

# Kernersville Road Corridor Study

Winston-Salem, NC



# Purpose

- Use traffic engineering methodologies and public engagement to identify needs and solutions for multiple modes of transportation along Kernersville Road.



# Study Area



- Southeast Winston-Salem
- 4-mile corridor
- 0.5 miles commercial
- 3.5 miles residential



# Approach

- Public Engagement #1
- Draft Corridor Study
- Public Engagement #2
- Final Corridor Study



# Approach

- Public Engagement #1
  - Survey and Meeting
  - Identify areas of concern
  - Potential solutions







# Approach

- Draft Corridor Study
  - Review/address public comments
  - Traffic volumes
  - Turn lane warrants
  - Speed data
  - Crash summary
  - Traffic models
  - Conceptual designs
  - Opinion of probable cost

North Carolina Department of Transportation  
Traffic Engineering Accident Analysis System  
Strip Analysis Report

**Study Criteria Summary**

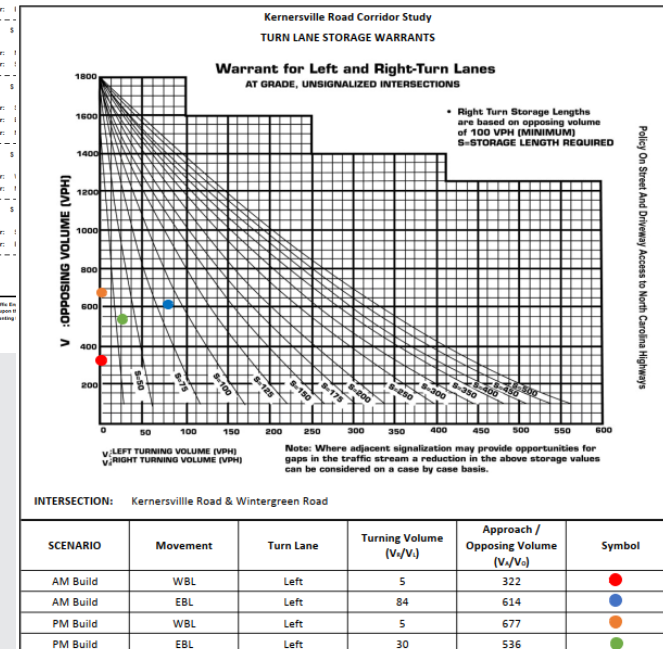
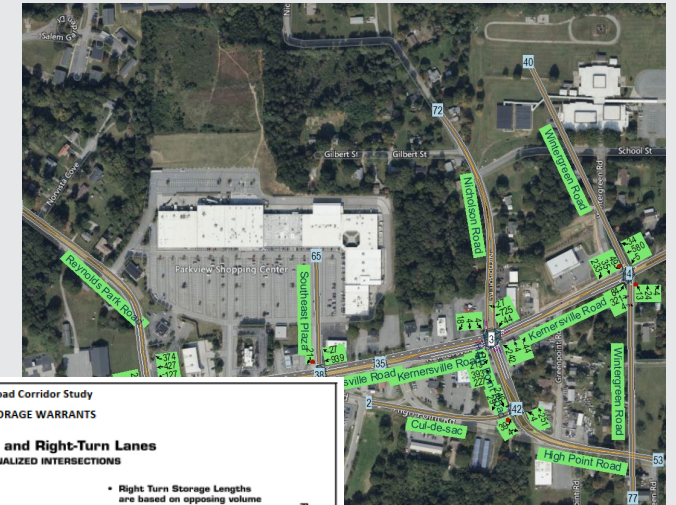
County: FOSDYEN      City: All and Rural  
Date: 05/01/2018 to 05/01/2023      Study: KERNERSVILLE0203  
Location:

**Report Details**

Acc No	Crash ID	Milepost	Date	Accident Type	Total Damage	Injuries							Road Cn	Trfc Cn	
						F	A	B	C	R	L	W			
1	10555776	3.956	07/02/2018	REAR END, TURN	\$ 800	0	0	0	0	1	1	1	0	12	1
Unit 1 : 2		AlcNI(Dgs): 0		Speed: 15 MPH	Dir: E	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 2 : 1		AlcNI(Dgs): 0		Speed: 15 MPH	Dir: E	Veh Mvmt/Ped Act: 7		Obj Strk:							
2	10663384	3.956	10/11/2018	ANGLE	\$ 3000	0	0	0	0	3	1	3	0	3	2
Unit 1 : 4		AlcNI(Dgs): 0		Speed: 30 MPH	Dir: W	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 2 : 1		AlcNI(Dgs): 0		Speed: 35 MPH	Dir: W	Veh Mvmt/Ped Act: 4		Obj Strk:							
3	10566772	3.956	11/10/2018	REAR END, SLOW OR STOP	\$ 0	0	0	0	1	1	1	1	0	13	1
Unit 1 : 2		AlcNI(Dgs): 0		Speed: 15 MPH	Dir: E	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 2 : 2		AlcNI(Dgs): 7		Speed: 0 MPH	Dir:	Veh Mvmt/Ped Act: 4		Obj Strk:							
4	10661915	3.956	11/18/2018	LEFT TURN, SAME ROADWAY	\$ 1200										
Unit 1 : 2		AlcNI(Dgs): 0		Speed: 10 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 2 : 4		AlcNI(Dgs): 0		Speed: 10 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
5	10713724	3.956	12/17/2018	ANGLE	\$ 1800										
Unit 1 : 1		AlcNI(Dgs): 0		Speed: 20 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 2 : 1		AlcNI(Dgs): 0		Speed: 30 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 3 : 2		AlcNI(Dgs): 0		Speed: 0 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
6	10794754	3.956	03/05/2019	ANGLE	\$ 200										
Unit 1 : 4		AlcNI(Dgs): 0		Speed: 10 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 2 : 3		AlcNI(Dgs): 0		Speed: 15 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
7	10831387	3.956	04/14/2019	ANGLE	\$ 1100										
Unit 1 : 4		AlcNI(Dgs): 0		Speed: 45 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							
Unit 2 : 2		AlcNI(Dgs): 0		Speed: 35 MPH	Dir: 1	Veh Mvmt/Ped Act: 4		Obj Strk:							

07/26/2023

All data presented in this report comes explicitly from the Traffic Engineering Accident Analysis System. The data is strictly open to the public and is not to be used for any other purpose without the express written consent of the North Carolina Department of Transportation.





# Approach

- Public Engagement #2
  - Survey and Meeting
  - Public feedback on conceptual designs



# Approach

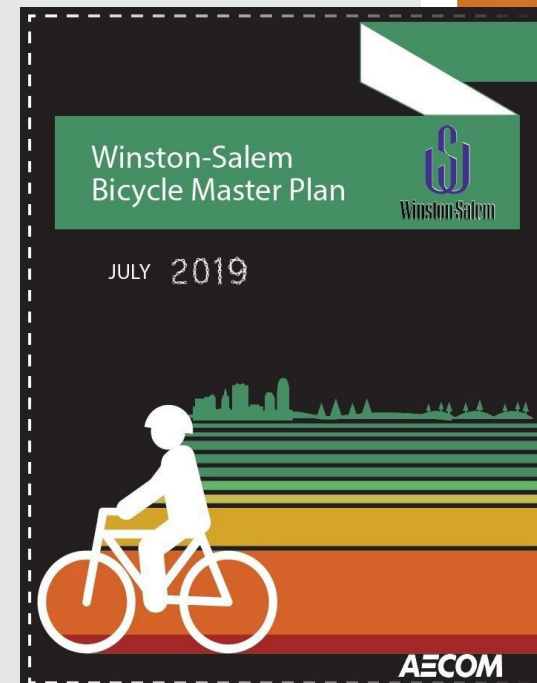
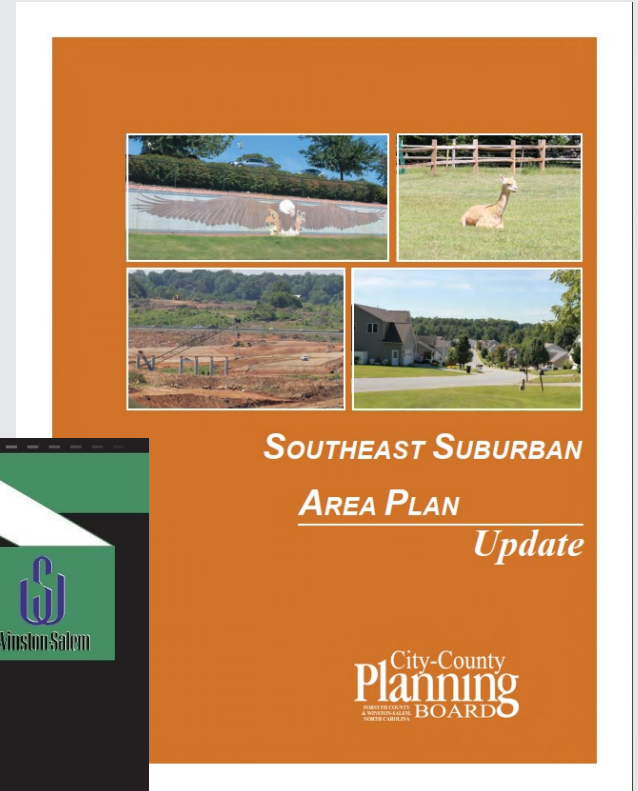
- Final Corridor Study
  - Review/address public comments
  - NCDOT reviewed conceptual designs
  - Conceptual design revisions





# Adopted Plans and Projects

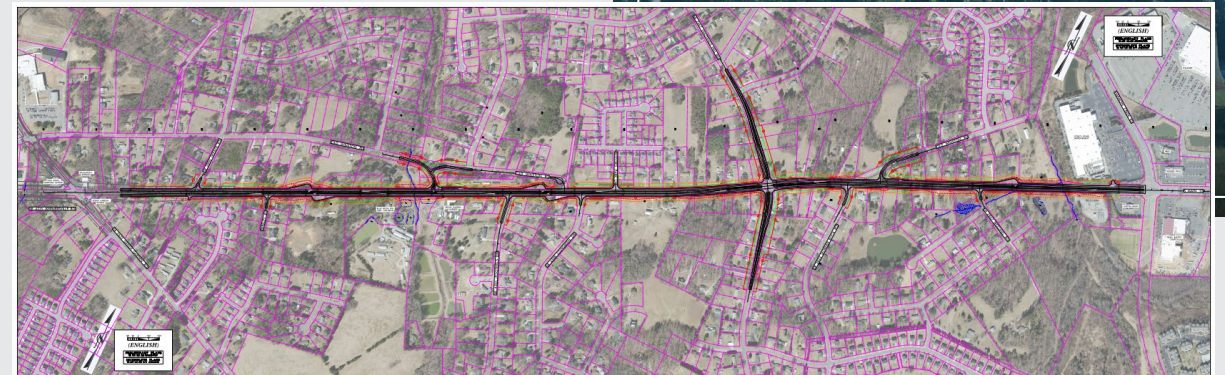
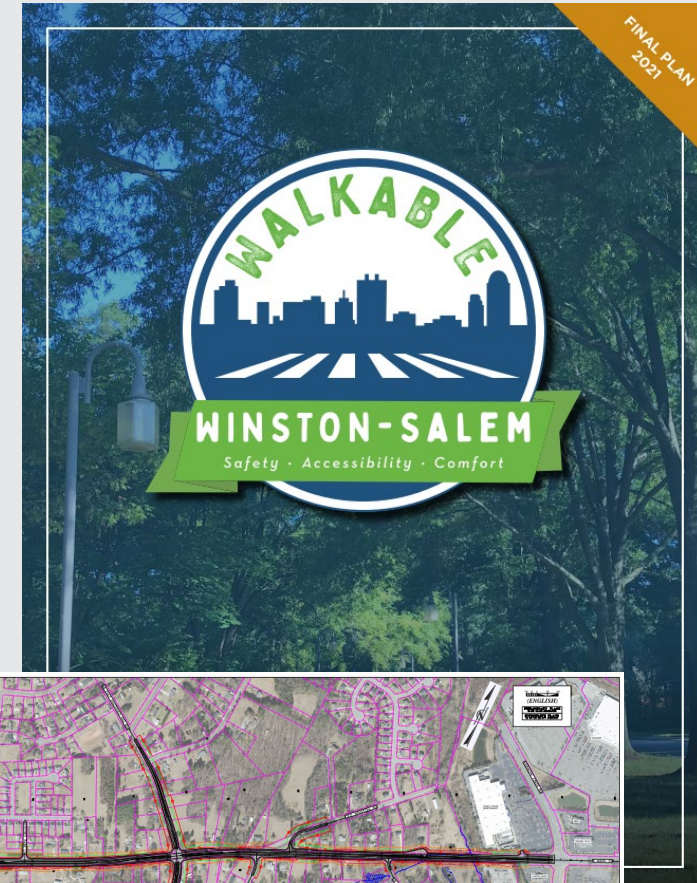
- 2045 Comprehensive Transportation Plan
  - Pedestrian and Bicycle improvements
- Southeast Suburban Area Plan
  - Residential growth corridor
- Winston-Salem Bicycle Master Plan
  - Dedicated bike lanes





# Adopted Plans and Projects

- Walkable Winston-Salem Pedestrian Master Plan
  - Rural walkway – low to moderate demand
  - Sidewalk on one side to connect commercial and residential areas
- Winston-Salem Northern Beltway (U-2579)
  - Freeway loop from US 158 to I-74
  - Interchange at Kernersville Road
  - Improvements at Linville Road and Sedge Garden Road intersections
- Kernersville Road Widening (U-6077)
  - Sedge Garden Road to Old Winston Road
  - 4-lane median divided, bike lanes, and sidewalks
  - Currently being planned/designed. Not funded





# Public Engagement #1

- What we heard
  - Speeding
  - Traffic congestion
  - Lack of turn lanes
  - Poor traffic operations at Linville Road and at Sedge Garden Road
  - Narrow shoulders (pulling over for emergency vehicles)
  - Free-flow (no traffic signals to create gaps in traffic)



# Technical Analysis

- What we found
  - Speeding on Kernersville Road where speed limit changes
  - Speeding on Old Winston Road
  - Left turn lanes warranted at multiple locations
  - Closely spaced driveways in commercial area
  - Higher crashes in commercial area



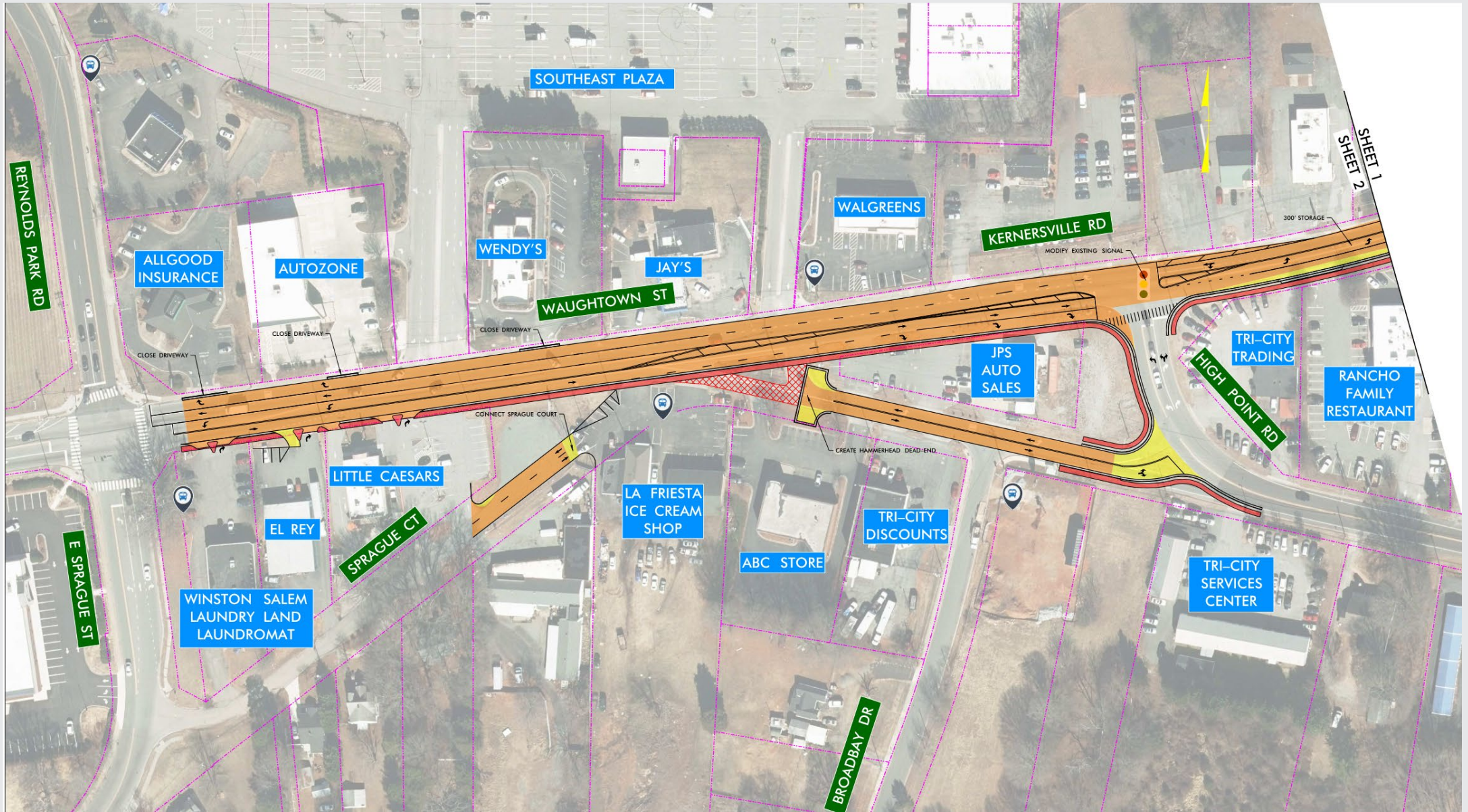
## Public Engagement #2

- Two options for commercial and residential areas
  - Option A was most preferred in both areas
  - Concerns that bike and pedestrian facilities would not be used, and might not be safe
  - Wider shoulders preferred rather than bike lanes
  - Liked left turn lanes on Kernersville Road, but some were concerned two-way left turn lanes would be used for passing





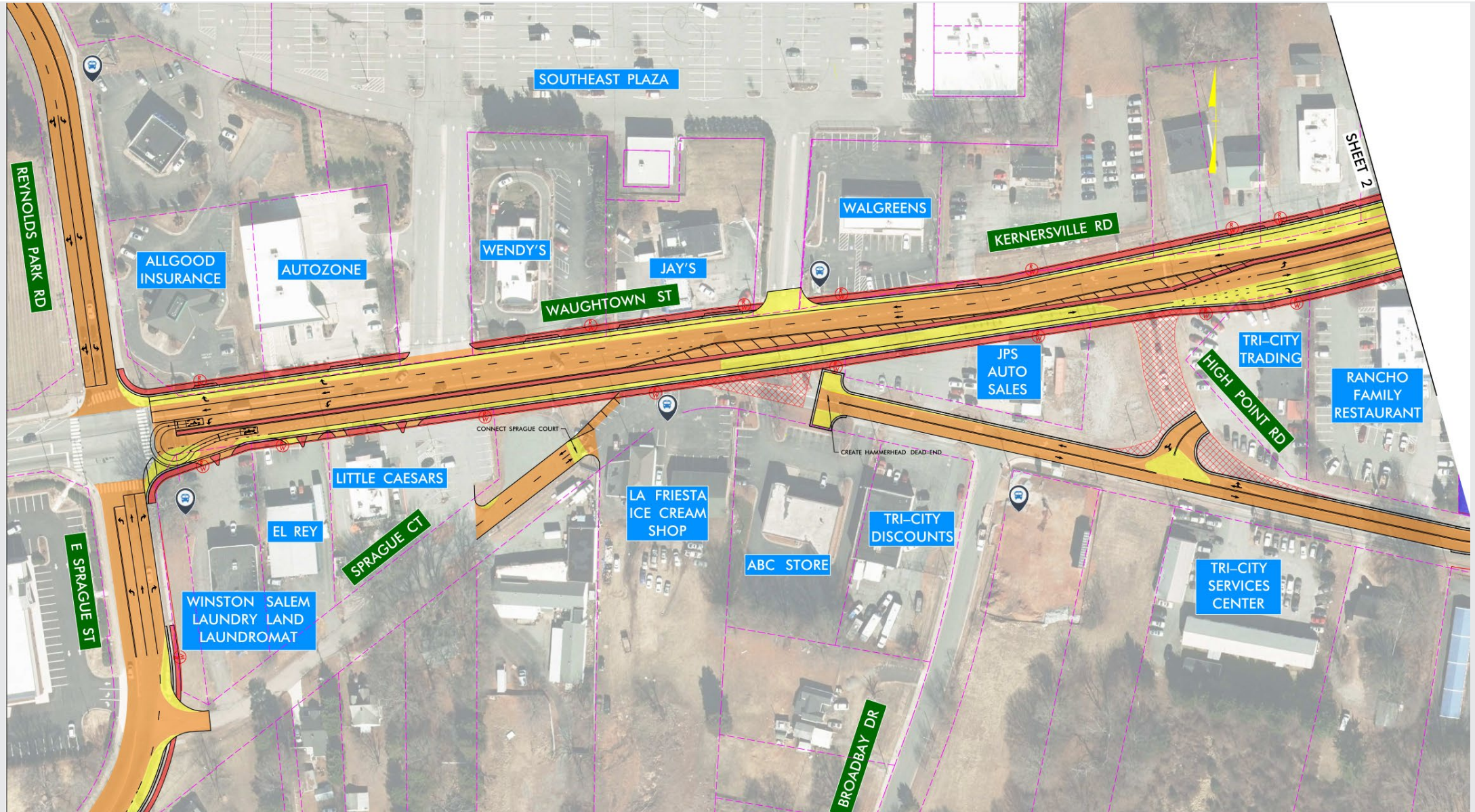
# Commercial Area – Option A







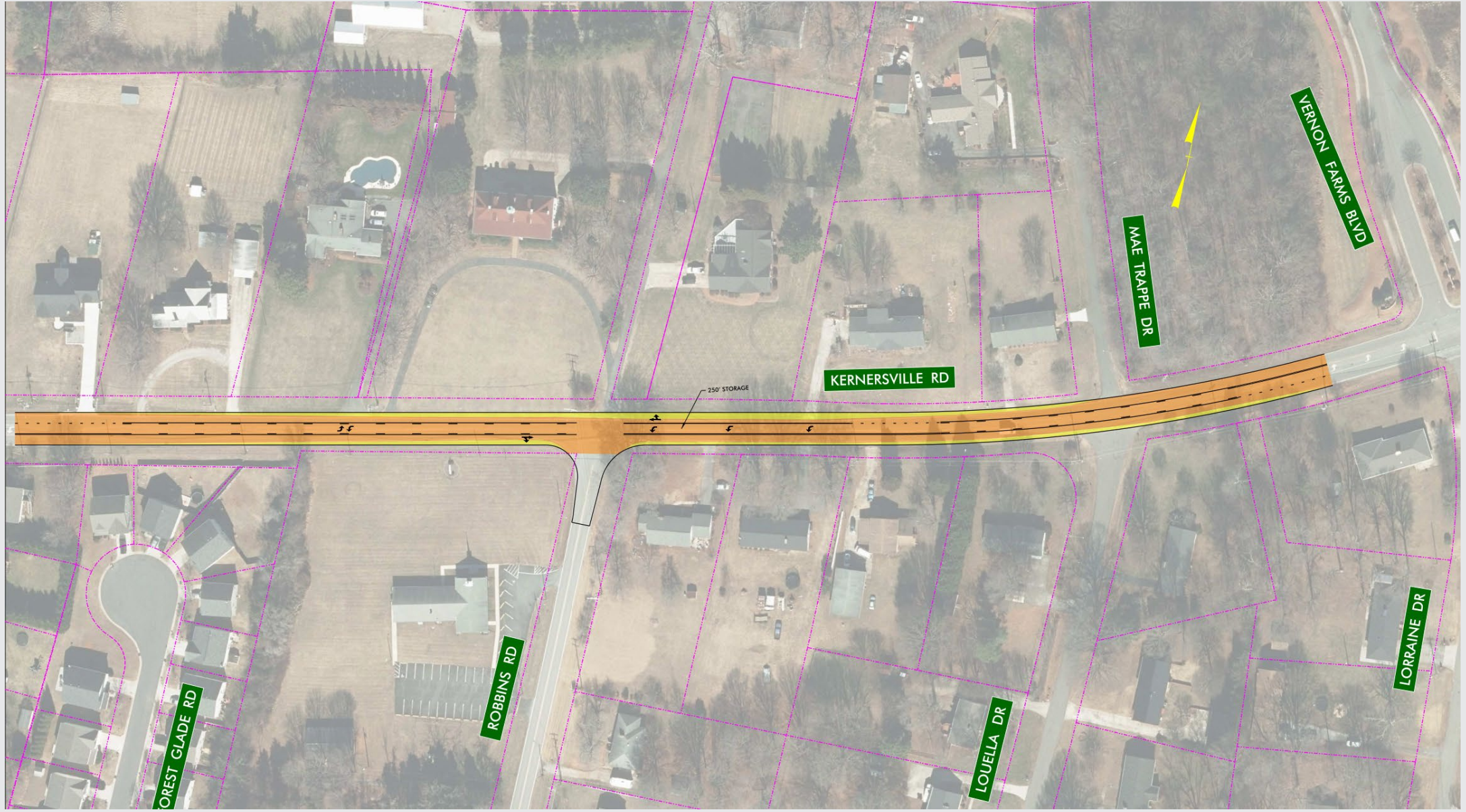
# Commercial Area – Option B







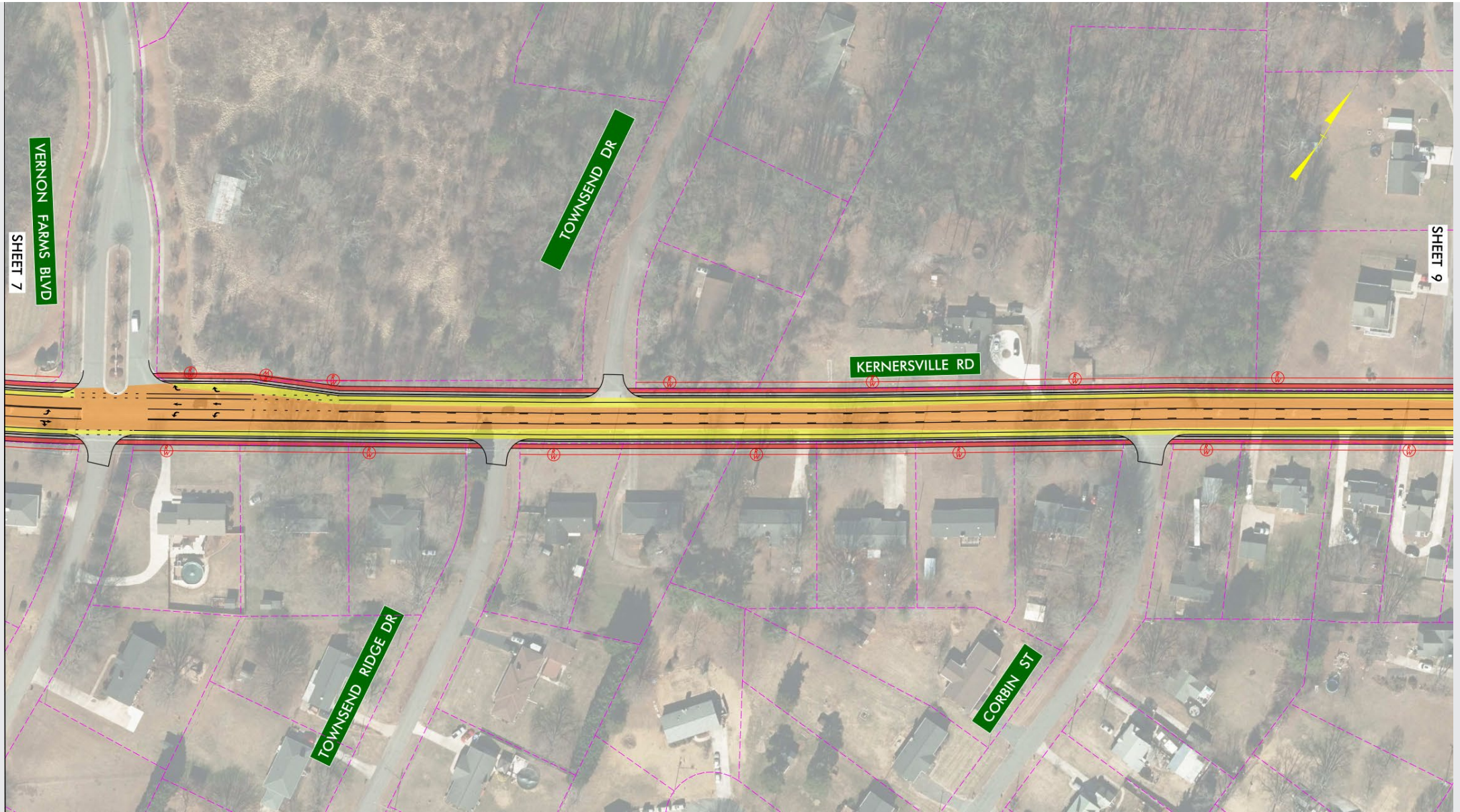
# Residential Area – Option A







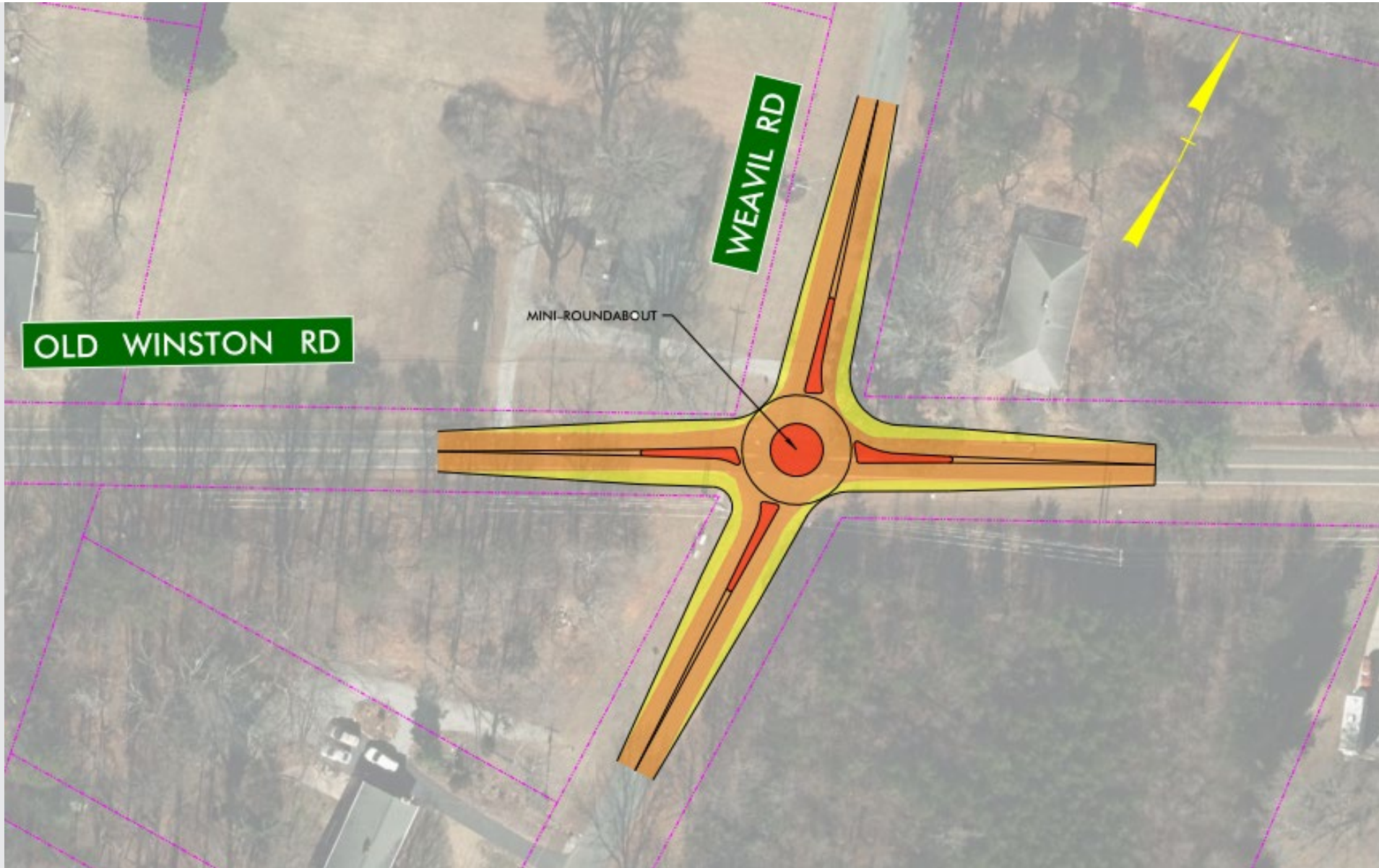
# Residential Area – Option B







# Old Winston Road



THANK  
YOU