

For information and discussion.

Interstate 10/ Interstate 17 Corridor Master Plan Update

Streets Committee

August 11, 2015



Interstate 10/Interstate 17 a.k.a. “The Spine”

- Total Regional Transportation Plan funding of **\$1.47 billion**.
- **35-mile corridor** from the North Stack (Interstate 17/Loop 101) to the Pecos Stack (Interstate 10/Loop 202).
- MAG member agencies of **Chandler, Guadalupe, Phoenix, and Tempe**.
- About **40% of the daily freeway trips** in Metro Phoenix use some portion of the corridor.



Path Forward Defined

OUTCOME OF JOINT MEETING – OCTOBER 31, 2012



- Immediate Needs addressing bottlenecks.
- Within ADOT Rights-of-Way (ROW).
- Near Term Construction.



- Joint Project Management.
- MAG Procurement.
- **Identify Corridor Operating Principles.**
- **Coordinate with Stakeholders.**
- Frame next environmental and design efforts.



- Joint Project Management.
- ADOT Procurement.
- **Multiple Studies and Efforts.**
- Consistent with Corridor Master Plan.



- Implementation.

Corridor Master Plan Overview



Initiate Project

- Project Management Plan
- Public Involvement Plan
- Controlling Design Criteria and Design Exception/Variance Procedures.

Conduct Corridor Needs Assessment

- Existing Conditions
- PEL Checklist Part 1
- Future Conditions (No-Build)
- Agency and Public Outreach – Round 1
- Purpose and Need

Develop Corridor Alternatives Screening

- Alternatives Workshop
- Categorize Alternatives
- Tier 1 Qualitative Screening
- Tier 2 Quantitative Screening
- System Bundles
- Tier 3 Quantitative Screening (Bundles)
- Agency and Public Outreach – Round 2
- Select Recommended Alternative

Establish Corridor Master Plan

- Completed PEL
- Priority Resource Impacts Evaluation
- Mitigation Strategy
- Implementation Plan
- Design Exceptions
- Incorporate into MAG Policies
- Purpose and Need guidance for future projects

**DECEMBER
2016**

Public Information Meetings ON-SITE AND ON-LINE



Agency Information Meeting:

- February 23 at MAG offices.
- **40-stakeholders** from **18-agencies** attended.

Three Public Meetings:

- February 25 and 26, and March 4 at three locations along the 35-mile corridor.
- Approximately **70-attendees**.

On-Line Survey:

- Survey Period conducted between **February 9 through March 25**.
- Approximately 2,800 site visits and **1,700 completed surveys**.



On-Line Participants by Zip Code

DARKER THE COLOR - GREATER THE PARTICIPATION



Progress

WELCOME

PRIORITIES

POTENTIAL STRATEGIES

SHOW US

5 Stay Involved *We can't make plans without you!*

Thank you for sharing your views on the future of transportation in the Valley. Please tell us about yourself by answering these simple questions. Your input is greatly appreciated.

To stay informed regarding the study, please visit the study website:
spine.azmag.gov





Final Questions (Optional)

What is the zip code of your home address?

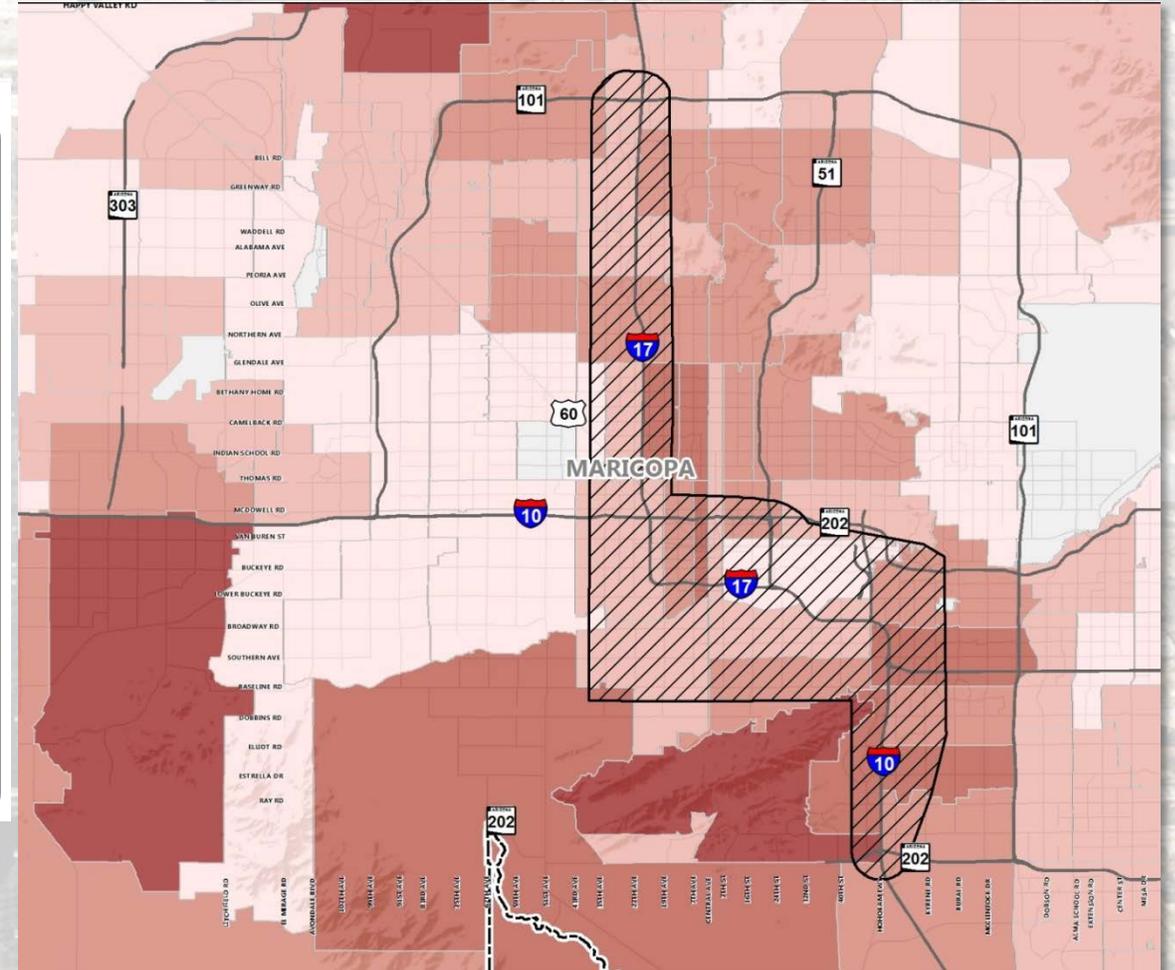
How often do you use the Spine Corridor?

Overall, would you prefer:

How do you typically travel in the corridor?

What is your interest in the Spine corridor?

Provide an email to stay involved with future updates to this project.



Commuter Participants by Zip Code

DARKER THE COLOR – GREATER THE PARTICIPATION



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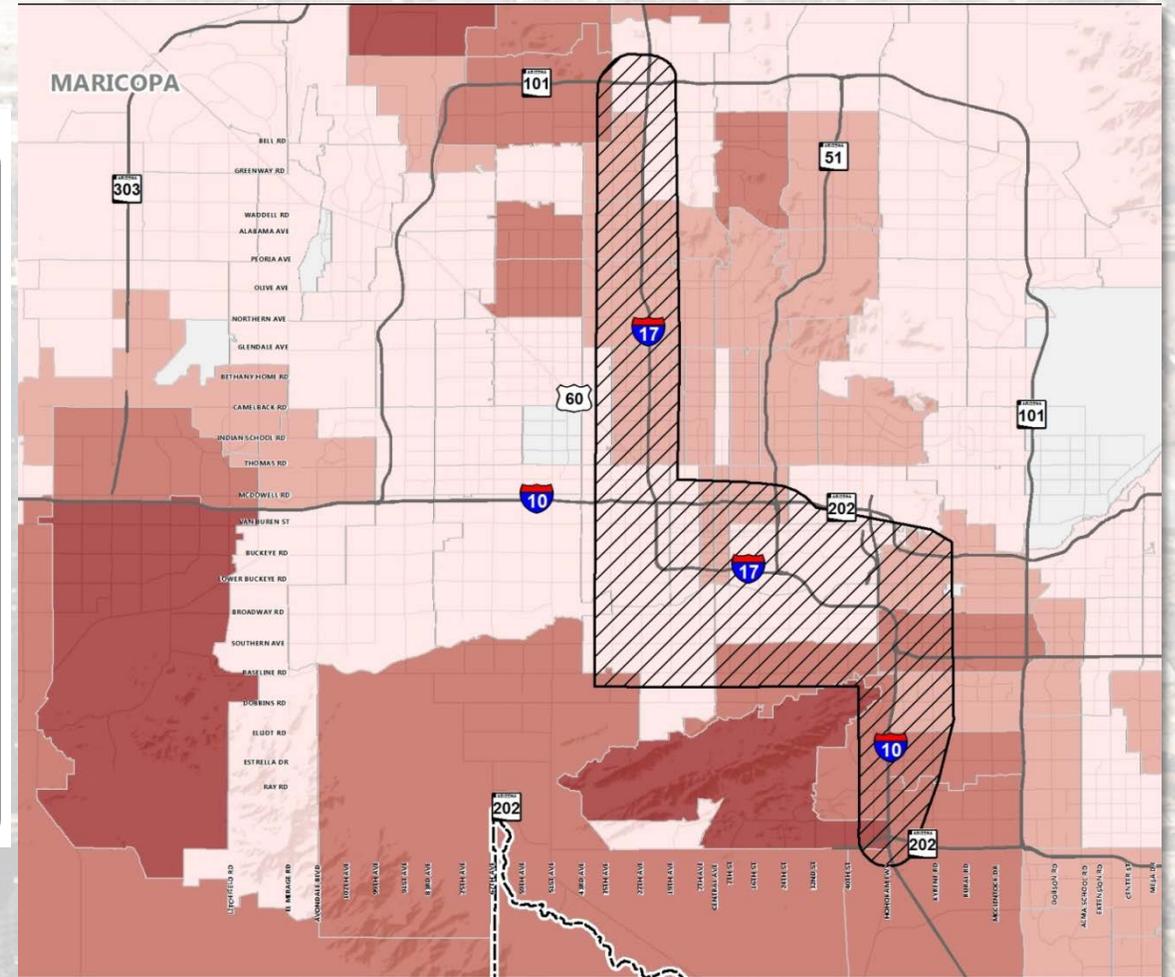
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Participant Response to Use of Corridor



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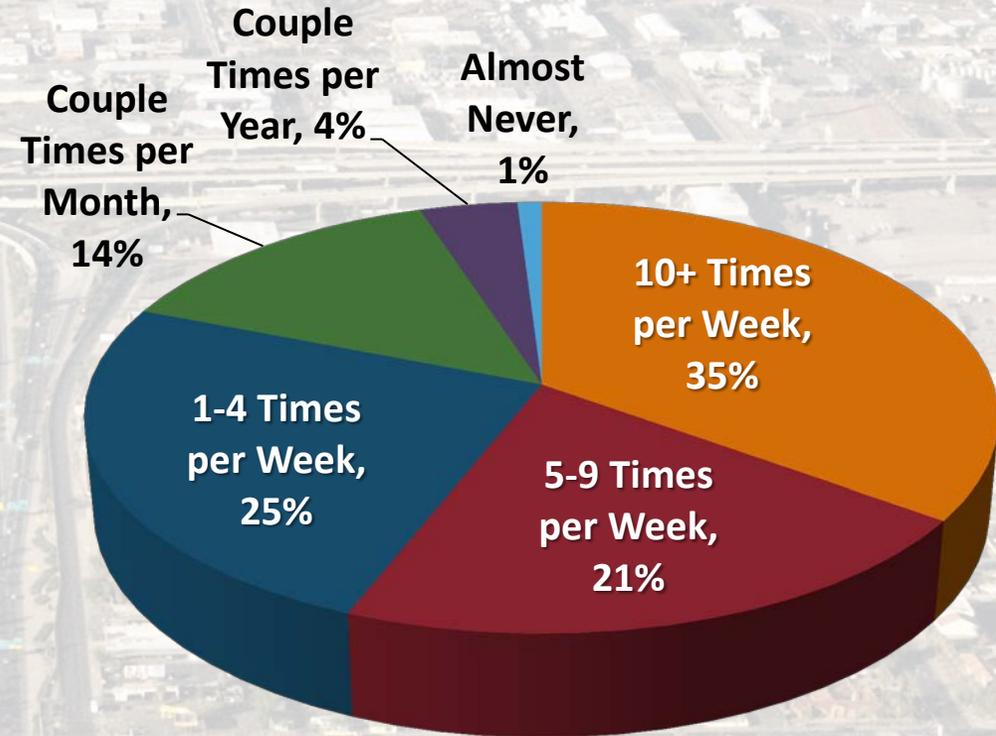
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How do you typically travel in the corridor?



Progress

- WELCOME
- PRIORITIES
- POTENTIAL STRATEGIES **3**
- SHOW US
- ABOUT YOU **5**

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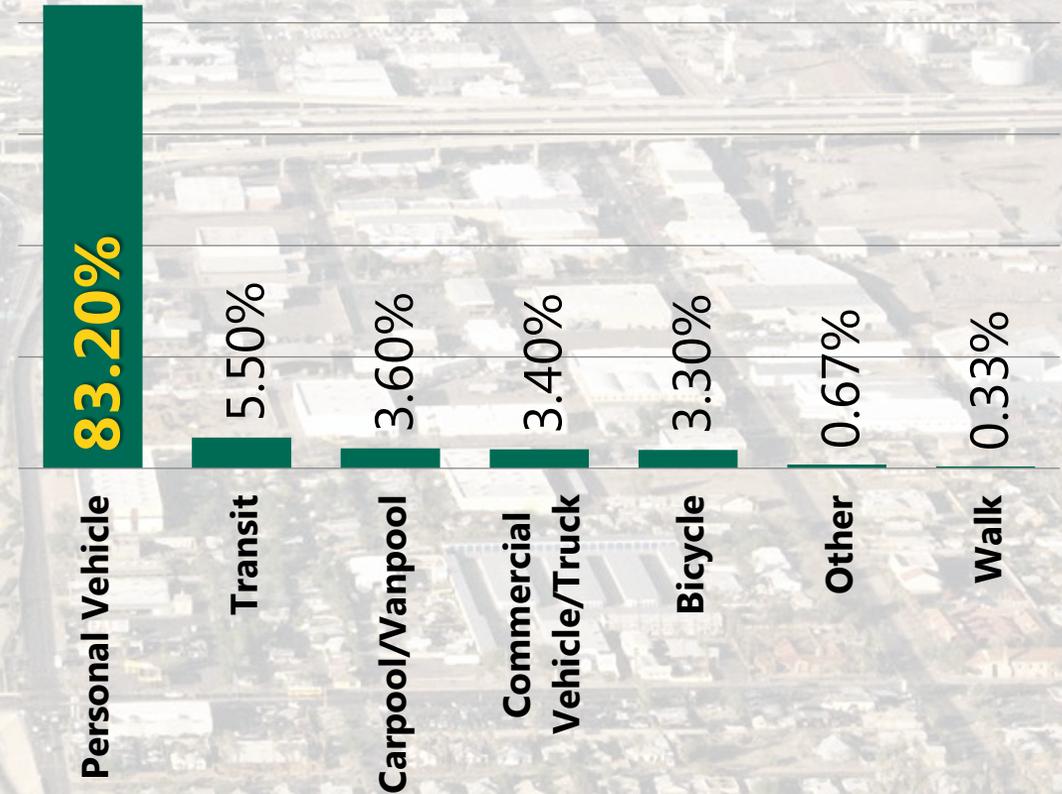
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What is your interest in the Corridor?



Progress

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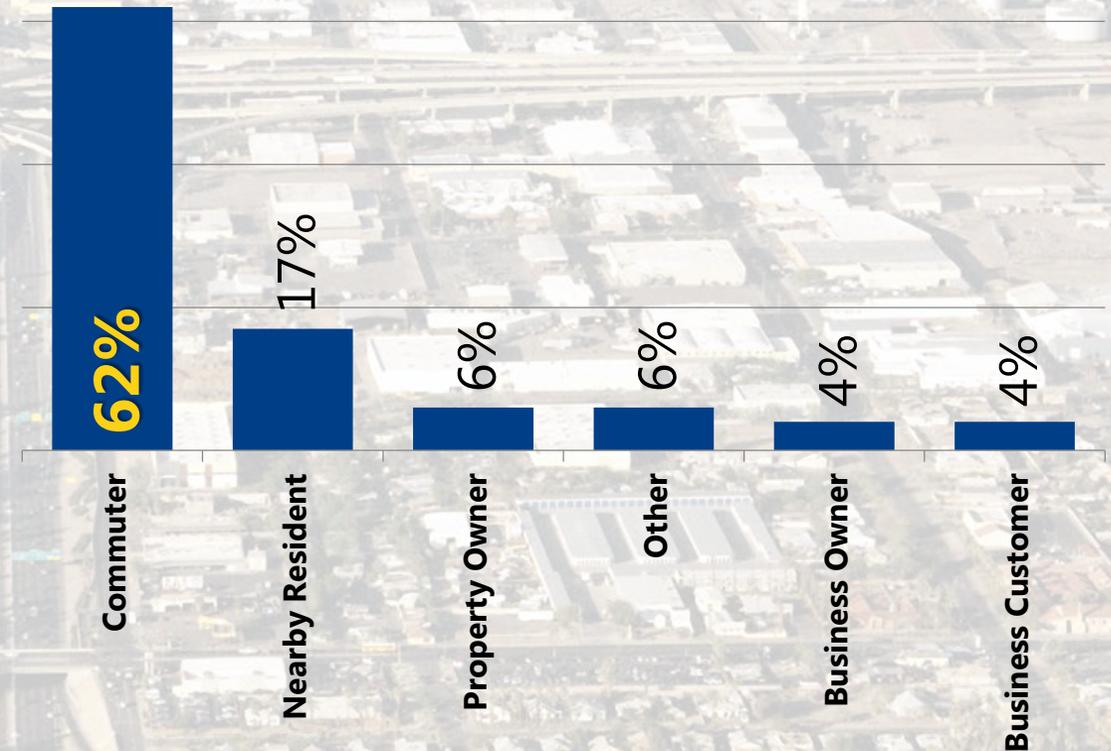
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Priorities



Progress

WELCOME

PRIORITIES

What is important to you?

Introduction

- 1 Protect Environment
- 2 Promote Neighborhoods
- 3 Minimize Cost
- 4 Emphasize Jobs

Order your top 4 priorities above this line

- Improve Commerce
- Add Travel Choices
- Increase Connections
- Improve Commute

Protect the Environment

I care about avoiding or minimizing impacts to the environment, and enhancing it whenever possible.

Comment

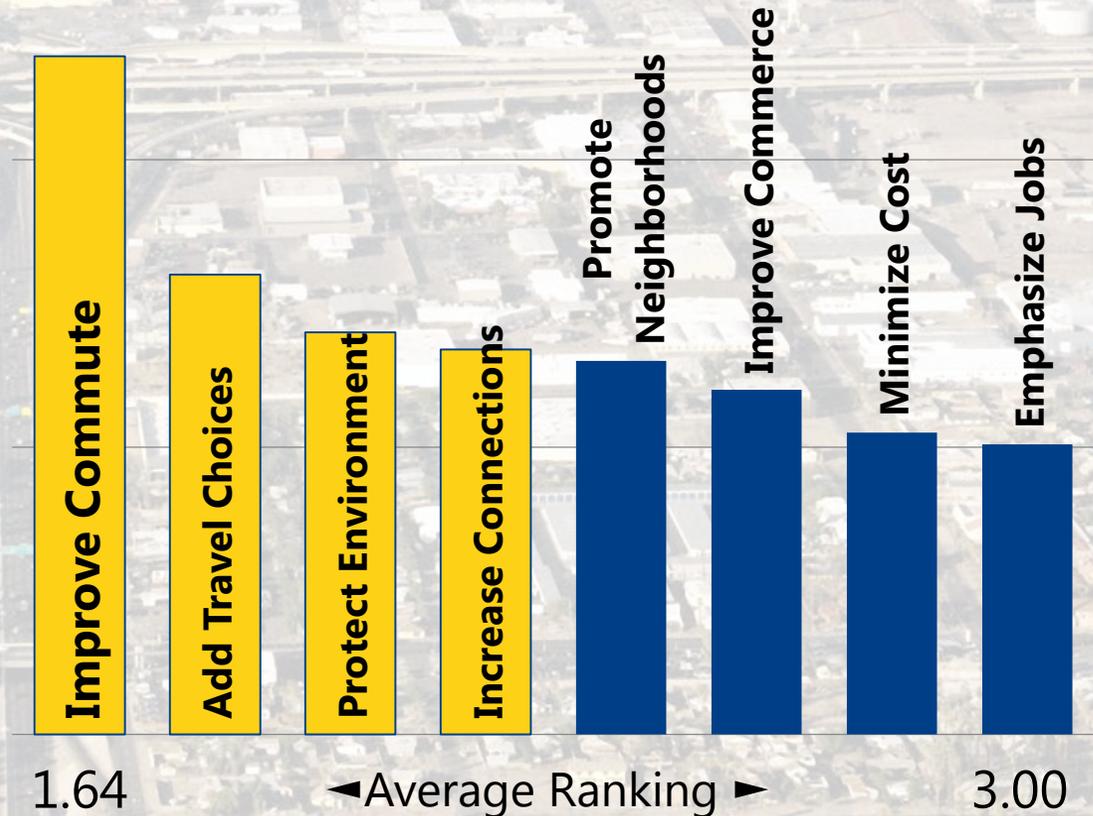
Suggest Another Priority

Next

POTENTIAL STRATEGIES

SHOW US

ABOUT YOU



Strategies



Progress

3 Compare Strategies Introduction

WELCOME PRIORITIES POTENTIAL STRATEGIES

Freeway Lanes Street Lanes Special Lanes Travel Modes Access

Freeway Lanes

This strategy focuses on adding general use lanes to the freeway for everybody's use. [More about this](#)

Please click on the stars below to rate this strategy:

★★★★★

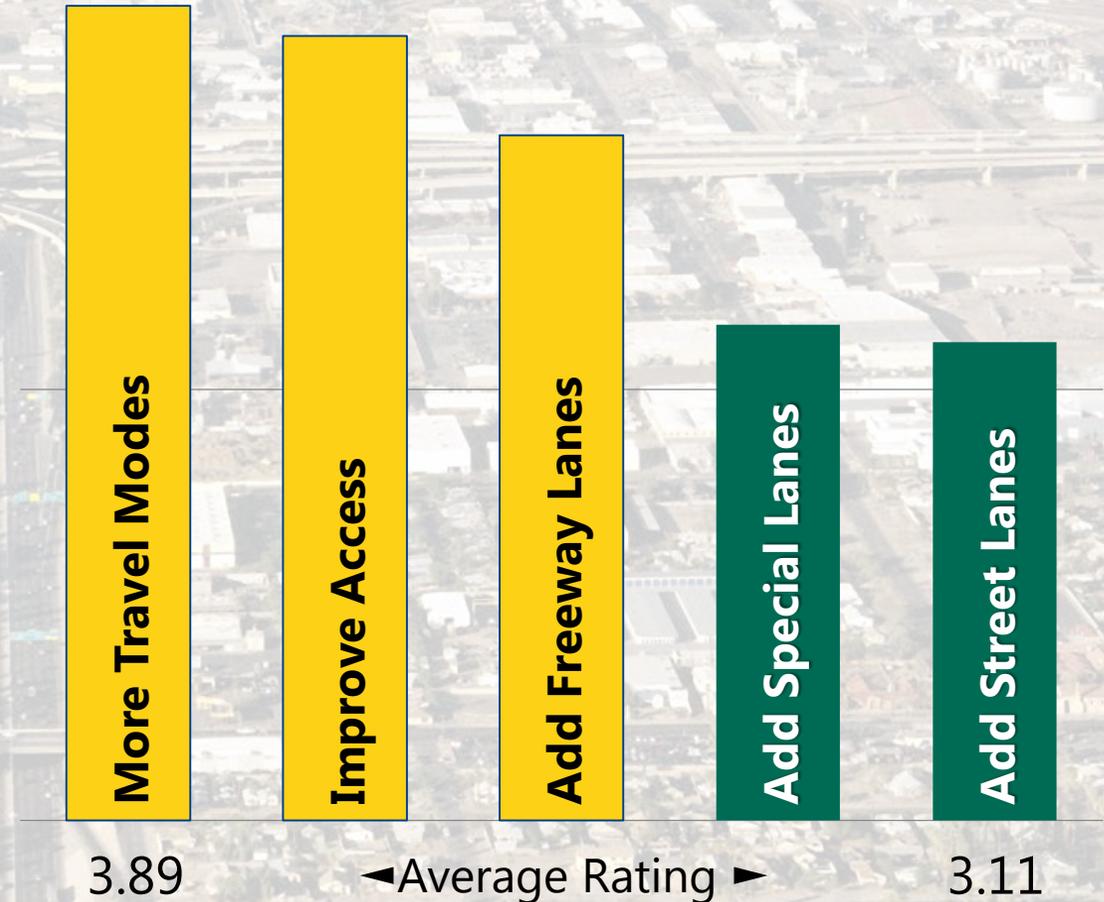
Optional comment

Your priorities:

- Add Travel Choices ◀▶
- Emphasize Jobs ▶
- Promote Neighborhoods ◀
- Protect Environment ◀
- Improve Commerce ▶

Worse Than Doing Nothing
◀
▶
 Better Than Doing Nothing

SHOW US ABOUT YOU



Noted Traffic Congestion Concerns



Progress

Feedback: Tell us how you use the Spine Corridor and how it can be improved.

Where do you encounter challenges or have concerns? Do you have ideas for improvements? Use the map by zooming in and dropping the appropriate topic pin to the location and provide your comments.

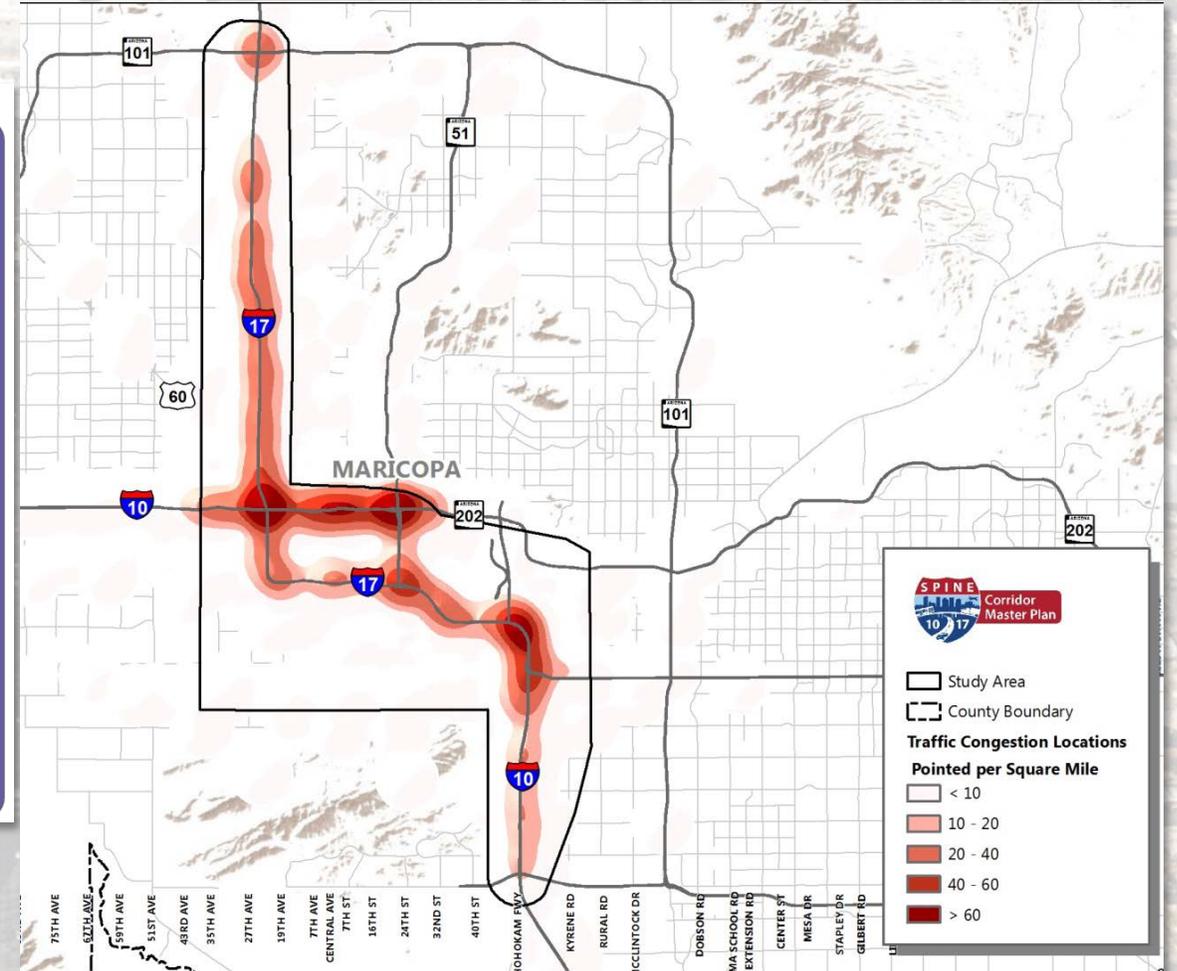
When you are done: Continue

Traffic Congestion
 Safety
 Public Transit
 Cycling/ Pedestrian
 Access
 Other
Study Area

Traffic Congestion
Heavy traffic in the morning.

Delete Submit

Phoenix



Noted Traffic Safety Concerns



Progress

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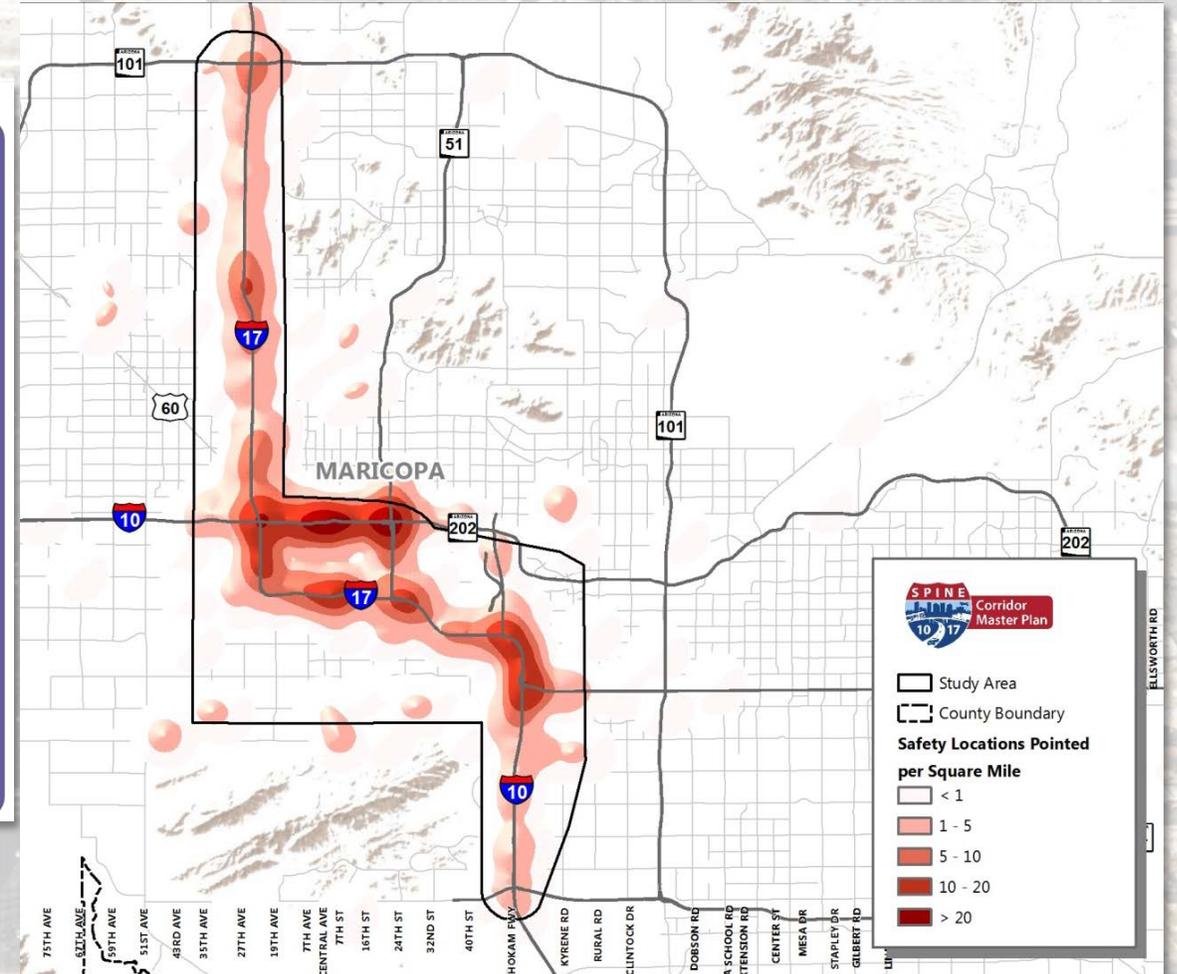
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Traffic Congestion
 Safety
 Public Transit
 Cycling/ Pedestrian
 Access
 Other

Traffic Congestion
Heavy traffic in the morning.

Submit

Phoenix



Noted Public Transportation Concerns



Progress

1 WELCOME 2 PRIORITIES 3 POTENTIAL STRATEGIES 4 **Feedback: Tell us how you use the Spine Corridor and how it can be improved.** 5 ABOUT YOU

SHOW US

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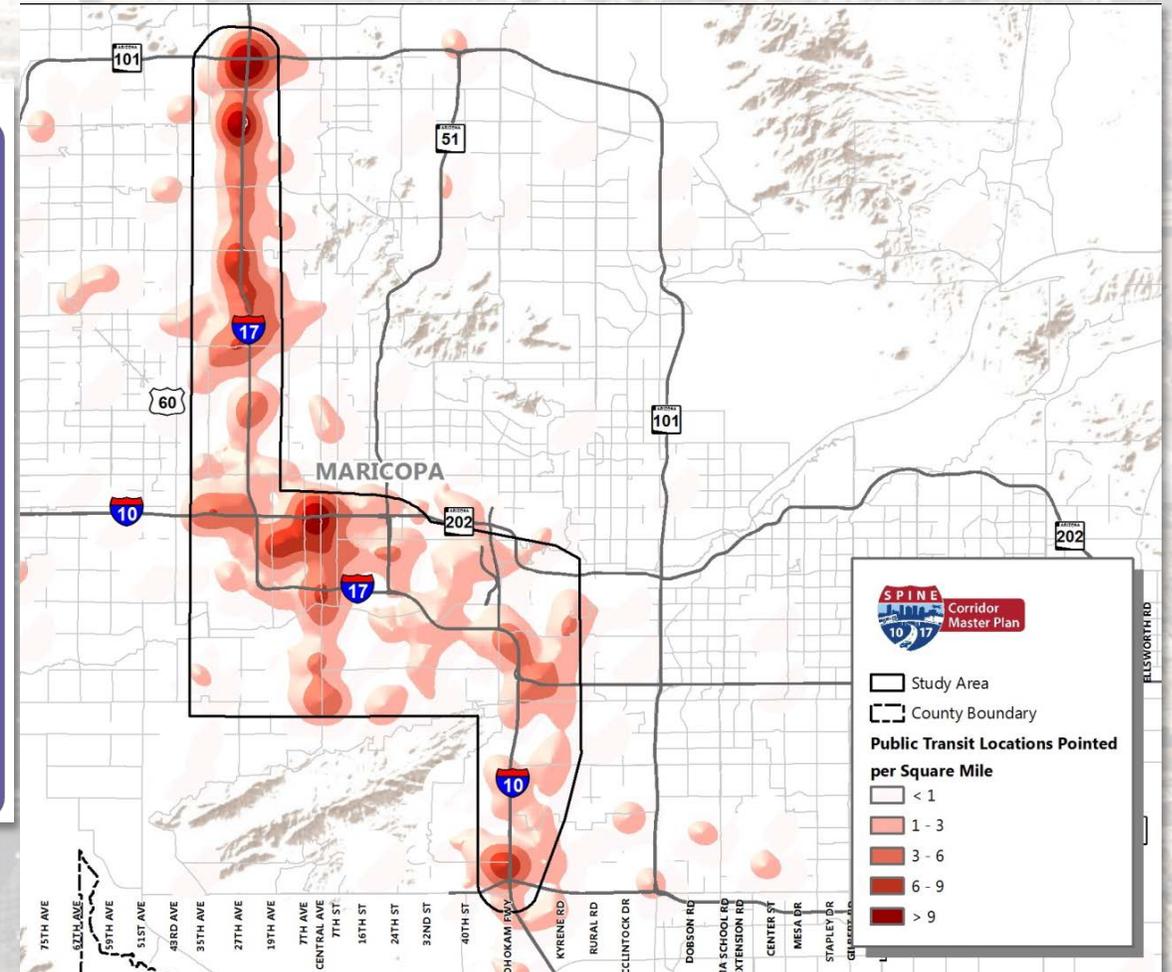
When you are done: Continue

Traffic Congestion
 Safety
 Public Transit
 Cycling/ Pedestrian
 Access
 Other

Traffic Congestion
Heavy traffic in the morning.

Delete Submit

Phoenix



Noted Cycling/Pedestrian Concerns



Progress

1 WELCOME 2 PRIORITIES 3 POTENTIAL STRATEGIES 4 **Feedback: Tell us how you use the Spine Corridor and how it can be improved.** 5 ABOUT YOU

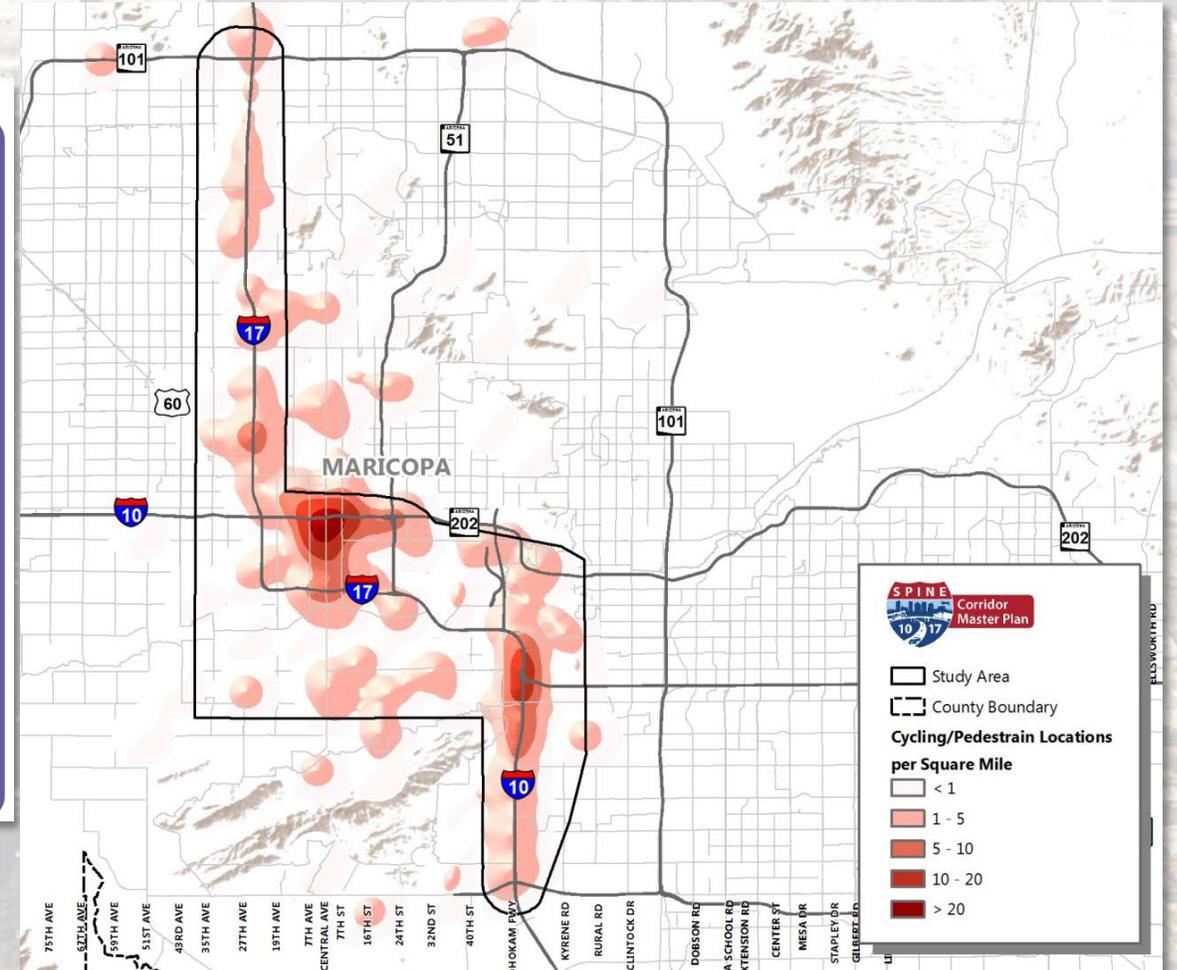
SHOW US

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Delete **Traffic Congestion** Heavy traffic in the morning. Submit



Noted Accessibility Concerns



Progress

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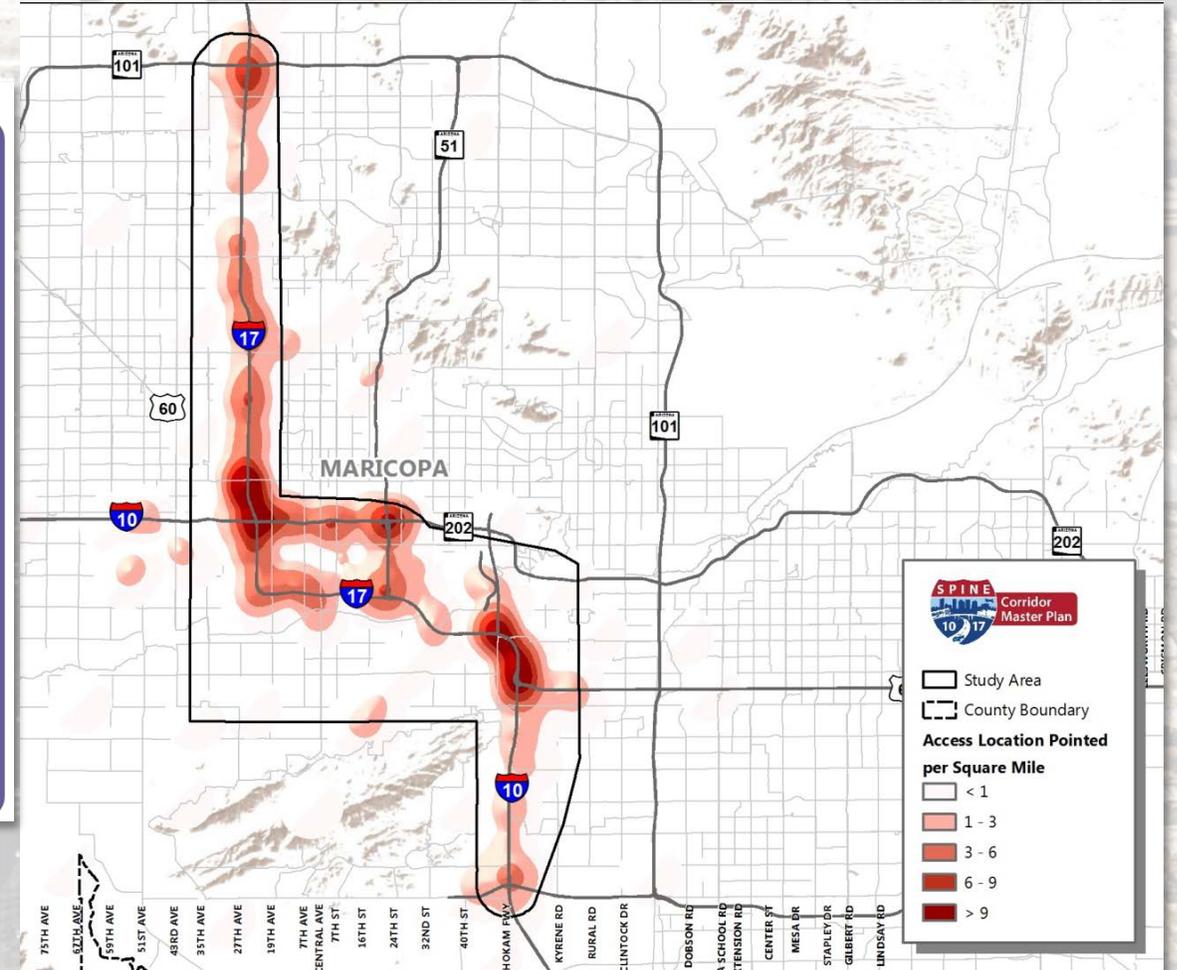
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 Other

Traffic Congestion
Heavy traffic in the morning.

Delete Submit

Phoenix



add vehicle lanes

add bicycle lanes/bicycle facilities



Corridor
Master Plan

increase bus service

add pedestrian facilities

dangerous merging/weaves

build more light rail

improve interchanges
congestion from merging

entrance/exit ramp issues

create bike/ped crossing

What should we do?



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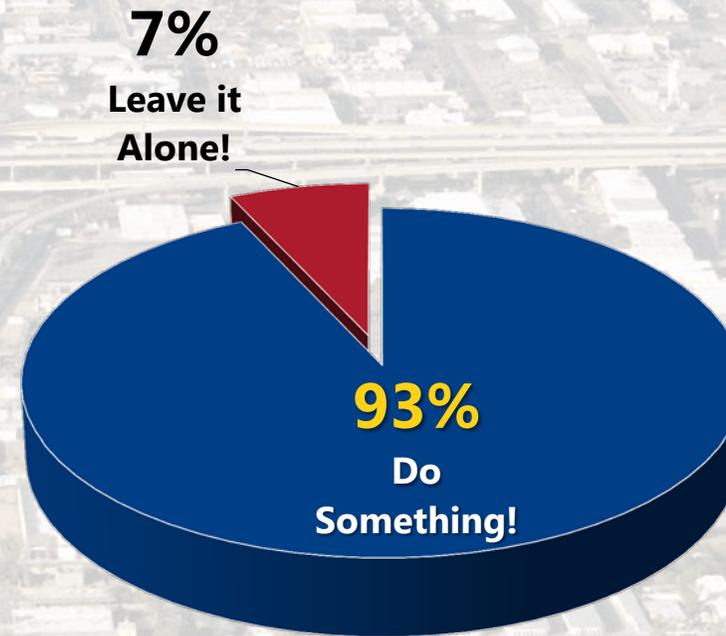
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Guiding Principles for Alternatives

WHAT THE PUBLIC MEETINGS AND SURVEYS TELL US



OPTIMIZE

- Make use of what is available.
- Engage technology.

EXPAND

- Provide more travel choices and alternate travel mode opportunities.

PERFORM

- Meet travel demand between the I-10/I-17 travel markets.
- Focus on system reliability for all travel choices.

IMPLEMENT

- Consider the variety of travel choices and bundle together deliverable and economical packages.

Draft Study Purpose



The purpose of the Spine Study is to **identify and budget for a project, or series of projects, that would address the transportation needs of the corridor.**



Draft Study Need



- I-10 and I-17 are **at capacity during rush hour** and are **unable to handle future traffic levels**.
- I-10 and I-17 **experience lengthy periods of congestion**. The lengths of congestion, both in time and distance, are **projected to worsen over time**.
- **Travel times** on the two freeways will **worsen as the average travel speeds decrease**.
- **Projected growth will continue to put stress** on the two freeways.
- **Degradation** of the two freeways will **adversely affect the operations of HOV and transit modes** like freeway bus rapid transit, express buses, and local bus routes.
- **Aging infrastructure** of the two freeways could **limit economic growth opportunities** in the region.
- **Timely and efficient delivery of freight is vital** to the region's economic health.
- **Poor operations** on I-10 and I-17 **adversely affect local streets**, especially at intersections.

Next Steps

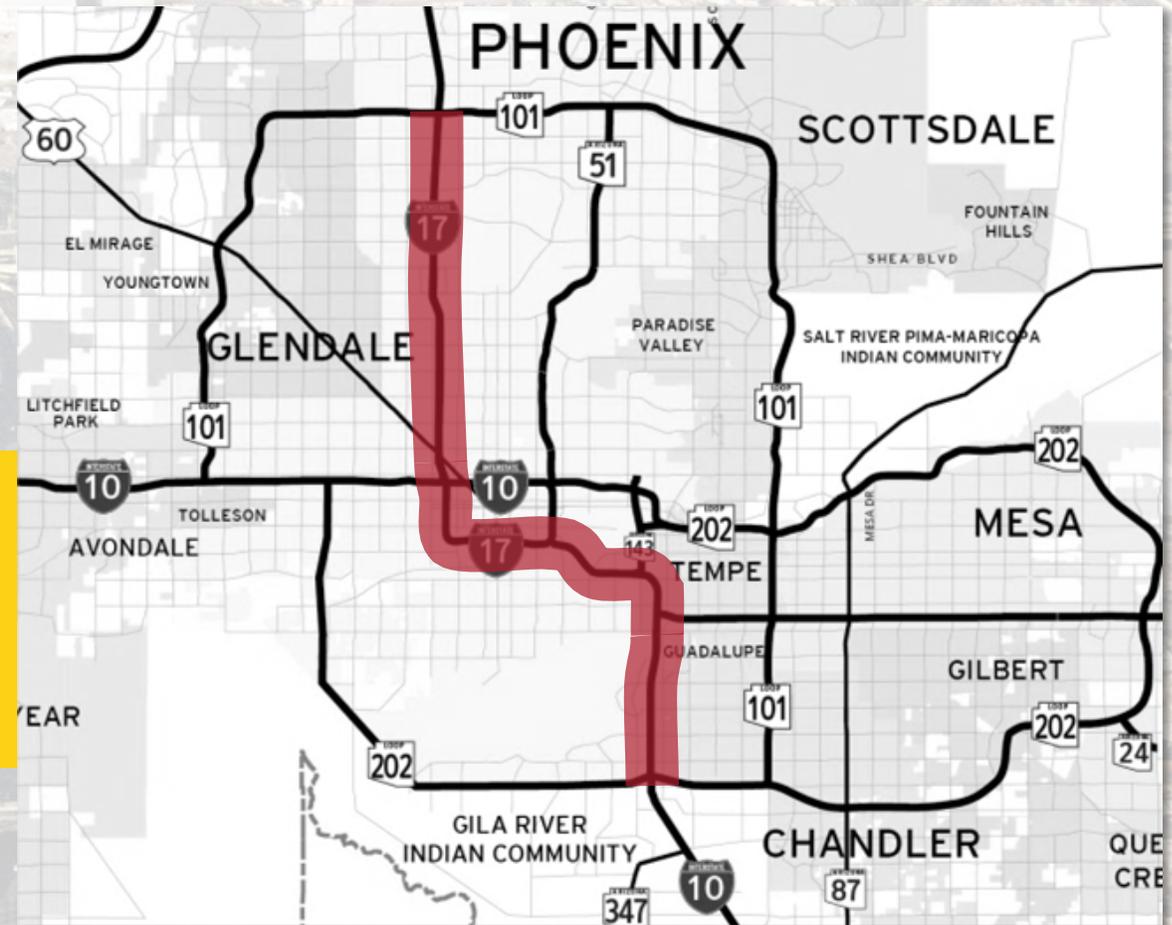


- Develop **criteria for identifying and evaluating** alternatives.
- Establish **project alternatives**.
- Report back to Transportation Policy Committee in **November 2015**.
- Complete project by **December 2016**.

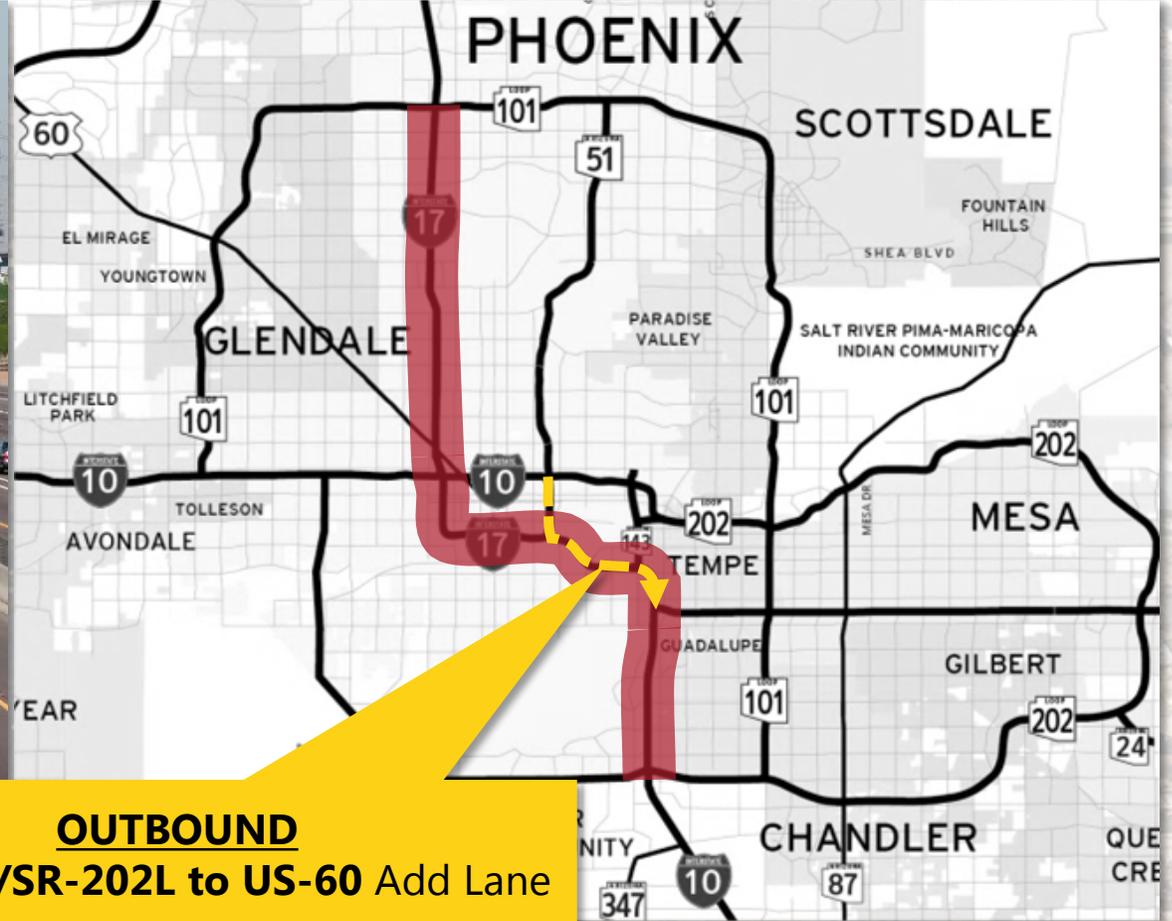


Near-Term Improvement Strategy

- Under **development and study by ADOT.**
- Multiple options under consideration including those targeting bottlenecks and enhancing traffic operations.
- Candidate projects must rapidly **meet environmental requirements** and a **near-term construction time-frame.**



Interstate 10 – between SR-51/SR-202L and US-60



OUTBOUND
▪ SR-51/SR-202L to US-60 Add Lane

Interstate 10 - between SR-143 and US-60



OUTBOUND

- SR-51/SR-202L to US-60 Add Lane

OUTBOUND

- SR-143 to US-60 Follow CD Rd to existing ramp
- SR-143 to I-10 Follow CD Rd enter after US-60

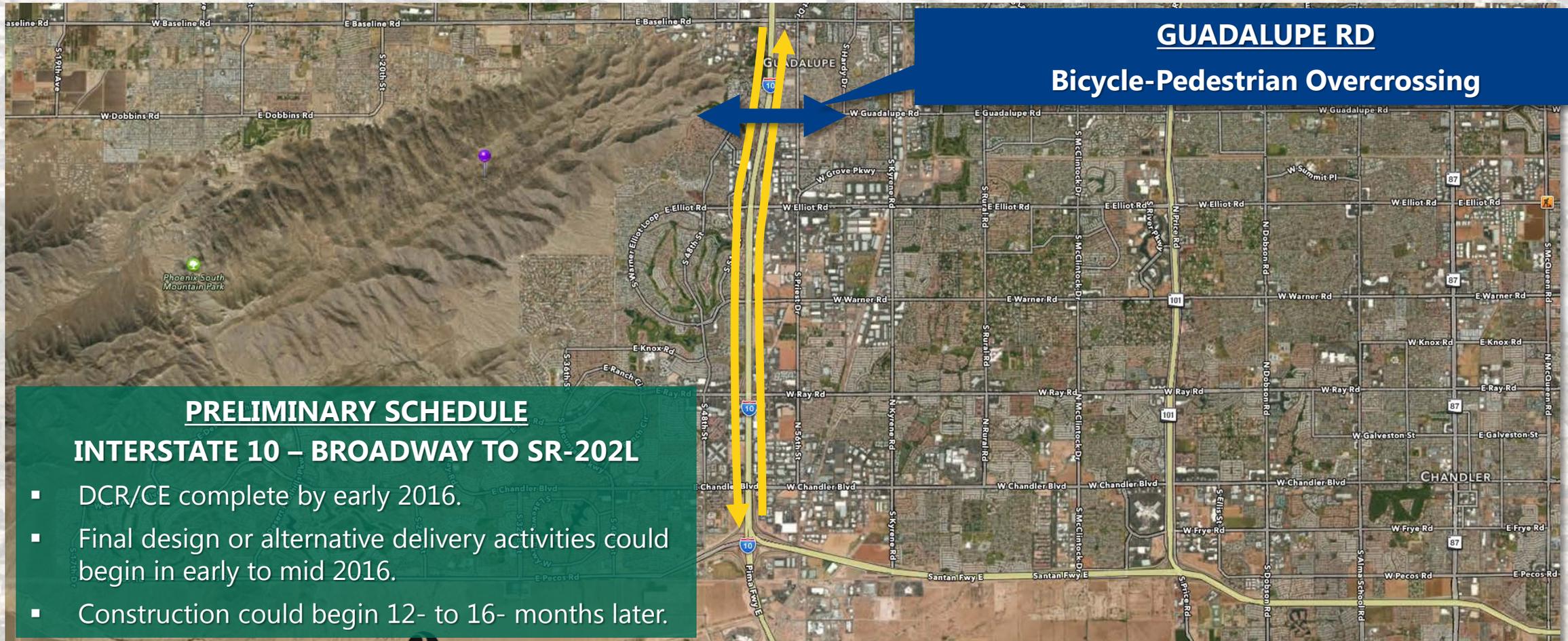
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Bicycle-Pedestrian Overcrossing

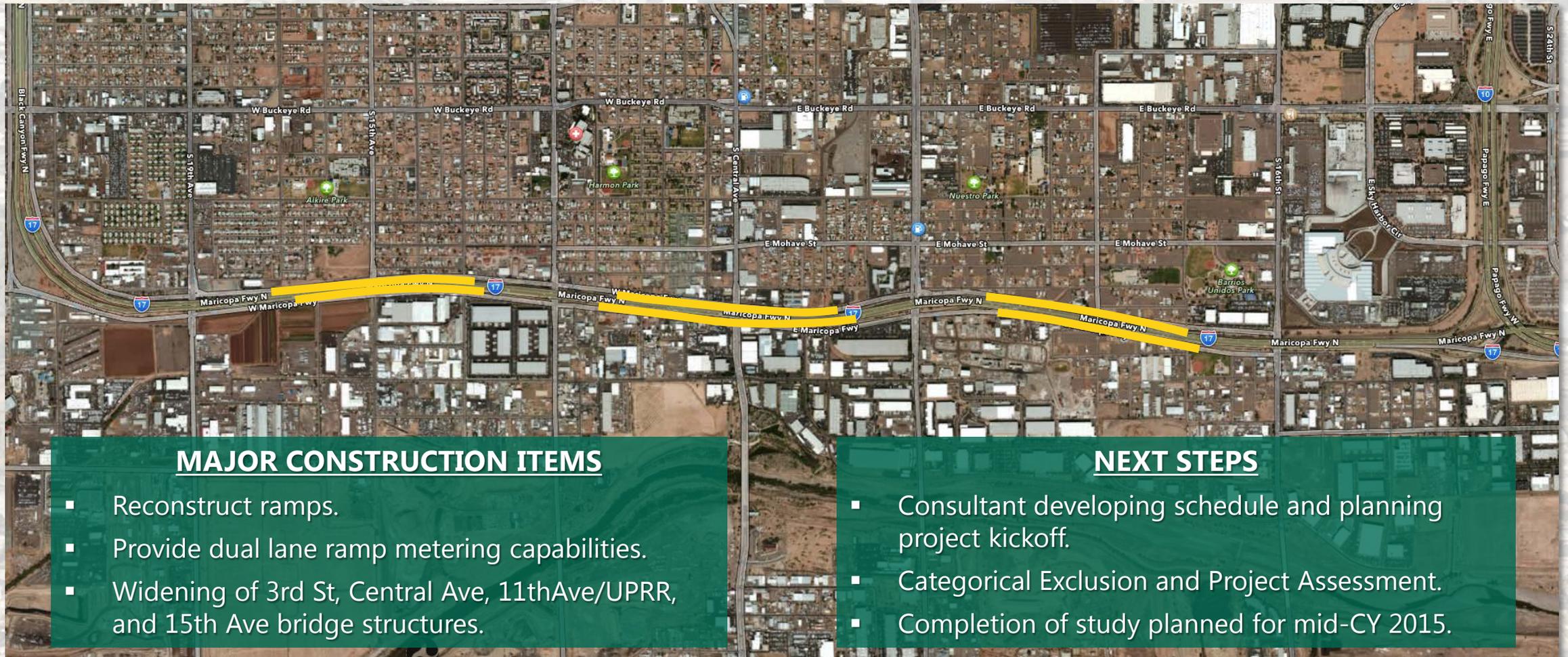
INBOUND

- I-10 to SR-143 Exit in advance of US-60 entrance
- US-60 to SR-143 Exit in advance of I-10 Entrance

Interstate 10 – between Baseline Rd and SR-202L



Interstate 17 – between 16th St and 19th Ave



MAJOR CONSTRUCTION ITEMS

- Reconstruct ramps.
- Provide dual lane ramp metering capabilities.
- Widening of 3rd St, Central Ave, 11th Ave/UPRR, and 15th Ave bridge structures.

NEXT STEPS

- Consultant developing schedule and planning project kickoff.
- Categorical Exclusion and Project Assessment.
- Completion of study planned for mid-CY 2015.

Traffic Operations and ITS Enhancements

- Focus on Interstate 17 between Interstate 10 Stack and Loop 101 North Stack traffic interchanges.
- **Active Traffic Management (ATM):**
 - Reducing potential for crashes when speed and conditions change.
 - Reducing congestion with variable speed limits, lane control, and hard shoulder running.
 - Improving reliability and enhancing information to motorists.
 - Providing meaningful traffic-flow benefits at a relatively low cost.
 - Coordinated with local communities.

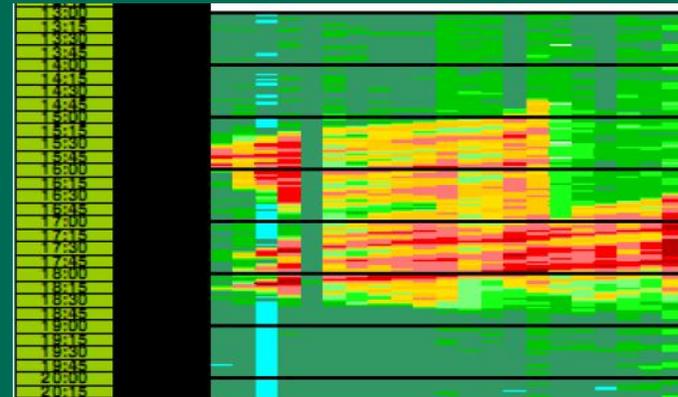


Traffic Operations and ITS Enhancements

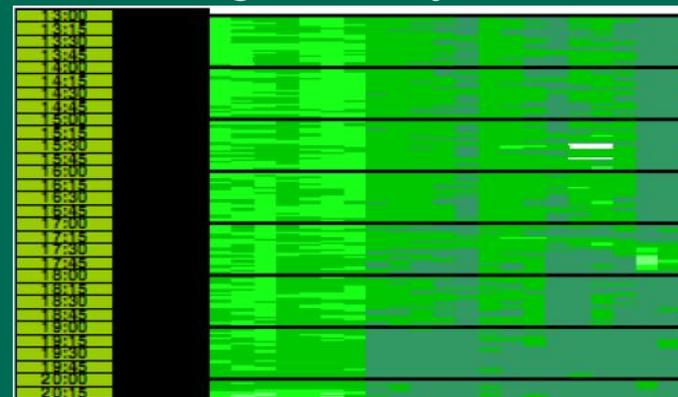
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 - Coordinated with local communities.

M1 Managed Motorway Speed Contour Plots (Evening Peak Period Monash Motorway Outbound)

Before Managed Freeways (2007)



After Managed Freeways (2010)



Legend Speed Ranges (km/h)

BIN	Low	High	LEGEND	INDEX
1	1	10	001 - 010	17
2	11	20	011 - 020	18
3	21	30	021 - 030	19
4	31	40	031 - 040	20
5	41	50	041 - 050	21
6	51	60	051 - 060	22
7	61	70	061 - 070	23
8	71	80	071 - 080	24
9	81	90	081 - 090	25
10	91	100	091 - 100	26
11	101	110	101 - 110	27
12	111	999	111 - 999	28

Source: VicRoads

Near-Term Improvement Strategy

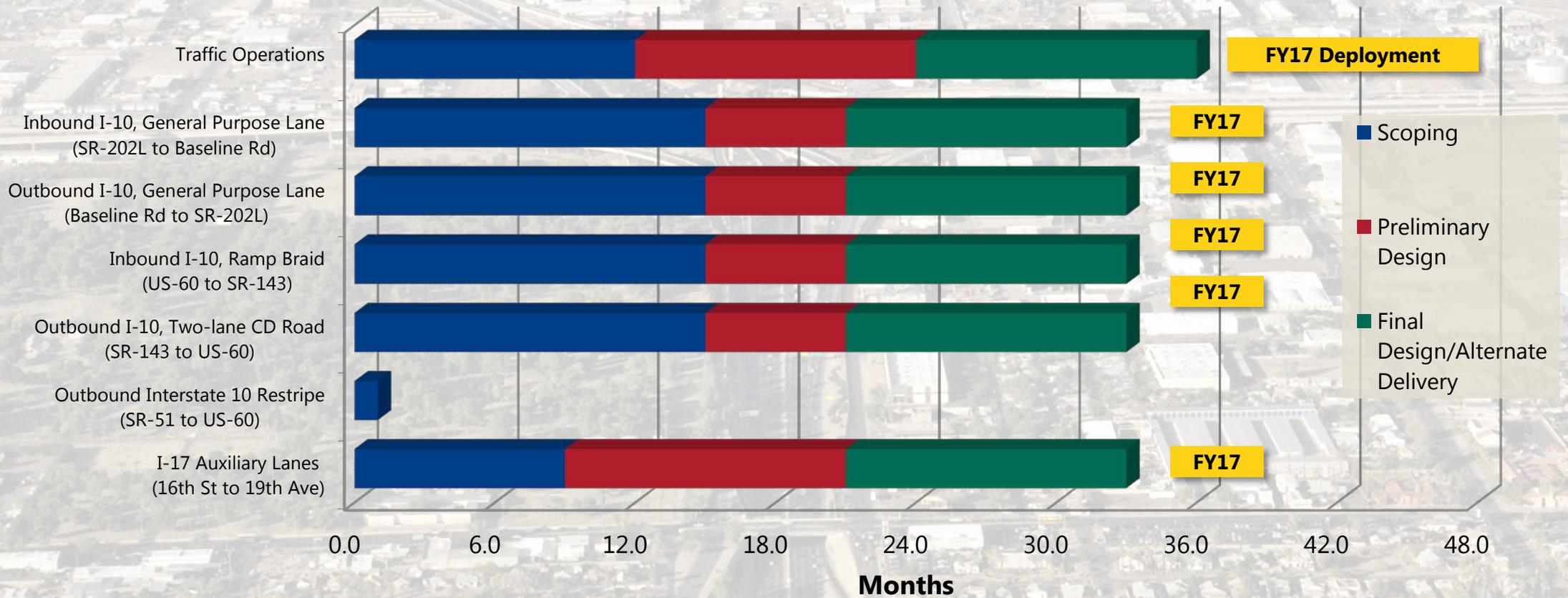
ESTIMATED PROGRAM AMOUNTS

Under Update!

Project	Length (miles)	Improvement Type	Compatibility with Ultimate	Environmental Effort	Total (Millions)
Interstate 17 Auxiliary Lanes, 16th St to 19th Ave	3.0	Operational/ Safety	No	CE	\$61.6
Outbound I-10, Restripe Additional Lane, SR-51 to US-60	6.0	Operational/ Multi-Modal	Yes	CE	\$8.4
Outbound I-10, Two-lane CD Road, SR-143 to Baseline Rd	2.0	Operational	Yes	CE	\$59.7
Inbound I-10, Ramp Braid	2.0	Operational	Yes	CE	\$49.5
Outbound I-10, GP Lane with Aux Lane, Baseline Rd to SR-202L	8.0	Operational	Yes	CE	\$36.6
Inbound I-10, GP Lane with Aux Lane, SR-202L to Baseline Rd	8.0	Operational	Yes	CE	\$23.4
Traffic Operations	Corridor-Wide	Operational	Yes	CE	\$48.5
					\$287.7

Near-Term Improvement Strategy

SCHEDULE RECOMMENDATION



For information and discussion.

Interstate 10/ Interstate 17 Corridor Master Plan Update

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Senior Engineering Manager
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