Southeast Mesa Land Use and Transportation Plan

City of Mesa

May 21, 2019

Transportation Advisory Board

Kimley»Horn

Matrix DESIGN GROUP

Rounds Consulting Group, Inc.
Economic and Policy Analysis

mesa·az

Project Team

City Project Manager

- Al Zubi, P.E. PTOE, Transportation Department

Project Lead

- Michael Grandy, P.E. Kimley-Horn, Project Manager, Transportation

Project Support

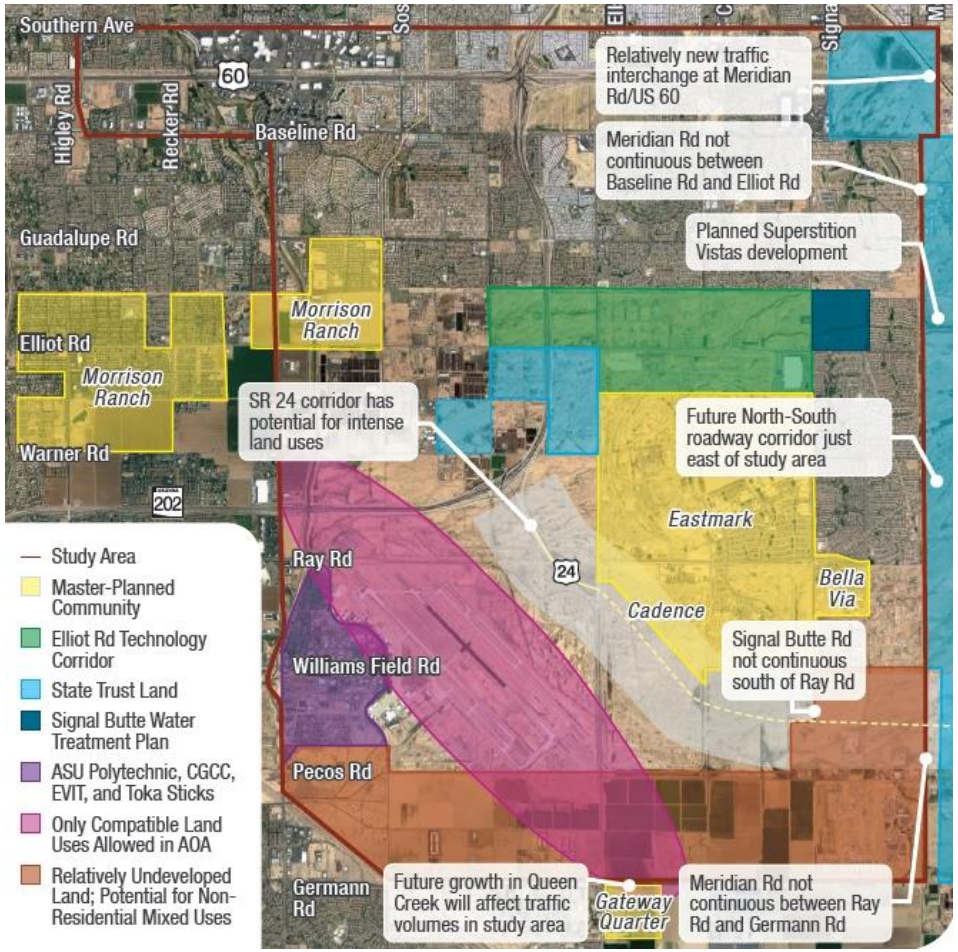
- Felipe Zubia, AICP, Matrix, Land Use
- Jim Rounds, Rounds Consulting, Economics

Agenda

1. Project Need/Scope/Schedule
2. Community Meeting Input Received
3. Draft Future Land Use Plan
4. Draft Future Transportation Plan
5. Prioritization of Improvements
6. Next Steps

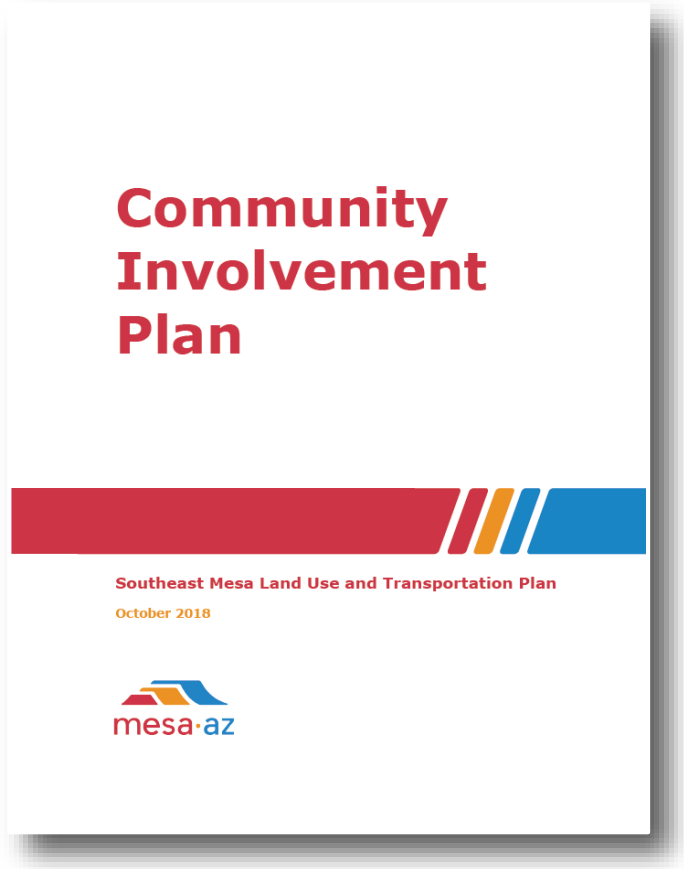
Need for Southeast Mesa LUTP

- Land Development
  - Few Remaining Large Undeveloped Parcels
  - Changing Markets & Trends
  - Updated Land Use Assumptions
- Road Project Prioritization
  - SR 24 Extension
  - Which Roads to Build First?
  - How Many Lanes are Needed?



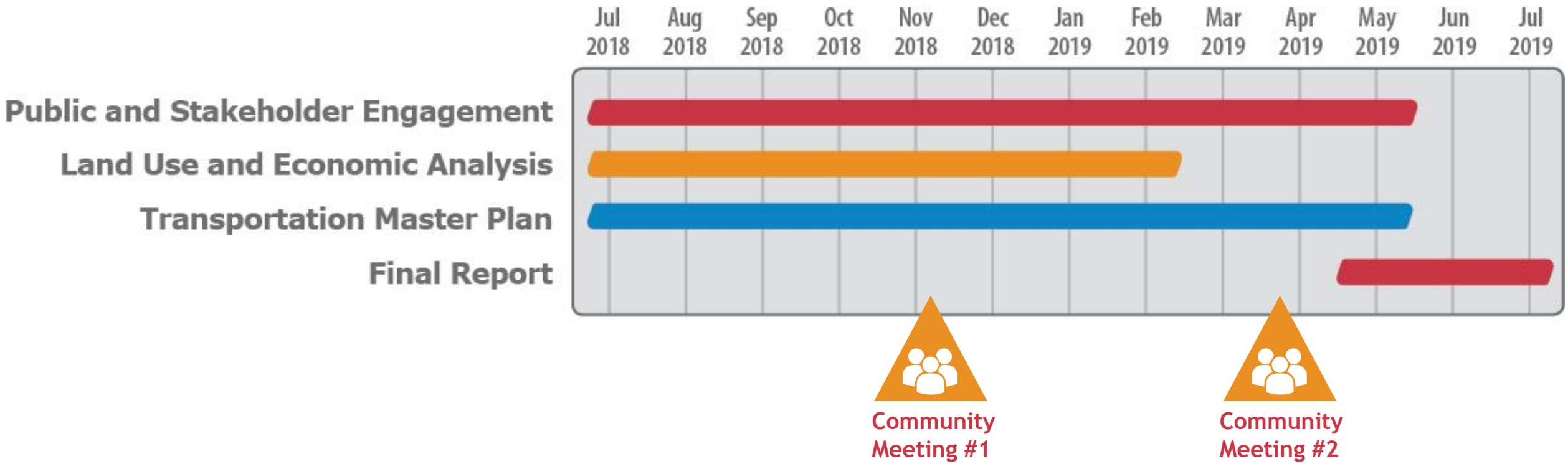
Project Scope

- Existing Conditions Update
  - Market Analysis
  - Land Use Update
  - Transportation Update
- Public Engagement
  - Community Involvement Plan
  - Stakeholders
  - Workshops
  - Council, Committee Board updates
- Plan Updates
  - Vision, Goals, and Policies
  - Infrastructure Programming and Prioritization



mesaaz.gov/SEMesaPlan

Project Schedule



Community Input Received

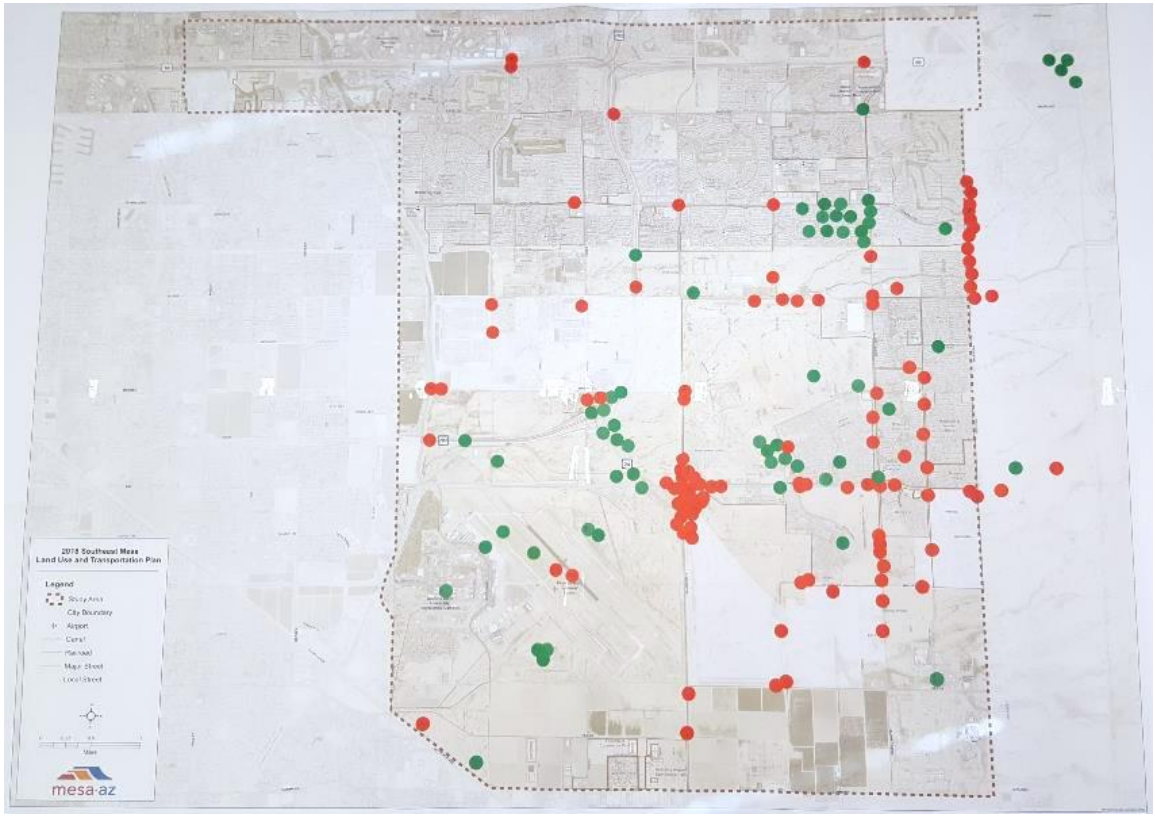
120+ attendees at each of two meetings!

Meeting #1 Interactive Exercise Input

- Transportation facilities are what needs to be improved the most in the study area
- Narrow roads, bicycle/pedestrian facilities, and public transit should be improved
- High-priority north-south roads to improve are Signal Butte Rd, Ellsworth Rd, and Crismon Rd
- High-priority east-west roads to improve are Warner Rd, Elliot Rd, and Ray Rd

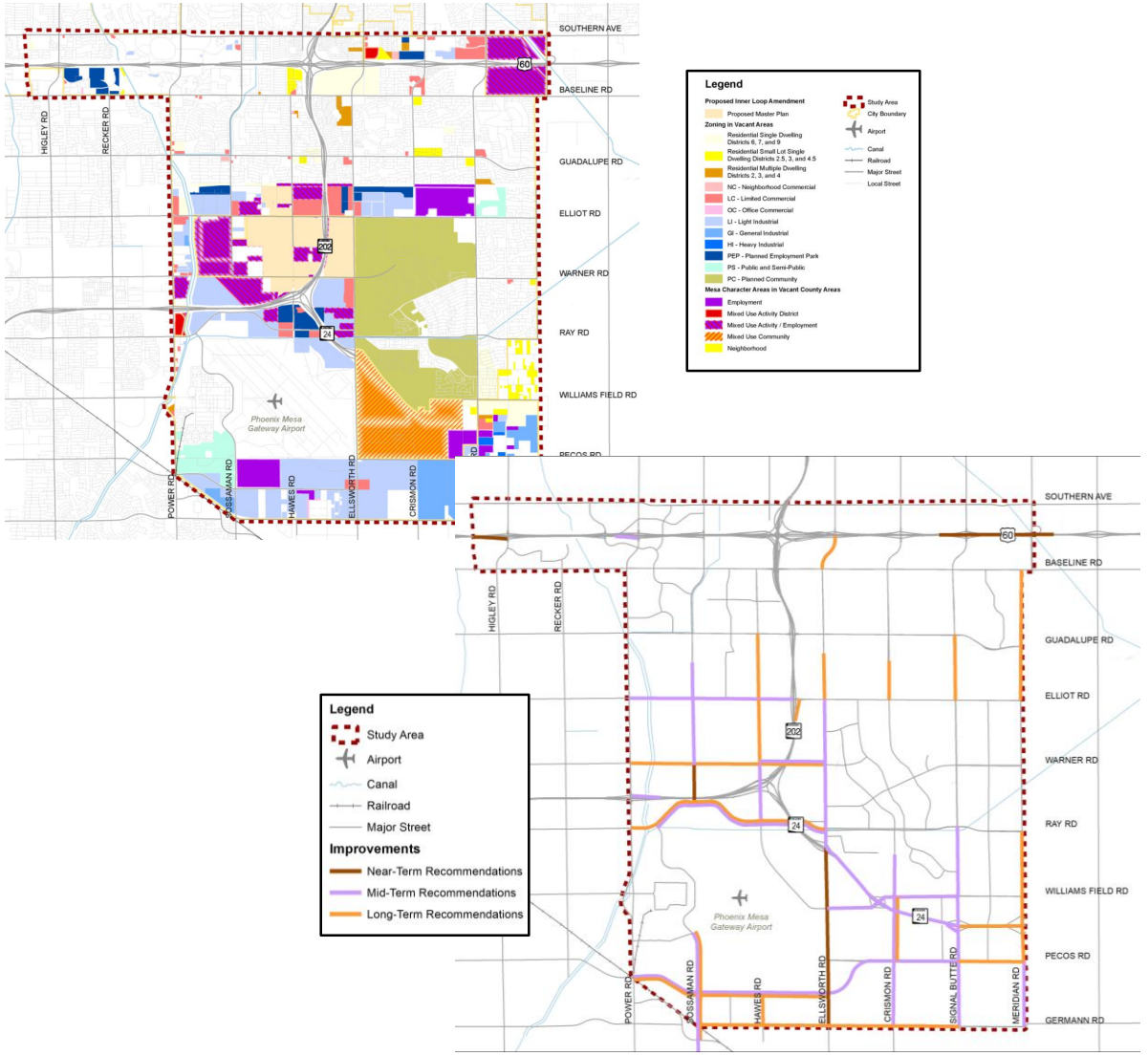
Meeting #1 Mapping Exercise Results

- Positive Attributes
  - View of the mountains to the east
  - Good neighborhoods, schools, and parks
  - SR 24
  - Airport and higher education
- Areas Needing Improvement
  - Heavy congestion on Ellsworth Rd
  - SR 24 back-ups at Ellsworth Rd
  - Discontinuous roads:
    - Signal Butte Rd
    - Meridian Rd
    - Warner Rd
  - Traffic/speeding on Mountain Rd



Meeting #2 Comments Provided

- Agree with Proposed Recommendations
  - Widen Ellsworth Rd
  - Extend Signal Butte Rd
  - Extend SR 24 farther east
  - Extend Hawes Rd north of Loop 202
  - More streets into Pinal County and Queen Creek
  - Make Meridian Rd continuous
- Disagree with Proposed Recommendations
  - Make Signal Butte Rd improvements higher priority
  - Don't make Meridian Rd continuous – keep it rural

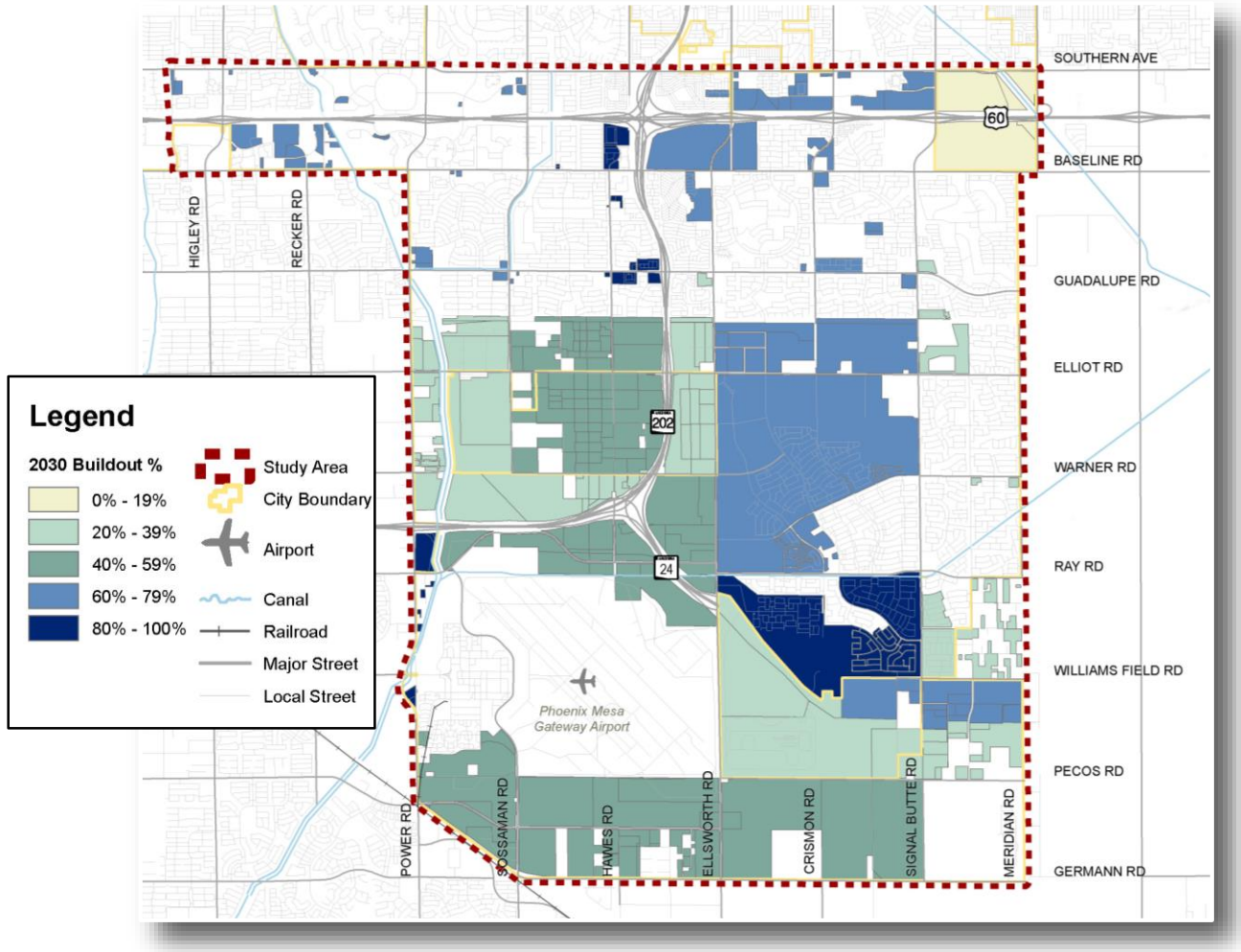


Draft Future Land Use Plan

Future Land Use Plan

2030 Percent Built Out

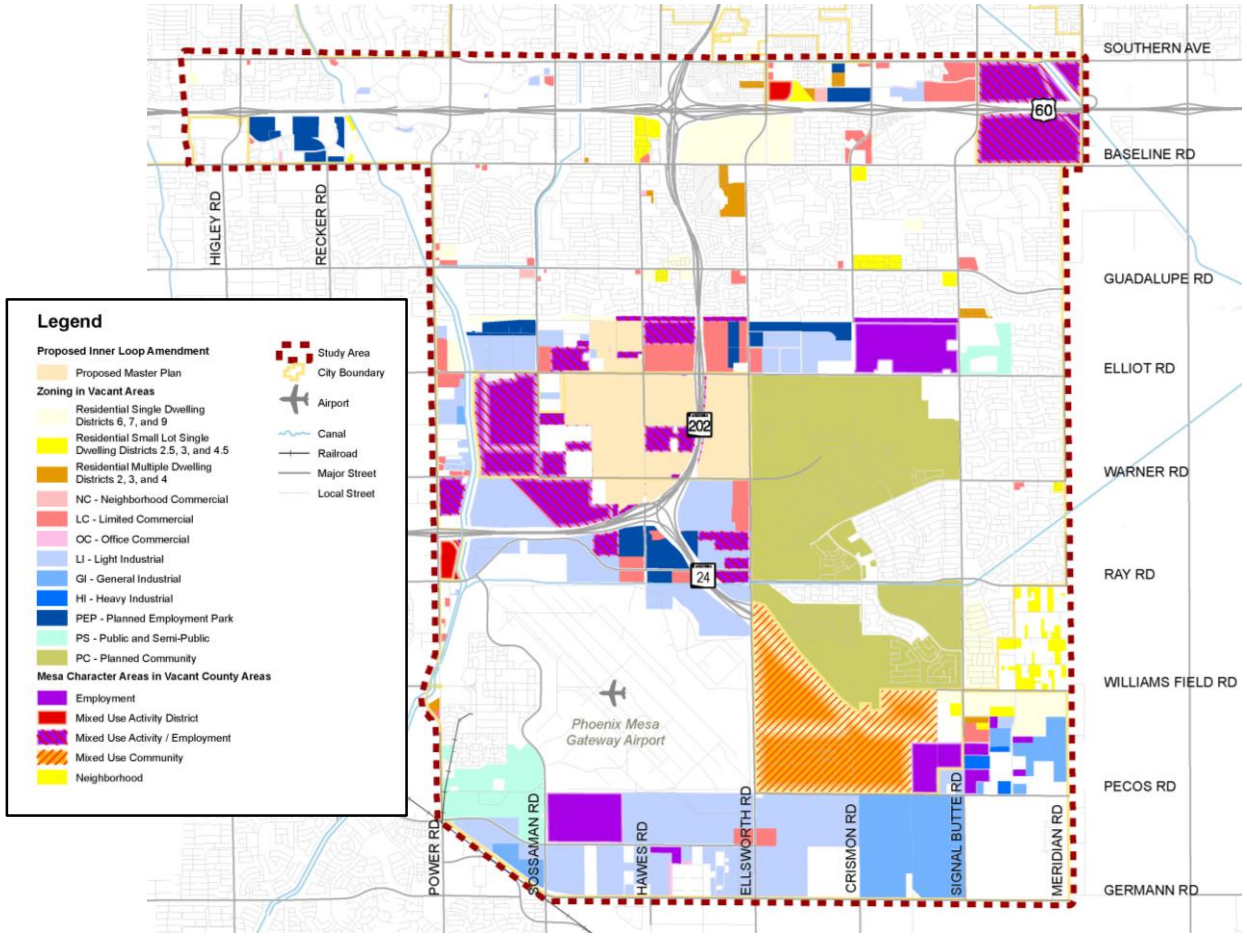
- Population in study area expected to grow by approximately 47,000 people, a 47% increase over the current population
- Population growth primarily focused between Ellsworth Rd and Signal Butte Rd north of SR 24
- Employment uses will develop south of airport and along the two freeways, tripling employment in study area



Future Land Use Plan

2040 Buildout

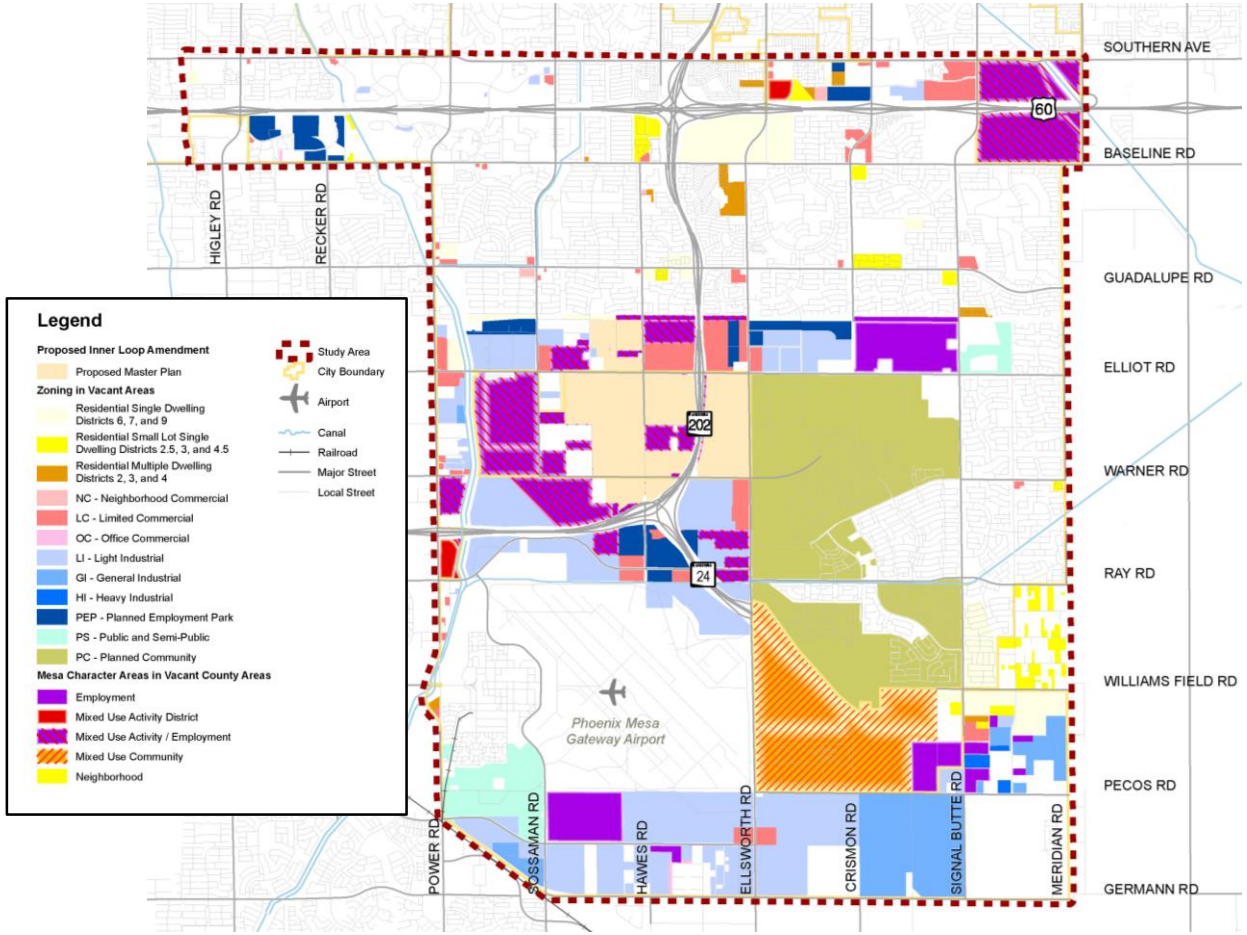
- By 2040, study area is expected to be nearly built out
- An additional 25,000 people expected to move to area
- Employment growth (light industrial and commercial) to bring 100,000 additional employees between 2030 and 2040
- Based on existing zoning assumptions



Economic Impact Analysis

Future Land Use Scenario

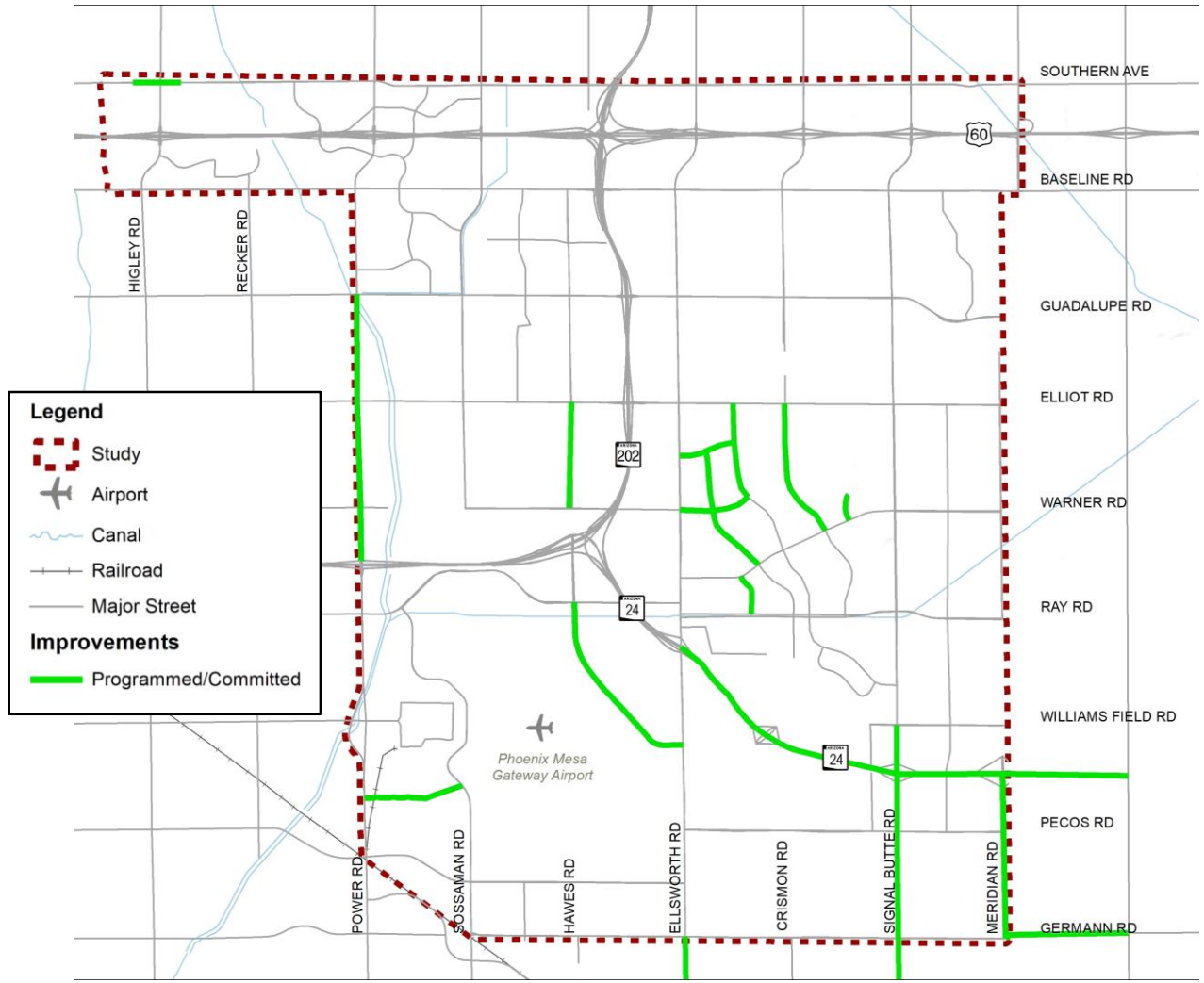
- Development of future available land = **13,622 acres**
- Direct and indirect jobs at build-out = **479,000 regionally**
- Total economic output generated at build-out = **$94.5 billion**



Draft Future Transportation Plan

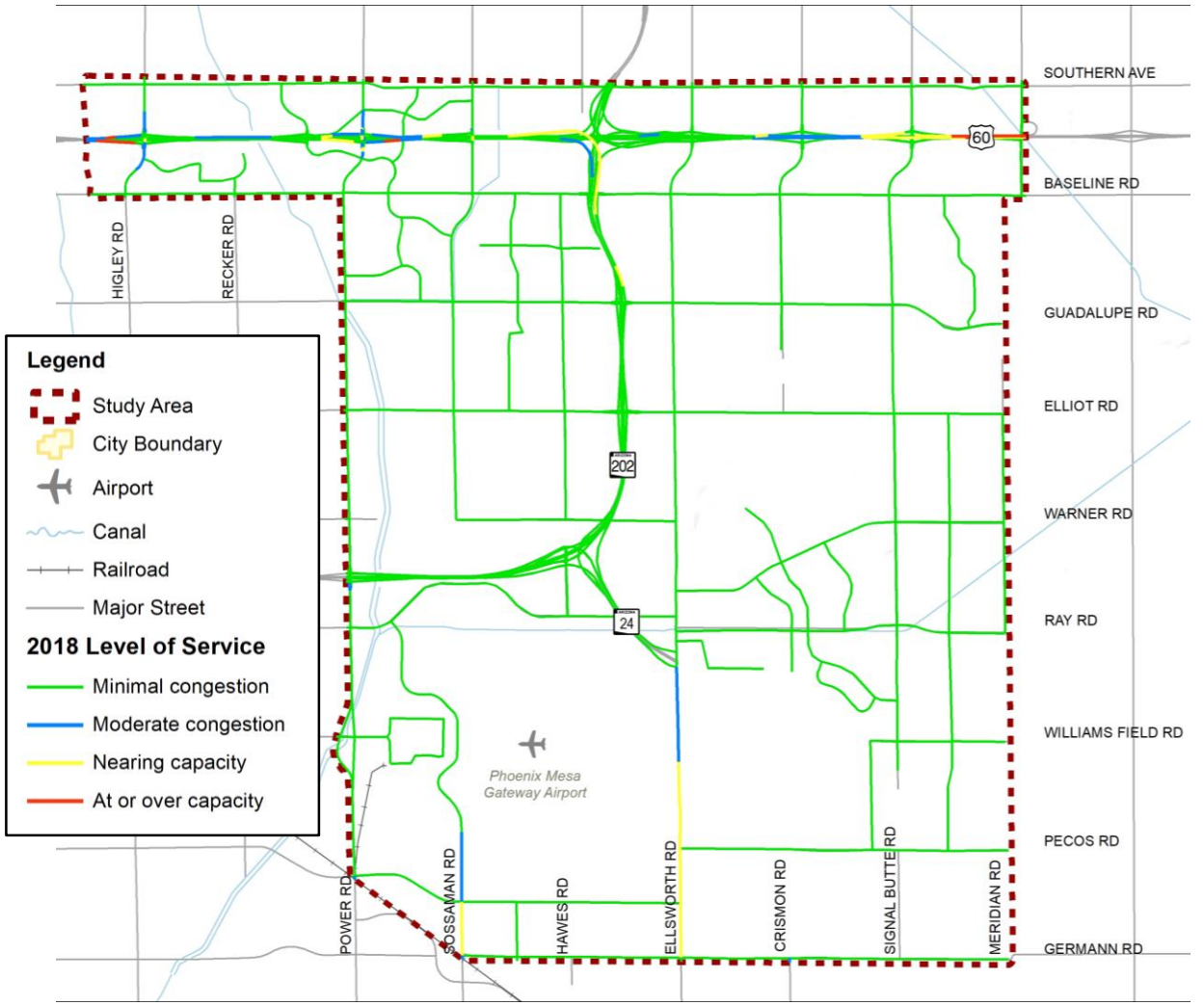
“Baseline” Scenario

- Several improvements already under construction, funded (programmed), or committed
- SR 24 extension to Ironwood Rd as 4-lane interim freeway
- New segments of Signal Butte Rd and Meridian Rd to connect to SR 24
- Some privately funded roads (e.g., Eastmark)



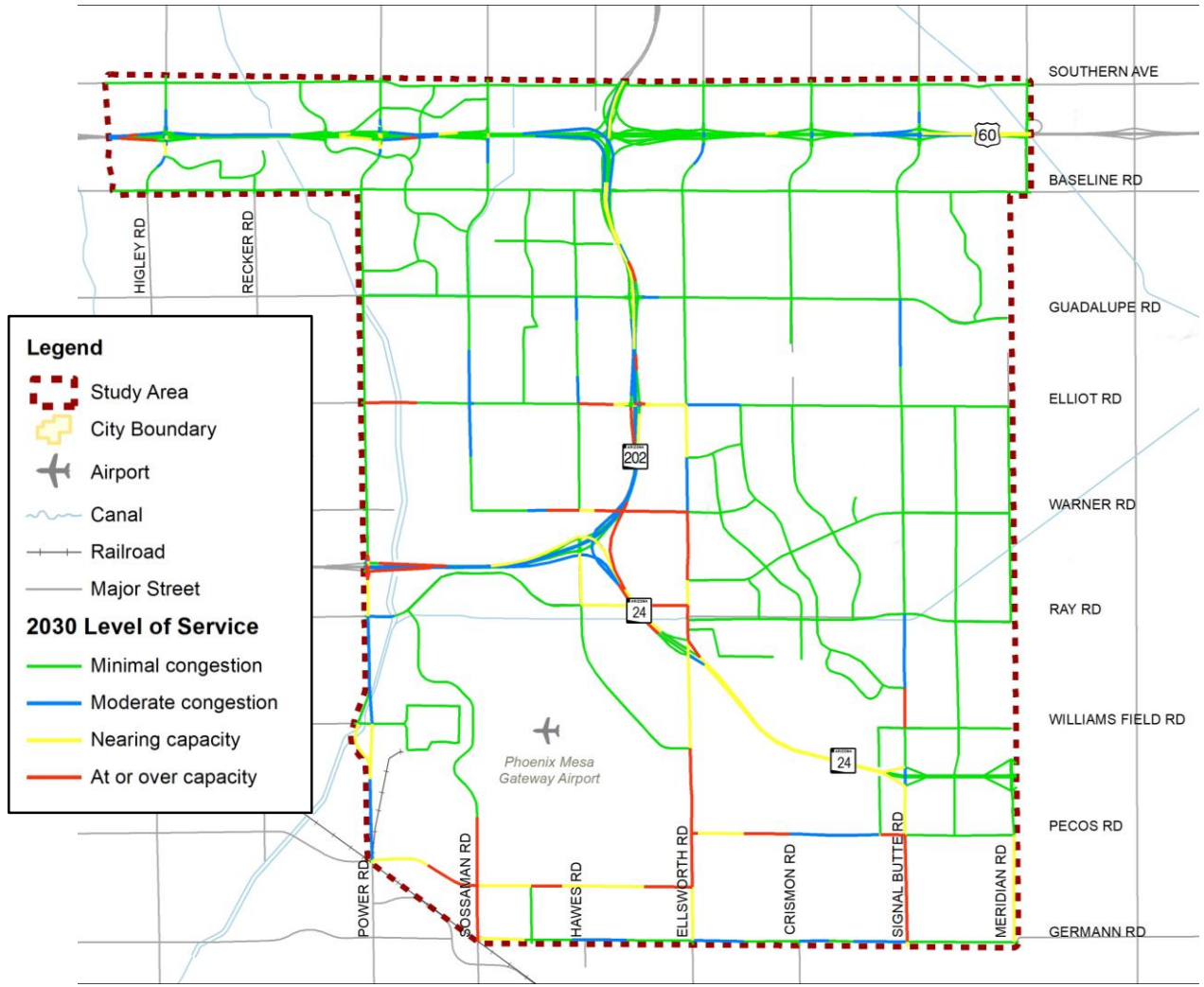
Traffic Conditions - 2018 Baseline

- Ellsworth Rd south of SR 24 close to capacity
- Sossaman Rd near Pecos Rd close to capacity
- Much of rest of road network has minimal congestion
- Several gaps in grid network



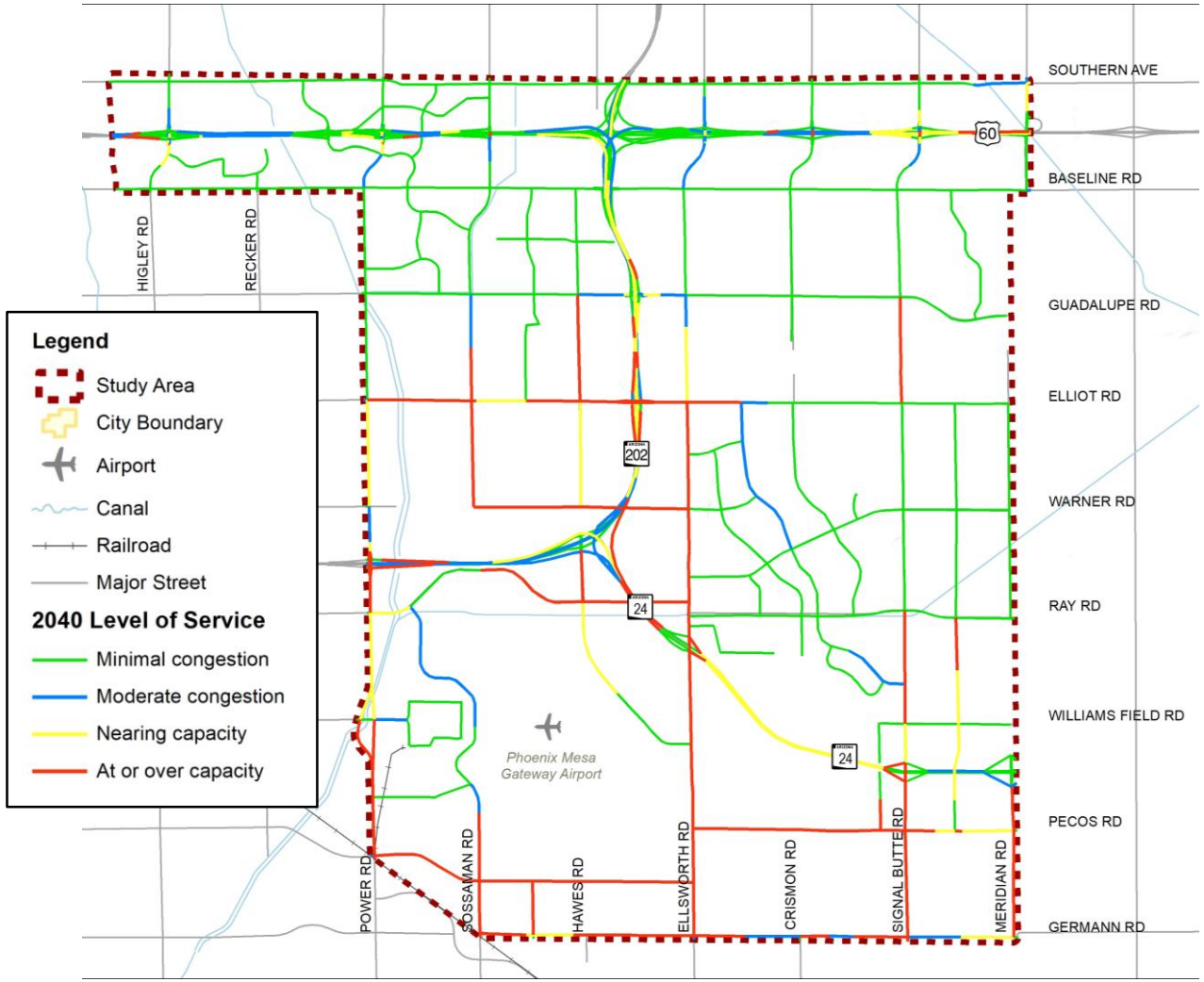
Traffic Conditions – 2030 Baseline

- Ellsworth Rd south of Warner Rd at or over capacity
- Signal Butte Rd south of SR 24 at or over capacity
- Parts of Elliot Rd and Warner Rd over capacity
- Parts of Sossaman Rd and Pecos Rd at or over capacity
- Congestion at several Loop 202 traffic interchanges



Traffic Conditions – 2040 Baseline

- Much of network south of Elliot Rd over capacity
- Demand on Ellsworth Rd is double the available capacity
- SR 24 over capacity
- Elliot Rd at or over capacity
- Northern part of study area generally still has minimal congestion



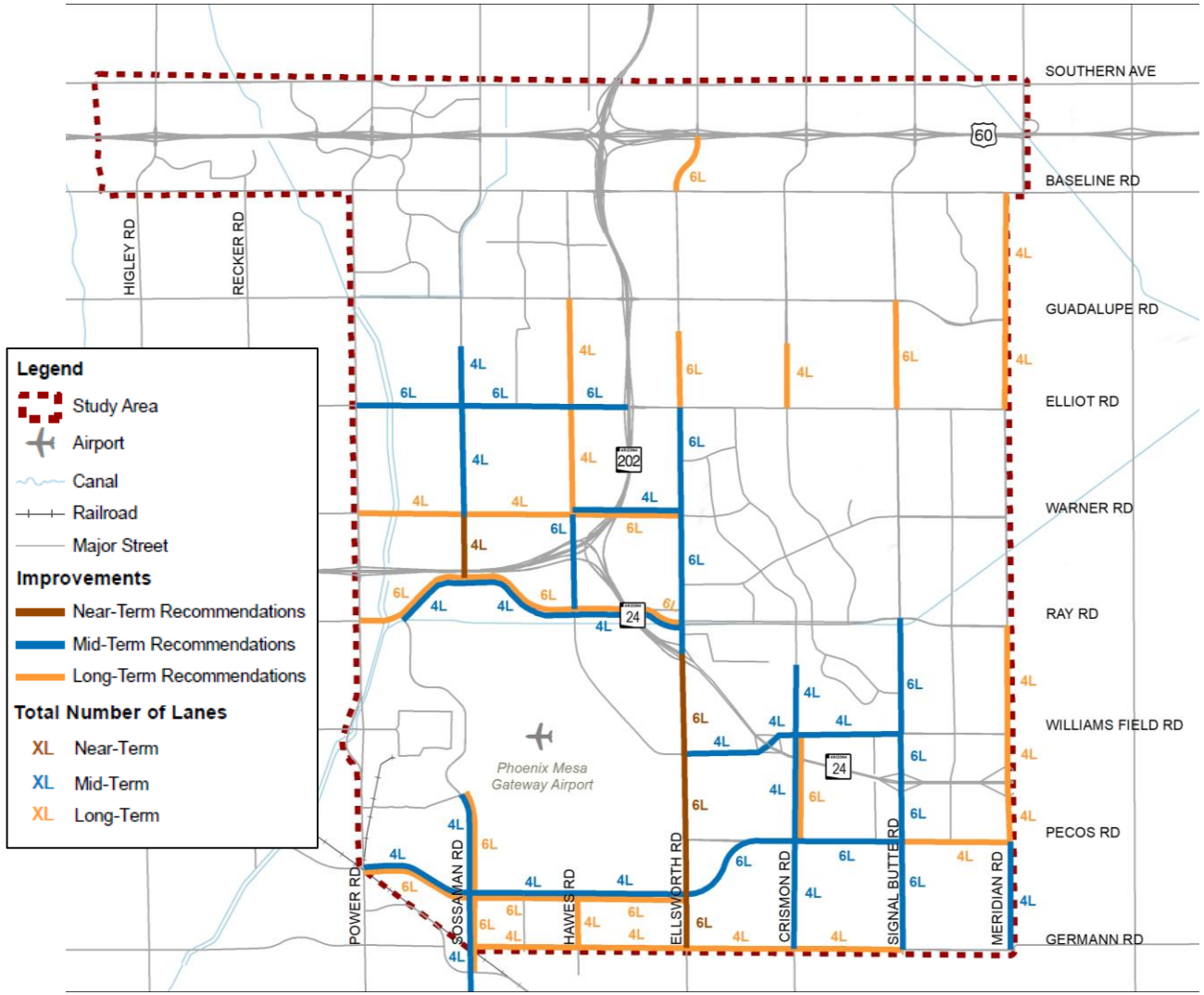
Draft Prioritization Criteria and Weighting

- Improves mobility and safety (42%)
- Enhances economic vitality (27%)
- Can feasibly be funded and is cost-effective (18%)
- Is compatible with approved plans and public input (12%)

Weighted Score	Prioritization Criteria
	Improves mobility and safety Project reduces mobility issues (i.e., congestion, delay, unreliability, access concerns) or safety issues, thereby improving the regional and local transportation network
42	Addresses major mobility issues on the arterial street network, directly improves connectivity to the regional freeway system and regional multimodal facilities, and addresses specific identified severe crash pattern
35	Addresses major mobility issues on the arterial street network, directly improves connectivity to the regional freeway system and regional multimodal facilities, or addresses specific identified severe crash pattern
28	Addresses minor mobility issues on the arterial street network, indirectly improves connectivity to the regional freeway system and regional multimodal facilities, and addresses specific identified frequent (but not severe) crash pattern
21	Addresses minor mobility issues on the arterial street network, indirectly improves connectivity to the regional freeway system and regional multimodal facilities, or addresses specific identified frequent (but not severe) crash pattern
14	Addresses mobility issues on the local or collector street network, indirectly improves connectivity to the arterial street network or local multimodal facilities, or addresses specific identified non-severe and non-frequent crash pattern
0	Does not improve mobility and safety
	Enhances economic vitality Project has a positive impact on the economy because it improves infrastructure or access within an economically strategic area (i.e., designated growth area, important economic corridor, employment center) or provides new strategic development opportunities, thereby improving general livability
27	Improves infrastructure or access within an economically strategic area or provides new strategic development opportunities
18	Improves infrastructure or access outside of an economically strategic area but would directly benefit it
9	Improves infrastructure or access outside of an economically strategic area but would indirectly benefit it
0	Does not enhance economic vitality
	Can feasibly be funded and is cost-effective Project makes timely and efficient use of available funding
18	Can likely be funded with an existing CIP source or outside entity (e.g., MAG, developer) and is very cost-effective compared to other potential projects
12	Can likely be funded with future bonds or joint funding and is somewhat cost-effective compared to other potential projects
6	Has no identified likely funding source and is not very cost-effective compared to other potential projects
0	Cannot feasibly be funded and is not cost-effective
	Is compatible with approved plans and public input Project is a recommendation in an approved plan or has public support
12	Specifically referenced in, or directly supports, objectives and policies in the City of Mesa General Plan or another approved City of Mesa plan or has strong public support
8	Specifically referenced in, or directly supports, another agency's approved plan or has moderate public support
4	Generally compatible with approved plans or has minimal public support
0	Is not compatible with approved plans and does not have public support
99	**Total Score Potential**

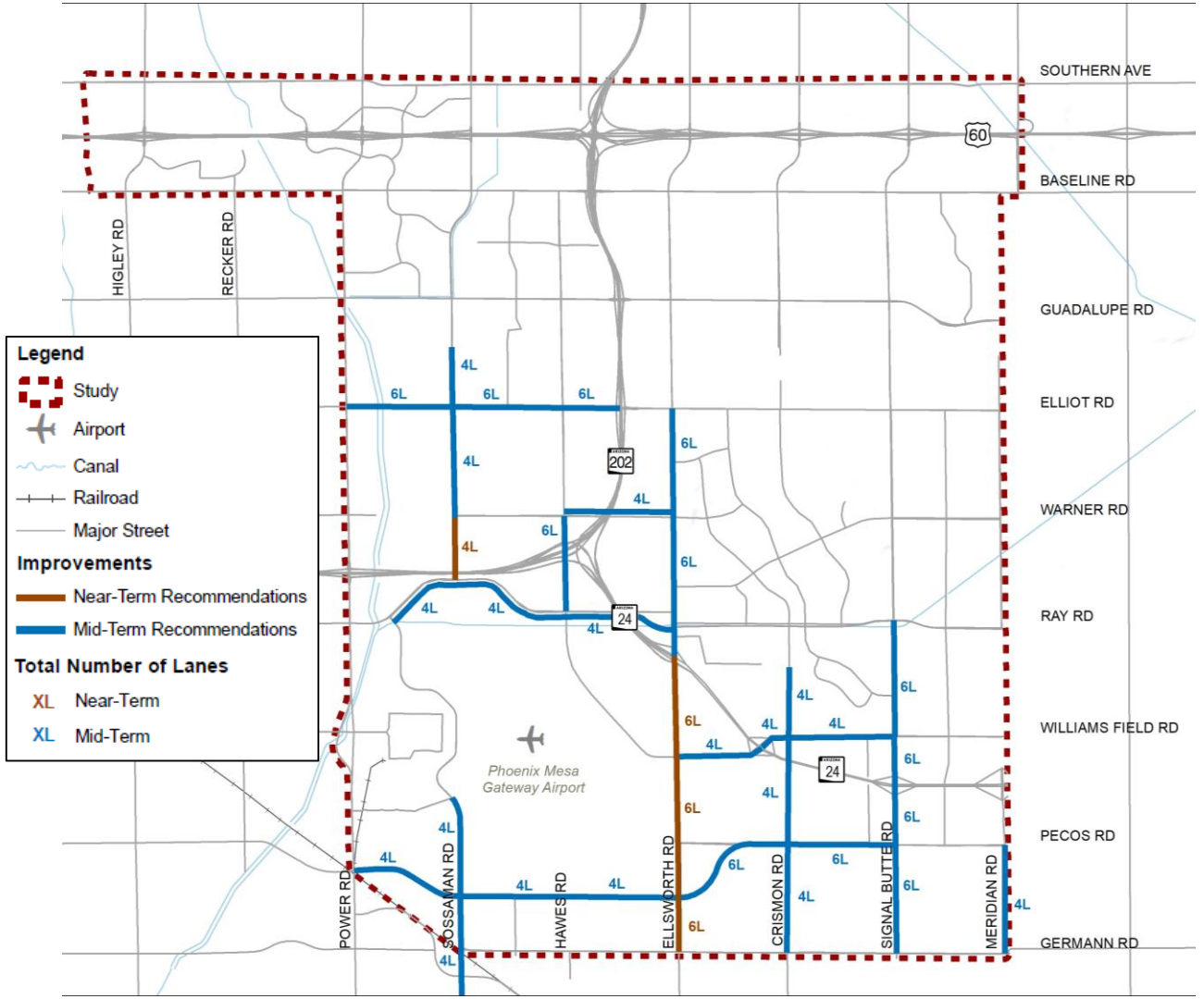
Draft Recommended Improvement Plan

- Minimal to moderate congestion if implement improvements
- Near-term: widen Ellsworth Rd and extend Sossaman Rd across Loop 202 to Ray Rd
- Mid-term: widen/extend roads near airport and freeways
- Long-term: grid network of 4-lane and 6-lane arterial roads



Input on Recommended Improvement Plan

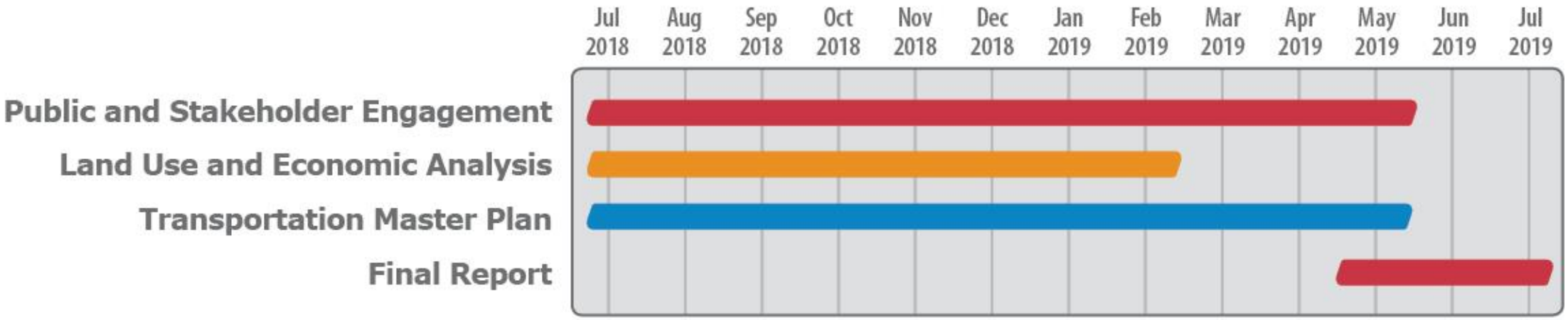
- Focus is on near-term and mid-term recommendations
- Any comments on the overall analysis process or results?
- Any comments on the recommended improvements and priorities?



Next Steps

Remaining Tasks

- Transportation Advisory Board presentation – May 2019
- Planning & Zoning Board presentation – May 2019
- Finalize prioritization of recommendations – May 2019
- Draft Final Report – June 2019
- Final Report – July 2019

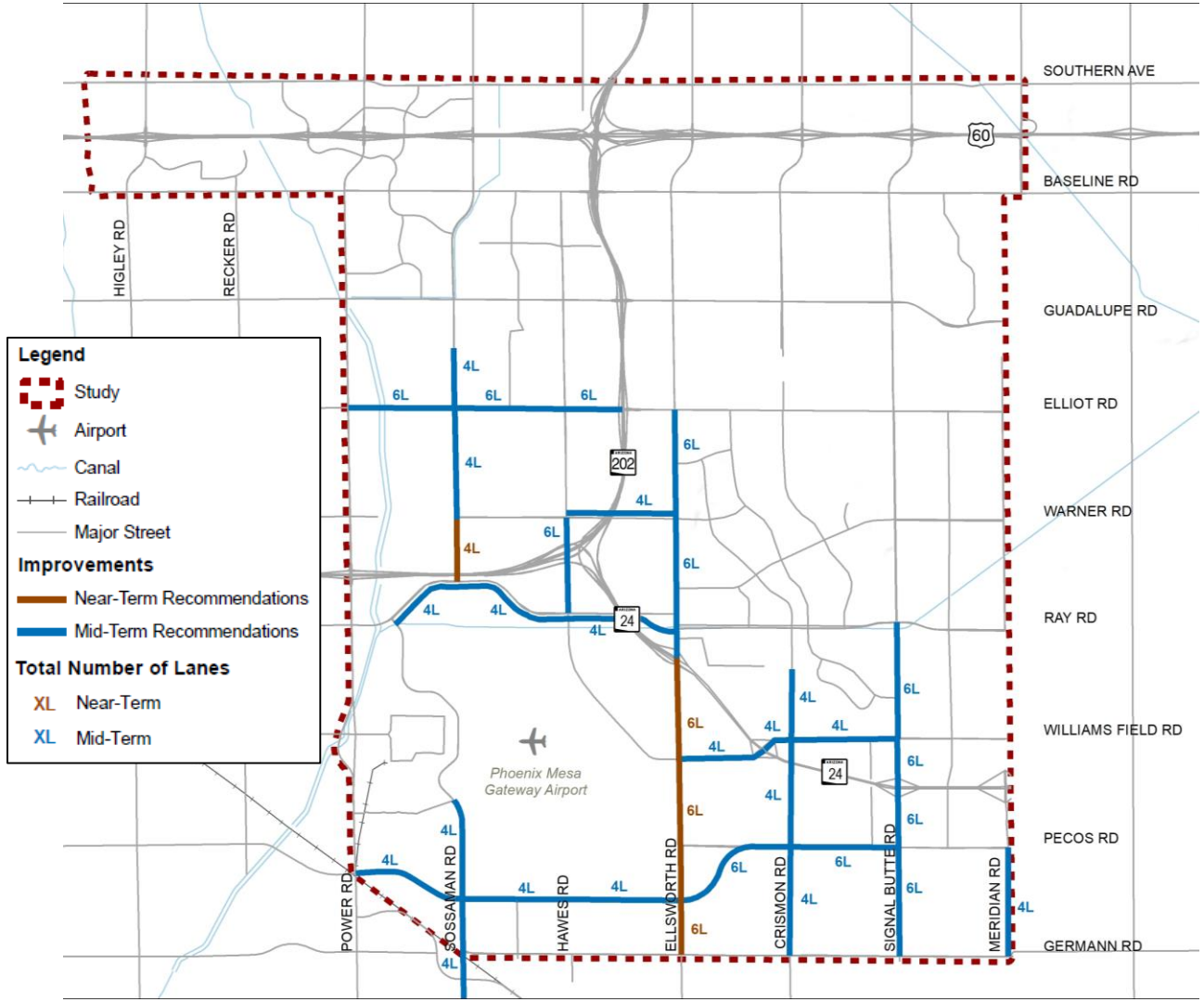


Comments or Questions?

Detailed Prioritization of Improvements

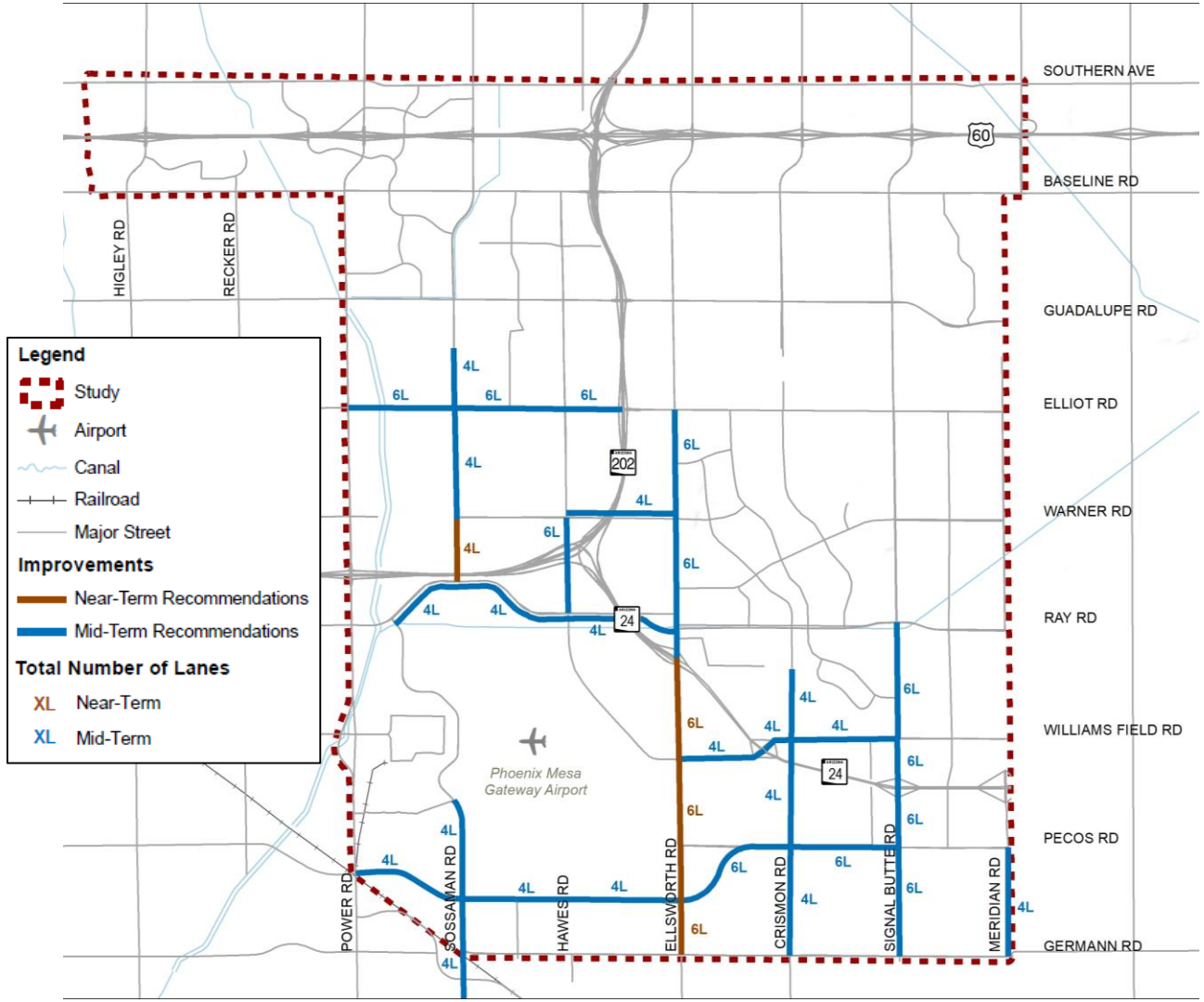
Near-Term and Mid-Term Prioritization

- Near-Term:
  - Widen Ellsworth Rd to 6 lanes – SR 24 to Germann Rd
  - Construct 4-lane Sossaman Rd – Warner Rd to Ray Rd
- Mid-Term:
  - Widen Ellsworth Rd to 6 lanes – Elliot Rd to SR 24
  - Construct 4-lane Crismon Rd – S. of Ray Rd to Germann Rd
  - Widen Elliot Rd to 6 lanes – Power Rd to Loop 202
  - Construct 6-lane Hawes Rd – Warner Rd to Loop 202
  - Widen Warner Rd to 4 lanes – Hawes Rd to Ellsworth Rd
  - Widen Ray Rd to 4 lanes – Sossaman Rd to Ellsworth Rd (with curve at Ellsworth Rd)



Mid-Term Prioritization (continued)

- Mid-Term:
  - Construct 4-lane Williams Field Rd – SR 24 to Signal Butte Rd
  - Construct 4-lane Williams Field Rd – Ellsworth Rd to SR 24
  - Widen Signal Butte Rd to 6 lanes – Ray Rd to Germann Rd
  - Widen Sossaman Rd to 4 lanes – Velocity Way to S. of Rittenhouse Rd
  - Widen Pecos Rd to 4 lanes – Power Rd to Ellsworth Rd
  - Widen Pecos Rd to 6 lanes - Ellsworth Rd to Signal Butte Rd (with curve at Ellsworth Rd)
  - Widen Hawes Rd to 6 lanes – Loop 202 to Ray Rd
  - Widen Sossaman Rd to 4 lanes – S. of Guadalupe Rd to Warner Rd
  - Widen Meridian Rd to 4 lanes – Pecos Rd to Germann Rd



Improvement Timeframe	Prioritization Score: Improves Mobility and Safety	Prioritization Score: Enhances Economic Vitality	Prioritization Score: Can Feasibly be Funded and is Cost-Effective	Prioritization Score: Is Compatible with Approved Plans and Public Input	Prioritization Score: Total Score	Rank (highest to Lowest)	Improvement Description	Improves Mobility and Safety: Baseline V/C - Improved V/C	Improves Mobility and Safety: Baseline/ Improved LOS & V/C	Improves Mobility and Safety: Baseline Volume/ Improved Volume	Improves Mobility and Safety: New Connection	Improves Mobility and Safety: Crash Pattern	Enhances Economic Vitality: Growth Area	Enhances Economic Vitality: Adjacent 2040 Employees	Can Feasibly be Funded and is Cost-Effective: Likely Funding Source	Can Feasibly be Funded and is Cost-Effective: Relative Cost/Length (mi)	Is Compatible with Approved Plans and Public Input: Compatible with Approved Plans	Is Compatible with Approved Plans and Public Input: Public Support
Near-Term	42	27	12	12	93	1	Widen Ellsworth Rd to 6 lanes between SR 24 and Germann Rd	0.24	E/D 0.98/0.74	34.7/39.7	No	Yes	in GA	25k	Mesa	$$$/2.8	TMP (partial)	Strong
	21	27	12	12	72	2	Construct Sossaman Rd as a 4-lane arterial between Warner Rd and Ray Rd	0.03	C/C 0.56/0.53 -/C -/0.10	20.1/18.7 -/3.6	Yes		in GA	9k	Mesa, Developer	$/0.6	TMP	Moderate
Mid-Term	35	27	18	12	92	1	Widen Ellsworth Road to 6 lanes between Elliot Rd and SR 24	0.29	F/E 1.26/0.97	55.9/51.8	No		in GA	12k	Mesa, Developer	$$/2.2	TMP	Strong
	35	27	18	12	92	1	Construct Crismon Rd as a 4-lane arterial between ¼ mile south of Ray Rd and Germann Rd	0.52	F/D 1.25/0.73 -/C -/0.67	44.4/38.9 -/23.8	Yes		in GA	11k	Mesa, Developer	$$/2.8	TMP	Strong
	35	27	18	12	92	1	Widen Elliot Road to 6 lanes between Power Rd and Loop 202	0.74	F/C 1.10/0.36	19.6/19.1	No		in GA	20k	Mesa, Developer	$$/2.5	TMP	Strong
	35	27	18	8	88	4	Construct Hawes Rd as a 6-lane arterial between Warner Rd and Loop 202	0.30	F/E 1.17/0.87 -/C -/0.28	41.5/46.4 -/15.0	Yes		in GA	3k	Mesa, Developer	$/0.3	TMP	Moderate
	35	27	12	12	86	5	Widen Warner Rd to 4 lanes between Hawes Rd and Ellsworth Rd	0.62	F/C 1.20/0.58	17.5/20.7	No		in GA	15k	Mesa, Developer	$/1.0	TMP	Strong
	35	27	12	12	86	5	Widen Ray Rd to 4 lanes between Sossaman Rd West and Ellsworth Rd and realign it with a curve to the south to connect directly to Ray Rd east of Ellsworth Rd	0.29	F/E 1.26/0.97	22.3/34.5	No		in GA	14k	Mesa, Developer	$$$/3.0	TMP	Strong
	35	27	12	12	86	5	Construct Williams Field Rd as a 4-lane arterial between SR 24 and Signal Butte Rd	0.08	C/C 0.36/0.28 -/C -/0.23	19.2/15.0 -/24.8	Yes		in GA	3k	Mesa, Developer	$/1.2	TMP	Strong
	35	27	12	12	86	5	Construct Williams Field Rd as a 4-lane arterial between Ellsworth Rd and SR 24	-0.03	C/C 0.40/0.43 -/C -/0.15	21.2/22.9 -/5.3	Yes		in GA	8k	Mesa, Developer	$/0.8	TMP	Strong
	35	27	12	12	86	5	Widen Signal Butte Rd to 6 lanes between Ray Rd and Germann Rd	0.88	F/C 1.37/0.49	24.4/26.4	No		in GA	9k	Developer	$$$/3.0	TMP	Strong
	35	27	12	8	82	10	Widen Sossaman Rd to 4 lanes between Velocity Way and ¼ mile south of Rittenhouse Rd	0.59	F/D 1.39/0.80	24.7/28.5	No		in GA	23k	Mesa, QC	$$/2.0	TMP	Moderate
	35	27	12	8	82	10	Widen Pecos Rd to 4 lanes between Power Rd and Ellsworth Rd	0.48	F/D 1.22/0.74	21.8/26.4	No		in GA	21k	Mesa, Developer	$$$/3.2	TMP	Moderate
	35	27	12	8	82	10	Widen Pecos Rd to 6 lanes between Ellsworth Rd and Signal Butte Rd and realign it with a curve to the south to connect directly to Pecos Rd west of Ellsworth Rd	0.79	F/C 1.09/0.30	19.3/15.9	Yes		in GA	23k	Mesa, Developer	$$$/2.5	TMP (partial)	Moderate
	21	27	18	8	74	13	Widen Hawes Rd to 6 lanes between Loop 202 and Ray Rd	0.52	E/C 0.91/0.39	16.2/20.9	No		in GA	5k	Mesa, Developer	$/0.6	TMP	Moderate
	21	27	18	8	74	13	Widen Sossaman Rd to 4 lanes between ½ mile south of Guadalupe Rd and Warner Rd	0.40	D/C 0.84/0.44	14.9/15.5	No		in GA	9k	Mesa, Developer	$$/1.5	TMP	Moderate
	21	27	12	8	68	15	Widen Meridian Rd to 4 lanes between Pecos Rd and Germann Rd	0.54	E/C 0.85/0.31	15.1/11.2	No		in GA	1k	Mesa, PC, QC	$/1.0	TMP	Moderate
Long-Term	35	27	18	12	92	1	Construct Warner Rd as a 4-lane arterial between Power Rd and Sossaman Rd	1.48	F/C 1.92/0.44 -/C -/0.54	34.1/23.4 -/19.2	Yes		in GA	9k	Mesa, Developer	$$$/1.0	TMP	Strong
	35	27	18	12	92	1	Widen Warner Rd to 4 lanes between Sossaman Rd and Hawes Rd	1.54	F/C 2.22/0.68	32.4/24.0	No		in GA	5k	Mesa, Developer	$/1.0	TMP	Strong
	35	27	18	8	88	3	Widen Warner Rd to 6 lanes between Hawes Rd and Ellsworth Rd	1.09	F/D 1.81/0.72	26.4/38.3	No		in GA	15k	Mesa, Developer	$/1.0	-	Strong
	35	27	18	8	88	3	Widen Crismon Rd to 6 lanes between Williams Field Rd and Pecos Rd	0.43	F/F 1.49/1.06 -/D -/0.84	66.1/56.3 -/44.7	Yes		in GA	11k	Mesa, Developer	$$/1.0	-	Strong
	35	27	12	12	86	5	Widen Ray Rd to 6 lanes between Power Rd and Ellsworth Rd	0.66	F/F 1.78/1.12	31.6/59.5	No		in GA	13k	Developer	$$$/3.3	TMP (partial)	Strong
	35	18	18	12	83	6	Widen Signal Butte Rd to 6 lanes between Guadalupe Rd and Elliot Rd	0.58	F/C 1.12/0.54	39.9/28.6	No		partially in GA	3k	Mesa, Developer	$/1.0	TMP	Strong
	35	27	12	8	82	7	Widen Pecos Rd to 6 lanes between Power Rd and Ellsworth Rd	1.24	F/F 2.33/1.09	41.4/58.0	No		in GA	25k	Mesa	$$$/3.2	-	Moderate
	35	27	12	8	82	7	Widen Pecos Rd to 4 lanes between Signal Butte Rd and Meridian Rd	0.48	F/C 1.08/0.60	19.2/21.2	No		in GA	4k	Mesa, Developer	$/1.0	TMP	Moderate
	35	27	12	8	82	7	Widen Meridian Rd to 4 lanes between SR 24 and Pecos Rd	0.53	F/D 1.24/0.71	22.0/25.1	No		in GA	2k	Mesa, PC, QC	$/0.5	TMP	Moderate
	35	27	12	8	82	7	Widen Sossaman Rd to 6 lanes between Velocity Way and Rittenhouse Rd	0.84	F/E 1.71/0.87	30.4/46.6	No		in GA	22k	Mesa, QC	$$/1.8	-	Moderate
	35	18	18	8	79	11	Widen Hawes Rd to 4 lanes between Guadalupe Rd and Warner Rd	0.44	F/D 1.19/0.75	21.2/26.7	No		partially in GA	12k	Mesa, Developer	$$/2.0	TMP	Moderate
	21	27	18	8	74	12	Construct Hawes Rd as a 4-lane arterial between Pecos Rd and Germann Rd	0.24	F/E 1.11/0.87 -/C -/0.14	16.2/12.6 -/5.0	Yes		in GA	16k	Mesa, Developer	$/0.6	TMP	Moderate
	35	18	12	8	73	13	Construct Meridian Rd as a 4-lane arterial between Ray Rd and SR 24	0.67	F/C 1.14/0.47 -/C -/0.46	16.6/6.8 -/16.2	Yes		partially in GA	1k	Mesa, PC	$$/1.5	TMP	Moderate
	21	27	12	12	72	14	Construct Crismon Rd as a 4-lane arterial between ½ mile south of Guadalupe Rd and Elliot Rd	0.28	E/C 0.96/0.68 -/C -/0.46	42.5/36.0 -/16.3	Yes		in GA	5k	Mesa	$$/0.5	TMP	Strong
	21	18	18	12	69	15	Widen Ellsworth Road to 6 lanes between ¼ mile south of Guadalupe Rd and Elliot Rd	0.28	E/C 0.96/0.68	42.5/36.0	No		partially in GA	5k	Mesa, Developer	$$/0.8	TMP	Strong
	21	27	12	8	68	16	Widen Ellsworth Road to 6 lanes between US 60 and Baseline Rd	0.21	D/C 0.83/0.62	29.5/33.2	No		in GA	1k	Mesa, ADOT	$$/0.6	TMP	Moderate
	21	27	12	8	68	16	Widen Germann Rd to 4 lanes between Sossaman Rd and Signal Butte Rd	0.29	E/C 0.92/0.63	24.5/22.5	No		in GA	15k	Mesa, QC	$$$/4.0	TMP	Moderate
	21	18	12	8	59	18	Construct Meridian Rd as a 4-lane arterial between Baseline Rd and Elliot Rd	0.04	C/C 0.54/0.50 -/C -/0.38	29.0/26.9 -/13.4	Yes		out of GA but directly benefits	0k	Mesa, PC	$$/2.0	TMP	Moderate