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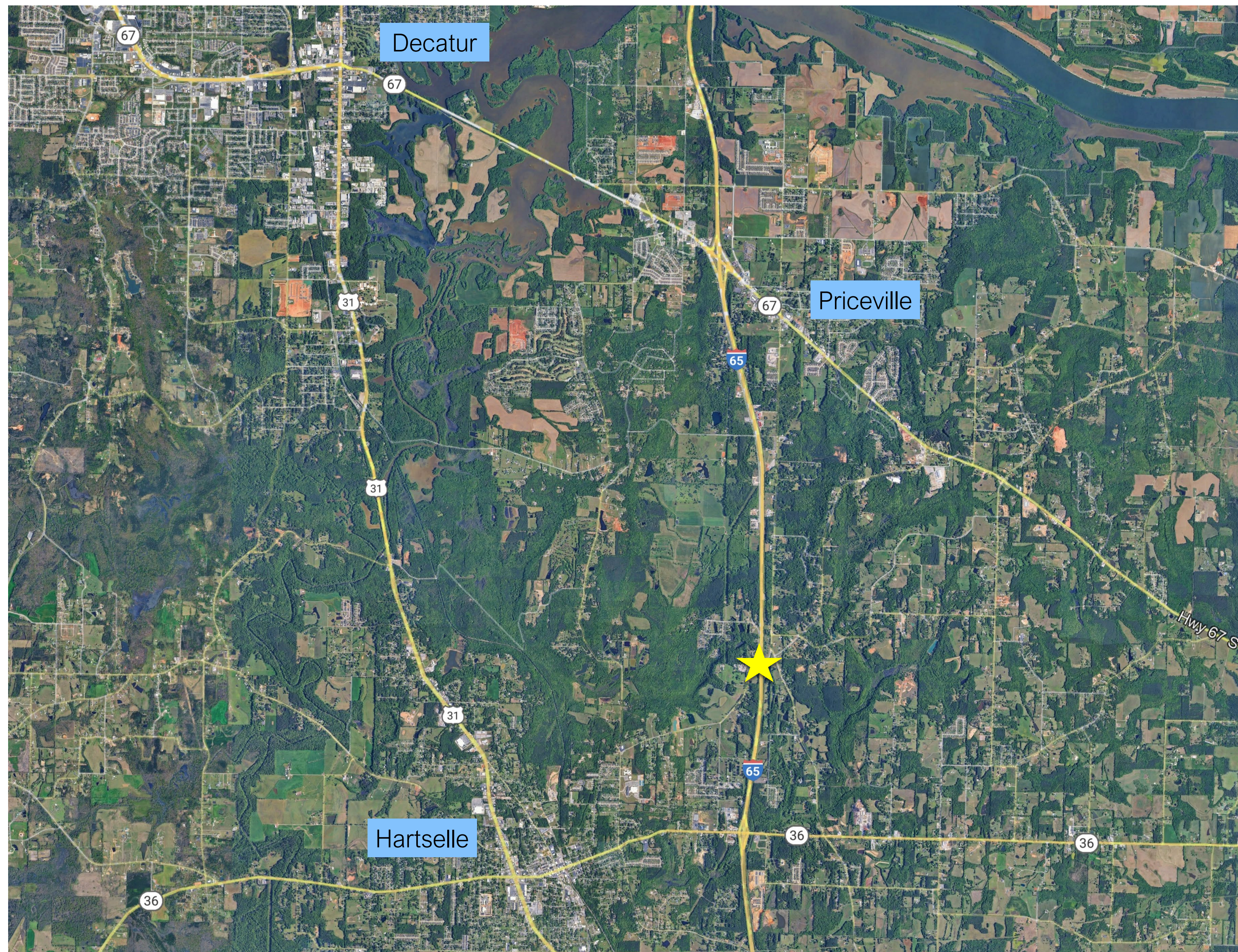
# I-65 and Bethel Road Interchange

## Feasibility Study

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Patra Crenshaw, PE, PTOE, RSP<sub>1</sub>  
Wednesday, October 22, 2025

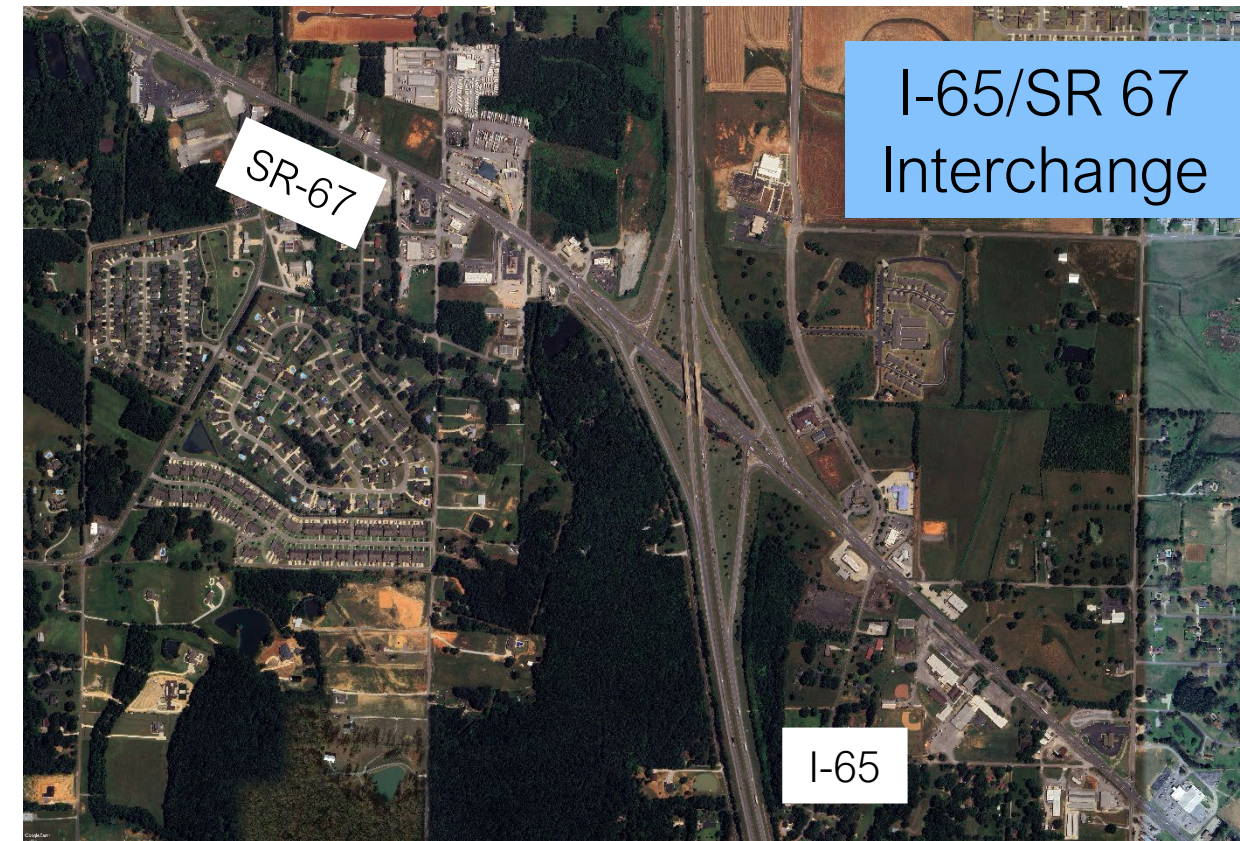






# SR 67 Interchange

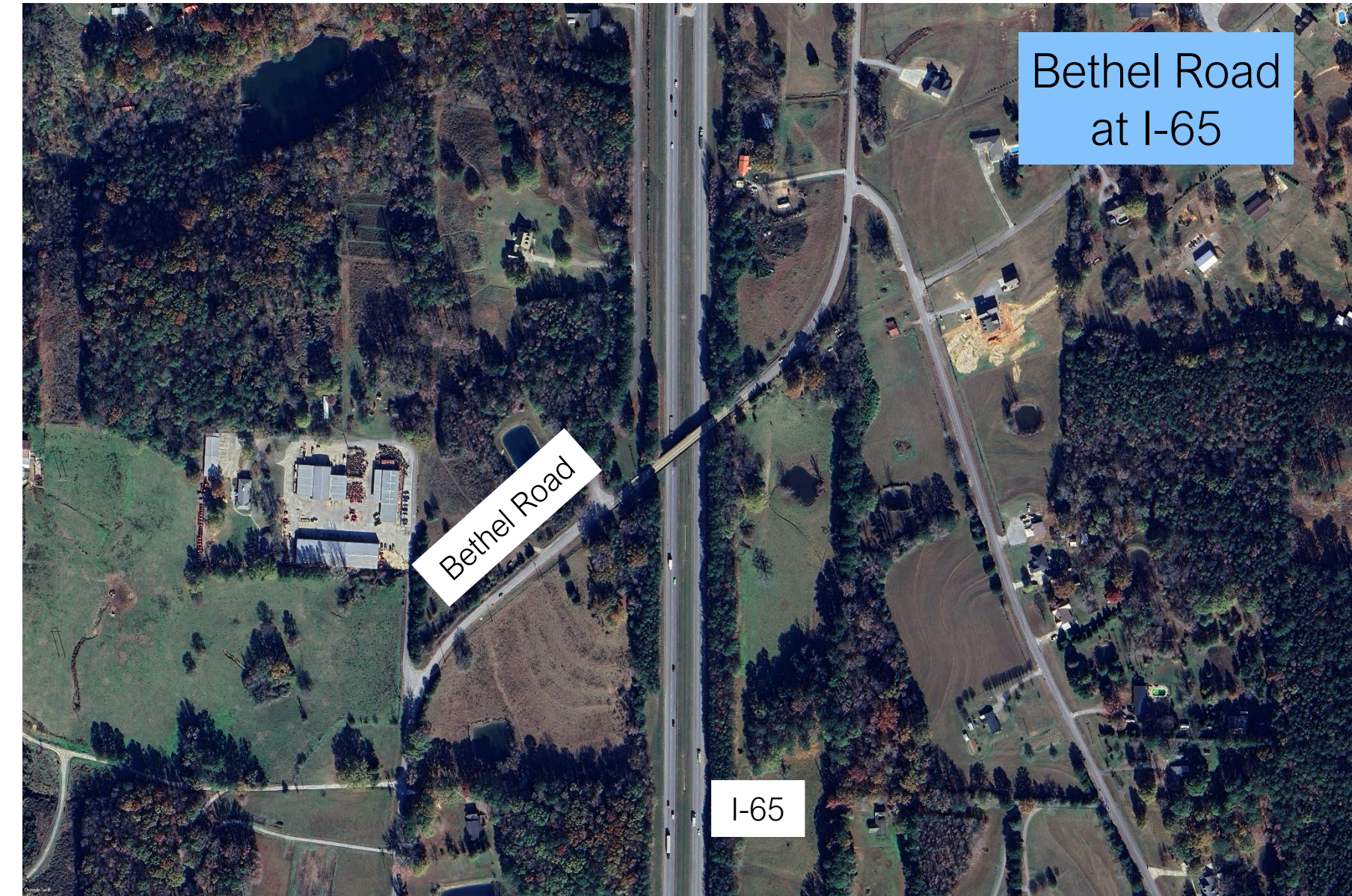
- Diamond interchange with signals at NB and SB ramp terminals
- Queues on SR 67 heading NB on I-65 in AM peak and SB off-ramp in PM peak
- SR 67 – five lane with TWLTL
- ADT = xxx vpd





# Bethel Road Overpass

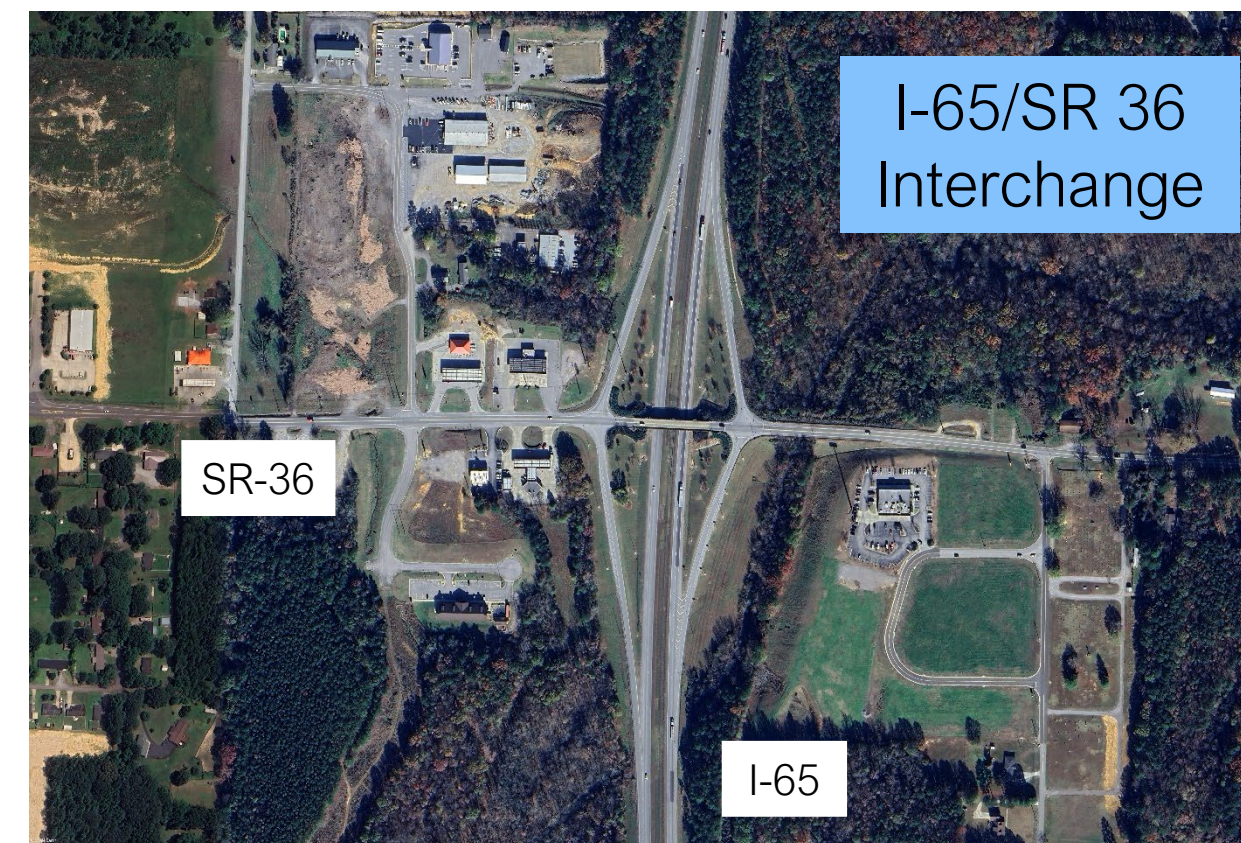
- Two-lane overpass
- ADT = xxx vpd





# SR 36 Interchange

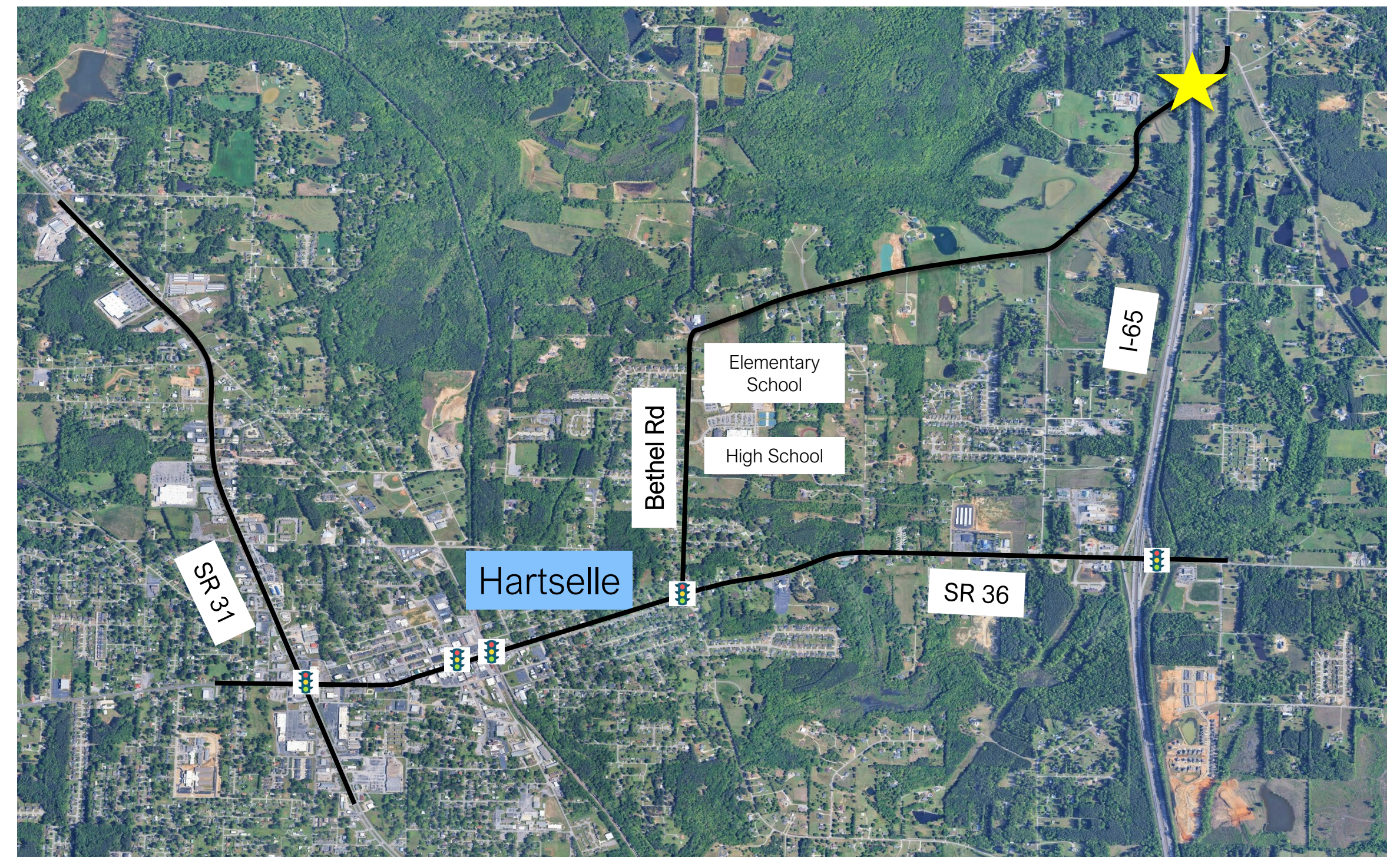
- Diamond interchange with stop control at SB ramps and signals at NB ramps
- Queues WB in AM and PM peaks
- Queue EB in AM peak
- Queue SB off-ramp in the PM peak
- SR 36 – two-lane roadway
- ADT = 10,000 vpd to 15,000 vpd





# SR 36 in Downtown Hartselle

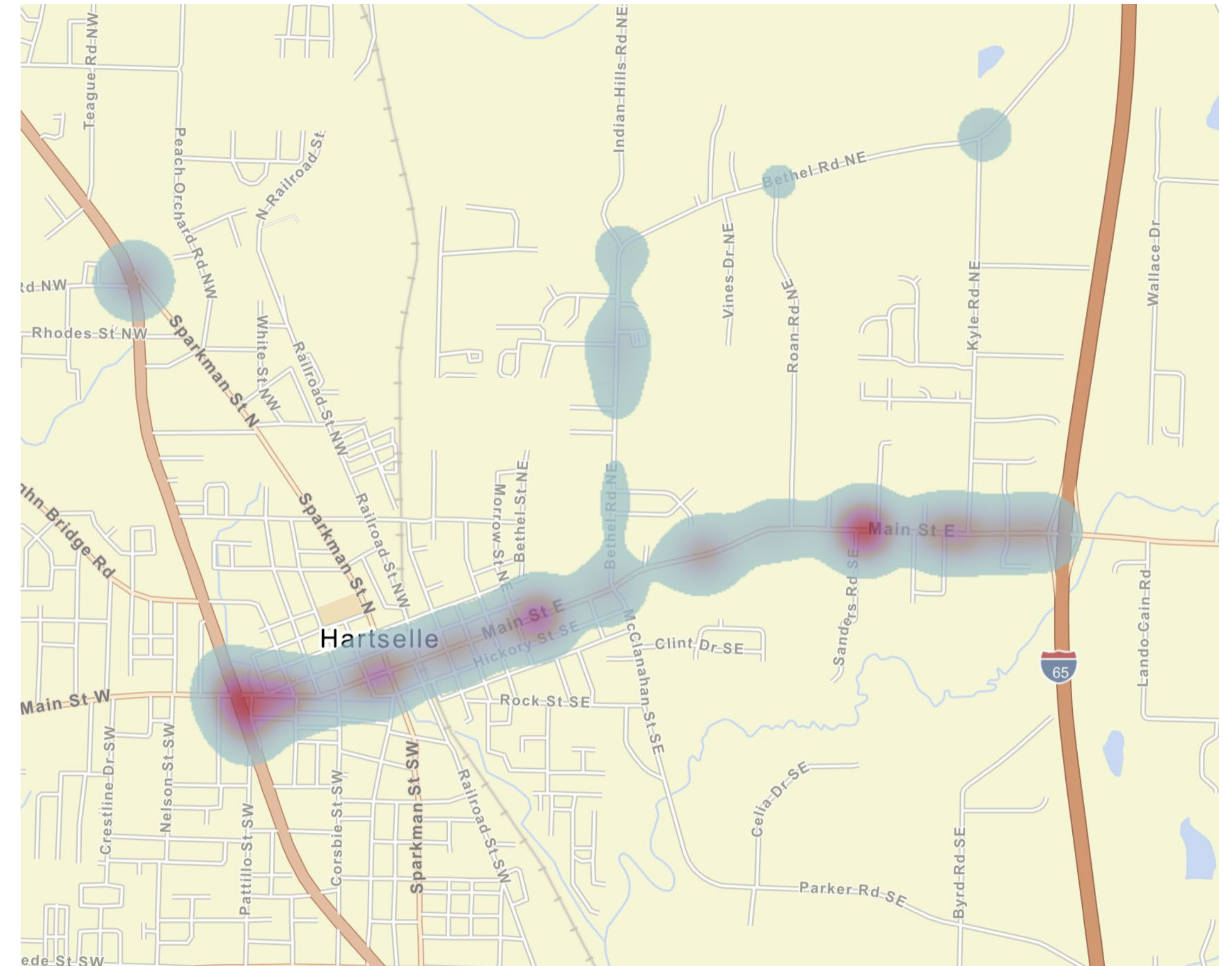
- Two-lane roadway with on-street parking
- ADT = xxx vpd





# Safety Analysis

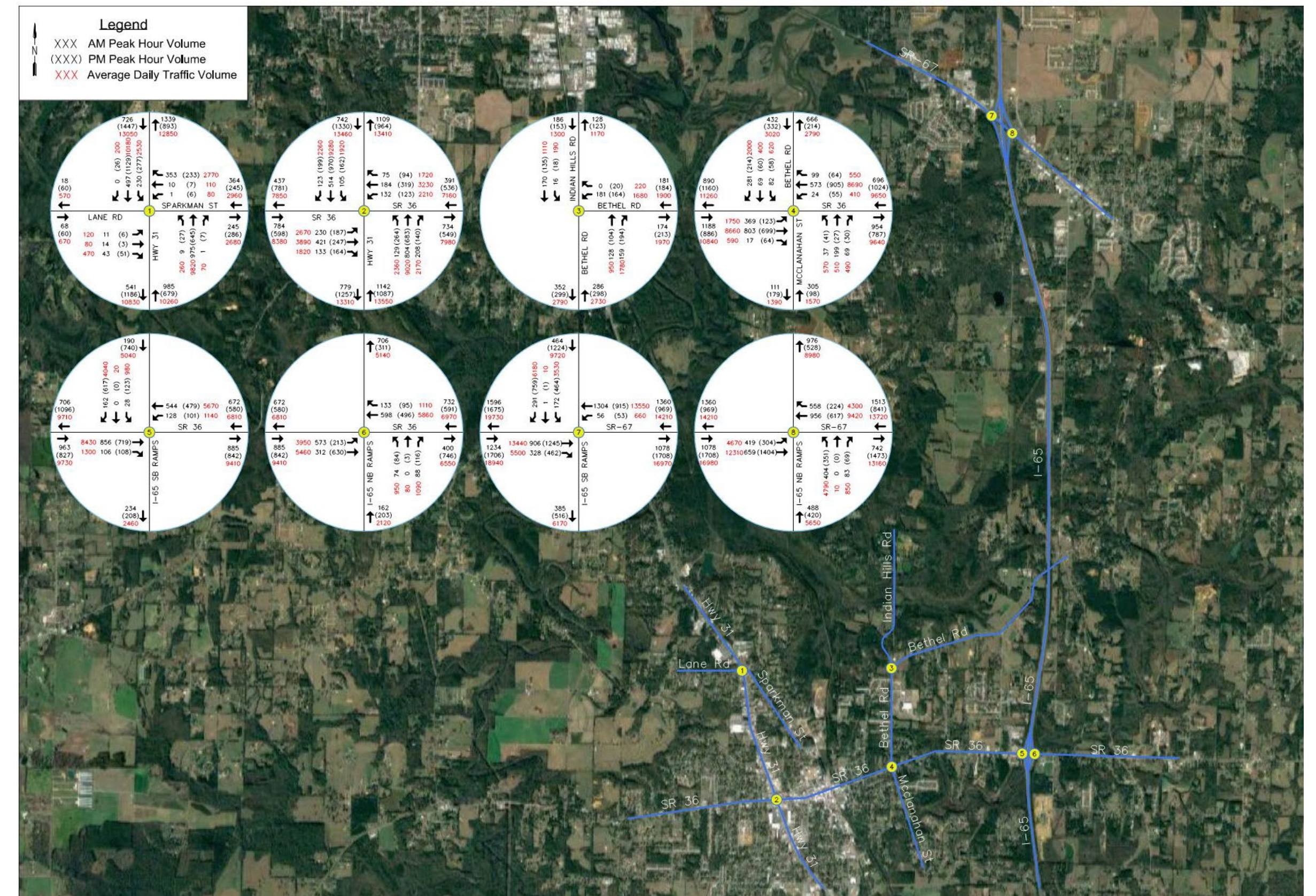
- 2017 to 2021 crash data provided by MPO
- Rear-end crashes were most common, followed by angle crashes
- Majority of crashes occurred at intersections or driveways
- SR 36 corridor crash rate is three times statewide crash rate





# Traffic Forecast

- Traffic forecast using traffic data from TDM provided by MPO
- Developed 2023 Existing and 2045 No Build volumes
- SR 36 projected to increase up to 22,000 vpd by 2045 design year





# 2023 Existing

- Poor LOS at SR 36/I-65 SB Ramps during both peak hours
- Queuing on the SR 36 SB off ramp in the PM peak
- Queuing on eastbound approach at SR 36/I-65 NB Ramps in the AM peak





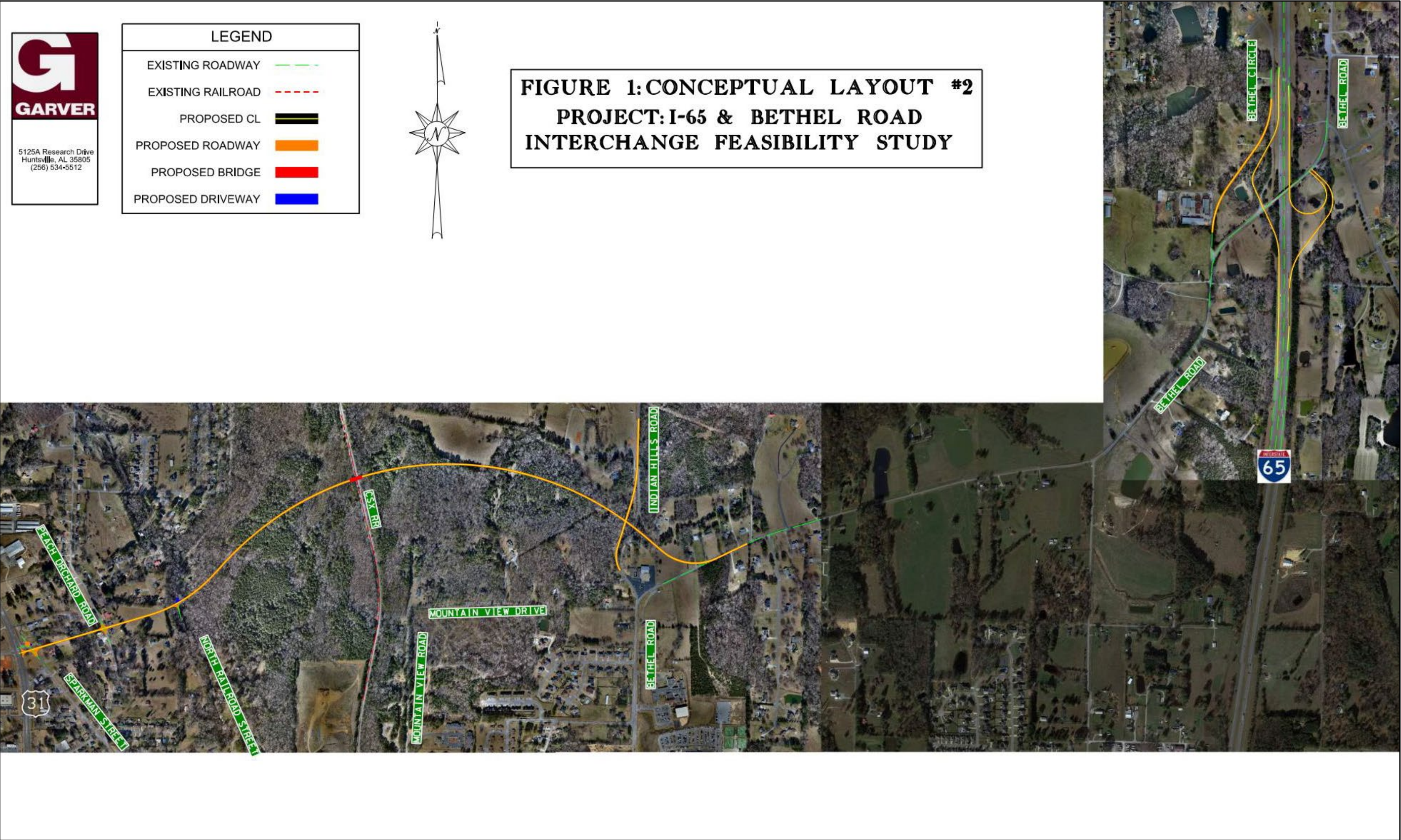
# 2045 No Build

- Operation of majority of intersections deteriorate with LOS E/F for multiple movements
- Intersections at SR 36/I-65 interchange worsen with significant queues





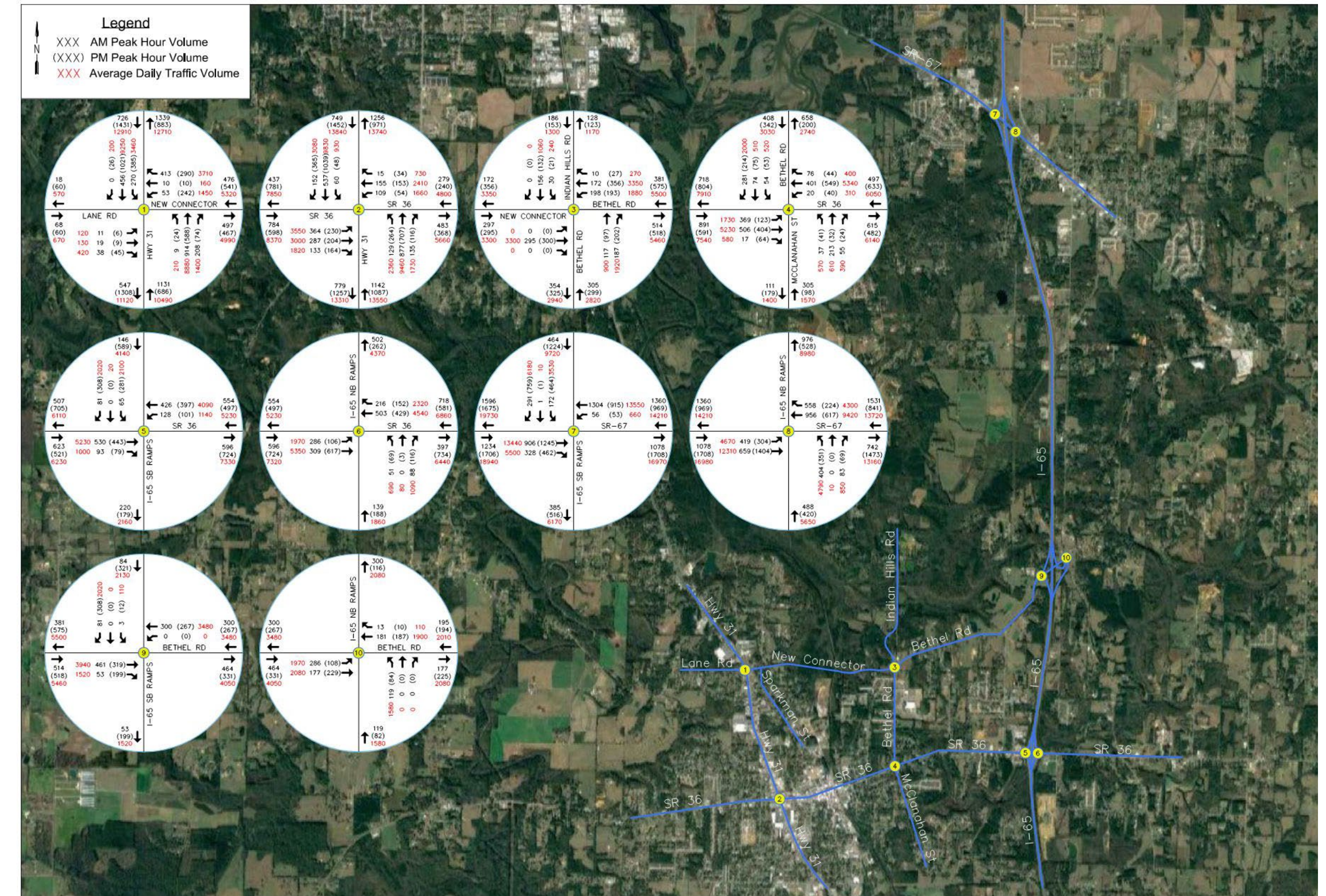
# Proposed Concepts





# Build Volume Development

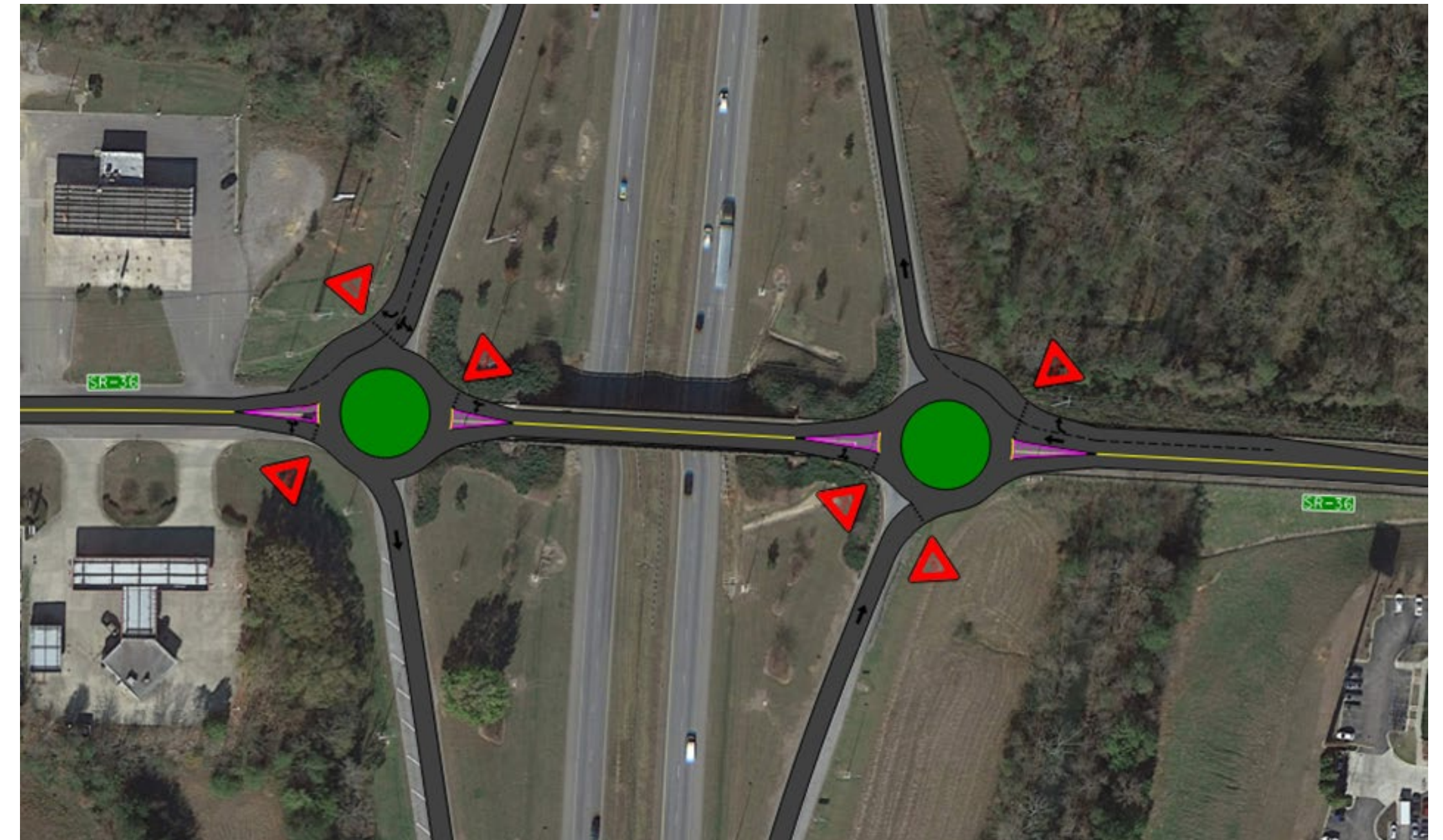
- Build conditions - new interchange at I-65 and Bethel Rd and new connector from Bethel Rd at Indian Hills Rd to Hwy 31 at Sparkman St
- Utilized TDM provided by MPO to reroute a portion of traffic to new connector and interchange
- SR 36 ADT volume ranges from 10,500 vpd to 15,500 vpd in 2045 Build conditions
- New connector ADT volume estimated 10,000 vpd





# Additional Improvements

- Roundabouts at I-65/SR 36 interchange
- EB right turn lane at Hwy 31/SR 36
- NB and SB left turn and right turn lanes at SR 36/Bethel Rd
- SB dual left turn lanes at SR 67/I-65 SB Ramps
- EB and NB dual left turn lanes at SR 67/I-65 NB Ramps
- DDI at SR 67/I-65 Interchange





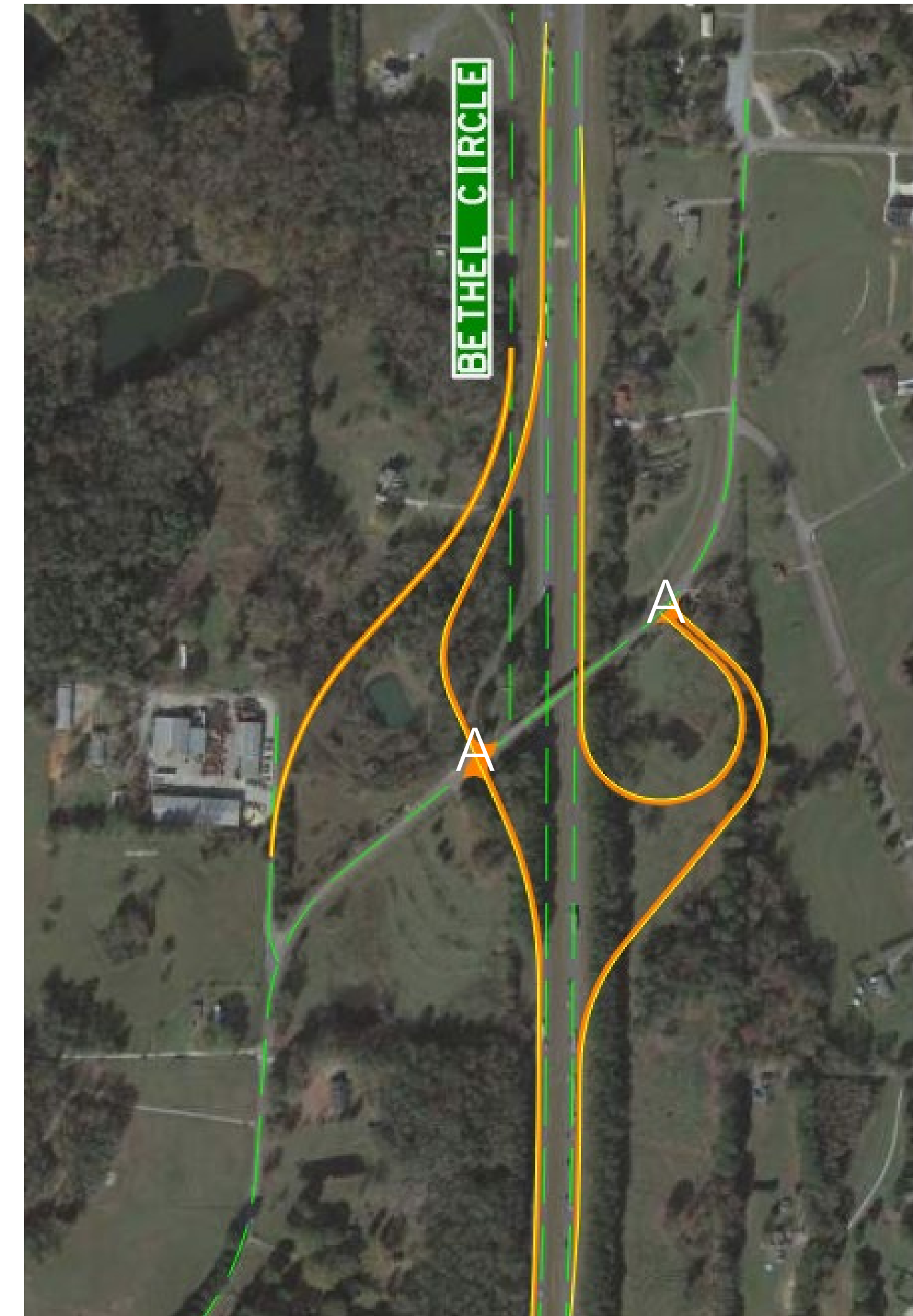
# 2045 Build

## Build Conditions (1<sup>st</sup> iteration)

- New interchange at I-65/Bethel Rd operate adequately through 2045 design year
- Improvements in overall delay for intersections along SR 36
- LOS E/F at SR 36/I-65 interchange
- Require additional improvements at some intersections

## Build conditions (Final iteration):

- All intersections operate at adequately
- No significant queuing





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# Questions?

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