



March 13, 2023

Milford Transportation Improvement District (TID)

Council Briefing

Presented to: City of Milford City Council



Delaware Department
of Transportation

Agenda

1. Background
2. Improvements
 - Cedar Creek Road
 - Wilkins Road
 - Cedar Neck Road
 - S. Rehoboth Boulevard
3. Additional Bicycle and Pedestrian Improvements
4. TID CTP and Infrastructure Fee Program
5. Next Steps

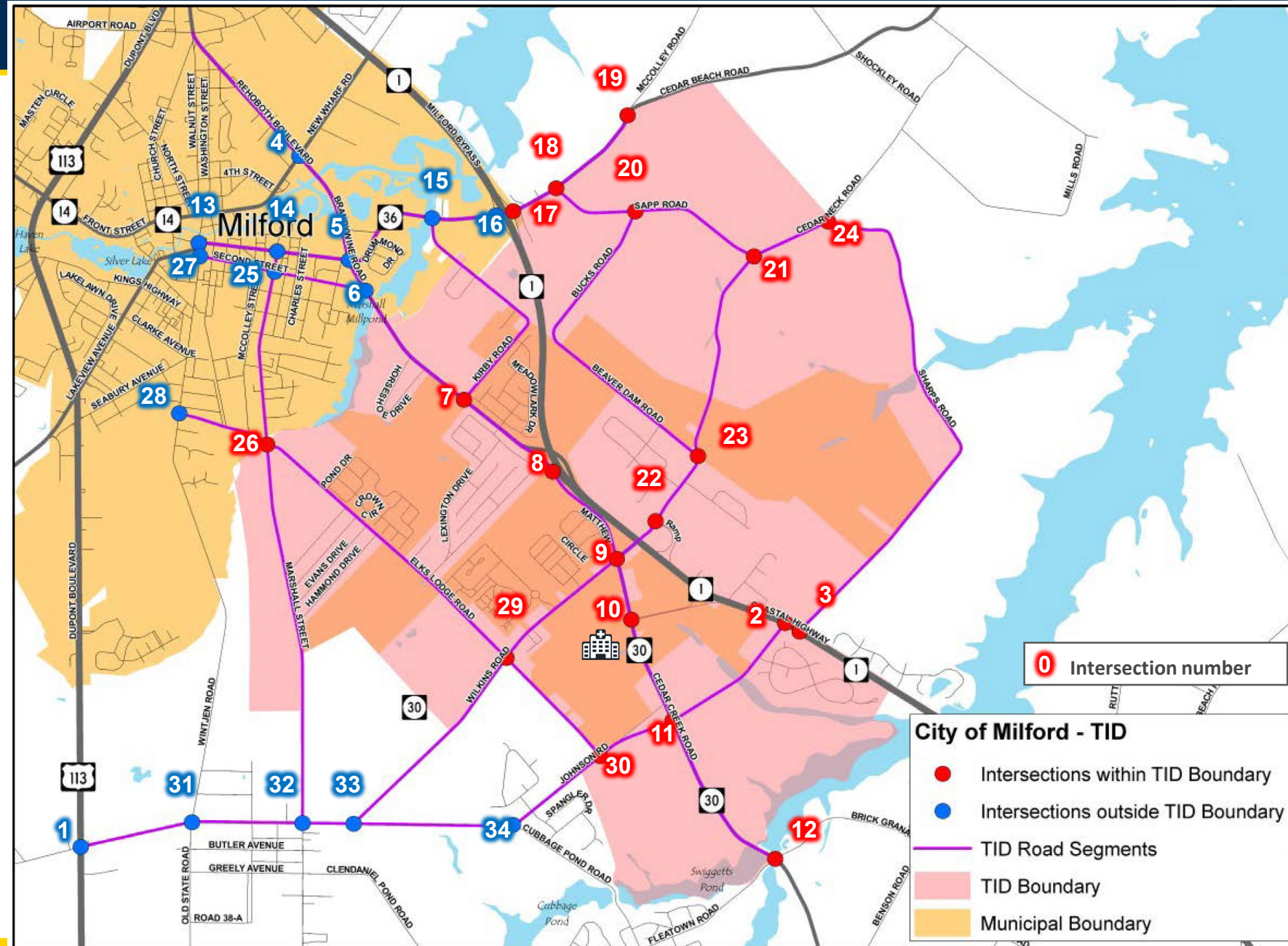
Background

- Project Area

- ≈ 8.27 square miles
- 35 total intersections
 - 7 signalized intersections
 - 1 additional intersection - Delaware Route 1/Slaughter Beach Road/Pine Haven Road

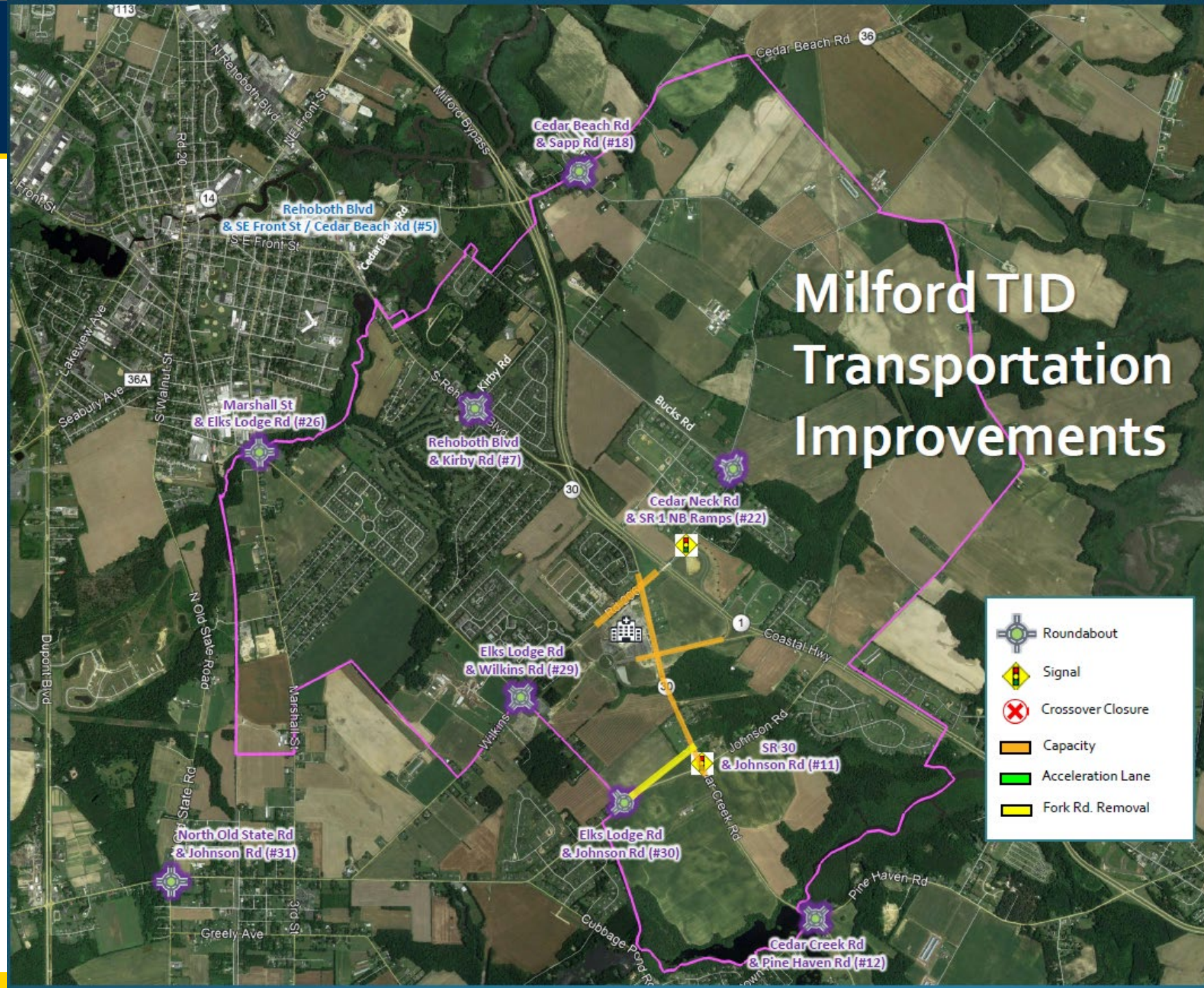
- 2045 Horizon Year

- 26 committed developments
- LOS E Service Standard

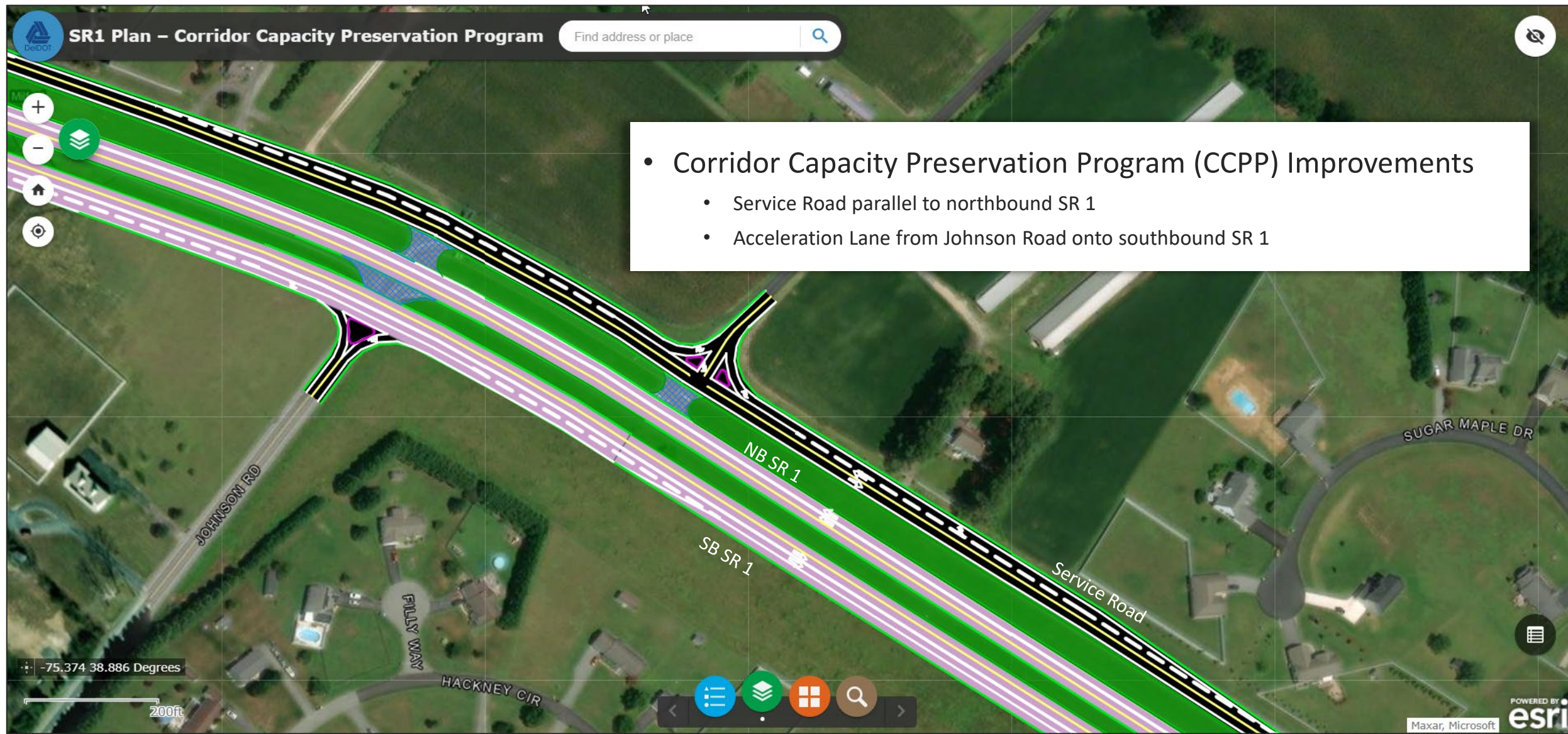


Improvements

- TID Improvements
 - 8 new single-lane roundabouts
 - 2 new signalized intersections
 - Capacity
 - Additional turn lanes and through lanes
 - Bicycle and pedestrian improvements
 - Consistent with City's Bike Plan

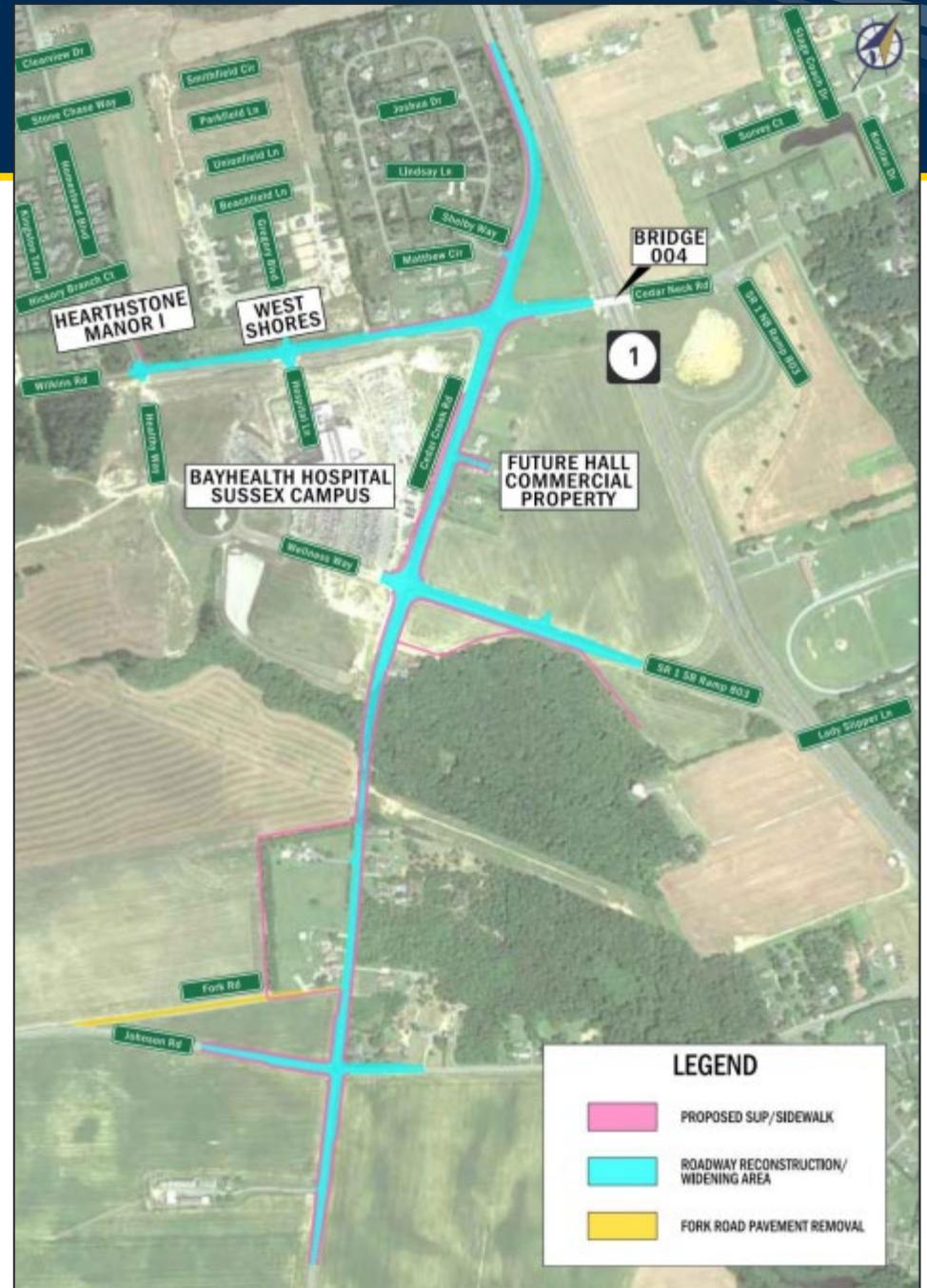


Improvements

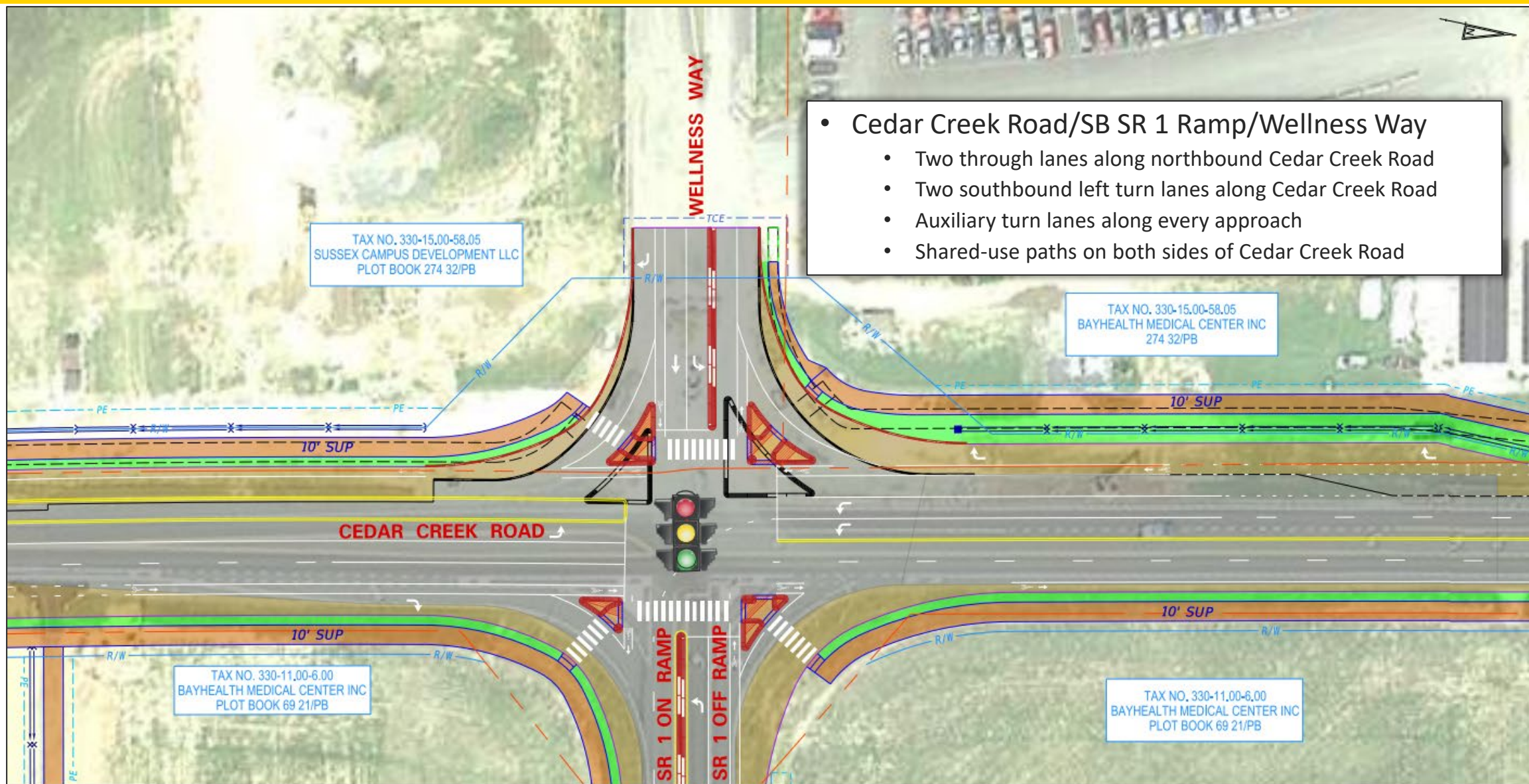


Improvements Cedar Creek Road/Wilkins Road

- ≈ 1.27 miles long, beginning at 1,095 feet south of Johnson and ending 1,607 feet north of Wilkins Road
- 4 Intersection Improvements along with associated roadway improvements
 - Cedar Creek Road and Johnson Road
 - Cedar Creek Road and Wellness Way/SR 1 Southbound Ramp 803
 - Cedar Creek Road and the proposed Hall Property Access
 - Cedar Creek Road and Wilkins Road
- Pedestrian/Bicycle Facility Improvements
- Widening to SR 1 Southbound Ramp 803
- Total Estimated Project Cost = \$21,386,683

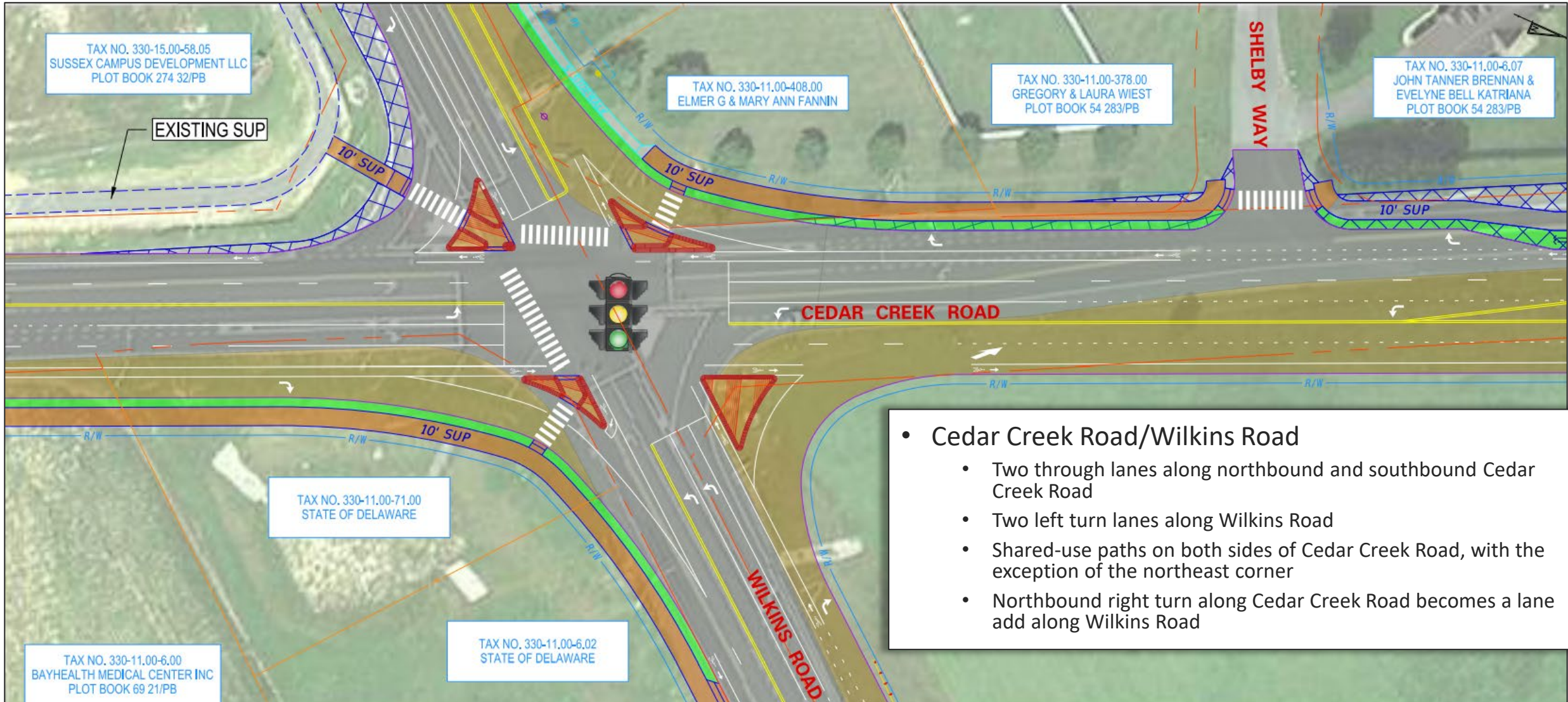


Improvements – Cedar Creek Road



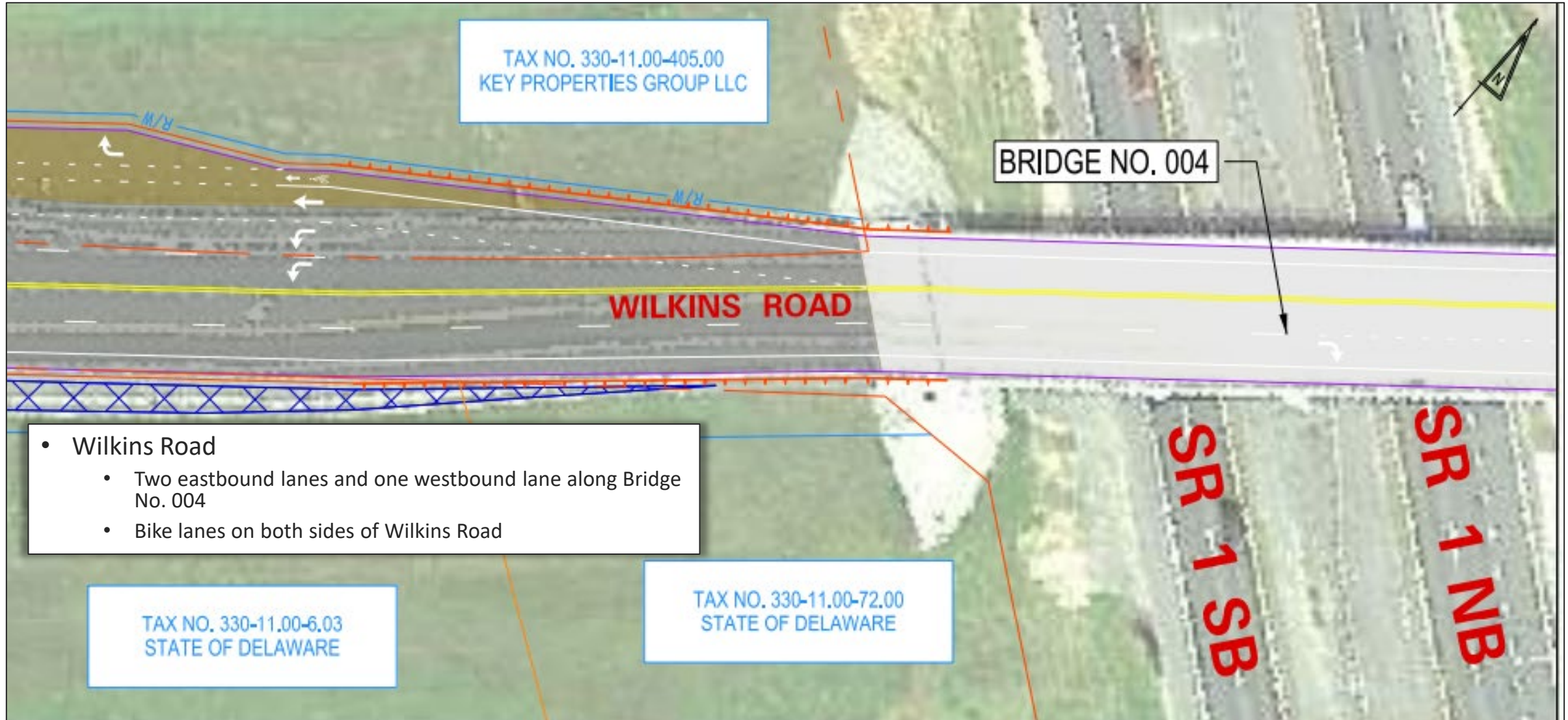
- Cedar Creek Road/SB SR 1 Ramp/Wellness Way
 - Two through lanes along northbound Cedar Creek Road
 - Two southbound left turn lanes along Cedar Creek Road
 - Auxiliary turn lanes along every approach
 - Shared-use paths on both sides of Cedar Creek Road

Improvements – Cedar Creek Road



- Cedar Creek Road/Wilkins Road
 - Two through lanes along northbound and southbound Cedar Creek Road
 - Two left turn lanes along Wilkins Road
 - Shared-use paths on both sides of Cedar Creek Road, with the exception of the northeast corner
 - Northbound right turn along Cedar Creek Road becomes a lane add along Wilkins Road

Improvements – Wilkins Road

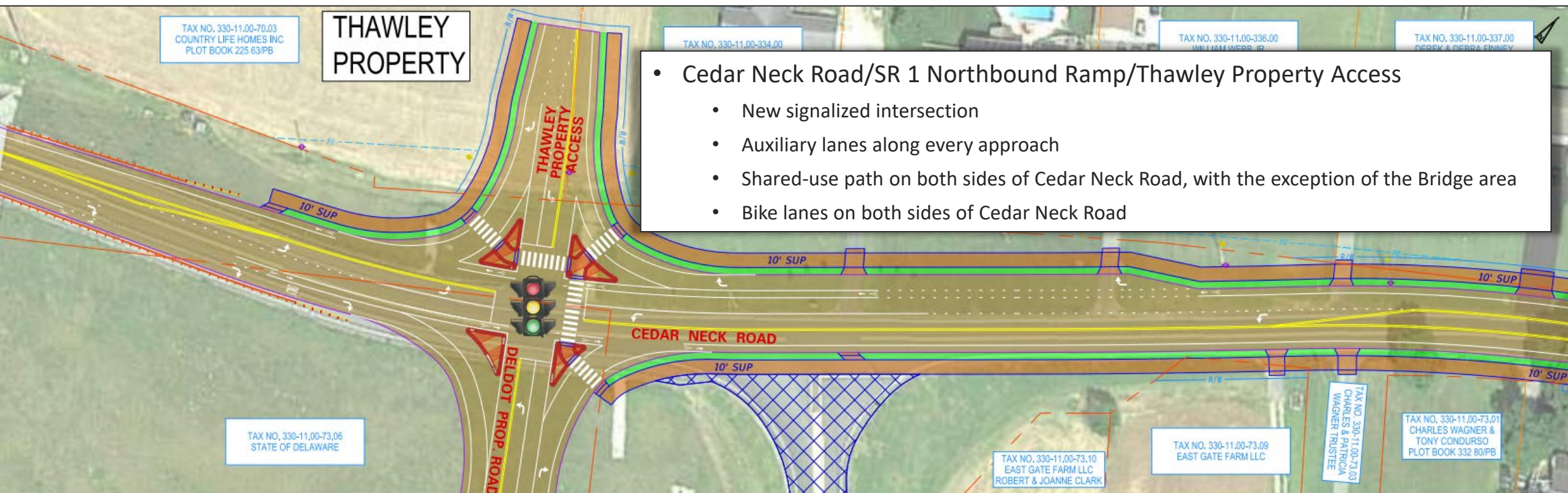


Improvements Cedar Neck Road

- ≈ 1.67 miles long, beginning at Bridge No. 004 and terminating 845 feet east of Bucks Road.
- 2 Intersection Improvements along with associated roadway improvements
 - Cedar Neck Road and SR 1 Northbound Ramp/Thawley Property Access
 - Cedar Neck Road and Bucks Road
- Pedestrian/Bicycle Facility Improvements
- Total Estimated Project Cost = \$17,437,908



Improvements – Cedar Neck Road



- Cedar Neck Road/SR 1 Northbound Ramp/Thawley Property Access
 - New signalized intersection
 - Auxiliary lanes along every approach
 - Shared-use path on both sides of Cedar Neck Road, with the exception of the Bridge area
 - Bike lanes on both sides of Cedar Neck Road

Improvements – Cedar Neck Road

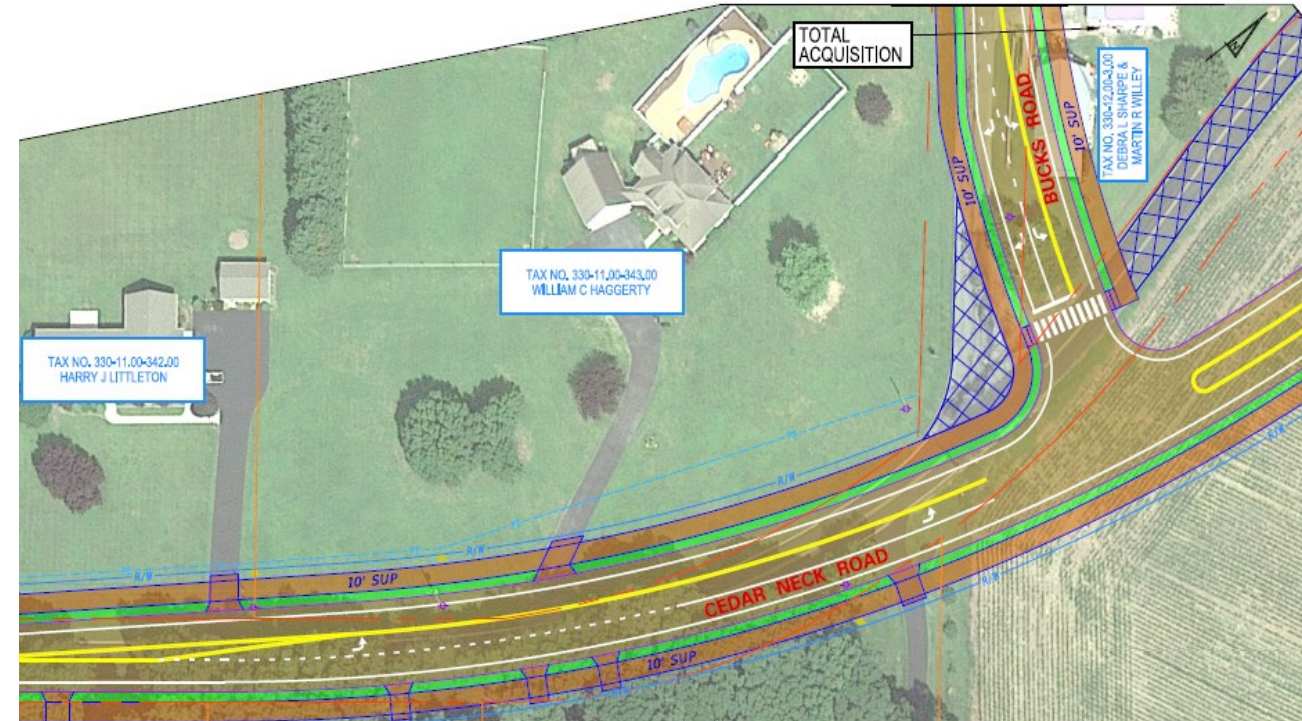
Option 1: Roundabout



- Cedar Neck Road/Bucks Road

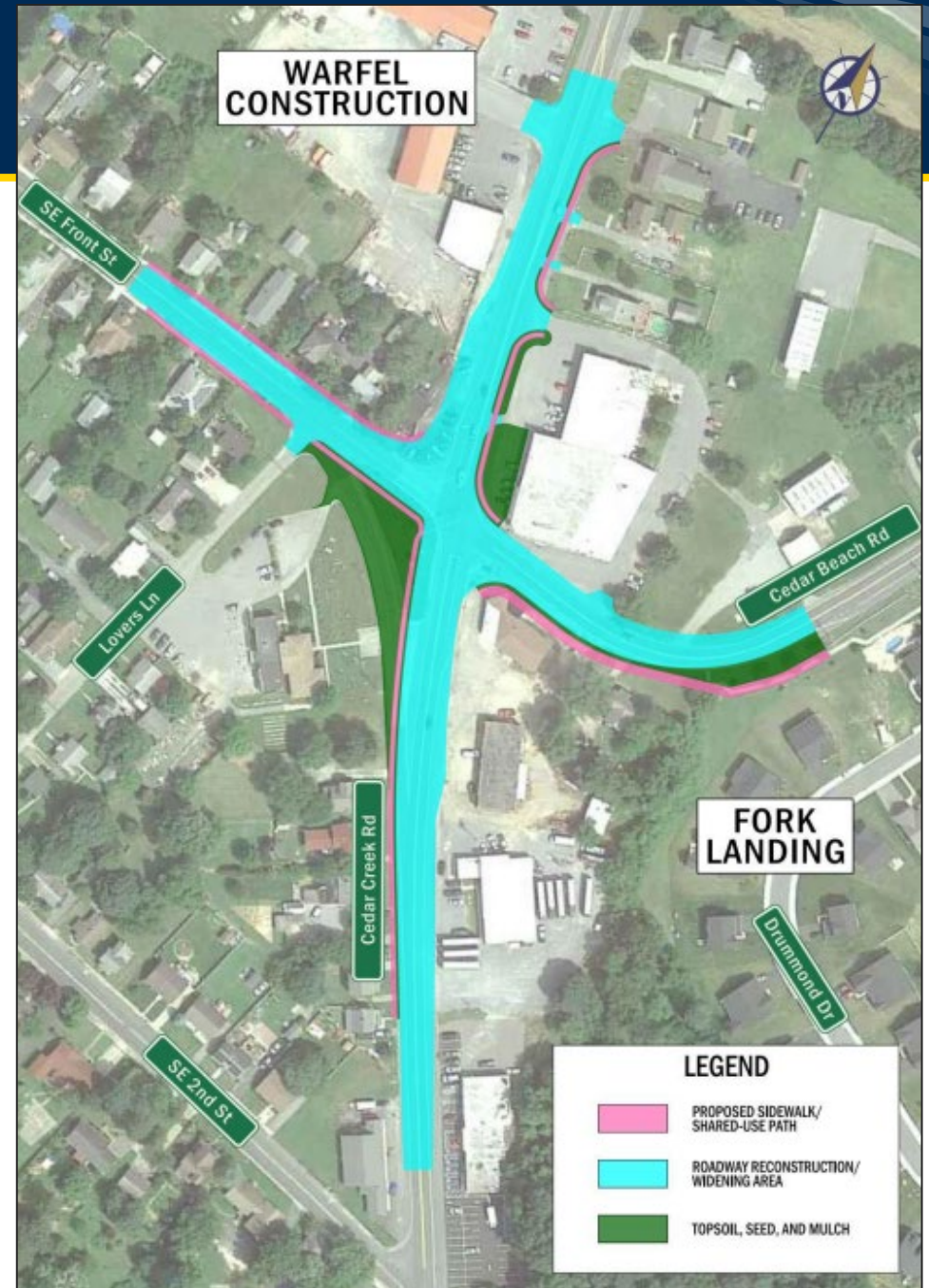
- Two intersection options – Roundabout or Minor Street Stop with Turn Lanes
- Shared-use path on both sides of Cedar Neck Road, with the exception of the northeast area
- Shared-use path on both sides of Bucks Road
- Realignment of westbound Cedar Neck Road

Option 2: Turn Lanes

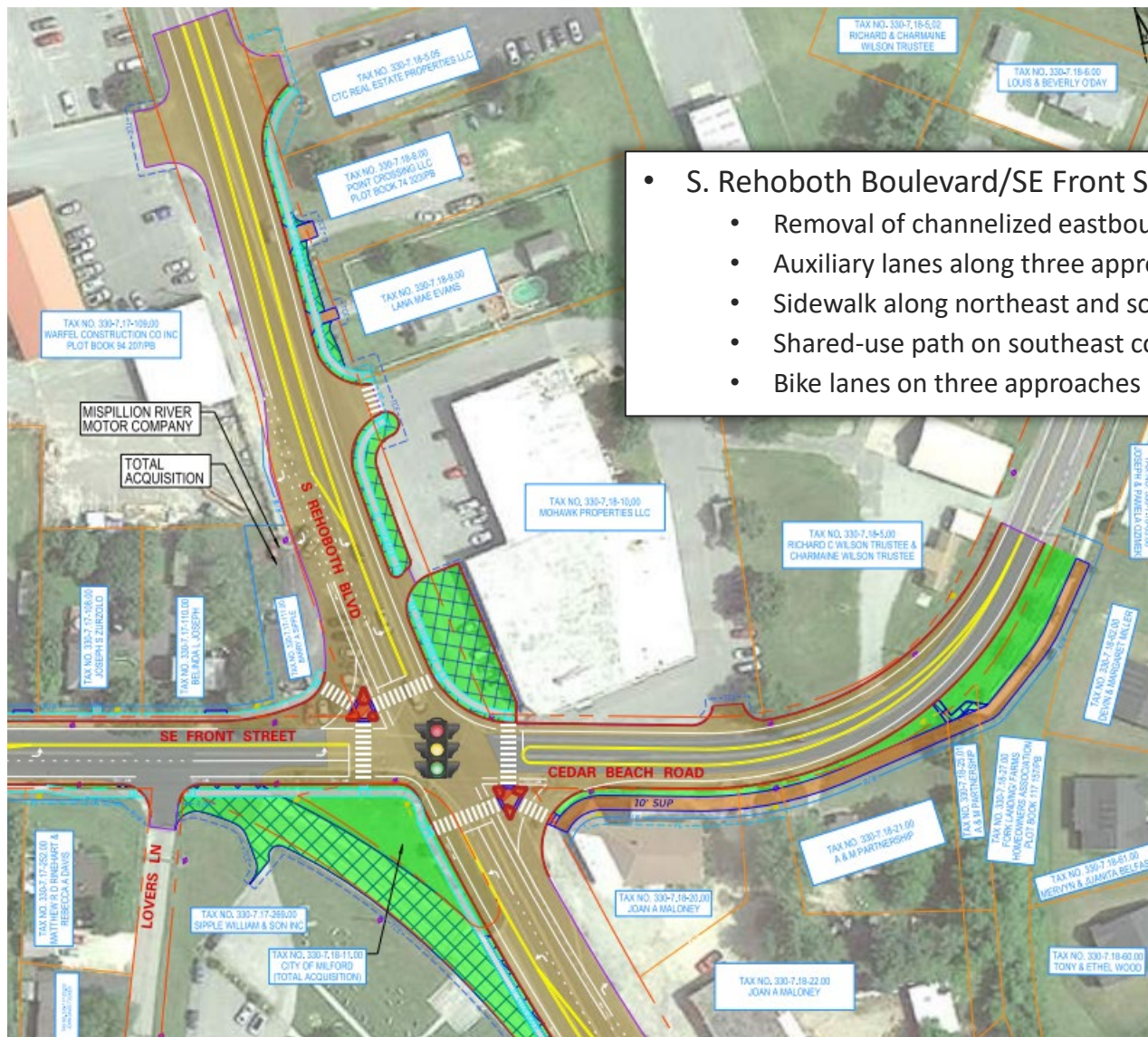


Improvements S. Rehoboth Boulevard

- S. Rehoboth Boulevard/SE Front Street/Cedar Beach Road Intersection
- Pedestrian/Bicycle Facility Improvements
- Total Estimated Project Cost = \$5,236,830



Improvements – S. Rehoboth Boulevard

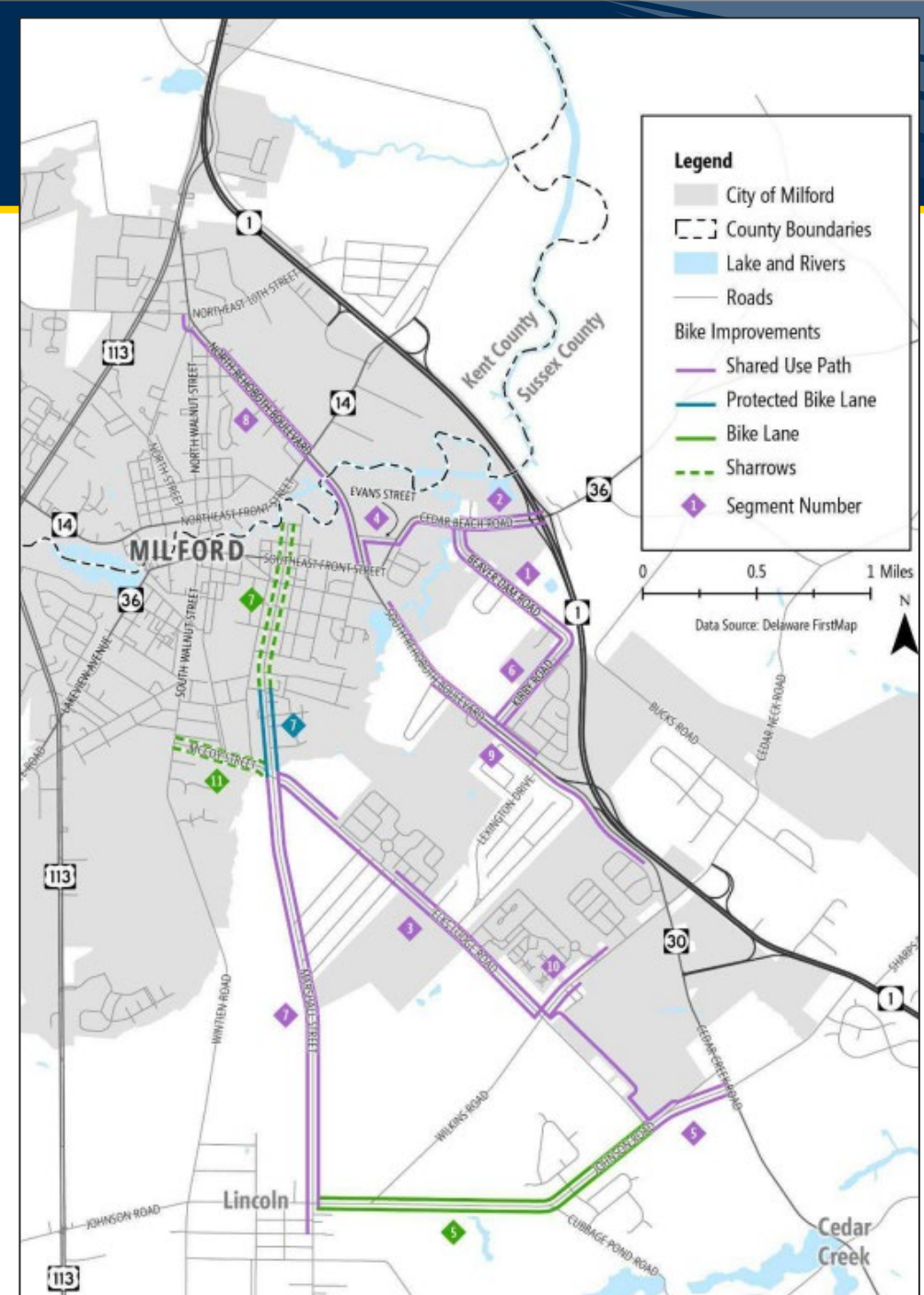


- S. Rehoboth Boulevard/SE Front Street/Cedar Beach Road
 - Removal of channelized eastbound right turn lane
 - Auxiliary lanes along three approaches
 - Sidewalk along northeast and southwest corners
 - Shared-use path on southeast corner
 - Bike lanes on three approaches

Additional Bicycle and Pedestrian Improvements

- Additional pedestrian and bicycle facility improvements proposed along the following roadways (estimated cost in parenthesis):

1. Beaver Dam Road – Shared Use Path (\$2,599,133)
2. Cedar Beach Road – Shared Use Path (\$2,545,505)
3. Elks Lodge Road – Shared Use Path (\$4,157,880)
4. Evans Street – Shared Use Path (\$512,698)
5. Johnson Road – Shared Use Path and Bike Lane (\$1,072,548)
6. Kirby Road – Shared Use Path (\$1,086,443)
7. Marshall Street – Shared Use Path, Protected Bike Lane, Sharrows (\$4,517,980)
8. N. Rehoboth Boulevard – Shared Use Path (\$1,409,900)
9. S. Rehoboth Boulevard – Shared Use Path (\$2,635,420)
10. Wilkins Road - Shared Use Path (\$828,853)
11. McCoy Street – Sharrows (\$274,135)



TID Capital Transportation Program (TID-CTP)

Southeast Milford TID Improvements	
Project Description	Current Cost Estimate, 2023
Bicycle and Pedestrian improvements along TID roadway segments from City of Milford Bicycle Master Plan	\$21,640,495.00
Cedar Beach Rd. and Sapp Rd. intersection: Install a single-lane roundabout with 65' inscribed radius. The roundabout will have an 18' wide travel lane and modified type 2 curb with a 47' radius separating the travel lane and 10' concrete truck apron. Type 1 curb is proposed inside the truck apron having a 37' radius. All pavement to be full-depth construction due to low OPC index scores; create a fourth leg for Pingue Drive across from Sapp Rd.	\$2,587,955.00
Cedar Creek Rd. Corridor from Johnson Rd. to and including Wilkins Rd. intersections: Traffic signal, turn lanes, two northbound through lanes at Johnson Rd.; two northbound through lanes, two southbound left turn lanes at Wellness Way; traffic signal, turn lanes, two through lanes in both directions at Hall property access; two through lanes in both directions at Wilkins Rd; two lefts from Wilkins Rd; 10' wide SUP on both sides; remove Fork Rd. connection.	\$21,386,683.00
Cedar Neck Rd. Corridor from just west of SR1 northbound ramp to Bucks Rd. and Bucks Rd. between Cedar Neck Rd. and 290' west of Courtney Drive: Signal and turn lanes are SR1 ramp and Thawley property access; turn lanes and realignment at Bucks Rd. or install single-lane roundabout at Bucks Rd.; 10' Wide SUP on both sides.	\$17,437,908.00
Elks Lodge Rd. and Johnson Rd. intersection: install single-lane roundabout with 66' inscribed radius. The roundabout will have an 18' wide travel lane and modified type 2 curb with a 47' radius separating the travel lane and 10' concrete truck apron. Type 1 curb is proposed inside the truck apron having a 37' radius. All pavement to be full-depth construction due to low OPC index scores; 10' wide SUP along northbound side of Elks Lodge Rd. and both sides of eastern approach of Johnson Rd.	\$2,433,000.00
Elks Lodge Rd. and Marshall St. intersection: install single-lane roundabout with 65' inscribed radius. The roundabout will have an 18' wide travel lane and modified type 2 curb with a 47' radius separating the travel lane and 10' concrete truck apron. Type 1 curb is proposed inside the truck apron having a 37' radius. All pavement to be full-depth construction due to low OPC index scores; 10' wide SUP on all approaches; guardrail exit approaches and guardrail end anchorages will be installed and connected to the existing concrete parapets along the existing culvert.	\$2,276,058.00
Elks Lodge Rd. and Wilkins Rd. intersection: install single-lane roundabout with 65' inscribed radius. The roundabout will have an 18' wide travel lane and modified type 2 curb with a 47' radius separating the travel lane and 10' concrete truck apron. Type 1 curb is proposed inside the truck apron having a 37' radius. All pavement to be full-depth construction due to low OPC index scores; 10' wide SUP on all approaches; install 10' wide SUP along the northwestern and southeastern sides of Wilkins Rd.	\$2,814,860.00
N. Old State Rd. and Johnson Rd. intersection: install single-lane roundabout with 65' inscribed radius. The roundabout will have an 18' wide travel lane and modified type 2 curb with a 47' radius separating the travel lane and 10' concrete truck apron. Type 1 curb is proposed inside the truck apron having a 37' radius. All pavement to be full-depth construction due to low OPC index scores.	\$2,447,833.00
S Rehoboth Blvd. and Kirby Rd. intersection: install single-lane roundabout with 66' inscribed radius. The roundabout will have an 18' wide travel lane and modified type 2 curb with a 48' radius separating the travel lane and 10' concrete truck apron. Type 1 curb is proposed inside the truck apron having a 38' radius. All pavement to be full-depth construction due to low OPC index scores; 10' wide SUP on all approaches.	\$2,486,605.00
S Rehoboth Blvd. and SE Front St. intersection: Median, turn lane, shoulder and sidewalk improvements	\$5,236,830.00
SR30 and Fleatown Rd. intersection: install single-lane roundabout with 65' inscribed radius. The roundabout will have an 18' wide travel lane and modified type 2 curb with a 47' radius separating the travel lane and 10' concrete truck apron. Type 1 curb is proposed inside the truck apron having a 37' radius. All pavement to be full-depth construction due to low OPC index scores; add right turn slip lane connecting Pine Haven Rd. with Cedar Creek Rd.; guardrail along slip lane; Open commercial access will be closed on Fleatown Rd. and channelized to a controlled entrance; Widen bridge on northbound side to allow for slip lane to be free flow.	\$4,933,573.00
Total of all improvements	\$85,681,800.00

Infrastructure Fee Program

Between 30% and 35% developer contributions

Southeast Milford TID Initial Fee Schedule 2023

Residential Rates

Single family detached residential	\$2,750 per unit by phase
	\$2,887 per unit by lot
Single family attached residential	\$2,090 per unit by phase
	\$2,194 per unit by lot
Multi-family residential, low-rise, 1-3 floors	\$1,952 per unit by phase
	\$2,049 per unit by lot
Multi-family residential, mid-rise, 4 or more floors	\$1,320 per unit by phase
	\$1,386 per unit by lot

Non-Residential Rates

Under 21 trips per 1,000 SF GFA	\$1.00 per sq ft
At least 21 but less than 34 trips per 1,000 SF GFA	\$1.45 per sq ft
At least 34 but less than 75 trips per 1,000 SF GFA	\$2.90 per sq ft
At least 75 but less than 200 trips per 1,000 SF GFA	\$5.80 per sq ft
200 or more trips per 1,000 SF GFA	\$6.80 per sq ft

Notes: Single family attached rate is 76% of single-family detached rate. Low-rise Multi-family rate is 71% of single-family detached rate. Mid-rise Multi-family rate is 48% of single-family detached rate. All non-residential rates are based on the number of daily trips per 1,000 square foot of gross floor area. This is based on ITE Trip Generation Manual, 11th Edition.

Southeast Milford TID Initial Fee Schedule 2023

Residential Rates

Single family detached residential	\$3,250 per unit by phase
	\$3,412 per unit by lot
Single family attached residential	\$2,470 per unit by phase
	\$2,593 per unit by lot
Multi-family residential, low-rise, 1-3 floors	\$2,307 per unit by phase
	\$2,422 per unit by lot
Multi-family residential, mid-rise, 4 or more floors	\$1,560 per unit by phase
	\$1,638 per unit by lot

Non-Residential Rates

Under 21 trips per 1,000 SF GFA	\$1.07 per sq ft
At least 21 but less than 34 trips per 1,000 SF GFA	\$1.58 per sq ft
At least 34 but less than 75 trips per 1,000 SF GFA	\$3.15 per sq ft
At least 75 but less than 200 trips per 1,000 SF GFA	\$6.30 per sq ft
200 or more trips per 1,000 SF GFA	\$7.37 per sq ft

Notes: Single family attached rate is 76% of single-family detached rate. Low-rise Multi-family rate is 71% of single-family detached rate. Mid-rise Multi-family rate is 48% of single-family detached rate. All non-residential rates are based on the number of daily trips per 1,000 square foot of gross floor area. This is based on ITE Trip Generation Manual, 11th Edition.

Next Steps

- DeIDOT and City negotiate the Infrastructure Fee Program
- Add to amended TID Agreement
 - Land Use and Transportation Plan
 - Revised Service Standards
 - TID-CTP
 - Infrastructure Fee Program
- TID Begins Implementation



Delaware Department
of Transportation



Questions

Sarah Coakley, AICP
DeIDOT Principal Planner
Sarah.Coakley@delaware.gov