

**ADOT MPD**  
**CORRIDOR PROFILE STUDY**  
**SR 287: SR 87 to SR 79 | SR 87: I-10 to SR 587**

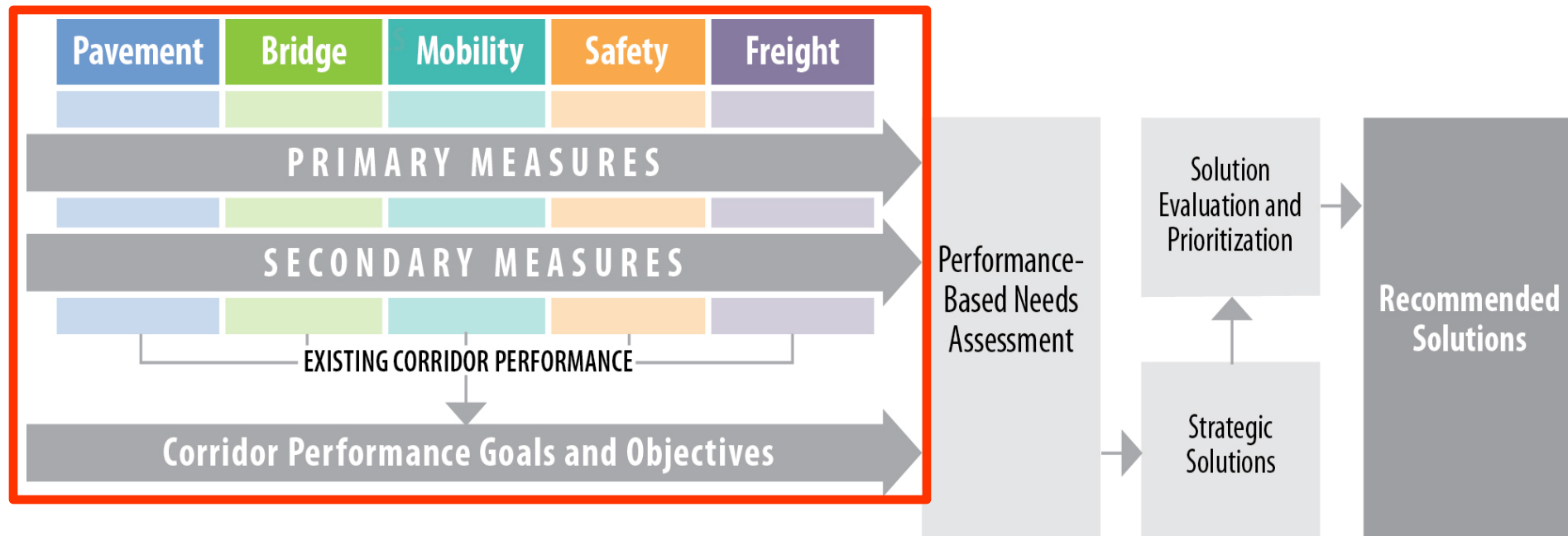
**GRIC Cultural Committee Meeting**

January 2025

# Agenda

- Introductions
- Performance Framework Overview
- Corridor Performance Evaluation Results
- Corridor Vision
- Next Steps
- Schedule

# Performance Framework Overview



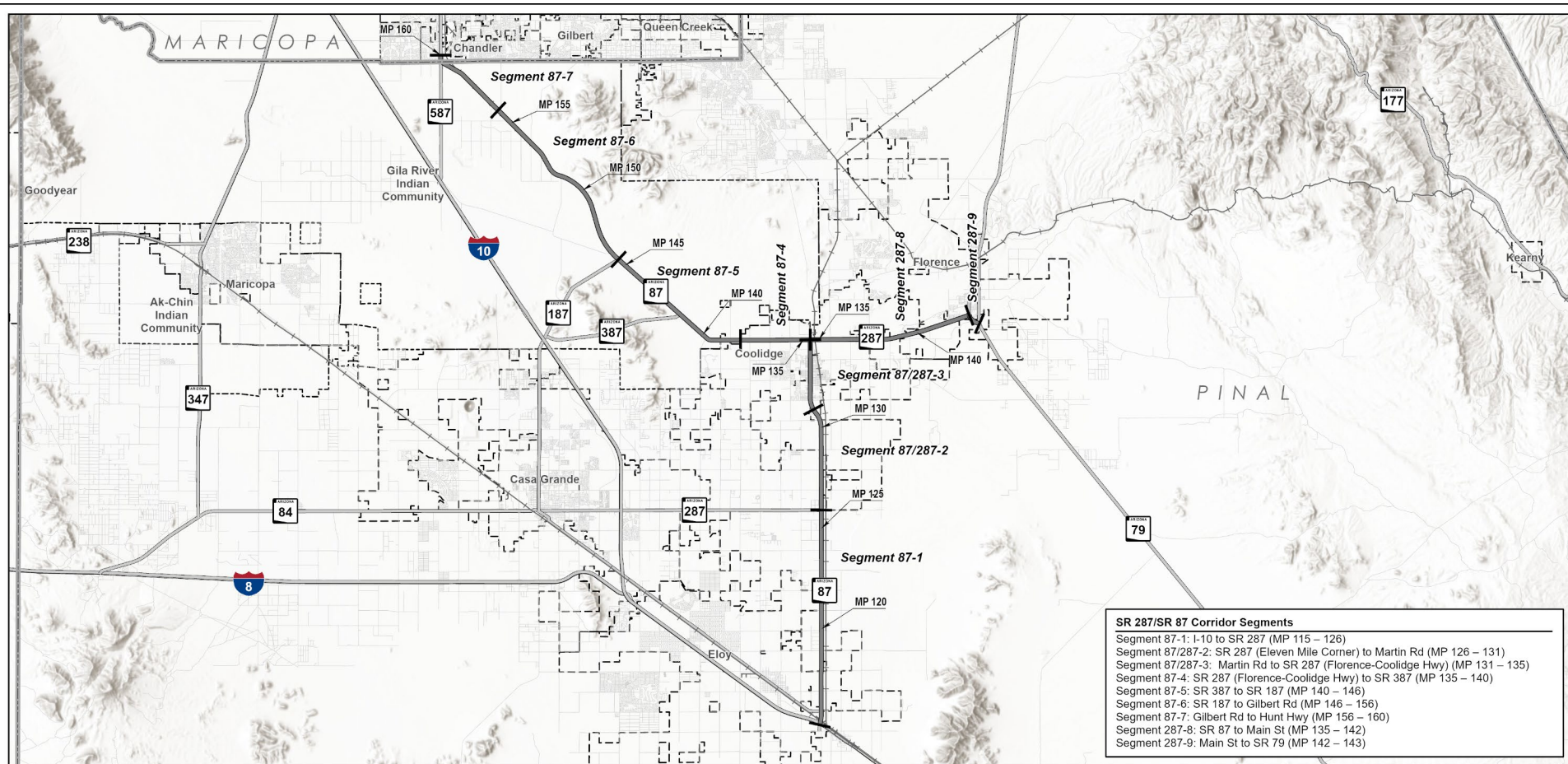
## Performance Evaluation

# Performance Evaluation

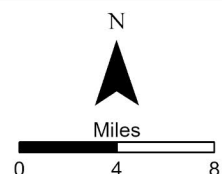
- Assess corridor health through a performance-based system
- Apply uniformly across multiple corridors
- Allow comparison of corridors
- Identify locations that warrant further investigation
- Three-level scale
  - Good/Above Average ■
  - Fair/Average ■
  - Poor/Below Average ■

Performance Area	Primary Measure	Secondary Measures
Pavement	<b>Pavement Index</b> Based on a combination of International Roughness Index, cracking, and rutting	<ul style="list-style-type: none"> <li>• Directional Pavement Serviceability</li> <li>• Pavement Failure</li> <li>• Pavement Hot Spots</li> </ul>
Bridge	<b>Bridge Index</b> Based on lowest of deck, substructure, superstructure and structural evaluation rating	<ul style="list-style-type: none"> <li>• Bridge Sufficiency</li> <li>• Bridge Rating</li> <li>• Bridge Hot Spots</li> </ul>
Mobility	<b>Mobility Index</b> Based on combination of existing and future daily volume-to-capacity ratios	<ul style="list-style-type: none"> <li>• Future Congestion</li> <li>• Peak Congestion</li> <li>• Travel Time Reliability</li> <li>• Multimodal Opportunities</li> </ul>
Safety	<b>Safety Index</b> Based on frequency of fatal and suspected serious injury crashes	<ul style="list-style-type: none"> <li>• Directional Safety Index</li> <li>• Strategic Traffic Safety Plan Emphasis Areas</li> <li>• Other Crash Unit Types</li> <li>• Safety Hot Spots</li> </ul>
Freight	<b>Freight Index</b> Based on bi-directional truck travel time reliability	<ul style="list-style-type: none"> <li>• Travel Time Reliability</li> <li>• Bridge Vertical Clearance</li> <li>• Hot Spots</li> </ul>

# Corridor Performance Evaluation Results



SR 287/SR 87 Corridor Segments	
Segment 87-1:	I-10 to SR 287 (MP 115 – 126)
Segment 87/287-2:	SR 287 (Eleven Mile Corner) to Martin Rd (MP 126 – 131)
Segment 87/287-3:	Martin Rd to SR 287 (Florence-Coolidge Hwy) (MP 131 – 135)
Segment 87-4:	SR 287 (Florence-Coolidge Hwy) to SR 387 (MP 135 – 140)
Segment 87-5:	SR 387 to SR 187 (MP 140 – 146)
Segment 87-6:	SR 187 to Gilbert Rd (MP 146 – 156)
Segment 87-7:	Gilbert Rd to Hunt Hwy (MP 156 – 160)
Segment 287-8:	SR 87 to Main St (MP 135 – 142)
Segment 287-9:	Main St to SR 79 (MP 142 – 143)



- Corridor Segments
- Interstate/Highway
- Local Streets
- City Boundary
- Tribal Boundary
- County Boundary
- Railroad

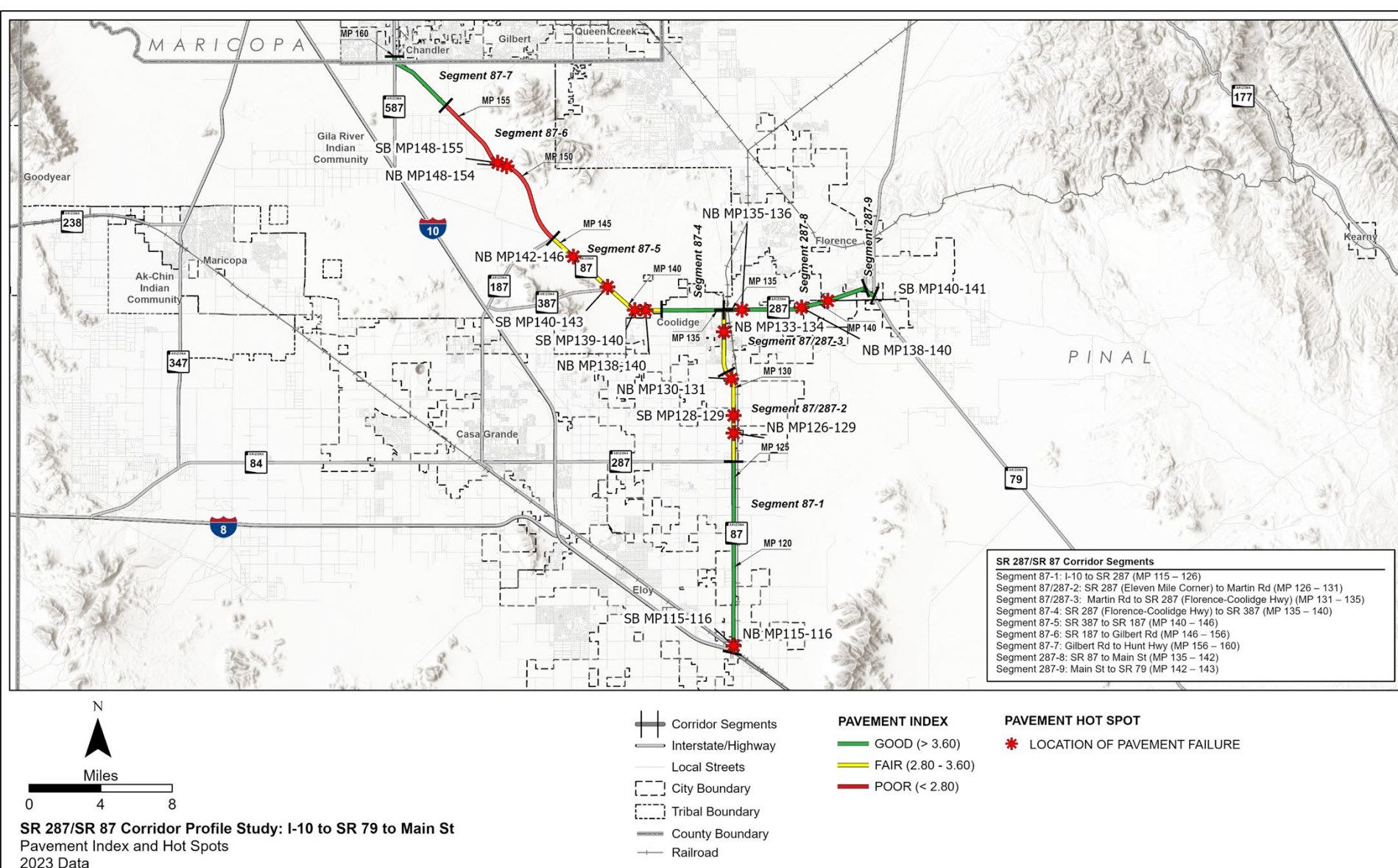
**SR 287/SR 87 Corridor Profile Study: I-10 to SR 79 to Main St**  
Corridor Segments

# Pavement Performance

Segment	Segment Length (miles)	Pavement Index	Directional PSR		% Area Failure
			NB	SB	
87-1	11	3.77	3.64	3.48	20%
87/287-2	5	3.11	2.83	2.92	50%
87/287-3	4	3.51	3.19	3.48	17%
87-4	6	3.65	3.68	3.48	30%
87-5	5	3.43	3.61	3.63	58%
87-6	10	2.72	3.29	3.34	65%
87-7	4	4.03	3.79	3.83	0%
287-8	7	3.85	3.68	3.99	25%
287-9	1	3.72	3.63	3.60	0%
Weighted Corridor Average		3.47	3.48	3.51	35%
SCALES					
Performance Level		Non-Interstate			
Good		> 3.6	> 3.5		< 5%
Fair		2.80 - 3.6	2.90 - 3.5		5% - 20%
Poor		< 2.80	< 2.90		> 20%



# Pavement Performance

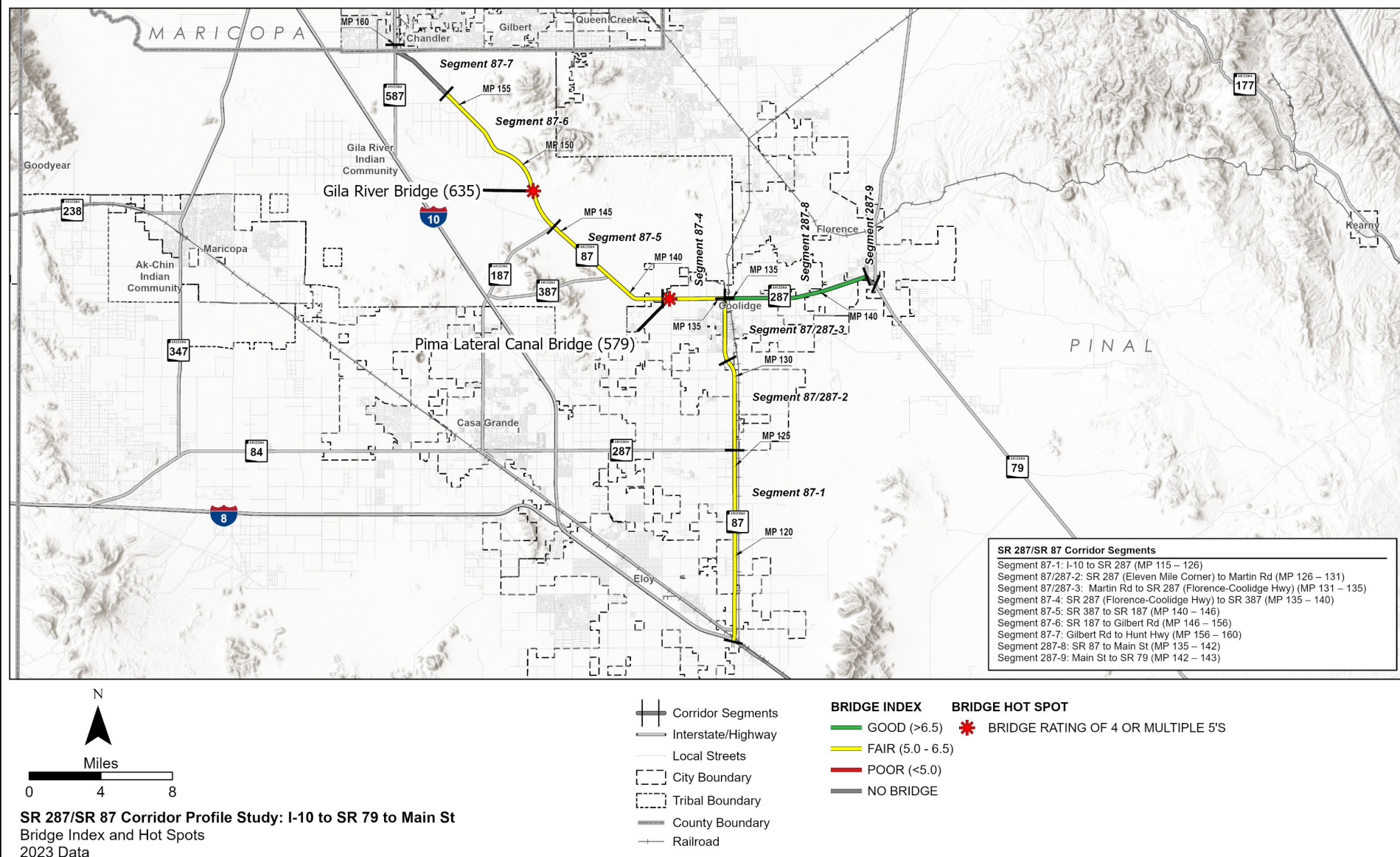




# Bridge Performance

Segment	Segment Length (miles)	# of Bridges	Bridge Index	Bridge Sufficiency	Lowest Bridge Rating
87-1	11	3	5.97	92.69	5
87/287-2	5	1	6.00	74.10	6
87/287-3	4	2	5.00	72.70	5
87-4	5	2	5.00	70.72	5
87-5	6	1	5.00	72.60	5
87-6	10	2	6.15	80.37	5
87-7	4	0	No Bridges in Segment		
287-8	7	1	7.00	83.90	7
287-9	1	0	No Bridges in Segment		
Weighted Corridor Average			5.68	79.69	5.25
SCALES					
Performance Level			All		
Good			> 6.5	> 80	> 6
Fair			5.0 – 6.5	50 – 80	5 – 6
Poor			< 5.0	< 50	< 5

# Bridge Performance



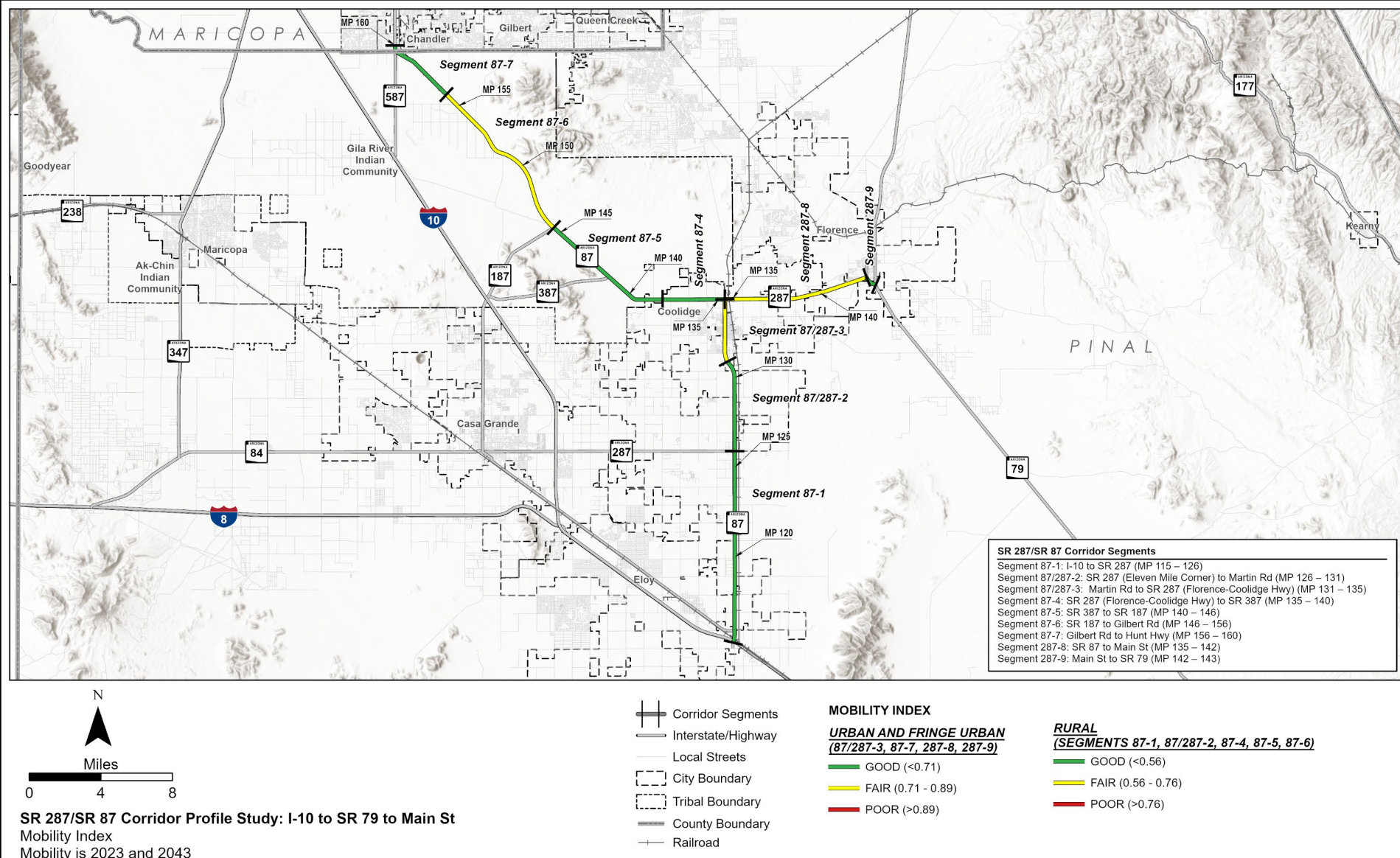
# Mobility Performance

Segment	Segment Length (miles)	Mobility Index	Future Daily V/C	Existing Peak Hour V/C		Closure Extent (instances/milepost/ year/mile)		Directional LOTTR (all vehicles)		% Bicycle Accommodation	% Non-Single Occupancy Vehicle (SOV) Trips
				NB	SB	NB	SB	NB	SB		
87-1 <sup>2</sup>	11	0.21	0.23	0.17	0.16	0.08	0.08	1.02	1.02	86%	18.1%
87/287-2 <sup>2</sup>	5	0.36	0.36	0.26	0.32	0.00	0.00	1.03	1.03	70%	18.1%
87/287-3 <sup>1</sup>	4	0.81	0.83	0.65	0.67	0.26	0.00	1.03	1.03	13%	17.9%
87-4 <sup>2</sup>	6	0.51	0.54	0.41	0.37	0.22	0.39	1.02	1.02	90%	10.1%
87-5 <sup>2</sup>	5	0.32	0.33	0.23	0.23	0.06	0.12	1.02	1.02	100%	10.9%
87-6 <sup>2</sup>	10	0.75	0.79	0.53	0.55	0.05	0.04	1.03	1.04	100%	13.0%
87-7 <sup>1</sup>	4	0.37	0.39	0.53	0.53	0.23	0.31	1.03	1.04	82%	15.9%
287-8 <sup>1</sup>	7	0.74	0.75	0.54	0.53	0.06	0.13	1.05	1.05	100%	12.4%
287-9 <sup>1</sup>	1	0.27	0.29	0.26	0.18	0.00	0.00	1.05	1.05	35%	19.0%
Weighted Corridor Average		0.50	0.52	0.39	0.39	0.10	0.12	1.03	1.03	84.1%	14.6%
SCALES											
Performance Level		Fringe Urban				All		All		All	All
Good		< 0.71				< 0.22		< 1.15		> 90%	> 17%
Fair		0.71 – 0.89				0.22 – 0.62		1.15 – 1.50		60% – 90%	11% – 17%
Poor		> 0.89				> 0.62		> 1.50		< 60%	< 11%
Performance Level		Rural									
Good		< 0.56									
Fair		0.56 – 0.76									
Poor		> 0.76									

<sup>1</sup>Fringe Urban Operating Environment

<sup>2</sup>Rural Operating Environment

# Mobility Performance





# Safety Performance

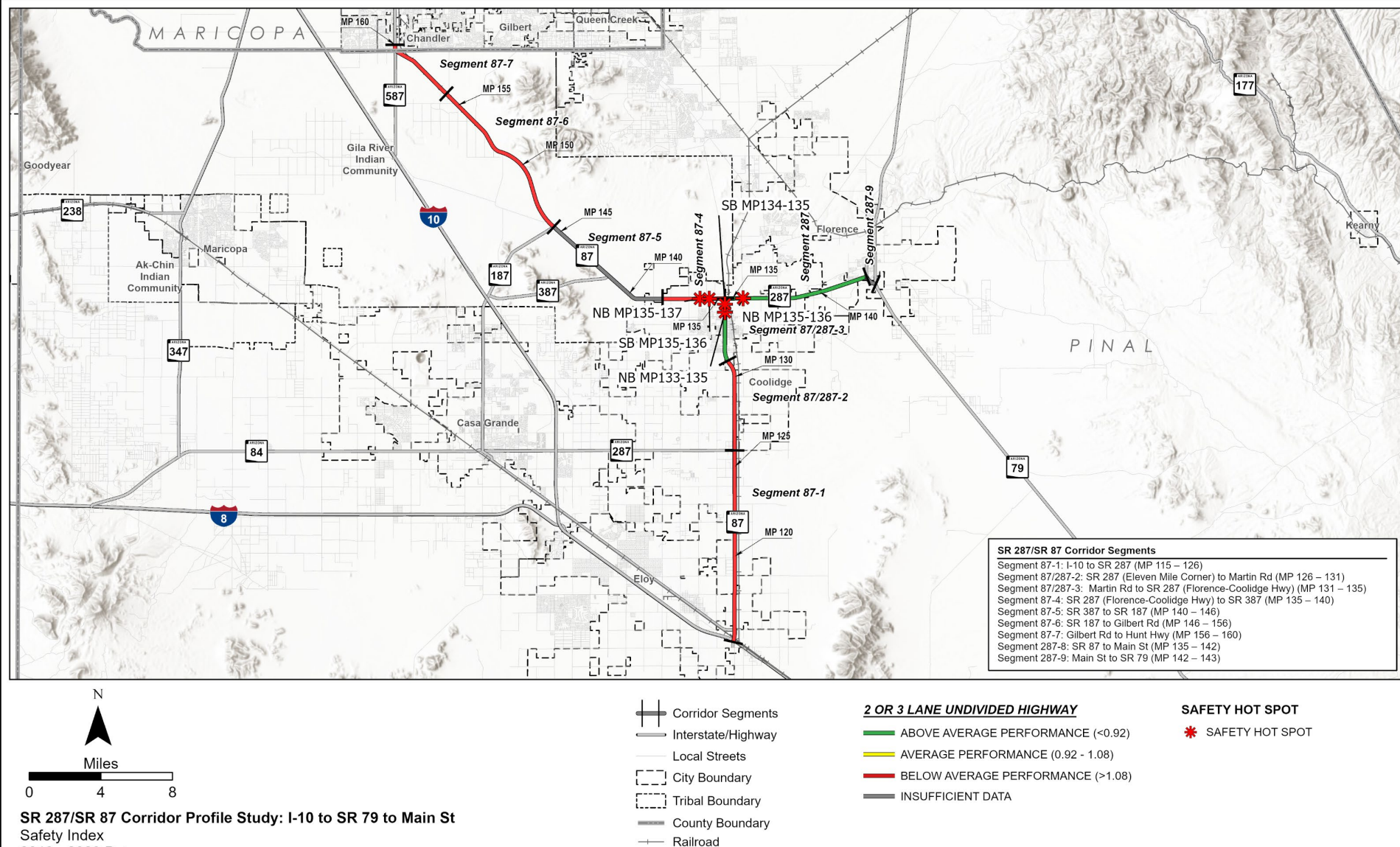
Segment	Segment Length (miles)	Total Fatal & Suspected Serious Injury Crashes (F/SS)	Safety Index	Directional Safety Index		% of Fatal + Suspected Serious Injury Crashes at Intersections	% of Fatal + Suspected Serious Injury Crashes Involving Lane Departures	% of Fatal + Suspected Serious Injury Crashes Involving Pedestrians	% of Fatal and Suspected Serious Injury Crashes Involving Trucks	% of Fatal + Suspected Serious Injury Crashes Involving Bicycles
				NB	SB					
87-1	11	2/5	1.15	2.12	0.18	71%	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
87/287-2	5	1/5	1.21	0.12	2.31	67%	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
87/287-3	4	0/14	0.88	1.13	0.62	79%	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
87-4	6	4/5	3.90	5.67	2.12	56%	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
87-5	5	2/1	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
87-6	10	6/5	2.87	4.59	1.16	27%	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
87-7	4	2/2	2.83	0.15	5.50	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
287-8	7	0/5	0.19	0.15	0.22	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
287-9	1	0/0	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
Weighted Corridor Average			1.84	2.34	1.35	57%	Insufficient Data	Insufficient Data	Insufficient Data	Insufficient Data
SCALES										
Performance Level			2 or 3 Lane Undivided Highway							
Above Average			<0.92		<11%		<67%	<4%	<4%	<0%
Average			0.92 - 1.08		11% - 16%		67% - 75%	4% - 7%	4% - 8%	0% - 3%
Below Average			>1.08		>16%		>75%	>7%	>8%	>3%

<sup>c</sup> Urban 4 Lane Freeway

<sup>d</sup> Rural 4 Lane Freeway with Daily Volume < 25,000 vpd

Note: "Insufficient Data" indicates there was not enough data available to generate reliable performance ratings

# Safety Performance



# Freight Performance

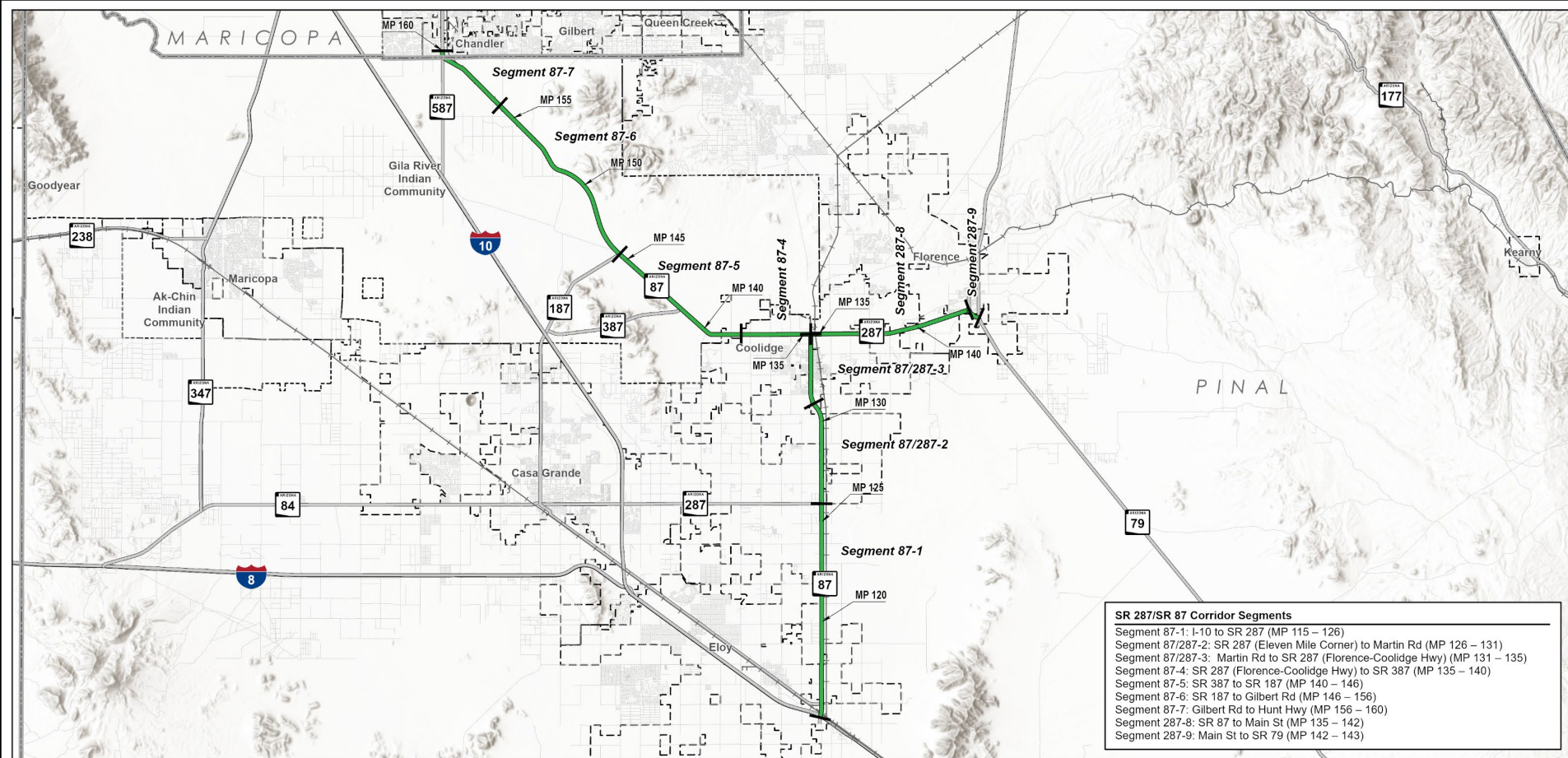
Segment	Segment Length (miles)	Freight Index	Directional TTTR		Closure Duration (minutes/milepost/ year/mile)		Bridge Vertical Clearance (feet)
			NB	SB	NB	SB	
87-1*	11	1.07	1.07	1.07	24.52	43.15	No UP
87/287-2^	5	1.07	1.07	1.07	0.00	0.00	No UP
87/287-3*	4	1.07	1.07	1.07	54.95	0.00	No UP
87-4^	6	1.05	1.05	1.05	62.09	149.46	No UP
87-5^	5	1.05	1.05	1.05	7.96	29.65	No UP
87-6*	10	1.05	1.05	1.05	12.23	8.54	No UP
87-7^	4	1.06	1.06	1.06	36.83	156.95	No UP
287-8^	7	1.07	1.07	1.07	1.28	14.55	No UP
287-9*	1	1.07	1.07	1.07	0.00	0.00	No UP
Weighted Corridor Average		1.06	1.06	1.06	22.27	44.05	N/A
SCALES							
Performance Level		Uninterrupted			All		All
Good		< 1.15			< 44.18		> 16.5
Fair		1.15 – 1.35			44.18 – 124.86		16.0 – 16.5
Poor		> 1.35			> 124.86		< 16.0
Performance Level		Interrupted			^Uninterrupted Flow Facility *Interrupted Flow Facility		
Good		< 1.45					
Fair		1.45 – 1.85					
Poor		> 1.85					

^Uninterrupted Flow Facility

\*Interrupted Flow Facility

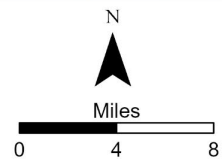


# Freight Performance



**SR 287/SR 87 Corridor Segments**

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**SR 287/SR 87 Corridor Profile Study: I-10 to SR 79 to Main St**  
Freight Index and Hot Spots  
2023 Data

- Corridor Segments
- Interstate/Highway
- Local Streets
- City Boundary
- Tribal Boundary
- County Boundary
- Railroad

## FREIGHT INDEX

### UNINTERRUPTED

(SEGMENTS 87/287-2, 87-4, 87-5, 87-7, 287-8)

- GOOD/ABOVE AVERAGE (<1.15)
- FAIR/AVERAGE (1.15-1.35)
- POOR/BELOW AVERAGE (>1.35)
- INSUFFICIENT DATA

### INTERRUPTED

(SEGMENTS 87-1, 87/287-3, 87-6, 287-9)

- GOOD/ABOVE AVERAGE (<1.45)
- FAIR/AVERAGE (1.45-1.85)
- POOR/BELOW AVERAGE (>1.85)
- INSUFFICIENT DATA

## FREIGHT HOT SPOT

BRIDGE VERTICAL CLEARANCE  
LESS THAN 16.25 FEET AND  
NO RAMP AROUND

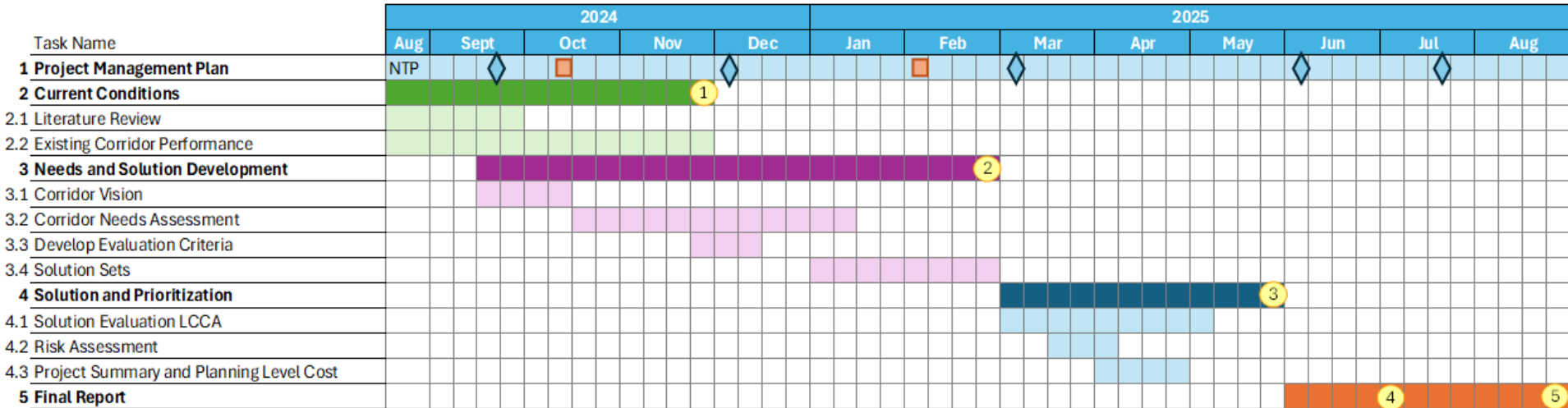
# Corridor Vision

- Additional weighting for ranking purposes
- Does not mean solutions are not developed for other performance areas
- Recommendation based on Performance Analysis results:
  - Safety
  - Mobility
  - Pavement

# Next Steps

- Conduct Needs Assessment
- Develop Strategic Solutions

# Study Schedule



Notice to Proceed NTP

Technical Advisory Committee Meeting

ADOT District Meeting

Deliverables

Chapters 1 & 2: Introduction and Corridor Performance ①

Chapters 3 & 4: Needs Assessment and Strategic Solutions ②

Chapters 5 & 6: Solution Evaluation and Prioritization and Summary of Corridor Recommendations ③

Draft Final Report ④

Final Report ⑤