500

\$25,000

\$98,500

\$274,623

2024

\$506,123

\$45

\$21,500

\$25,000

\$98,500

\$392,592

2025

\$537,592

■ Statewide Preservation ■ Statewide Modernization ■ Statewide Project Development ■ Statewide Planning ■ Expansion for Greater Arizona

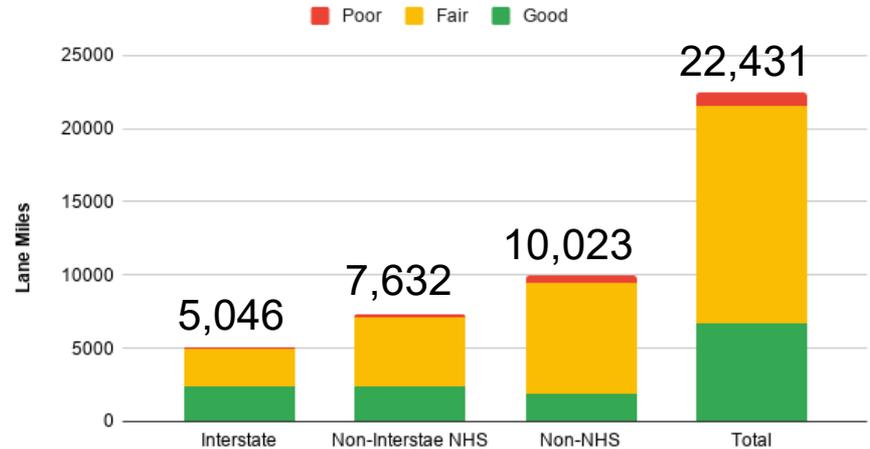
System Pavement Preservation



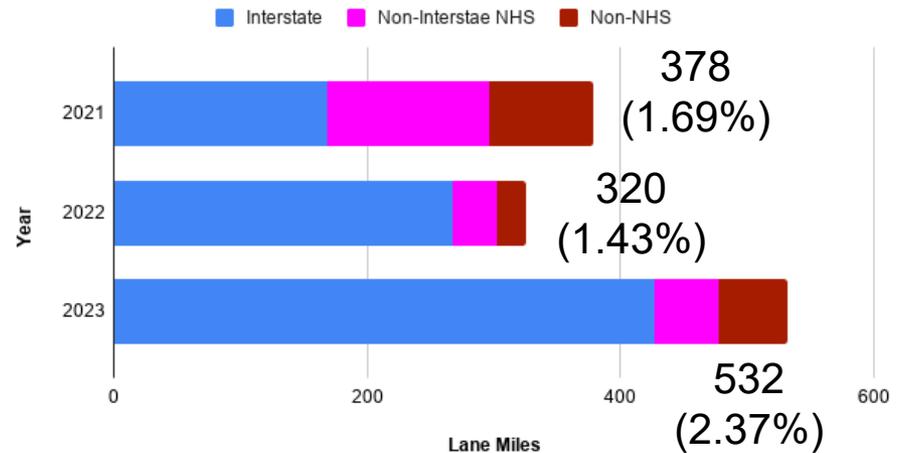
2019 Pavement condition information was extracted from the 2019 HPMS submittal to FHWA.

The Lane Miles represented, consist of projects listed in the tentative 5 Year Program, and do not include sub-program funding. Percentage indicated percent of total system lane miles programmed for preservation.

2019 Pavement Condition by Lane Miles



Programmed Pavement Preservation (2021-2025)



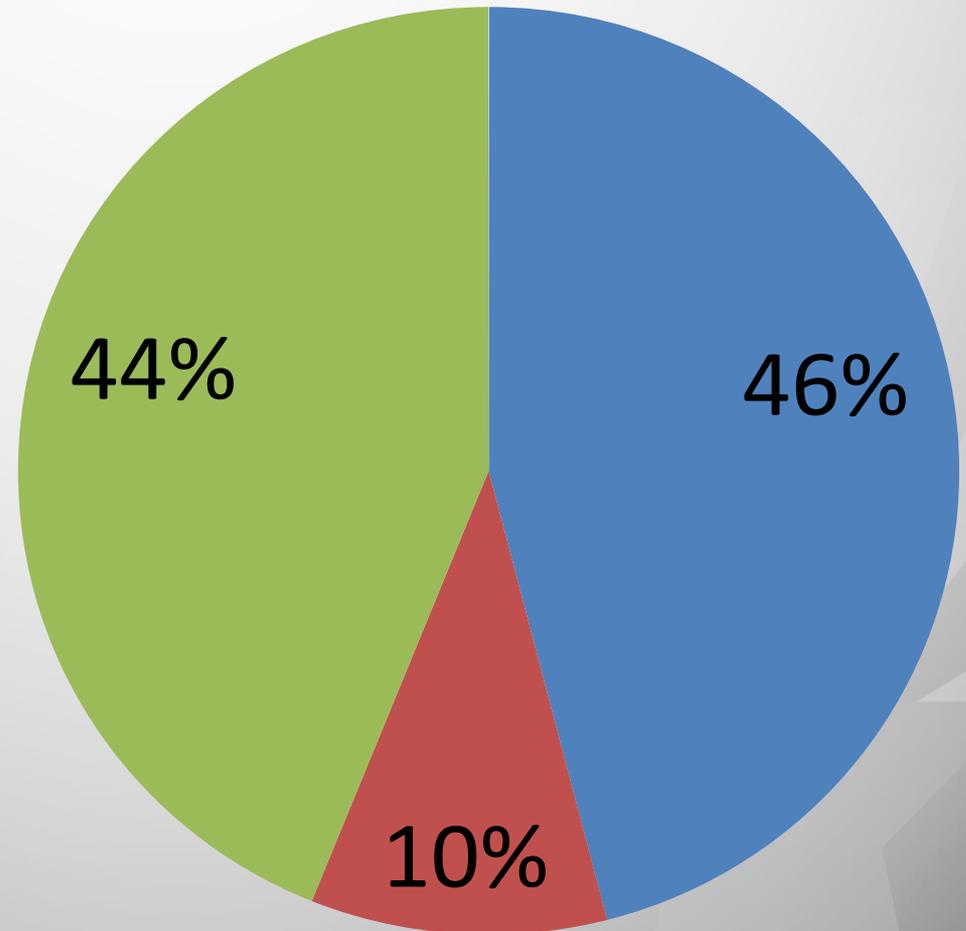
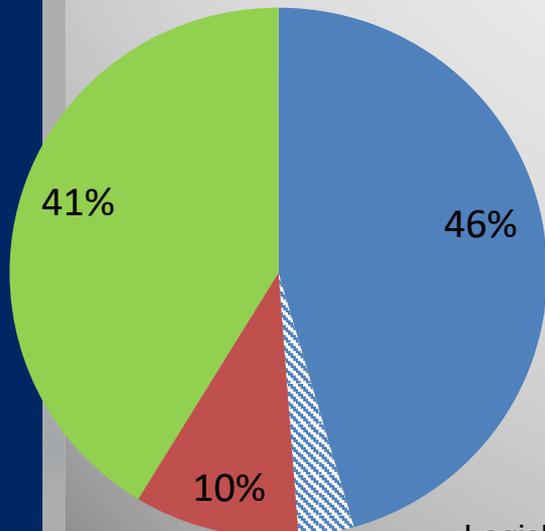
A minimum of 5% per year is needed to maintain existing conditions.

Includes MAG & PAG Funding



2021-2025 Tentative Facilities Construction Program

2020-2024 Facilities Construction Program



Legislative Appropriation

Expansion

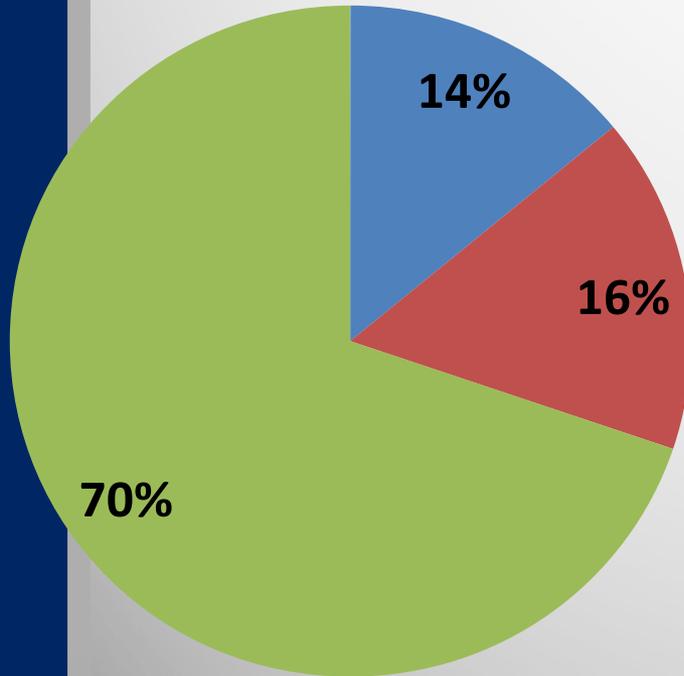
Modernization

Preservation

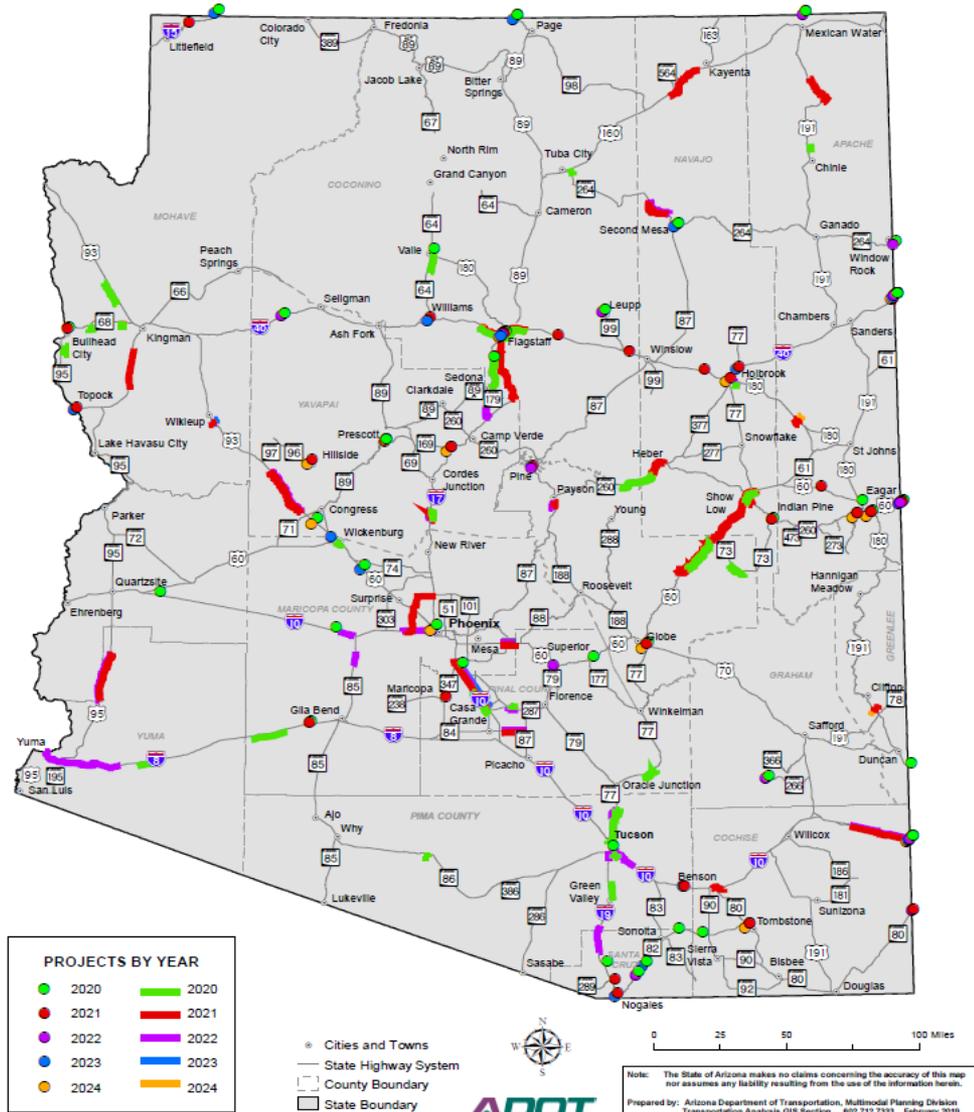
Greater Arizona Tentative 5-Year Highway Delivery Program (FY21-FY25)



Greater Arizona



■ Expansion
 ■ Modernization
 ■ Preservation



FY21 Expansion Construction Projects – \$160.0M

ADOT

\$25 M US-95

\$90 M INFRA I-17

\$46,250

\$21,500

\$23,422

\$76,571

\$336,477

2021

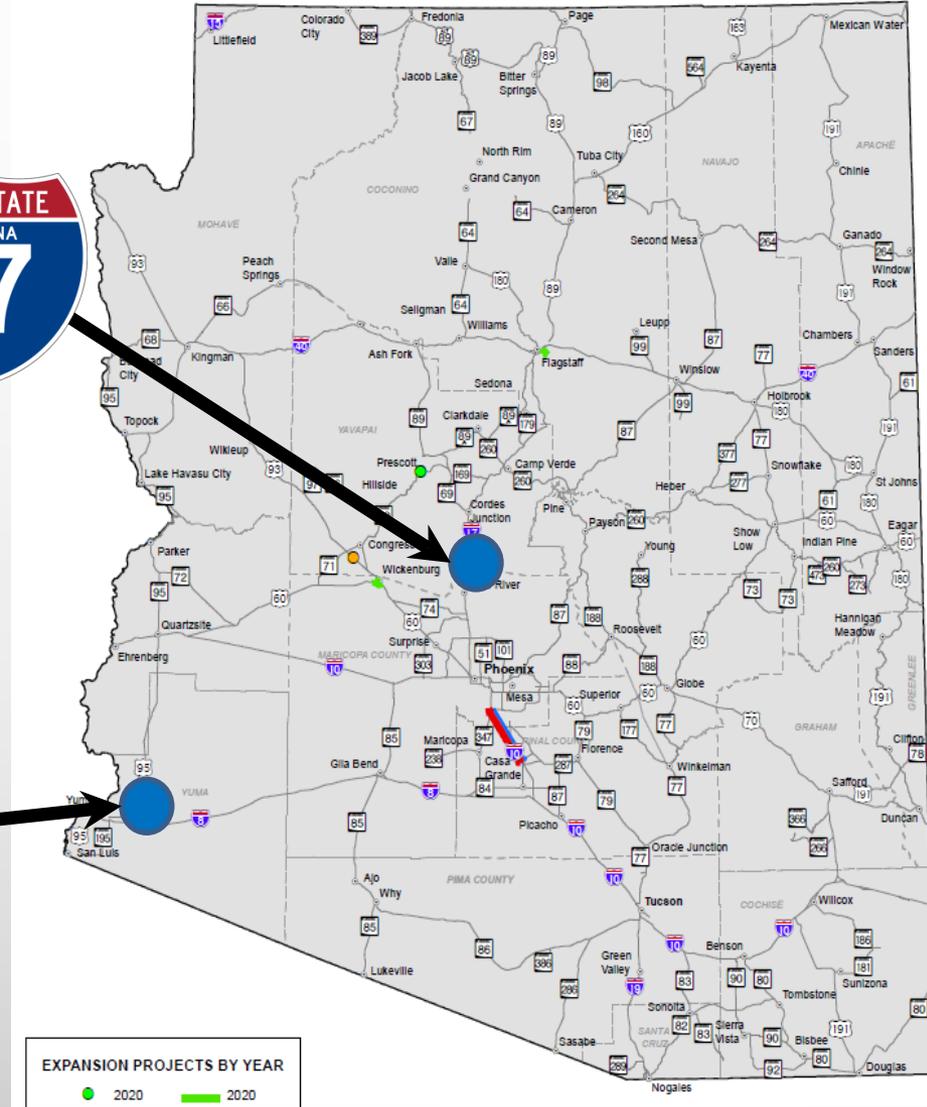
\$135M; I-17 Anthem Way – Cordes Jct.



\$25M; US-95 Ave 9E to Fortuna Wash (Expansion)



- Expansion Projects
- Planning Costs
- Development Costs
- Modernization Projects
- Preservation Projects



FY22 Expansion Construction Projects - \$107.3

ADOT

\$113,309

\$21,500

\$23,422

\$72,486

\$269,990

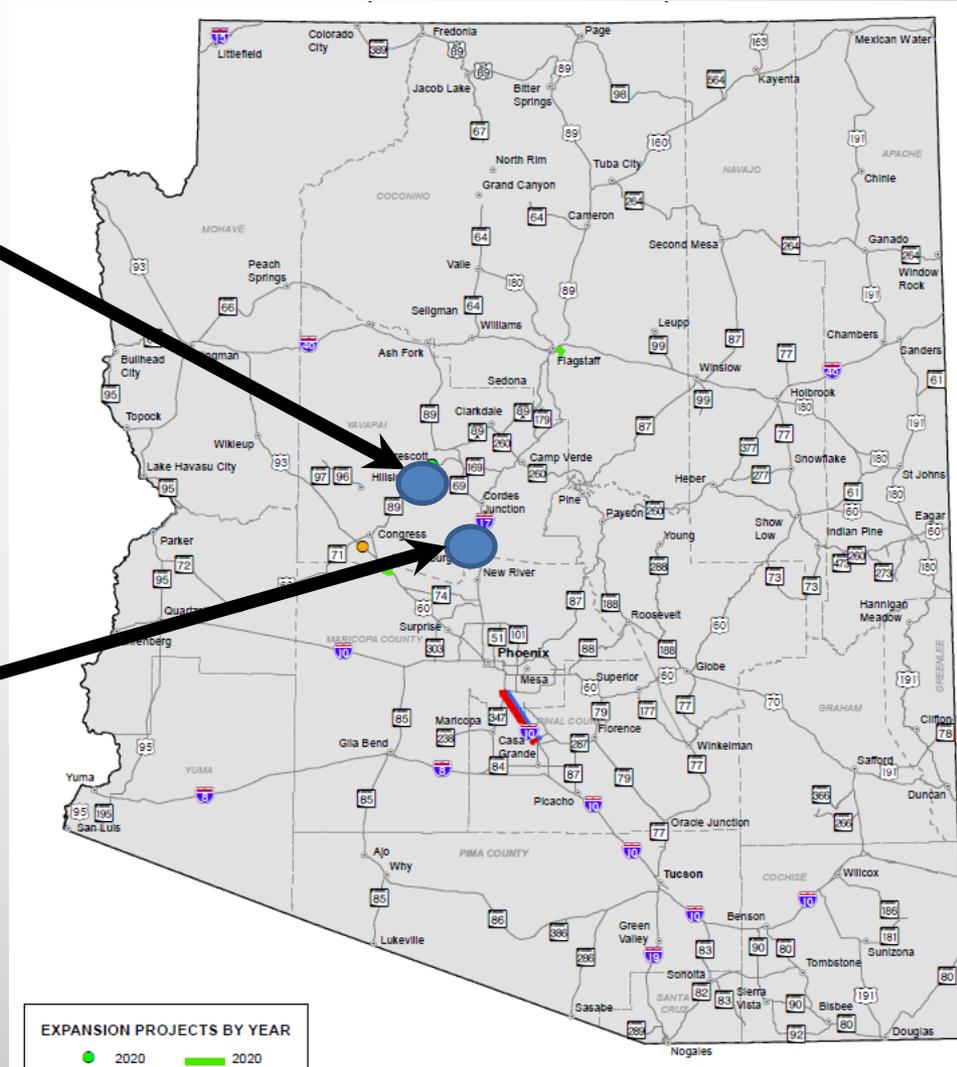
\$10M; Prescott Lakes Parkway – Frontier Village



\$97.3 I-17 Anthem Way – Cordes Jct.



- Expansion Projects
- Planning Costs
- Development Costs
- Modernization Projects
- Preservation Projects



FY23 Expansion Construction Projects – \$50M

ADOT

\$51,000

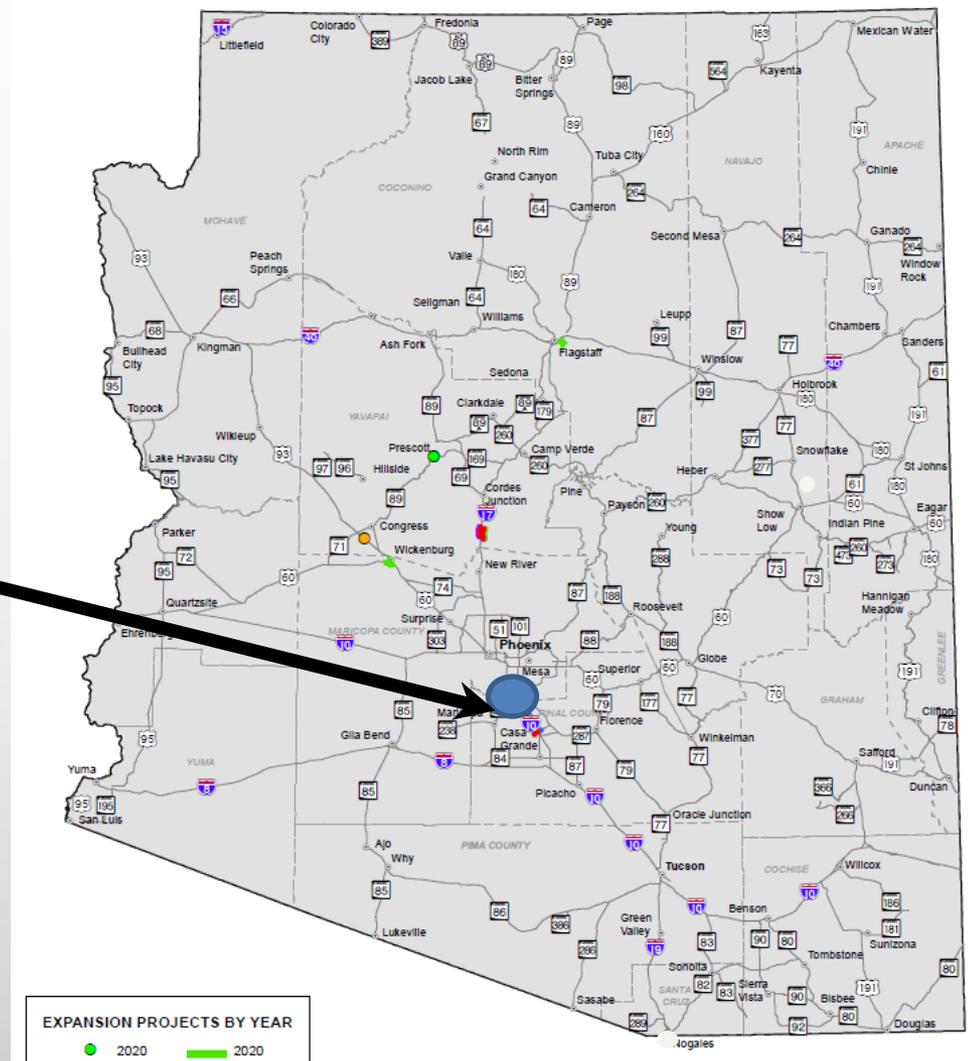
\$21,500

\$25,000

\$84,956

\$339,521

**\$50M; I-10 1st
Segment Phoenix
to Casa Grande**



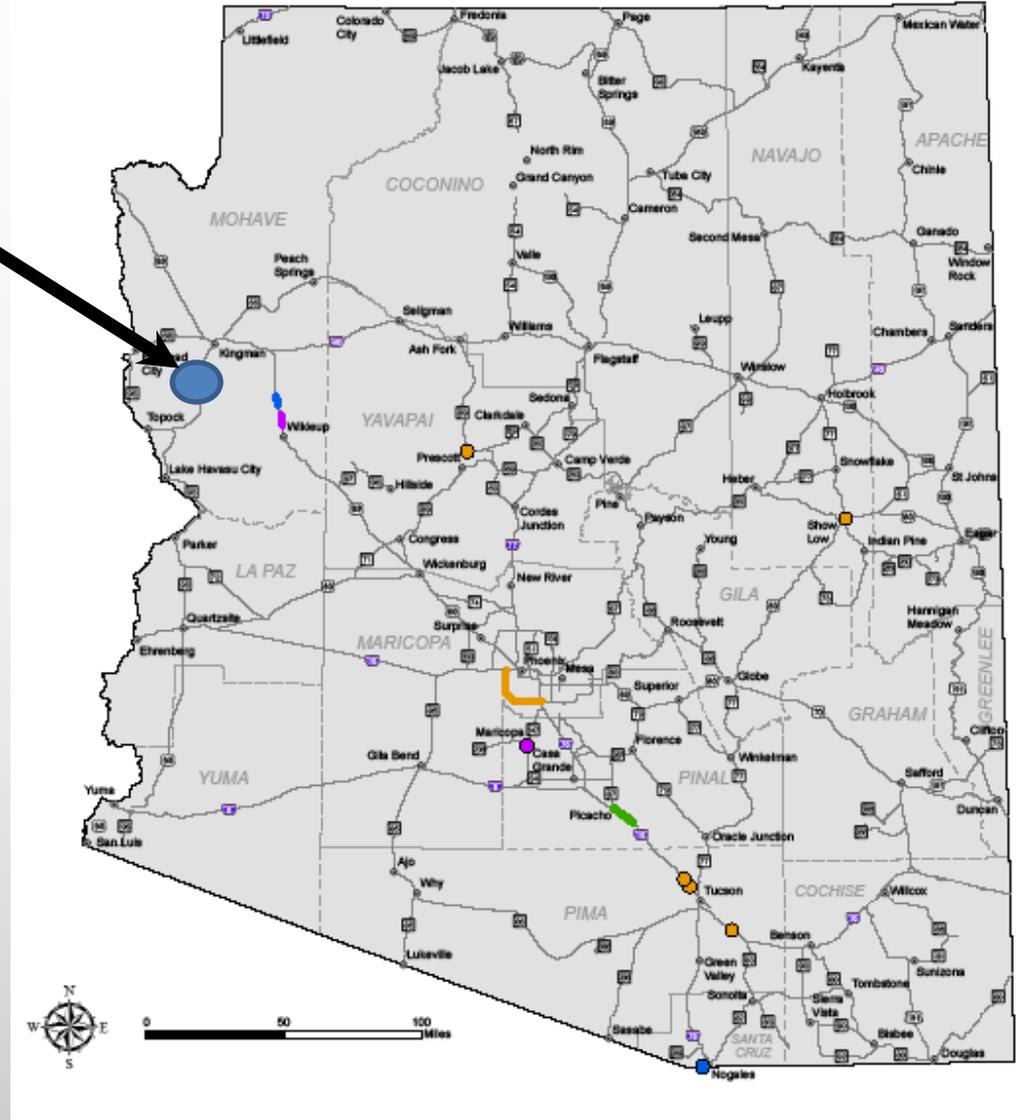
- Expansion Projects
- Planning Costs
- Development Costs
- Modernization Projects
- Preservation Projects

FY24 Expansion Construction Projects – \$70M

ADOT



**\$70M; I-40/US-93
West Kingman
T.I**



- Expansion Projects
- Planning Costs
- Development Costs
- Modernization Projects
- Preservation Projects

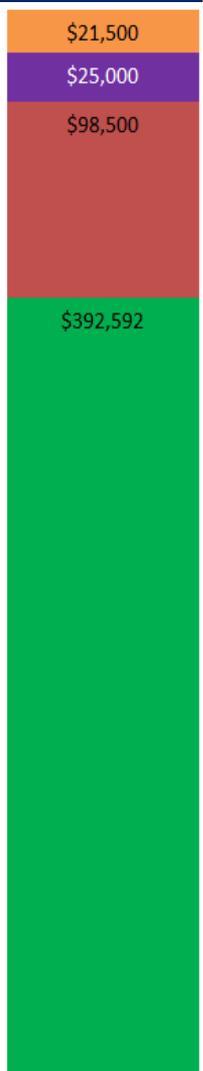
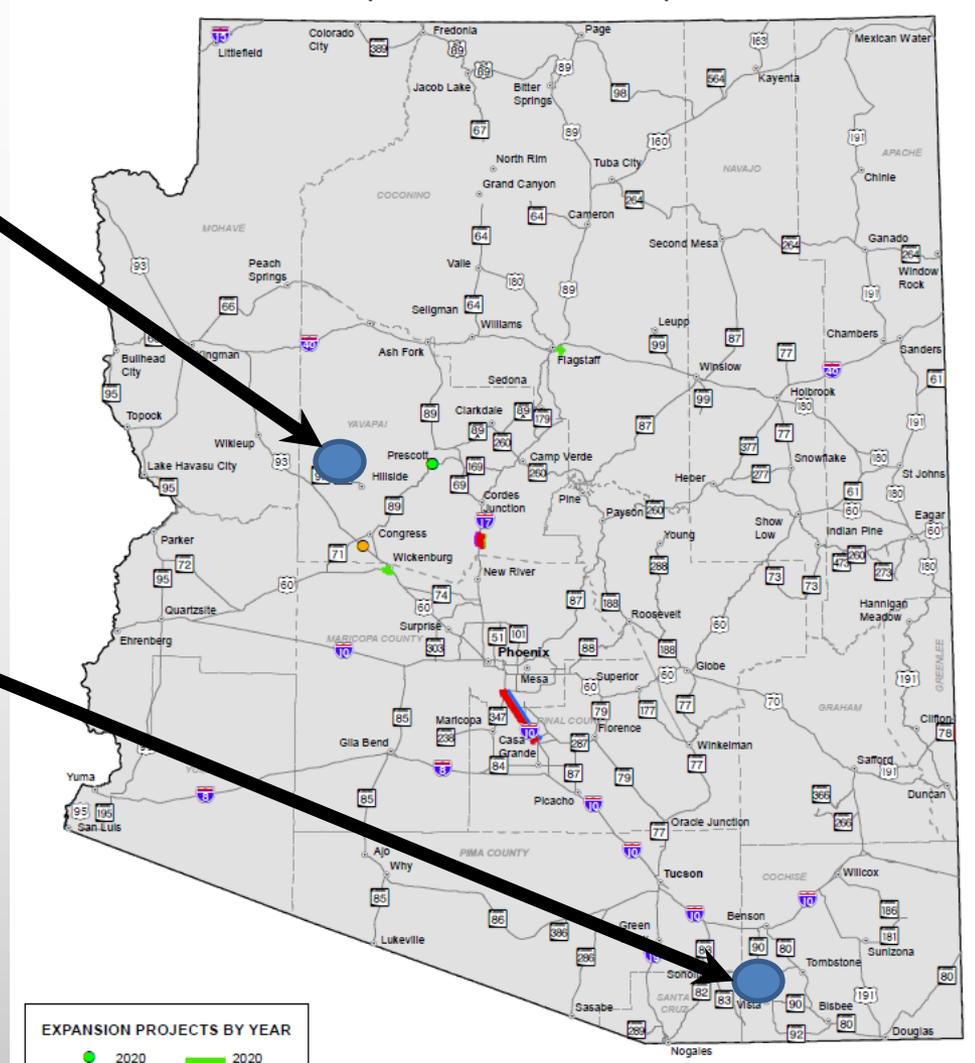
FY 2025 Expansion Construction Projects - \$0M

ADOT

\$7M; Santa Maria River Bridge(Preservation)



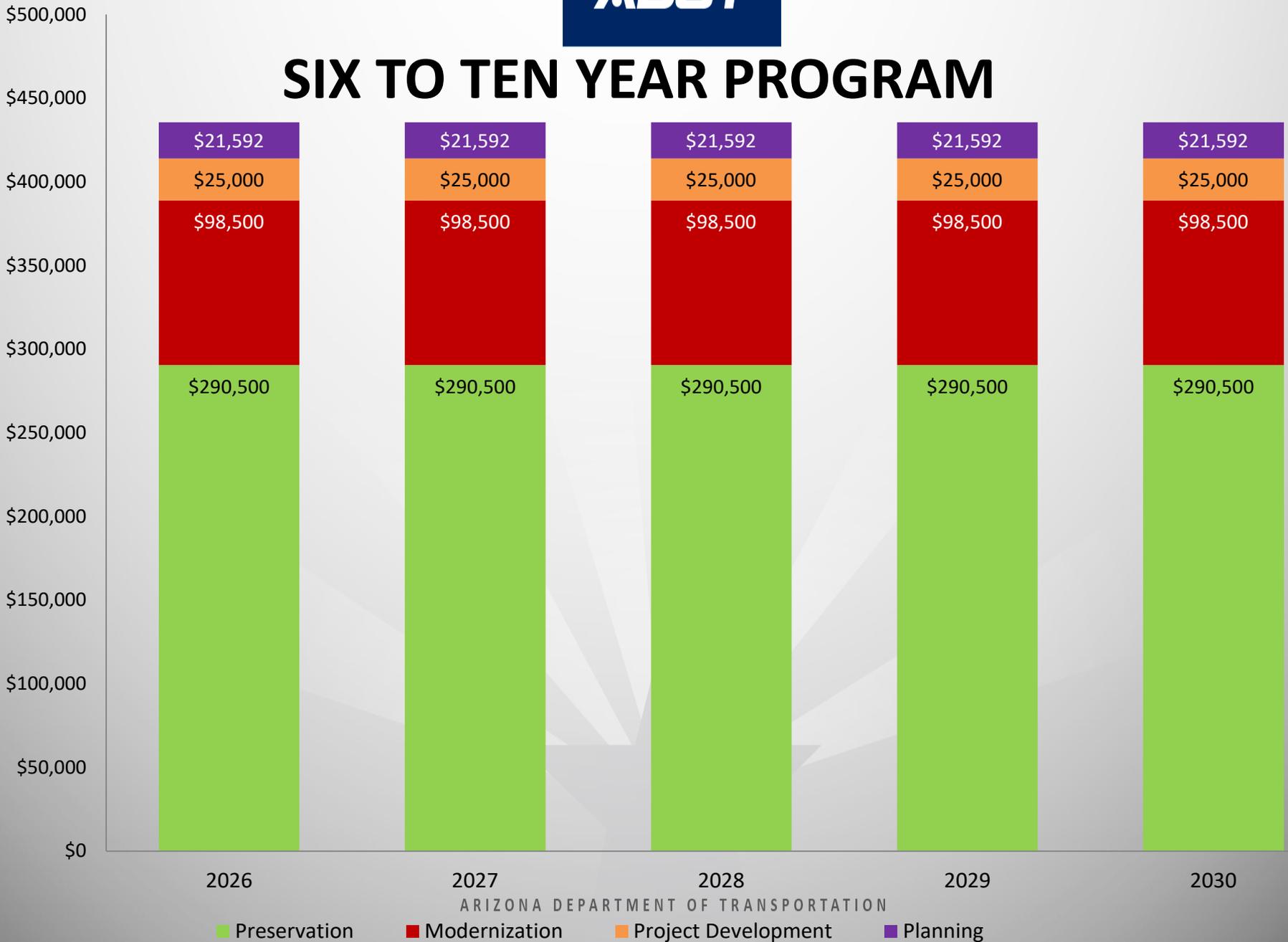
\$7M; San Pedro River Bridge (Preservation)



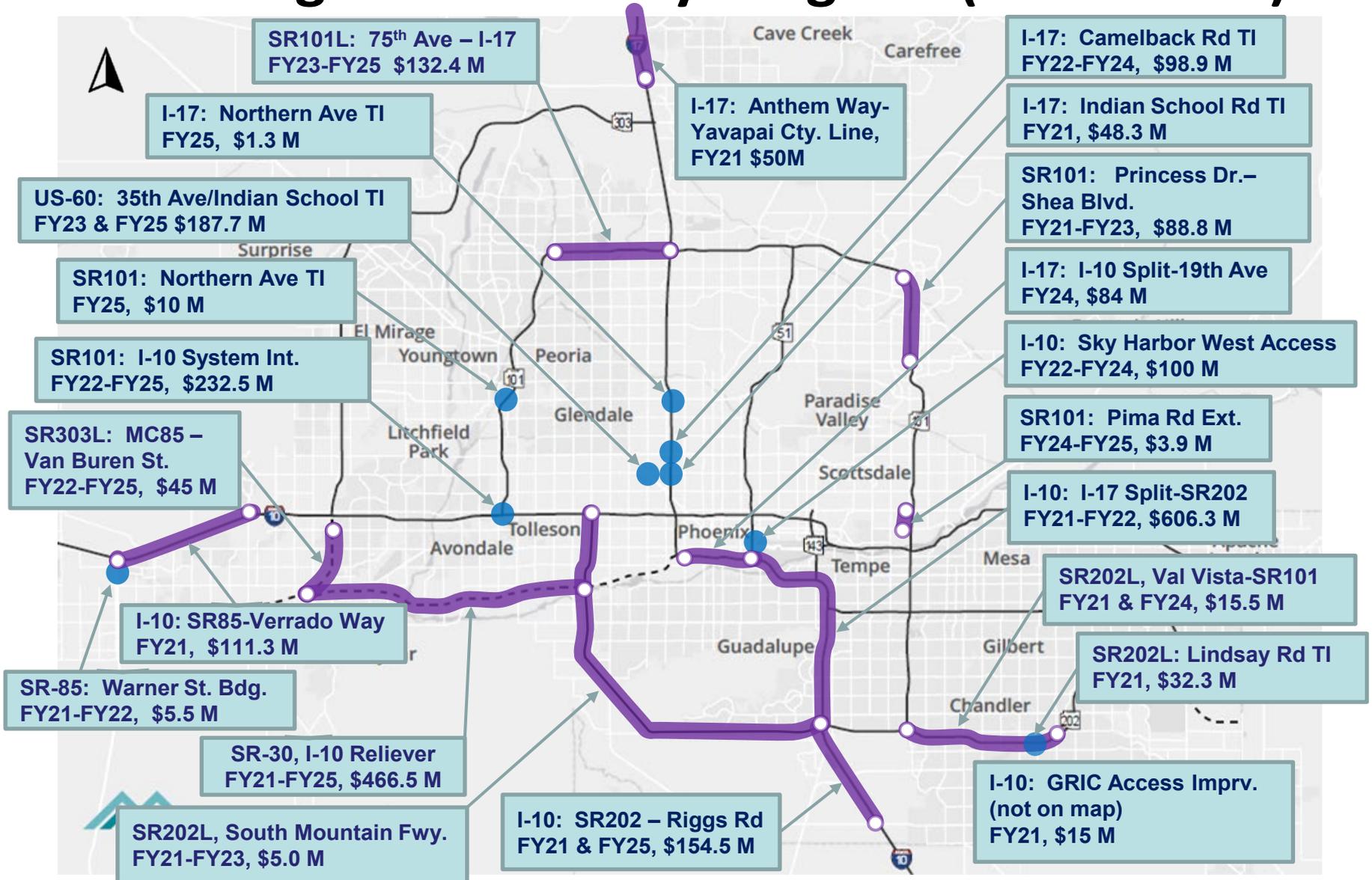
- Expansion Projects
- Planning Costs
- Development Costs
- Modernization Projects
- Preservation Projects

EXPANSION PROJECTS BY YEAR
 ● 2020
 ■ 2025

SIX TO TEN YEAR PROGRAM



MAG Regional Freeway Program (FY21- FY25)



PAG Tentative Program (FY21- FY25)

I-10 Ina to Ruthrauff \$109.2M FY 22

SR-77 I-10 – River \$1M FY 21

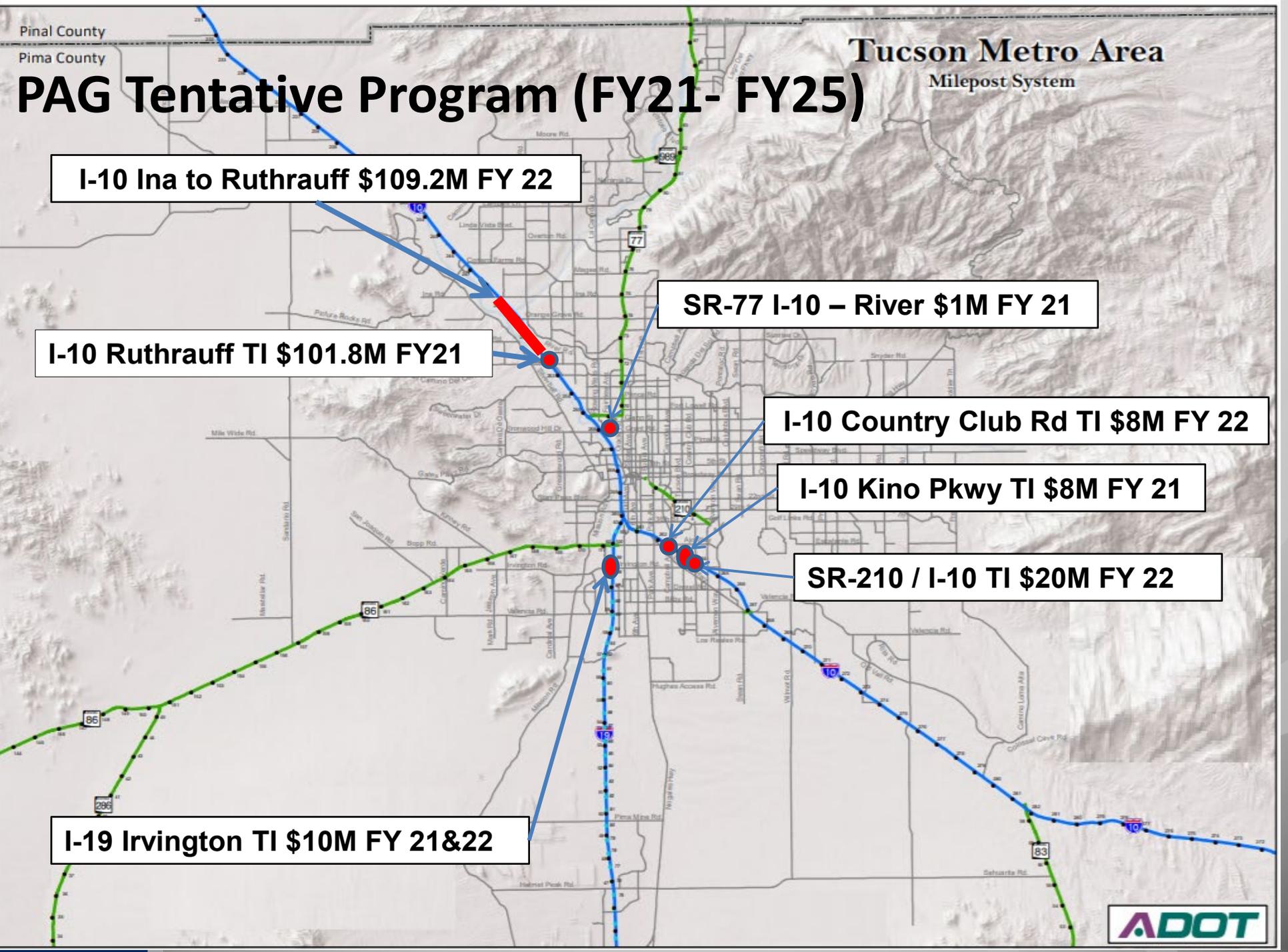
I-10 Ruthrauff TI \$101.8M FY21

I-10 Country Club Rd TI \$8M FY 22

I-10 Kino Pkwy TI \$8M FY 21

SR-210 / I-10 TI \$20M FY 22

I-19 Irvington TI \$10M FY 21&22



2021-2025

Five-Year Transportation
Facilities Construction Program

TENTATIVE

Airport Capital Improvement Program



Airport Capital Improvement Program (ACIP)



Five-Year Development Program – Fiscal Year 2021

Program	Amount
Federal/State/Local match (FSL)	\$0
State/Local (SL)	\$15,000,000
Airport Pavement Preservation (APMS)	\$7,000,000
Airport Development Loans	\$0
Grand Canyon Airport	\$15,000,000
State Planning Services	\$1,150,000
Total Airport Capital Improvement Program	\$38,150,000

Next Steps

ADOT

**State Transportation Board September 15
(Approved Tentative Program for Public Hearings)**

Public Comment Period and Hearings

- **September 18 – October 27 (Virtual)**
- **October 16 - Meeting/Study Session (Virtual)**

Final Program to STB; October 27 (Virtual)

Questions?

Motion to approve the Tentative 2021-2025 Five Year Transportation Facilities Construction Program for Public Hearings and Comments