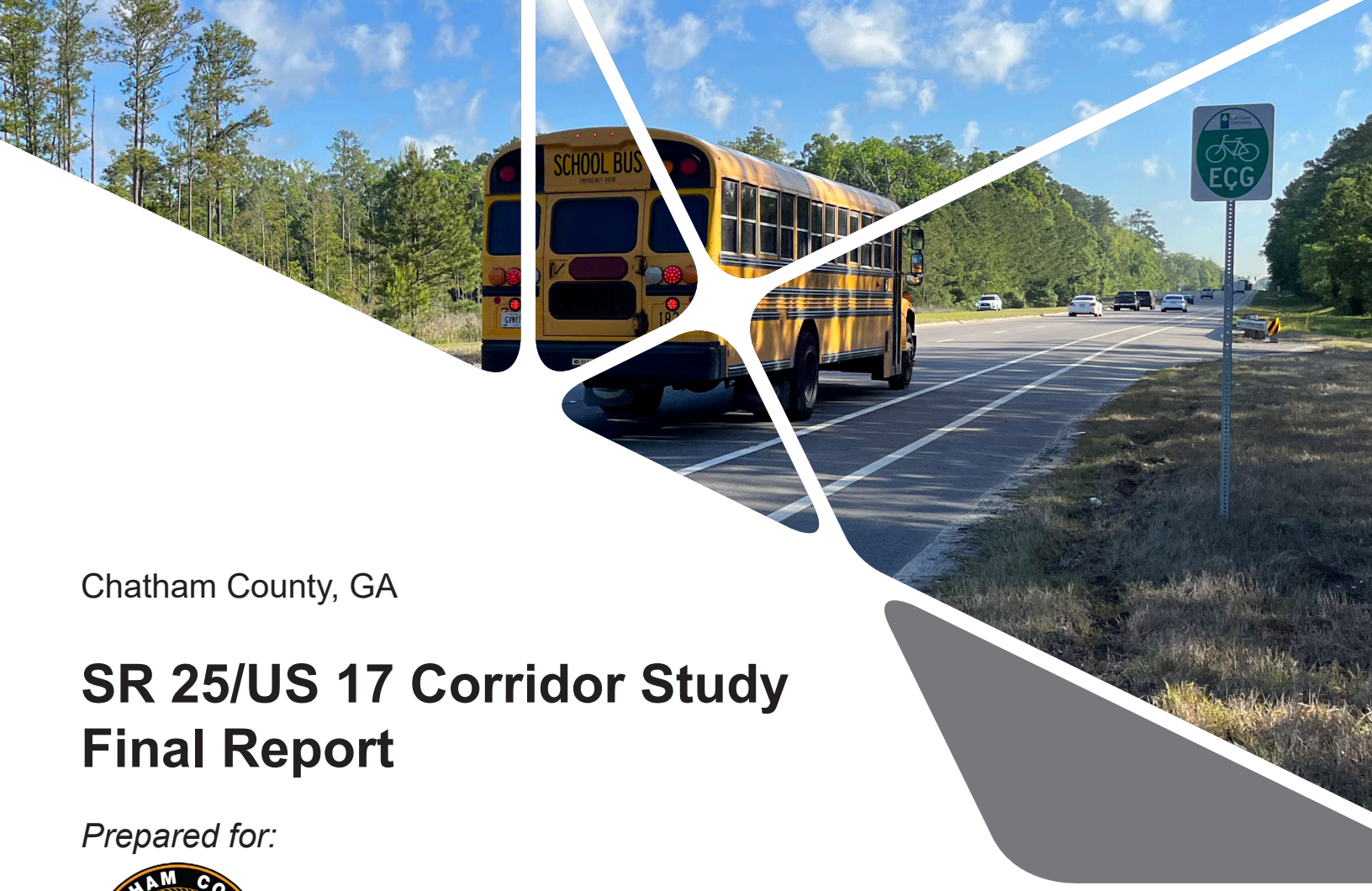

Chatham County, GA

SR 25/US 17 Corridor Study Final Report

Prepared for:

Prepared by:

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May 2025

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List of Abbreviations

AADT	Annual Average Daily Traffic
ADT	Average Daily Traffic
ATS	Average Travel Speed
BFFS	Base Free Flow Speed
CAT	Chatham Area Transit
CORE MPO	Coastal Region Metropolitan Planning Organization
DDHV	Directional Design Hourly Volume
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GCT	Garden City Terminal
GDOT	Georgia Department of Transportation
GPA	Georgia Ports Authority
ECG	East Coast Greenway
HCM	Highway Capacity Manual
HMVMT	Hundred Million Vehicle Miles Traveled
LOS	Level of Service
MOE	Measure of Effectiveness
MPC	Metropolitan Planning Commission
MPH	Miles Per Hour
MTP	Metropolitan Transportation Plan
MUTCD	Manual on Uniform Traffic Control Devices
NMTP	Non-Motorized Transportation Plan
PDO	Property Damage Only
RCUT	Reduced Conflict U-Turn
RIRO	Right-In/Right-Out
SCCPS	Savannah-Chatham County Public School System
TADA	Traffic Analysis and Data Application
TIP	Transportation Improvement Program
TMC	Turning Movement Count
TWLTL	Two-Way Left-Turn Lane
TWSC	Two-Way Stop Control
VPD	Vehicles Per Day
VPH	Vehicles Per Hour

Appendices

A – SR 25/US 17 Corridor Study Traffic Forecasting Technical Memorandum

B – Capacity Analysis Reports

C – Crash Data (2018 - 2022)

D – GDOT ICE Worksheets

E – Conceptual Layouts

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1 Executive Summary

SR 25/US 17 is a critically important principal arterial that runs north-to-south through the state of Georgia from the Florida state line to the interchange with I-516/SR 21 in Chatham County. Locally, the SR 25/ US 17/Ogeechee Road ("SR 25/US 17") corridor serves as a key alternate to I-95 and I-16, provides access to freight routes such as SR 307/Dean Forest Road and to Georgia Ports Authority (GPA) facilities, connects the City of Richmond Hill and Bryan County to Chatham County, and functions as a Georgia State Bicycle Route 95 and vital component of the East Coast Greenway (ECG). The 10.7-mile-long study corridor from the Ogeechee River to I-516/SR 21 includes a diverse mix of commercial, residential, and recreational facilities, and portions of the route are utilized by the Savannah-Chatham County Public School System (SCCPSS) and Chatham Area Transit (CAT). Prioritizing the safe and efficient movement of all modes along this multi-functional route is key to the long-term success of the surrounding area. As a supporting document to the CORE MPO MTP process, this study's goals, objectives, and outcomes are intended to align closely with those highlighted in the CORE MPO's *Mobility 2045* MTP and future *Moving Forward Together 2050* MTP. The goals and objectives of the MTP focus on several key performance measures used to inform transportation investment decisions.

The primary goals and objectives of the SR 25/US 17 Corridor Study are:

- Identify and prioritize short term (0-5 years) and long term (5+ years) improvement projects needed for the SR 25/US 17 corridor to operate at an acceptable level of service
- Prioritize recommended improvements to facilitate planning and programming of projects through the Coastal Region Metropolitan Planning Organization's (CORE MPO) Metropolitan Transportation Plan (MTP) process
- Justify the future programming of projects in the CORE MPO's Transportation Improvement Program (TIP) and *Moving Forward Together 2050* MTP

First, an **Existing Conditions Assessment** including a comprehensive data collection effort, existing lang use summary, origin-destination analysis, capacity analysis, and safety analysis was conducted to evaluate existing conditions along the SR 25/US 17 corridor at the 40 intersections and six contextual segments depicted in **Figure ES-1**. The results of the these were used to identify transportation challenges, needs, and opportunities to be considered throughout the remainder of the study.

Existing Land Use Summary

The existing land use summary for the SR 25/US 17 corridor reveals a diverse mix of residential, commercial, and green space. The corridor spans the jurisdictions of Savannah, Garden City, and unincorporated Chatham County. The existing land use assessment utilized data from Geographic Information Systems (GIS), current zoning and other parcel information, and a review of zoning history and approved planned urban developments (PUD) provided by the Chatham County-Savannah Metropolitan Planning Commission (MPC). Overall, the study corridor is comprised of 33% Parks/Green/Open Space, 30% Residential, 14% Commercial, 10% Industrial, and 6% Vacant/ Undeveloped Space. Defining current land use is a critical component in understanding existing travel patterns and development trends. This foundation is essential for predicting future growth and identifying needs, opportunities, and constraints along the corridor.

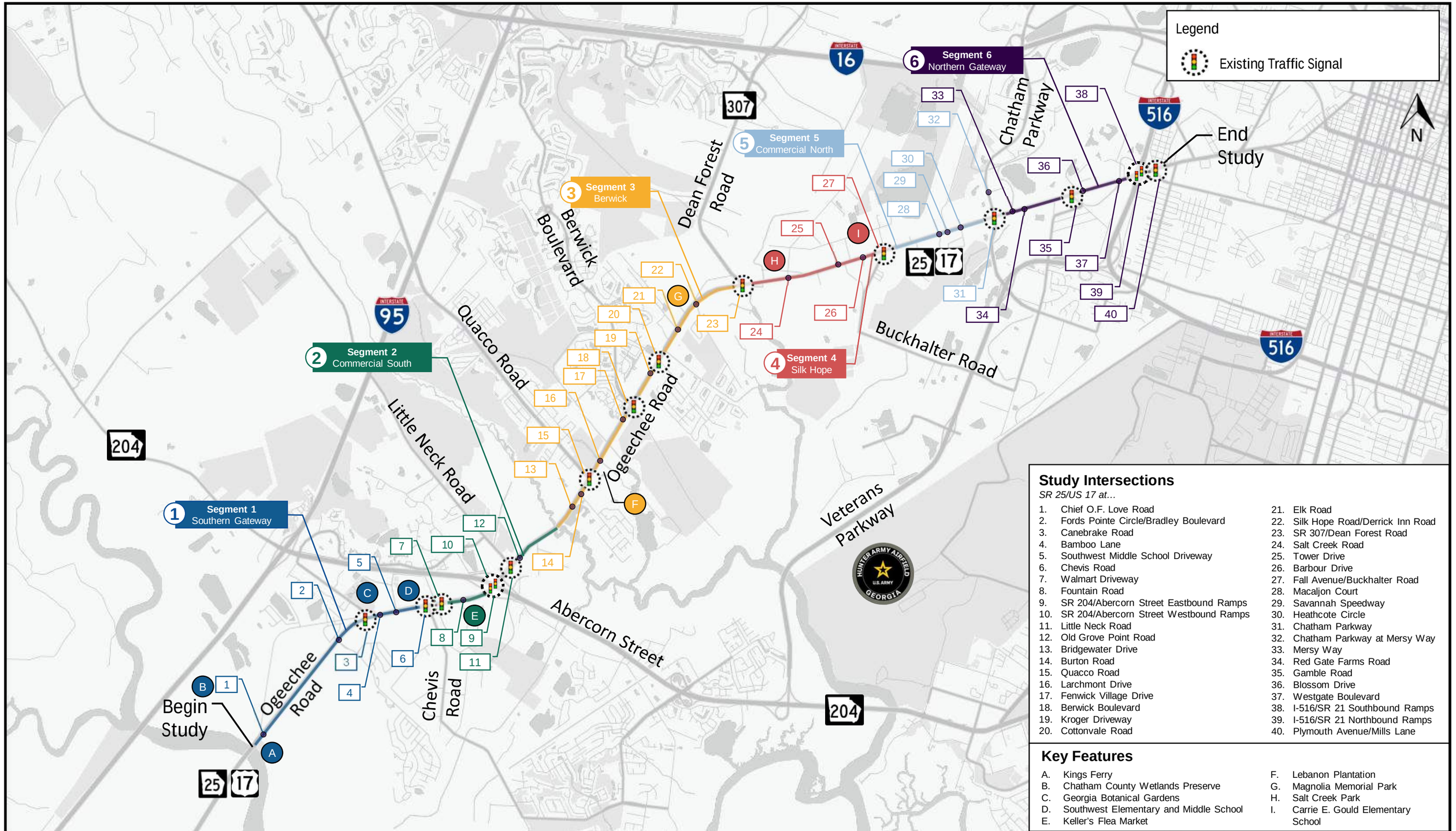
Origin-Destination Analysis

An origin-destination (O-D) analysis was conducted using Replica's Places dataset to evaluate existing daily travel patterns for passenger car, truck, and non-motorist trips utilizing the SR 25/US 17 corridor, as well as all modes of transportation during the AM peak hour, PM peak hour, and to and from Bryan County. The findings from this analysis indicate the following:

- Passenger car trip-making characteristics are reflective of growth along the southern portion of the SR 25/US 17 corridor and into Bryan County; approximately 30% of all trips that start on, end on, or pass through the SR 25/US 17 corridor begin or end in Census Tracts to the south of SR 204/Abercorn Street, including those in Bryan County.
- Truck trip-making along the SR 25/US 17 corridor has generally decreased in proportion to passenger car trips since 2019; in 2019, approximately 11% of all trips on the study corridor were made by commercial vehicles, while only 5% fit this category in 2023. These trends reflect growth patterns that are largely residential in nature along the SR 25/US 17 corridor.
- Few trips are made by walking, biking, or transit on the SR 25/US 17 corridor; each category constitutes less than 5% of all trips made on the study corridor in Spring 2023. Low usage for these modes of transportation is attributable to the lack of existing facilities, and investment is recommended to serve the latent demand.
- Approximately 25% of peak-hour trips that utilize at least a portion of the SR 25/US 17 corridor originate in or are destined for tracts south of SR 204/Abercorn Street in Chatham and Bryan counties. To help manage growth along the SR 25/US 17 corridor, travel time information could be communicated via dynamic message signs to encourage the use of other corridors.

Existing Capacity Analysis Results

The intersection- and segment-level results presented in this report demonstrate that the southern end of the SR 25/US 17 corridor near the Bryan County/Chatham County line operates with minimal disruptions under existing conditions. However, existing bottlenecks at the SR 204/Abercorn Street interchange, Cottonvale Road, and Chatham Parkway lead to significant delays for freight and commuter trips traversing the segments between Chevis Road and Gamble Road. Planned and committed improvements at locations such as SR 204/Abercorn Street, Little Neck Road, and I-516/SR 21 aim to improve poor traffic operations during the peak hours of the day, but further improvements will be needed to ensure that the corridor continues to operate at an acceptable level of service for the next 20 years. The maps shown in **Figure ES-2** and **Figure ES-3** summarize existing corridor operations as defined by capacity analysis, SimTraffic outputs, and field observations.



Study Intersections

SR 25/US 17 at…

1. Chief O.F. Love Road
2. Fords Pointe Circle/Bradley Boulevard
3. Canebrake Road
4. Bamboo Lane
5. Southwest Middle School Driveway
6. Chevis Road
7. Walmart Driveway
8. Fountain Road
9. SR 204/Abercorn Street Eastbound Ramps
10. SR 204/Abercorn Street Westbound Ramps
11. Little Neck Road
12. Old Grove Point Road
13. Bridgewater Drive
14. Burton Road
15. Quacco Road
16. Larchmont Drive
17. Fenwick Village Drive
18. Berwick Boulevard
19. Kroger Driveway
20. Cottonvale Road
21. Elk Road
22. Silk Hope Road/Derrick Inn Road
23. SR 307/Dean Forest Road
24. Salt Creek Road
25. Tower Drive
26. Barbour Drive
27. Fall Avenue/Buckhalter Road
28. Macaljon Court
29. Savannah Speedway
30. Heathcote Circle
31. Chatham Parkway
32. Chatham Parkway at Mersy Way
33. Mersy Way
34. Red Gate Farms Road
35. Gamble Road
36. Blossom Drive
37. Westgate Boulevard
38. I-516/SR 21 Southbound Ramps
39. I-516/SR 21 Northbound Ramps
40. Plymouth Avenue/Mills Lane

Key Features

A. Kings Ferry
B. Chatham County Wetlands Preserve
C. Georgia Botanical Gardens
D. Southwest Elementary and Middle School
E. Keller's Flea Market
F. Lebanon Plantation
G. Magnolia Memorial Park
H. Salt Creek Park
I. Carrie E. Gould Elementary School

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure ES-1 – Corridor Context Areas and Study Intersections

SR 25/US 17 CORRIDOR STUDY

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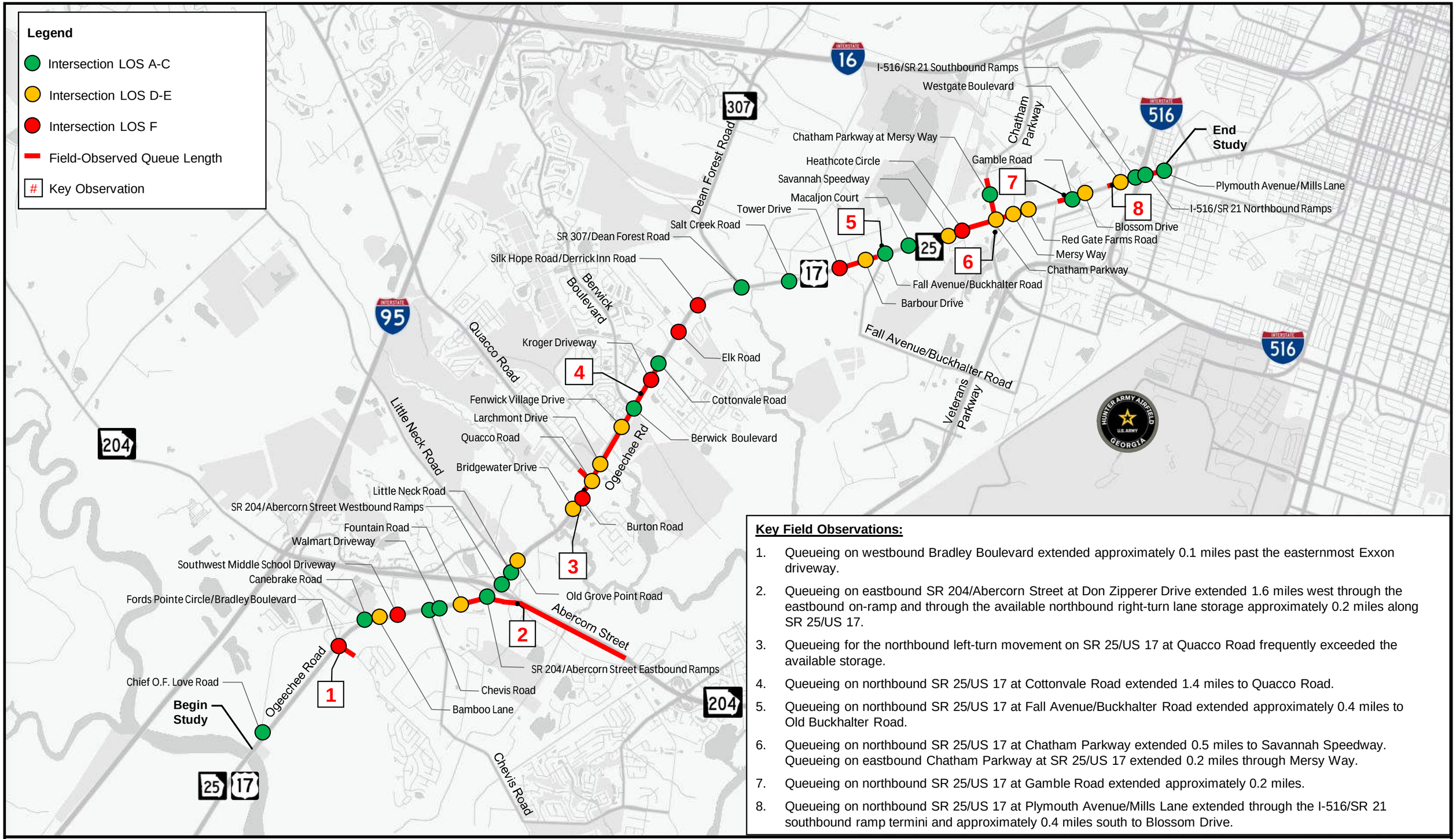
Legend

- Intersection LOS A-C
- Intersection LOS D-E
- Intersection LOS F
- Field-Observed Queue Length
- # Key Observation



Key Field Observations:

1. Queueing on westbound Bradley Boulevard extended approximately 0.1 miles past the easternmost Exxon driveway.
2. Queueing on eastbound SR 204/Abercorn Street at Don Zipperer Drive extended 1.6 miles west through the eastbound on-ramp and through the available northbound right-turn lane storage approximately 0.2 miles along SR 25/US 17.
3. Queueing for the northbound left-turn movement on SR 25/US 17 at Quacco Road frequently exceeded the available storage.
4. Queueing on northbound SR 25/US 17 at Cottonvale Road extended 1.4 miles to Quacco Road.
5. Queueing on northbound SR 25/US 17 at Fall Avenue/Buckhalter Road extended approximately 0.4 miles to Old Buckhalter Road.
6. Queueing on northbound SR 25/US 17 at Chatham Parkway extended 0.5 miles to Savannah Speedway. Queueing on eastbound Chatham Parkway at SR 25/US 17 extended 0.2 miles through Mersy Way.
7. Queueing on northbound SR 25/US 17 at Gamble Road extended approximately 0.2 miles.
8. Queueing on northbound SR 25/US 17 at Plymouth Avenue/Mills Lane extended through the I-516/SR 21 southbound ramp termini and approximately 0.4 miles south to Blossom Drive.

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure ES-2 – Existing Corridor Operations Summary – AM Peak Hour

SR 25/US 17 CORRIDOR STUDY

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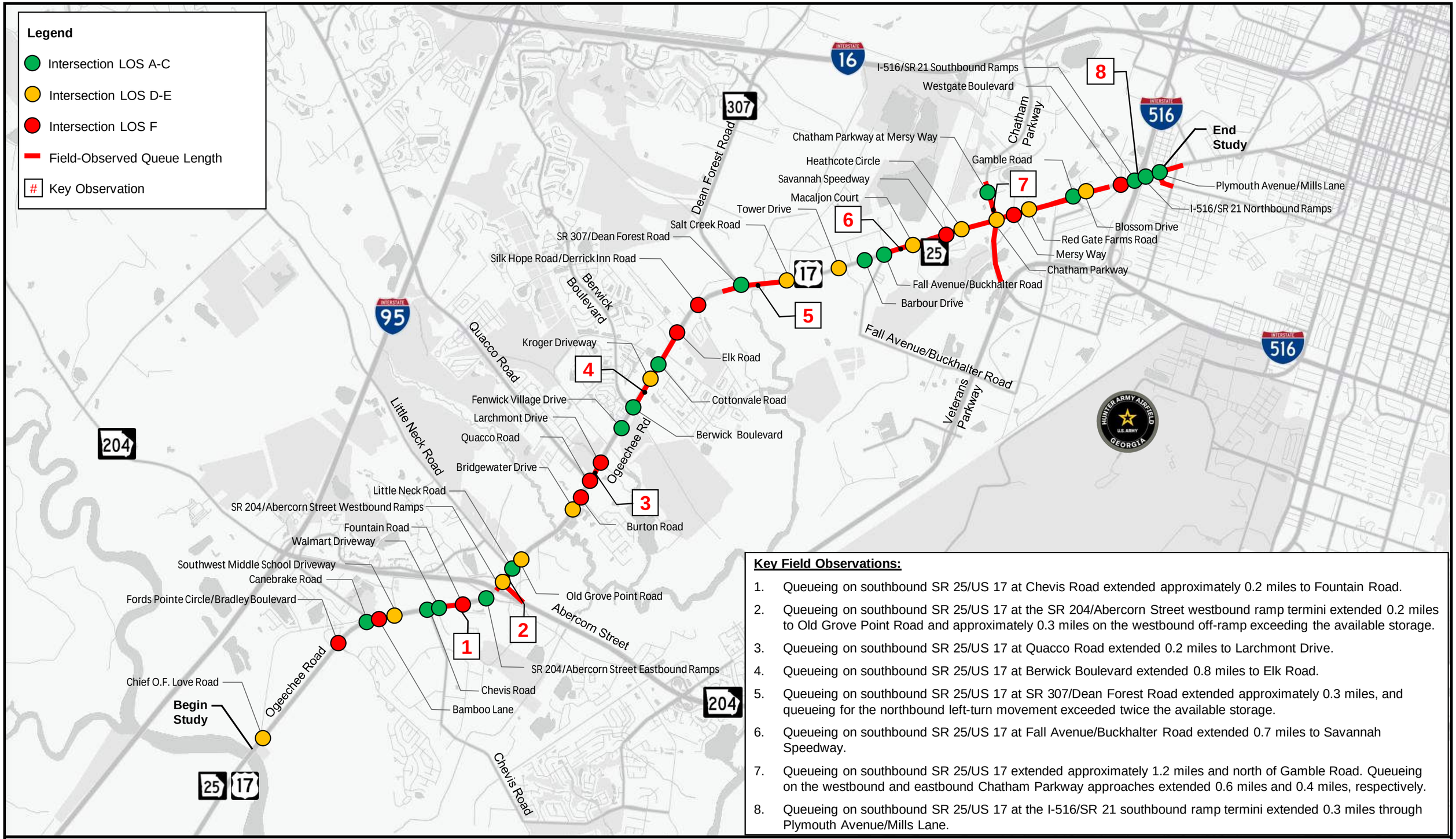

Key Field Observations:

1. Queueing on southbound SR 25/US 17 at Chevis Road extended approximately 0.2 miles to Fountain Road.
2. Queueing on southbound SR 25/US 17 at the SR 204/Abercorn Street westbound ramp termini extended 0.2 miles to Old Grove Point Road and approximately 0.3 miles on the westbound off-ramp exceeding the available storage.
3. Queueing on southbound SR 25/US 17 at Quacco Road extended 0.2 miles to Larchmont Drive.
4. Queueing on southbound SR 25/US 17 at Berwick Boulevard extended 0.8 miles to Elk Road.
5. Queueing on southbound SR 25/US 17 at SR 307/Dean Forest Road extended approximately 0.3 miles, and queueing for the northbound left-turn movement exceeded twice the available storage.
6. Queueing on southbound SR 25/US 17 at Fall Avenue/Buckhalter Road extended 0.7 miles to Savannah Speedway.
7. Queueing on southbound SR 25/US 17 extended approximately 1.2 miles and north of Gamble Road. Queueing on the westbound and eastbound Chatham Parkway approaches extended 0.6 miles and 0.4 miles, respectively.
8. Queueing on southbound SR 25/US 17 at the I-516/SR 21 southbound ramp termini extended 0.3 miles through Plymouth Avenue/Mills Lane.

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure ES-3 – Existing Corridor Operations Summary – PM Peak Hour

SR 25/US 17 CORRIDOR STUDY

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Existing Crash History Summary

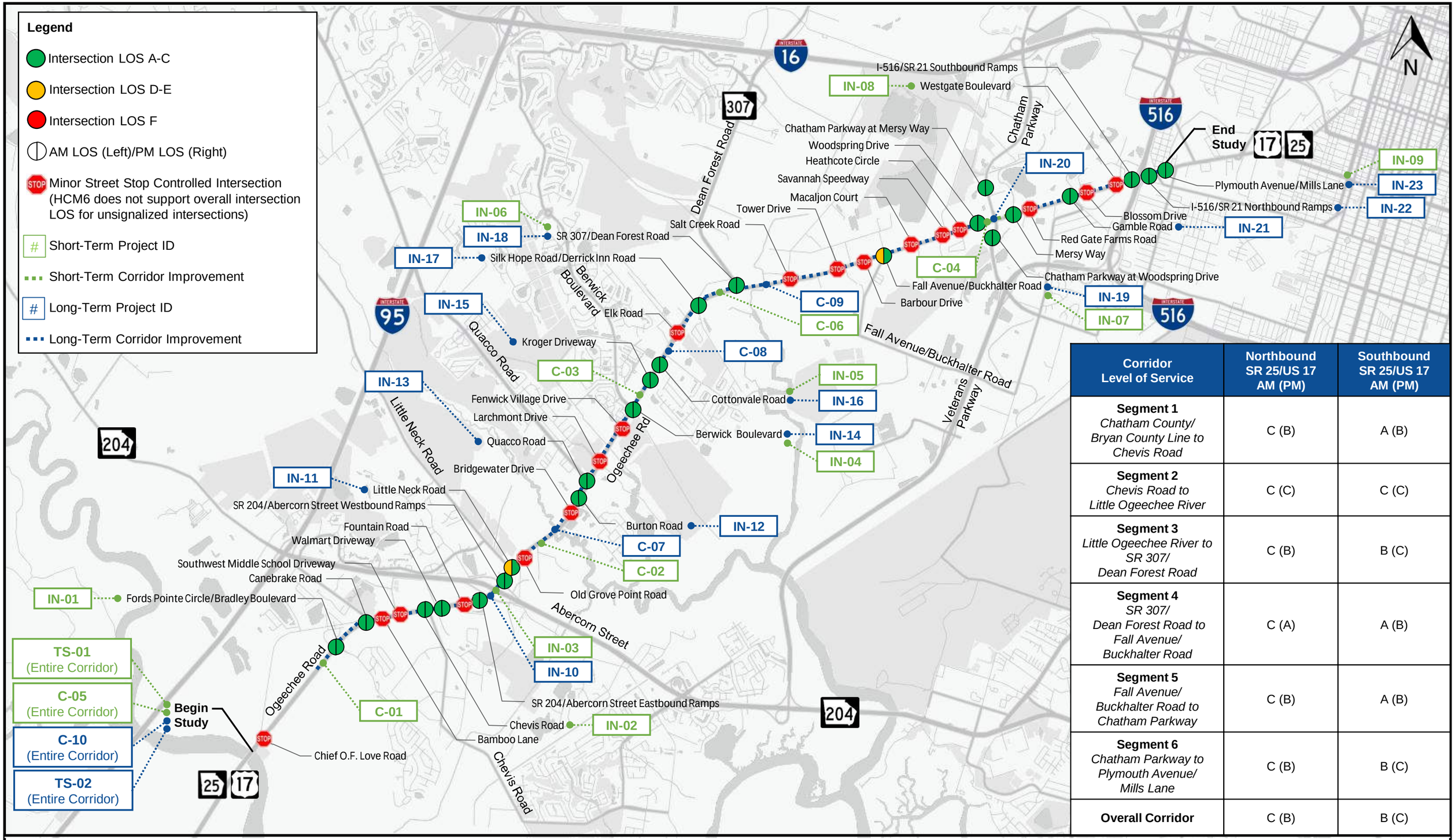
The corridor and segment safety analyses presented in this report illustrate trends in existing crash history are a product of the SR 25/US 17 corridor characteristics, specifically:

- ***The SR 25/US 17 corridor exhibited a fatal crash rate nearly triple the statewide average and an overall crash rate approximately double the statewide average for principal arterials*.** Much of these trends may be attributable to a lack of pedestrian and bicycle facilities throughout the corridor despite apparent demand. Of the 24 fatal crashes that occurred over the study period, 13 (54%) involved a pedestrian or cyclist, and 10 (42%) occurred at night in non-lit areas which may be attributable to a lighting deficiency throughout the corridor.
- ***This study corridor includes approximately 244 unsignalized driveways, which is equivalent to an average spacing of 23 driveways per mile*.** Full-movement, unsignalized driveways are most heavily concentrated between Fall Avenue/Buckhalter Road and Plymouth Avenue/Mills Lane (Segment 5 and Segment 6). Unsurprisingly, 355 (43%) of all angle crashes occurred in these segments despite comprising just 25% of the study corridor by length.
- ***Congested conditions at major intersections along the study corridor likely contribute to an increased frequency of rear-end crashes*.** Approximately 2,038 (56%) of all crashes in the study database were rear-end crashes; 1,189 (33%) of these occurred between the intersections with Chevis Road and SR 307/Dean Forest Road, particularly near the SR 204/Abercorn Street interchange, where congested conditions are prevalent. Elsewhere, significant congestion was observed near the intersection with Chatham Parkway, particularly during the PM peak period.

Second, a **Future Conditions Assessment** was conducted to assess corridor operations under short-term (0-5 Years) and long-term (5+ Years) conditions based on the traffic forecasts completed for this study. Findings from the **Existing Conditions Assessment**, traffic signal warrant analyses, Stage 1 GDOT Intersection Control Evaluation (ICE) analyses, and comparative capacity analyses conducted in Synchro and SimTraffic software were utilized to inform the selection of short- and long-term conceptual alternatives for the corridor. Projected intersection- and corridor-level operations under 2050 Build conditions are presented in **Figure ES-4** along with an indexed list of short- and long-term projects.

Third, **Public Outreach** was included as part of this study based on the requirements and recommendations outlined in the CORE MPO's Public Participation Plan. Stakeholder outreach strategies, meeting summaries, and consistent topics of feedback are presented herein.

Finally, **Recommendations and Projects** were developed based on the outcomes of the existing conditions assessment, future conditions assessment, and alternatives analysis. A full listing of the short- and long-term projects recommended for consideration as part of future transportation planning efforts are summarized in **Table ES-1** and **Table ES-2**. For reporting purposes, SR 25/US 17 is assumed to have a north-south orientation throughout the study limits. To assist future planning efforts and project programming, concept-level cost estimates were developed based on anticipated construction quantities and recent GDOT bid data and are included in **Table ES-1** and **Table ES-2**. The estimated cost for each project includes construction, reimbursable utility, right-of-way, preliminary engineering, program cost, and inflation projected to anticipated project implementation years for both short- and long-term recommendations. Short- and long-term draft priority rankings were established as part of the **Alternatives Analysis Report** and were then verified upon completion of public outreach and project cost estimates.



Corridor Level of Service	Northbound SR 25/US 17 AM (PM)	Southbound SR 25/US 17 AM (PM)
Segment 1 *Chatham County/ Bryan County Line to Chevis Road*	C (B)	A (B)
Segment 2 *Chevis Road to Little Ogeechee River*	C (C)	C (C)
Segment 3 *Little Ogeechee River to SR 307/ Dean Forest Road*	C (B)	B (C)
Segment 4 *SR 307/ Dean Forest Road to Fall Avenue/ Buckhalter Road*	C (A)	A (B)
Segment 5 *Fall Avenue/ Buckhalter Road to Chatham Parkway*	C (B)	A (B)
Segment 6 *Chatham Parkway to Plymouth Avenue/ Mills Lane*	C (B)	B (C)
Overall Corridor	C (B)	B (C)

SR 25/US 17 Corridor Study – Alternatives Development & Analysis

Figure ES-4 – 2050 Build Corridor Operations Summary & Project Listing

SR 25/US 17 CORRIDOR STUDY

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Table ES-1: Recommended Short-Term Improvements Summary

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

IN-01	5	SR 25/US 17 at
		Fords Pointe Circle/Bradley Boulevard Signalization
			Chatham County	• Install a fully actuated traffic signal when MUTCD signal warrants are met
				• Reconstruct the westbound approach to include the following:
				  ○ One shared through/left-turn lane with 125 feet of full-width storage
				  ○ Dual right-turn lanes with 300 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy
					$2,000,000

IN-02	8	SR 25/US 17 at Chevis Road
		Intersection Improvements
			Chatham County	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane with 175 feet of full-width storage
				  ○ One shared through/right-turn lane
				• In addition to the improvements proposed by PI 0017975, reconstruct the westbound approach to include the following:
				  ○ One left-turn lane with 325 feet of full-width storage
				  ○ One through lane
				  ○ One right-turn lane with 150 feet of full-width storage
					$2,100,000

IN-03	1	SR 25/US 17 at SR 204/Abercorn Street
		Interchange Improvements
			Chatham County	• Construct a free-flowing U-turn from the SR 204/Abercorn Street westbound off-ramp to the SR 204/Abercorn Street eastbound on-ramp
				• Upgrade the existing traffic signals to accommodate other short-term improvements
				• In addition to the southbound left-turn lane extension proposed by PI 0020089, reconstruct the eastbound ramp terminal to include the following:
				  ○ Two northbound through lanes
				  ○ Dual northbound right-turn lanes with 350 feet of full-width storage
				  ○ Dual southbound left-turn lanes:
				  ▪ One with 200 feet of full-width storage
				  ▪ One as a drop lane that begins 350 feet north of Little Neck Road
				  ○ Two southbound through lanes
				  ○ Dual eastbound left-turn lanes with 375 feet of full-width storage
				  ○ One eastbound right-turn lane 325 feet of full-width storage
				• In addition to the westbound off-ramp left- and right-turn lane extensions proposed by PI 0020089, reconstruct the westbound ramp terminal to include the following:
				  ○ Three southbound through lanes
				  ○ One southbound right-turn lane with 550 feet of full-width storage
				  ○ Dual westbound left-turn lanes with 600 feet of full-width storage
				  ○ Dual westbound right-turn lanes with 750 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$9,500,000

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-04	4	SR 25/US 17 at Berwick Boulevard Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate other short-term and those constructed as part of C-03 • Construct dual northbound left-turn lanes with 350 feet of full-width storage • Reconstruct the channelized southbound right-turn free-flow movement to operate under yield control to accommodate two receiving lanes for the proposed dual northbound left-turn lanes • Convert the existing southbound left-turn lane into an exclusive U-turn lane with 275 feet of full-width storage • Extend the southbound U-turn lane to accommodate 275 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$2,600,000

IN-05	3	SR 25/US 17 at Cottonvale Road Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Reconstruct the westbound approach to include the following:
				  ○ One left-turn lane with 275 feet of full-width storage
				  ○ One through/right-turn lane
				  ○ One right-turn lane with 250 feet of full-width storage
				• Extend the northbound and southbound left-turn lanes to accommodate 235 feet of full-width storage
				• Extend the northbound and southbound right-turn lanes to accommodate 175 feet of full-width storage
				• Construct a U-turn location 500 feet north of Cottonvale Road and prohibit U-turns at the intersection in accordance with C-03
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$1,900,000

IN-06	12	SR 25/US 17 at SR 307/Dean Forest Road Intersection Improvements	Garden City	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Extend the northbound left-turn lane to accommodate 275 feet of full-width storage
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane
				  ○ Dual right-turn lanes with 350 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$1,200,000

IN-07	7	SR 25/US 17 at Fall Avenue/Buckhalter Road Intersection Improvements	Garden City	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Realign the westbound approach to a minimum intersection angle of 75 degrees
				• Construct northbound and southbound right-turn lanes along SR 25/US 17 with 175 feet of full-width storage
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane with 85 feet of full-width storage
				  ○ One through/right-turn lane
				• Reconstruct the westbound approach to include the following:
				  ○ One left-turn lane with 325 feet of full-width storage
				  ○ One through/right-turn lane
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$2,800,000

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-08	9	SR 25/US 17 at Westgate Boulevard Intersection Improvements	City of Savannah	• Reconstruct the intersection as RCUT configuration • Construct a U-turn location approximately 1,000 feet south of Westgate Boulevard	$2,700,000
IN-09	13	SR 25/US 17 at Plymouth Avenue/Mills Lane Intersection Improvements	City of Savannah	• In accordance with PI 521855, construct the following improvements: ○ Extend the southbound left-turn lane to accommodate 350 feet of full-width storage ○ Construct a southbound right-turn lane with 350 feet of full-width storage ○ Construct an eastbound left-turn lane with 125 feet of full-width storage ○ Construct an eastbound through lane ○ Construct an eastbound right-turn lane with 125 feet of full-width storage ○ Construct a westbound left-turn lane with 275 feet of full-width storage ○ Construct a westbound through lane ○ Construct a westbound right-turn lane with 275 feet of full-width storage • In addition to PI 521855, reconstruct the northbound approach to include the following: ○ One left-turn lane with 235 feet of full-width storage ○ Two through lanes ○ One right-turn lane with 225 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$1,500,000
C-01	14	SR 25/US 17 Corridor Improvements from Bryan County/Chatham County Line to Chevis Road	Chatham County	• Construct RCUT intersections and/or U-turn eyebrows at the following locations: Chief O.F. Love Road, the existing driveway approximately 2,300 feet north of Chief O.F. Love Road, Bamboo Lane, The Pointe Grande Multifamily Development Driveway approximately 700 feet north of Bamboo Lane, and Southwest Middle School Driveway • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only	$1,600,000
C-02	11	SR 25/US 17 Corridor Improvements from Chevis Road to Little Ogeechee River	Chatham County	• Construct RCUT intersections and/or U-turn eyebrows at the following locations: Fountain Road, the Parker's driveway approximately 650 feet north of Fountain Road, Old Grove Pointe Road, and approximately 600 feet south of the Little Ogeechee River (Truck accommodations) • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only • Remove the Keller Auto Sales Driveway from the signalized intersection with Little Neck Road to simplify and improve signal operations	$1,300,000
C-03	10	SR 25/US 17 Corridor Improvements from Little Ogeechee River to SR 307/Dean Forest Road	Chatham County	• Construct RCUT intersections and/or U-turn eyebrows at the following locations: Bridgewater Drive, Larchmont Drive, Fenwick Village Drive, Kroger Driveway, approximately 500 feet north of Cottonvale Road, Elk Road, and approximately 900 feet south of SR 307/Dean Forest Road • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only • Remove the Lebanon Plantation Driveway from the signalized intersection with Berwick Boulevard to simplify and improve signal operations	$2,300,000

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

C-04	2	Chatham Parkway Improvements from Woodspring Drive to Mersy Way	City of Savannah	• Construct a 20-foot-wide raised median along SR 25/US 17 between Woodspring Drive and Mersy Way to preclude minor street left-turn movements, reduce conflicts, and improve operations at the signal with Chatham Parkway
				• Upgrade the existing traffic signal at the intersection with Chatham Parkway to accommodate other short-term improvements
				• Construct the following improvements at the intersection of SR 25/US 17 at Chatham Parkway:
				  ○ Construct a southbound right-turn lane with 175 feet of full-width storage
				  ○ Construct an eastbound right-turn lane with 175 feet of full-width storage
				  ○ Construct a westbound right-turn lane with 175 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
				• Convert SR 25/US 17 at the southernmost Enmarket Driveway to an unsignalized RCUT
				• Convert SR 25/US 17 at Mersy Way to an unsignalized RCUT configuration
				• Convert Chatham Parkway at Mersy Way to an unsignalized RCUT configuration
					$5,900,000

C-05	6	Corridor Signal Timing Optimization on SR 25/US 17 from the Bryan County/Chatham County line to Mills Lane/Plymouth Avenue	Chatham County City of Savannah Garden City	• Conduct a 10.7-mile-long corridor signal timing review to improve vehicular flow through time-of-day coordinated operations • Optimize signal cycle length, splits, and offsets in conjunction with other short-term improvements • Replace existing three-section permissive signal heads and five-section protected/permissive signal heads on SR 25/US 17 with four-section flashing yellow arrow signal heads	$270,000
C-06	15	SR 25/US 17 Corridor Auxiliary Turn Lane Improvements	Chatham County City of Savannah Garden City	• In addition to improvements constructed as part of the Alta Bradley development, extend the eastbound left-turn lane at the Canebrake Road intersection to accommodate 300 feet of full-width storage • Extend the westbound left-turn lane at the Walmart Driveway intersection to accommodate 100 feet of full-width storage • Construct a northbound right-turn lane with 350 feet of full-width storage at the intersection with Red Gate Farms Road • Construct a southbound right-turn lane with 175 feet of full-width storage at the intersection with Red Gate Farms Road • Construct a northbound and southbound right-turn lanes with 175 feet of full-width storage at the intersection with Gamble Road • Construct a southbound right-turn lane with 175 feet of full-width storage at the intersection with Blossom Drive	$2,700,000

TS-01	16	SR 25/US 17 at SR 25 Transit Expansion Study	Chatham County
			City of Savannah
			Garden City
				• Implement Microtransit services along the 10.7-mile-long SR 25/US 17 corridor in accordance with Chatham Area Transit's (CAT) *FY 2025 Operating Budget & Capital Plan* to:
				  ○ Expand transit coverage
				  ○ Expand service hours
				  ○ Provide effective rural mobility
				  ○ Supplement CAT Routes 6, 17, and 25
				• Use data and analytics collected from the Microtransit services to track ridership numbers, apply potential modifications to CAT Routes 6, 17, and 25, identify new route(s) and stop/shelter location(s)
				• Coordinate with local agencies, governing bodies, and other stakeholders to identify funding sources for construction and implementation of long-term improvements
					$130,000

				Total Cost of Short-Term Improvements	**$40,500,000**

Table ES-2: Recommended Long-Term Improvements Summary

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

IN-10	2	SR 25/US 17 at SR 204/Abercorn Street Interchange Improvements	Chatham County	• Convert the existing diamond interchange to a diverging diamond interchange (DDI)
				• Reconstruct the eastbound ramp terminal to include the following:
				  ○ Three northbound through lanes
				  ○ One northbound free-flow right-turn lane with 575 feet of full-width storage
				  ○ Dual southbound left-turn lanes:
				  ▪ Free-flow shared through/left
				  ▪ Free-flow drop lane
				  ○ Three southbound through lanes
				  ○ Dual eastbound left-turn lanes with 225 feet of full-width storage
				  ○ One eastbound right-turn lane 300 feet of full-width storage
				• Reconstruct the westbound ramp terminal to include the following:
				  ○ One free-flow northbound left-turn lane with 235 feet of full width storage
				  ○ Three northbound through lanes
				  ○ Four southbound through lanes
				  ○ One southbound right-turn lane 450 feet of full-width storage
				  ○ Dual westbound left-turn lanes with 600 feet of full-width storage
				  ○ Dual westbound right-turn lanes with 800 feet of full-width storage
				• Reconstruct the existing SR 204/Abercorn Street bridge to accommodate the proposed cross section along SR 25/US 17
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$44,500,000

IN-11	11	SR 25/US 17 at Little Neck Road Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-07
				• Reconstruct the northbound approach to include the following:
				  ○ Dual left-turn lanes with 425 feet of full-width storage
				  ○ Three through lanes
				• Reconstruct the southbound approach to include the following:
				  ○ Dual right-turn lanes with 450 feet of full-width storage
				  ○ Four through lanes with the inside through lane beginning 350 feet north of Little Neck Road
				• Reconstruct the eastbound approach to include the following:
				  ○ Dual left-turn lanes with 600 feet of full-width storage
				  ○ Dual right-turn lanes with 1,400 feet of full width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy
					$9,300,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-12	15	SR 25/US 17 at Burton Road Signalization	Chatham County	• Install a fully actuated traffic signal when MUTCD signal warrants are met, and accommodate RCUT improvements constructed as part of PI S015908 and C-07 improvements • Reconstruct the northbound approach to include the following: ○ One shared left/U-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One shared left/U-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 175 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$6,900,000
IN-13	14	SR 25/US 17 at Quacco Road Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-07 and C-08 • Reconstruct the northbound approach to include the following: ○ Dual left-turn lanes with 325 feet of full-width storage ○ Three through lanes • Reconstruct the southbound approach to include the following: ○ One U-turn lane with 475 feet of full width storage ○ Three through lanes ○ One right-turn lane with 400 feet of full width storage • Reconstruct the eastbound approach to include the following: ○ Dual left-turn lanes with 600 feet of full-width storage ○ Dual right-turn lanes with 600 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$13,400,000
IN-14	16	SR 25/US 17 at Berwick Boulevard Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-08 • Reconstruct the northbound approach to include the following: ○ Dual left-turn lanes with 425 feet of full-width storage ○ Three through lanes • Reconstruct the southbound approach to include the following: ○ One U-turn lane with 275 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 625 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ Dual left-turn lanes with 375 feet of full-width storage ○ Dual right-turn lanes with 375 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$10,100,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-15	6	SR 25/US 17 at Kroger Driveway Signalization	Chatham County	• Install a fully actuated traffic signal when MUTCD signal warrants are met, reconstruct the intersection to a full movement configuration, and accommodate improvements constructed as part C-08 • Reconstruct the northbound approach to include the following: ○ One left-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane 175 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One left-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane 175 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ One left-turn lane with full-width storage extending to the internal intersection ○ One right-turn lane with full-width storage extending to the internal intersection • Reconstruct the westbound approach to include the following: ○ One left-turn lane with full-width storage extending to the internal intersection ○ One shared through/right-turn lane with full-width storage extending to the internal intersection • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$7,300,000
IN-16	5	SR 25/US 17 at Cottonvale Road Intersection Improvements	Chatham County	• Reconstruct the intersection to operate as a thru-cut and upgrade the existing traffic signal to accommodate improvements constructed as part of C-08 • Reconstruct the northbound approach to include the following: ○ One U-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 300 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One left-turn lane with 275 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 300 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ One left-turn lane with full-width storage extending to the internal intersection ○ One right-turn lane with full-width storage extending to the internal intersection • Reconstruct the westbound approach to include the following: ○ Dual left-turn lanes with 250 feet of full-width storage ○ Dual right-turn lanes with 300 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$7,500,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

IN-17	13	SR 25/US 17 at Silk Hope Road/Derrick Inn Road Signalization	Chatham County	• Install a fully actuated traffic signal for the northbound through, southbound left/U-turn, and westbound right-turn movements when MUTCD signal warrants are met
				• Accommodate RCUT improvements as part of PI S016013 and project C-08
				• Reconstruct the northbound approach to include the following:
				  ○ One left/U-turn lane with 235 feet of full-width storage
				  ○ Three through lanes
				  ○ One right-turn lane with 175 feet of full-width storage
				• Reconstruct the southbound approach to include the following:
				  ○ One left/U-turn lane with 235 feet of full-width storage
				  ○ Three through lanes
				  ○ One right-turn lane with 175 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$5,700,000

IN-18	8	SR 25/US 17 at SR 307/Dean Forest Road Intersection improvements	Garden City	• Reconstruct the intersection as a Continuous Green-T (CGT) configuration with concrete medians and channelization as required
				• Accommodate improvements constructed as part of C-08 and C-09
				• Reconstruct the northbound approach to include the following:
				  ○ Two free-flowing through lanes
				  ○ Dual left-turn lanes:
				  ▪ One with 400 feet of full-width storage
				  ▪ One as a drop-lane
				• Reconstruct the southbound approach to include the following:
				  ○ Three through lanes with the inside through lane beginning 500 feet north of SR 307/ Dean Forest Road
				  ○ One right-turn lane 225 feet of full-width storage
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane
				  ○ Dual right-turn lanes with 350 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$19,700,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-19	7	SR 25/US 17 at Fall Avenue/Buckhalter Road Intersection Improvements	Garden City	• Reconstruct the intersection to operate as a thru-cut, upgrade the existing traffic signal, and accommodate improvements constructed as part of C-09 • Reconstruct the northbound approach to include following: ○ One left-turn lane with 235 feet of full-width storage ○ Two through lanes ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One left-turn lane with 235 feet of full-width ○ Two through lanes ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ One left-turn lane ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the westbound approach to include the following: ○ Dual left-turn lanes with 275 feet of full-width storage ○ One right-turn lane with 175 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$9,600,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-20	4	SR 25/US 17 at Chatham Parkway Interchange	Chatham County City of Savannah	• Construct a grade-separated interchange with Chatham Parkway over SR 25/US 17 and accommodate improvements constructed as part of C-09 • Reconstruct the existing northwest and southeast quadrant roadways of Mersy Way and Woodspring Drive, respectively, to provide access between SR 25/US 17 and Chatham Parkway • Install fully actuated traffic signals, pedestrian signals, crosswalks, and ramps at the intersections of SR 25/US 17 at Woodspring Drive, SR 25/US 17 at Mersy Way, Chatham Parkway at Woodspring Drive, and Chatham Parkway at Mersy Way • Construct the intersection of SR 25/US 17 at Woodspring Drive as a partial RCUT configuration to include the following: ○ Construct the northbound approach to include two signal-controlled through lanes, one U-turn lane with 235 feet of full-width storage, and one free-flowing right-turn lane with 225 feet of full-width storage ○ Construct the southbound approach to include two free-flowing through lanes ○ Reconstruct the westbound approach to include dual signal-controlled right-turn lanes with 200 feet of full-width storage • Construct the intersection of SR 25/US 17 at Mersy Way as a partial RCUT configuration to include the following: ○ Construct the northbound approach to include two through lanes and one right-turn lane with 200 feet of full-width storage ○ Construct the southbound approach to include two signal-controlled through lanes, one signal-controlled left-turn lane with 235 feet of full-width storage, and one free-flow right-turn lane with 450 feet of full-width storage ○ Reconstruct the eastbound approach to include dual signal-controlled right-turn lanes with 400 feet of full-width storage ○ Reconstruct the westbound approach to include a signal-controlled right-turn lane • Construct the intersection of Chatham Parkway at Woodspring Drive to include the following: ○ Reconstruct the northbound approach to include one left-turn lane and one right-turn lane with 450 feet of full-width storage ○ Construct the eastbound approach to include two through lanes, one right-turn lane with 225 feet of full-width storage, and one U-turn lane with 235 feet of full-width storage ○ Construct the westbound approach to include two through lanes and one left-turn lane with 300 feet of full-width storage • Construct the intersection of Chatham Parkway at Mersy Way to include the following: ○ Reconstruct the intersection as a thru-cut ○ Reconstruct the northbound approach to include one left-turn lane and one right-turn lane with 200 feet of full-width storage ○ Reconstruct the southbound approach to include one left-turn lane and one right-turn lane with 350 feet of full-width storage ○ Construct the eastbound approach to include two through lanes, one left-turn lane with 250 feet of full-width storage, and one right-turn lane with 175 feet of full-width storage ○ Construct the westbound approach to include two through lanes, one left-turn lane with 250 feet of full-width storage, and one right-turn lane with 300 feet of full-width storage	$65,600,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-21	18	SR 25/US 17 at Gamble Road Intersection Improvements	City of Savannah	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-09 • Realign the westbound in approach to minimum intersection angle of 75 degrees • Extend the southbound left-turn lane to accommodate 300 feet of full-width storage • Extend the westbound right-turn lane to accommodate 325 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$7,800,000

IN-22	12	I-516/SR 21 at SR 25/US 17 Interchange Improvements	City of Savannah	• Upgrade the existing traffic signals to accommodate improvements constructed as part of C-09
				• Reconstruct the eastbound ramp terminal to include the following:
				  ○ Extend the inside northbound through lane to accommodate 235 feet of full-width storage
				  ○ Extend the eastbound dual left-turn lanes to accommodate 525 feet of full-width storage
				• Reconstruct the westbound ramp terminal to include the following:
				  ○ Extend the inside southbound through lane to accommodate 350 feet of full-width storage
				  ○ Extend the westbound dual left-turn lanes to accommodate 300 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$4,900,000

IN-23	17	SR 25/US 17 at Plymouth Avenue/Mills Lane Intersection Improvements	City of Savannah	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-09
				• Extend the northbound right-turn lane to accommodate 425 feet of full-width storage
				• Reconstruct the westbound approach to include the following:
				  ○ Dual left-turn lanes with 325 feet of full-width storage
				  ○ One shared through/right-turn lane
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$4,600,000

C-07	1	Widening and Pedestrian/Bicycle Accommodations from Bradley Boulevard to Quacco Road	Chatham County	• Construct a third northbound and southbound through lane on SR 25/US 17 from 600 feet south of Fords Pointe Circle/Bradley Boulevard to Quacco Road • Remove on-street bike lanes and construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 from approximately 725 feet south of Fords Pointe Circle/Bradley Boulevard to Quacco Road • Construct a 10-foot-wide shared-use path along the south side of Canebrake Road to connect with the existing shared-use path • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths • Connect to improvements constructed as part of IN-10 through IN-13	$93,300,000
C-08	3	Widening and Pedestrian/Bicycle Accommodations from Quacco Road to SR 307/Dean Forest Road	Chatham County	• Construct a third northbound and southbound through lane on SR 25/US 17 from Quacco Road to SR 307/Dean Forest Road • Remove on-street bike lanes and construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 from Quacco Road to SR 307/Dean Forest Road • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths • Install a Pedestrian Hybrid Beacon (PHB) approximately 375 feet north of Silk Hope Road/ Derrick Inn Road in accordance with PI S016014 • Connect to improvements constructed as part of C-09 and IN-13 through IN-18	$84,400,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
C-09	10	Raised Median and Pedestrian/Bicycle Accommodations from SR 307/Dean Forest Road to Mills Lane/Plymouth Avenue	Garden City City of Savannah Chatham County	• Construct a 20-foot-wide raised median along SR 25/US 17 from SR 307/Dean Forest Road to Westgate Boulevard • Construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 from SR 307/Dean Forest Road to Mill Lane/Plymouth Avenue • Extend the sidewalk constructed as part of PI 0017976 to connect with the proposed shared-use path • Construct a 10-foot-wide shared-use path on the south side of Gamble Road to connect to the shared-use path constructed as part of PI 0017976 • Construct RCUT intersections and/or U-turn eyebrows at the following locations: ○ Approximately 750 feet south of Salt Creek Road ○ Salt Creek Road ○ Tower Drive ○ Barbour Drive ○ Ogeechee Road (Signalized with truck accommodations) ○ Macaljon Court ○ Savannah Speedway ○ Heathcote Circle (Construct RCUT with accommodations for Emergency Service Vehicles) ○ Approximately 700 feet south of Red Gate Farms Road (Truck accommodations) ○ Red Gate Farms Road • Signalize the northbound through and southbound U-turn movements at the U-turn location approximately 1,000 feet south of Westgate Boulevard constructed as part of project IN-08 • Convert Blossom Drive to a RIRO configuration • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths • Construct two PHBs between Blossom Drive and Westgate Boulevard in accordance with recommendations set forth in the *US 17/SR 25 from Railroad Bridge to I-516 WB Ramps, Chatham County Traffic Engineering Study* (Atkins, 2024) • Connect to improvements constructed with projects C-04, C-08, and IN-19 through IN-23	$173,200,000
C-10	9	Corridor Signal Timing Optimization on SR 25/US 17 from Bryan County/Chatham County Line to Mills Lane/Plymouth Avenue	Chatham County City of Savannah Garden City	• Conduct a 10.7-mile-long corridor signal timing review to improve vehicular flow through time-of-day coordinated operations • Optimize signal cycle length, splits, and offsets in conjunction with other long-term improvements	$600,000
TS-02	19	SR 25/US 17 Corridor Transit Expansion	Chatham County City of Savannah Garden City	• Construct improvements recommended by CAT's recent studies, including Microtransit-focused data from project TS-01 • Coordinate with CAT to install stop/shelter locations, pull-off areas, and route signage not already constructed by other long-term projects	$3,000,000
				Total Cost of Long-Term Improvements	**$571,400,000**

2 Introduction

SR 25/US 17 is a critically important principal arterial that runs north-to-south through the state of Georgia from the Florida state line to the interchange with I-516/SR 21 in Chatham County. Locally, the SR 25/ US 17/Ogeechee Road ("SR 25/US 17") corridor serves as a key alternate to I-95 and I-16, provides access to freight routes such as SR 307/Dean Forest Road and to Georgia Ports Authority (GPA) facilities, connects the City of Richmond Hill and Bryan County to Chatham County, and functions as a Georgia State Bicycle Route 95 and vital component of the East Coast Greenway (ECG). The 10.7-mile-long study corridor from the Ogeechee River to I-516/SR 21 includes a diverse mix of commercial, residential, and recreational facilities, and portions of the route are utilized by the Savannah-Chatham County Public School System (SCCPSS) and Chatham Area Transit (CAT). Prioritizing the safe and efficient movement of all modes along this multi-functional route is key to the long-term success of the surrounding area.

The primary goals and objectives of the SR 25/US 17 Corridor Study are:

- Identify and prioritize short term (0-5 years) and long term (5+ years) improvement projects needed for the SR 25/US 17 corridor to operate at an acceptable level of service
- Prioritize recommended improvements to facilitate planning and programming of projects through the Coastal Region Metropolitan Planning Organization's (CORE MPO) Metropolitan Transportation Plan (MTP) process
- Justify the future programming of projects in the CORE MPO's Transportation Improvement Program (TIP) and *Moving Forward Together 2050* MTP

As a supporting document to the CORE MPO MTP process, this study's goals, objectives, and outcomes are intended to align closely with those highlighted in the CORE MPO's *Mobility 2045* MTP and future *Moving Forward Together 2050* MTP, which was adopted in August 2024. The goals and objectives of the MTP focus on several key performance measures used to inform transportation investment decisions. Some of the measures most relevant to this study include:

- ***Safety and Security*.** A total of 3,621 crashes occurred along the SR 25/US 17 corridor over the five-year period between 2018 and 2022. During this period, the SR 25/US 17 corridor exhibited overall and fatal crash rates approximately double and triple the statewide average for principal arterials, respectively. Of the 24 fatal crashes occurring on the corridor, 13 (54%) involved a pedestrian or cyclist. A key objective of the subject corridor study is to identify projects that address existing crash trends and provide safe access for all road users.
- ***Congestion Reduction and System Performance.*** Long peak hour delays are experienced near the intersections of SR 25/US 17 with SR 204/Abercorn Street, Cottonvale Road, and Chatham Parkway. In fact, northbound queues exceed one mile in length at the intersections with SR 204/Abercorn Street and Cottonvale Road during the AM peak period. Similarly, westbound and southbound queues exceed one mile in length at the intersection with Chatham Parkway during the PM peak period. The *Coastal Empire Transportation Study* (GDOT, 2023) recommended geometric and capacity improvements at the intersection of SR 25/US 17 with Chatham Parkway, and a parallel corridor study (PI No. 0019010) is underway for portions of SR 204/Abercorn Street near SR 25/US 17. Reducing congestion and improving system performance are key objectives of the SR 25/US 17 Corridor Study.

- ***Accessibility, Mobility, and Connectivity.*** Based on 2019 data from the US Census Bureau, approximately 6,000 jobs are located within a one-mile radius of the SR 25/US 17 centerline. Outside of this immediate radius, the SR 25/US 17 corridor serves as a vital connection to and from the Interstate system, Savannah's downtown core, and GPA's operations at the Port of Savannah. SR 25/US 17 plays a significant role in supporting the region's economic vitality and is one of two primary arterials to and from Chatham County and the surrounding area. The existing operations, safety, and access deficiencies along SR 25/US 17 threaten the vitality of these economic centers and the surrounding population.

The remainder of this section is organized as follows:

Section 3 | Existing Conditions Assessment: This section summarizes a comprehensive data collection effort, existing land use summary, origin-destination analysis, capacity analysis, and a safety analysis conducted to assess existing conditions along the SR 25/US 17 corridor and identify transportation challenges, needs, and opportunities to be considered throughout the remainder of the study.

Section 4 | Future Conditions Assessment: Known improvement projects, approved developments, and traffic forecasts along the SR 25/US 17 corridor are presented. Conceptual alternatives for the corridor are introduced, categorized by likely implementation timeframe, and evaluated against a baseline "No-Build" condition through traffic analyses conducted under short- and long-term horizons.

Section 5 | Public Outreach: Stakeholder outreach strategies, meeting summaries, and topics of feedback are presented.

Section 6 | Recommendations: The key findings from Section 3 through Section 5 are utilized to develop a list of specific projects to be considered as part of future programming efforts. Roadway concept layouts are also provided to illustrate the recommended projects.

Though the outcomes of this study may be used to justify the programming of future TIP projects, conditions on the SR 25/US 17 corridor should be monitored over time, and future traffic analyses and design efforts should be refined based on then current data.

3 Existing Conditions Assessment

3.1 Study Area, Corridor Characteristics, and Field Observations

The study area for this project is illustrated in **Figure 1** and includes the SR 25/US 17 corridor from the Chatham County/Bryan County line to Plymouth Avenue/Mills Lane east of I-516/SR 21. Across this 10.7-mile-long stretch, a total of 40 intersections were included in traffic analyses, 16 of which are currently signalized, and a diverse set of context areas exist. Surrounding land uses include dispersed single- and multi-family residential communities throughout the corridor, commercial developments concentrated near major intersections, and industrial developments along the northern end of the study area near I-516/SR 21. Six distinct context areas were identified and independently assessed as part of this existing conditions assessment. Key characteristics of each segment identified through data collection and field observations are described on the following pages and in **Figure 2** through **Figure 13**.

3.1.1 Segment 1 – Southern Gateway

Segment 1 constitutes a 2.2-mile-long section of the SR 25/US 17 corridor between the Chatham County/ Bryan County line and Chevis Road. This segment is primarily comprised of residential, commercial, and educational land uses and provides access to the Southwest Elementary and Middle School campuses, Kings Ferry Boat Ramp, and the Coastal Botanical Gardens. Key characteristics of this segment are summarized in **Table 1**, and existing geometry, traffic volumes, and field-collected photographs are provided in **Figure 2**. Environmental features along this segment are summarized in **Figure 3**.

Traffic Operations

Daily traffic volumes on this segment of SR 25/US 17 are approximately 85% of the theoretical capacity of a typical four-lane divided facility, with annual average daily traffic (AADT) volumes averaging approximately 33,300 vehicles per day (VPD) and truck percentages ranging between 2% and 8% during the peak periods of travel. Modest congestion was observed during the AM and PM peak hours aside from heavy northbound queues at the SR 204/Abercorn Street interchange during the AM peak hour. These queues occasionally extended through the intersection with Fountain Road, and northbound progression was impeded as far upstream as Canebrake Road during the AM peak period. As illustrated in the photos in **Figure 2**, high travel speeds were observed as the corridor transitions from rural to urban in character. The posted speed limit is 45 miles per hour (MPH) on this segment, and a 35 MPH school zone extends along the Southwest Middle School and Southwest Elementary School frontage; however, observed travel speeds frequently exceeded 50 MPH including during school arrival times of 7:10 AM and 8:55 AM and dismissal times of 2:50 PM and 4:10 PM.

Access to Alta Bradley, a permitted multifamily residential development expected to open in 2025, will form a fourth leg at the intersection of SR 25/US 17 at Canebrake Road. This intersection is expected to continue operating acceptably once planned signal improvements are implemented as documented in the *Alta Bradley Multifamily Site Traffic Impact Analysis* (Thomas & Hutton, 2022).

Roadway Geometry/Access Management

The Segment 1 corridor includes 10 unsignalized driveways, which is equivalent to a spacing of four driveways per mile, as well as a continuous center raised median and auxiliary turn lanes at most intersections. Acceptable traffic operations along this segment are attributable to adequate intersection spacing, reduced conflicts, and access management. Nevertheless, ongoing and future development near Fords Pointe Circle/Bradley Boulevard and south of the study area in Bryan County may necessitate additional geometric and intersection control improvements over the short- and long-term horizons.

Non-Motorist Facilities

CAT operates Route 17 along southbound SR 25/US 17 between Canebrake Road and Chevis Road. There are two bus stops located along this segment; one is located south of Bamboo Lane, and one is south of the Southwest Middle School Driveway. Further, CAT operates Route 6 along Chevis Road, and one bus stop is located on Chevis Road east of SR 25/US 17. Striped on-street bike lanes are present from south of Fords Pointe Circle/Bradley Boulevard to Chevis Road, and the bike lanes along SR 25/ US 17 from Canebrake Road to Chevis Road comprise part of the East Coast Greenway (ECG). Pedestrian facilities are present at the signalized intersections of Canebrake Road and Chevis Road, and sidewalk starts on the northwest side of SR 25/US 17 at the Southwest Middle School Driveway and continues north to the Chevis Road intersection. The CORE MPO's *Non-Motorized Transportation Plan* (NMTP) highlights Bradley Boulevard to Chevis Road as a Pedestrian Focus Area and recommends a sidewalk along both sides of SR 25/US 17.

Environmental Features

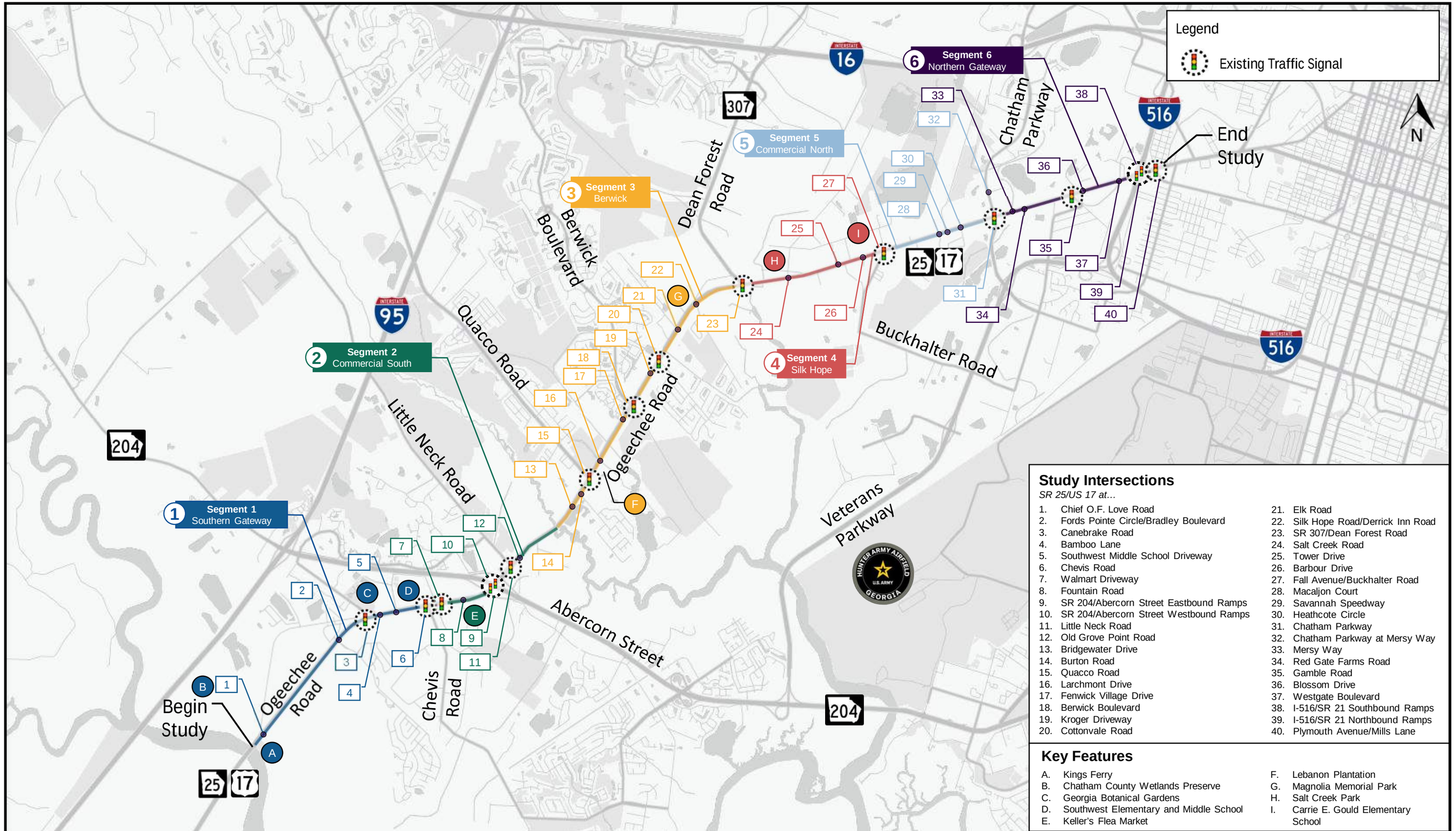
The Ogeechee River is located at the southern end of the study corridor, and the Chatham County Wetlands Preserve (CCWP) runs along the western side of Segment 1 south of the intersection with Fords Pointe Circle/Bradley Boulevard. Freshwater forested/shrub wetlands and a FEMA Flood Zone AE (i.e., 1% annual risk for flooding) are located along SR 25/US 17 south of Fords Pointe Circle/ Bradley Boulevard. These environmental features may constrain opportunities for future improvements along Segment 1.

Table 1: Segment 1 – Southern Gateway Corridor Characteristics

Geometric and Functional Characteristics	
Extents	Ogeechee River to Chevis Road (2.2 Miles)
Typical Cross-Section	**Typical Section:** 4-Lane with Raised Median/Left-Turn Lanes **Typical Lane Widths:** 12' Travel Lanes, 4' Bike Lanes, 20' Raised Median 4'-10' Outside Shoulder
Speed Limit	55 MPH from Ogeechee River to 1000 ft south of Bradley Blvd 45 MPH from 1000 ft south of Bradley Blvd to Chevis Road 35 MPH school zone from Bamboo Lane to 500 feet south of Chevis Road
Number of Driveways	10 (4 Driveways/Mile)
Number of Median Openings	7
Number of Signalized Intersections	2
Major Intersecting Roadways	
Chevis Road	**Cross-Section:** Two-Lane Undivided **Speed Limit:** 40 MPH **2024 AADT:** 1,300 VPD (West); 7,500 VPD (East)
Traffic Characteristics	
Existing Traffic Volume Data[1]	**2024 AADT:** 33,300 VPD **2024 DHV:** 2,830 VPH **K Factor:** 8.5% **Daily Truck Percentage:** 6%
Historic Traffic Volume Data[2]	**5-Year Historic Growth Rate:** 2.96% **10-Year Historic Growth Rate:** 2.20%

[1] Existing traffic volume data represents an average of the factored AADT volumes calculated from field-collected data on Segment 1

[2] Historic Traffic Growth based on AADT counts from GDOT TADA



Study Intersections

SR 25/US 17 at…

1. Chief O.F. Love Road
2. Fords Pointe Circle/Bradley Boulevard
3. Canebrake Road
4. Bamboo Lane
5. Southwest Middle School Driveway
6. Chevis Road
7. Walmart Driveway
8. Fountain Road
9. SR 204/Abercorn Street Eastbound Ramps
10. SR 204/Abercorn Street Westbound Ramps
11. Little Neck Road
12. Old Grove Point Road
13. Bridgewater Drive
14. Burton Road
15. Quacco Road
16. Larchmont Drive
17. Fenwick Village Drive
18. Berwick Boulevard
19. Kroger Driveway
20. Cottonvale Road
21. Elk Road
22. Silk Hope Road/Derrick Inn Road
23. SR 307/Dean Forest Road
24. Salt Creek Road
25. Tower Drive
26. Barbour Drive
27. Fall Avenue/Buckhalter Road
28. Macaljon Court
29. Savannah Speedway
30. Heathcote Circle
31. Chatham Parkway
32. Chatham Parkway at Mersy Way
33. Mersy Way
34. Red Gate Farms Road
35. Gamble Road
36. Blossom Drive
37. Westgate Boulevard
38. I-516/SR 21 Southbound Ramps
39. I-516/SR 21 Northbound Ramps
40. Plymouth Avenue/Mills Lane

Key Features

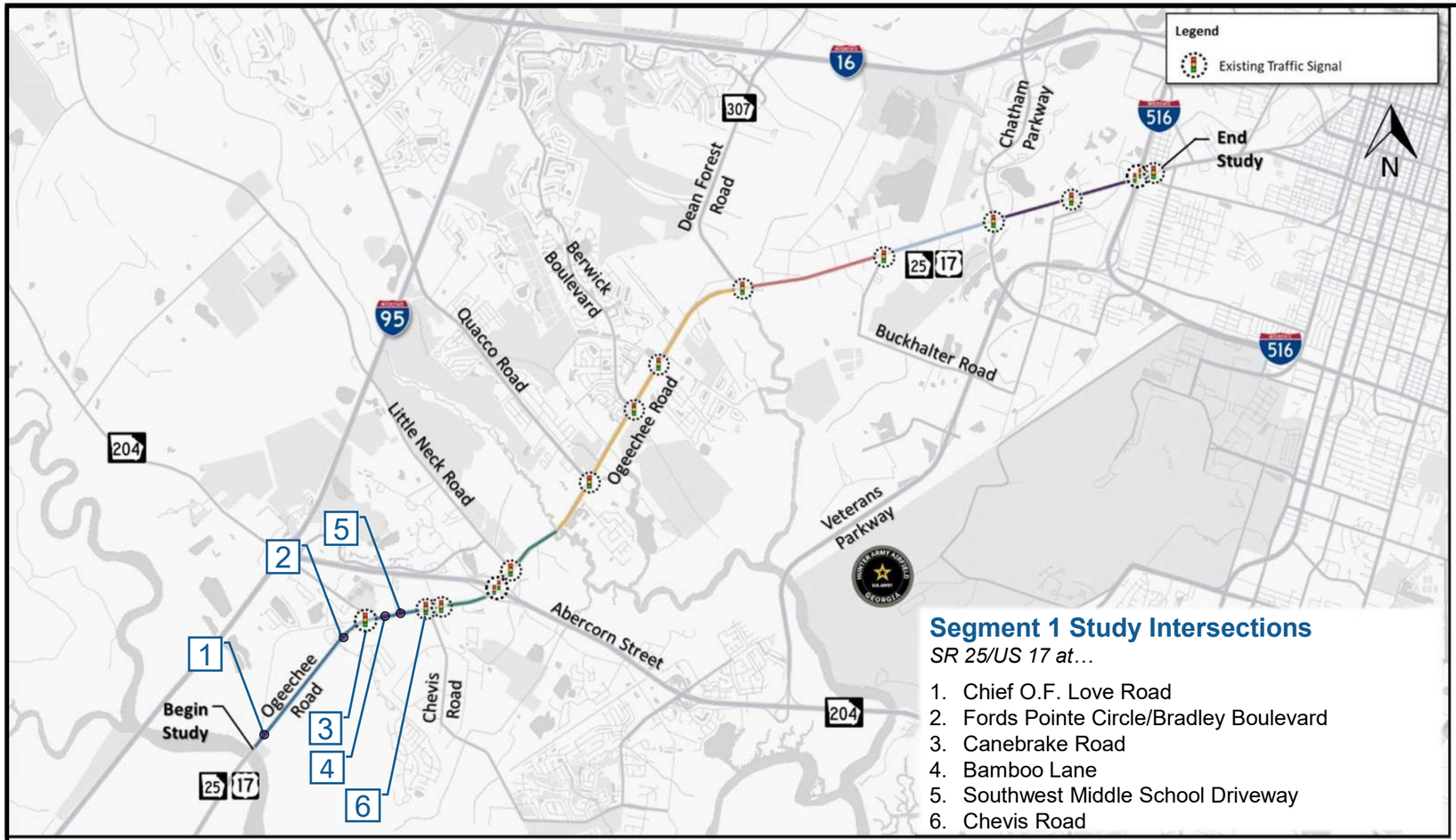
A. Kings Ferry
B. Chatham County Wetlands Preserve
C. Georgia Botanical Gardens
D. Southwest Elementary and Middle School
E. Keller's Flea Market
F. Lebanon Plantation
G. Magnolia Memorial Park
H. Salt Creek Park
I. Carrie E. Gould Elementary School

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 1 – Corridor Context Areas and Study Intersections

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

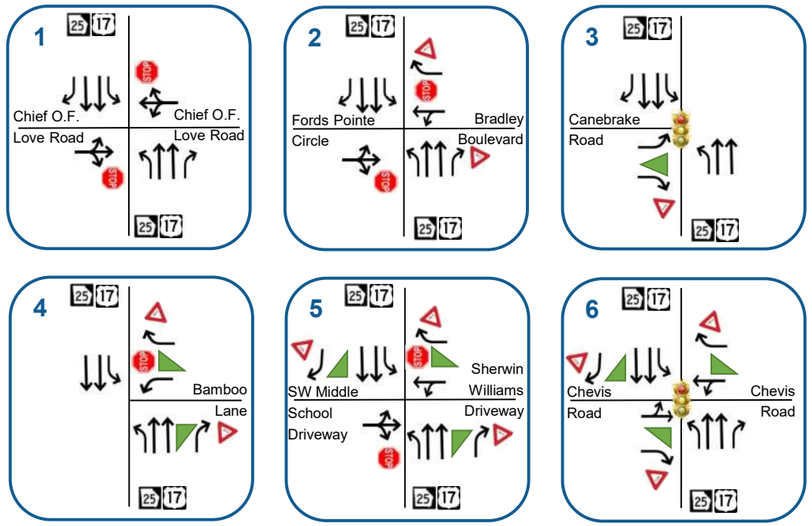


Segment 1 Study Intersections

SR 25/US 17 at…

1. Chief O.F. Love Road
2. Fords Pointe Circle/Bradley Boulevard
3. Canebrake Road
4. Bamboo Lane
5. Southwest Middle School Driveway
6. Chevis Road

Existing Geometry & Intersection Control



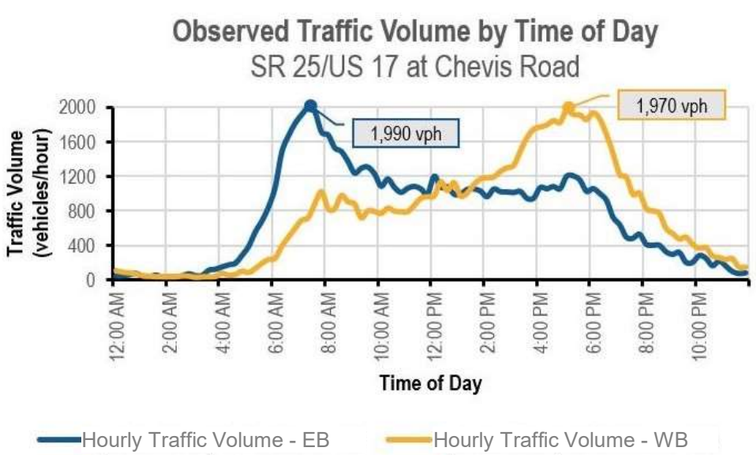


Photo: SR 25/US 17 at Bamboo Lane (Looking North)

Photo: SR 25/US 17 at Chevis Road (Looking North)

Photo: SR 25/US 17 at Bamboo Lane (Looking North)

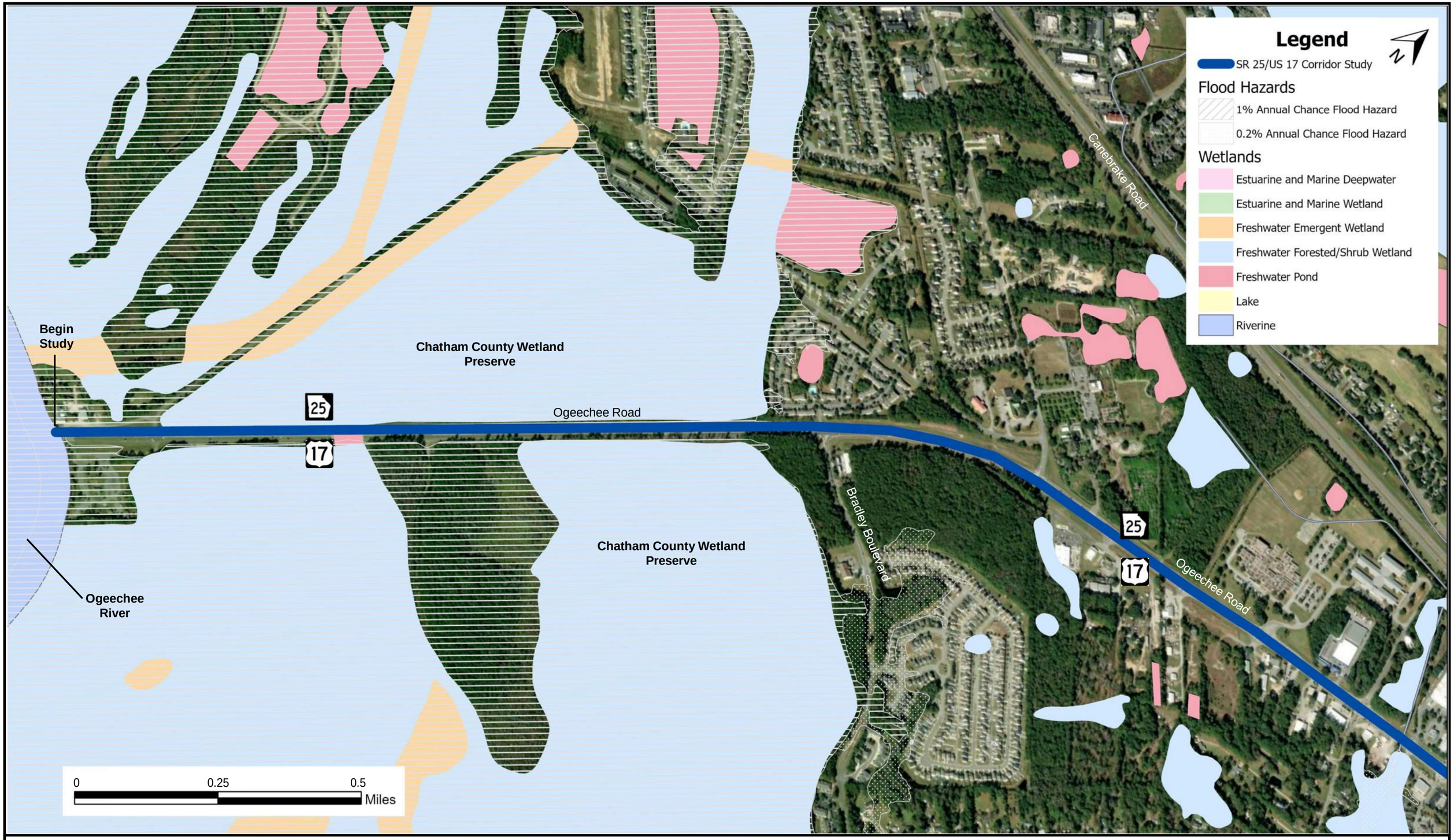
SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 2 – Study Intersections and Key Characteristics

Segment 1 – Southern Gateway

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 3 – Environmental Feature Map

Segment 1 – Southern Gateway

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

3.1.2 Segment 2 – Commercial South

Segment 2 is approximately 1.5 miles in length and extends from Chevis Road to the Little Ogeechee River. Segment 2 includes the SR 204/Abercorn Street interchange and the intersection with Little Neck Road, both of which are critical nodes along the study corridor. Land uses along this segment are primarily commercial in nature with residential uses and tidal marsh in the surrounding area. Key characteristics of this segment are summarized in **Table 2**, and existing geometry, traffic volumes, and field-collected photographs are provided in **Figure 4**. Environmental features along this segment are summarized in **Figure 5**.

Traffic Operations

Like Segment 1, daily traffic volumes on Segment 2 are approximately 85% of the theoretical capacity of a typical four-lane divided facility, with AADT volumes averaging 33,900 VPD and truck percentages ranging between 2% and 7% during the peak periods of travel. During the AM peak period, field observations indicated that northbound queues at the SR 204/Abercorn Street interchange occasionally extended through the intersection with Fountain Road, and northbound progression was impeded past Chevis Road and as far upstream as Canebrake Road beyond the limits of Segment 2. This congestion is attributable to downstream conditions on SR 204/Abercorn Street, including the merge area from the eastbound on-ramp and capacity constraints at the existing signalized intersection with Don Zipperer Drive. Moderate congestion was also observed in both directions along SR 25/US 17 during the PM peak period, when bidirectional traffic volumes are highest at approximately 2,800 vehicles per hour (VPH).

Field travel time runs corresponded with an average travel speed of approximately 30 MPH and 24 MPH through Segment 2 during the AM and PM peak periods, respectively, which is nearly 20 MPH below the posted speed limit through this segment. Potential improvements along SR 204/Abercorn Street from the SR 25/US 17 interchange to the King George Boulevard interchange are under consideration as part of PI No. 0019010. Further, an additional Chatham County project proposes improvements on Little Neck Road to include widening and new auxiliary lanes at the intersection with SR 25/US 17. In both cases, these improvements are expected to address existing operational constraints over the short-term horizon, but further improvements may be needed on the SR 25/US 17 corridor as growth continues over the long-term horizon.

Roadway Geometry/Access Management

As shown in **Table 2**, 22 unsignalized driveways are present along the Segment 2 corridor, which is equivalent to a spacing of 15 driveways per mile. However, many of these driveways are restricted to RIRO access only. Segment 2 is characterized by auxiliary turn lanes and a raised median along its entire length, but further operational and safety gains could be realized through access management strategies such as driveway consolidation and increased spacing between full-movement intersections.

Non-Motorist Facilities

CAT operates Route 17 along SR 25/US 17 for the entirety of Segment 2. There are two bus stops in each direction (i.e., four total stops) in this segment; one bidirectional pair is located south of the SR 204/Abercorn Street eastbound ramps, and the other pair is north of Little Neck Road.

Provisions for non-motorists are variable along Segment 2. A sidewalk begins on the western side of SR 25/US 17 at Chevis Road and continues to a driveway south of the Walmart Driveway; however, the eastern side of Segment 2 does not include a sidewalk. Striped on-street bike lanes are present along both sides of SR 25/US 17 through Segment 2 and comprise part of the ECG. The CORE MPO's NMTP highlights Segment 2 as a Pedestrian Focus Area and recommends a sidewalk on both sides of SR 25/US 17 from Chevis Road to SR 204/Abercorn Street.

Environmental Features

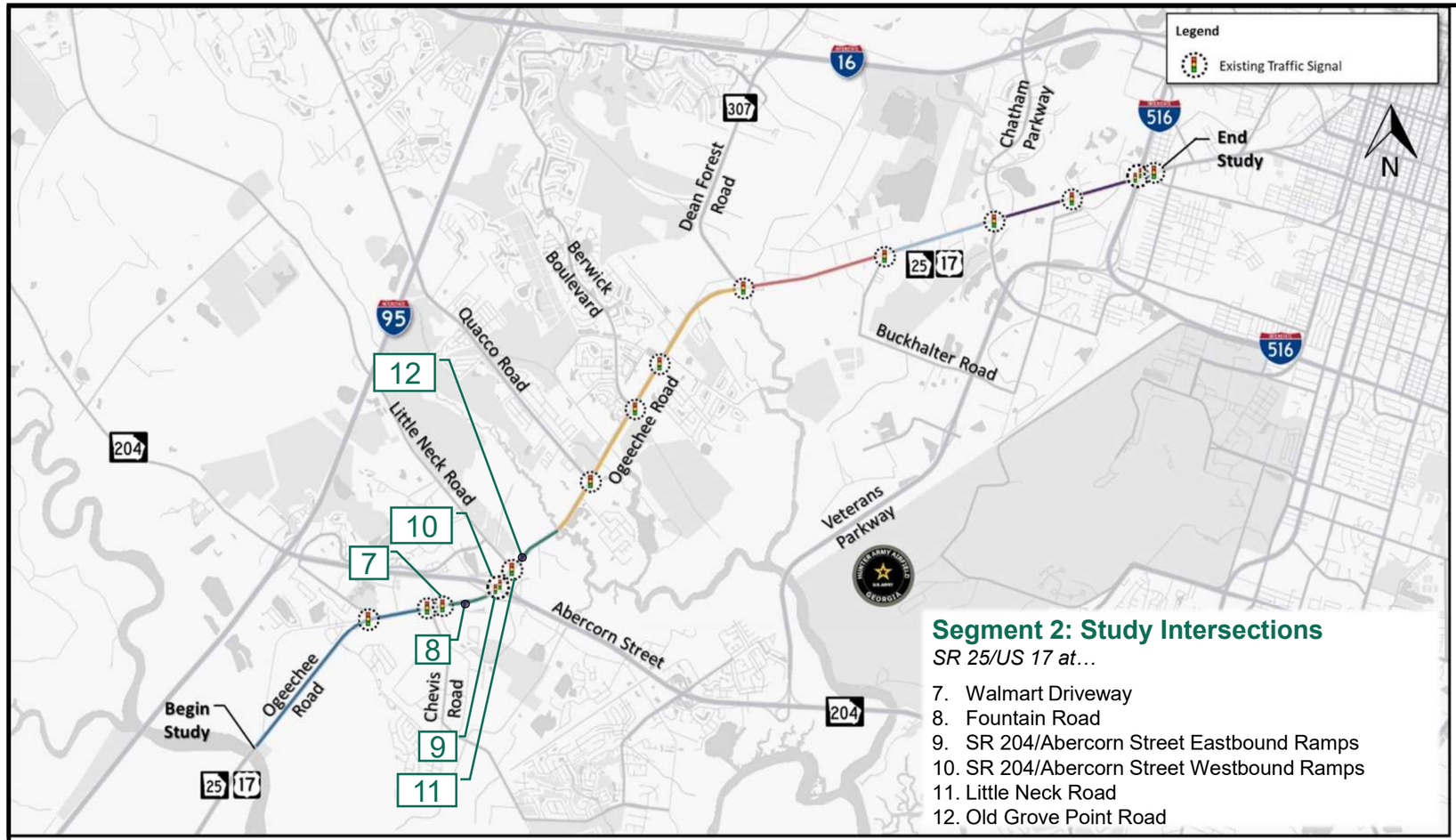
At the northern end of Segment 2, estuarine and marine wetlands surround the Little Ogeechee River, and there are also freshwater forested/shrub wetlands along both sides of this segment. These environmental features may constrain opportunities for future improvements along SR 25/US 17. Further, a portion of the segment from north of Little Neck Road to the Little Ogeechee River is located in a FEMA Flood Zone AE.

Table 2: Segment 2 – Commercial South Corridor Characteristics

Geometric and Functional Characteristics	
Extents	Chevis Road to Little Ogeechee River (1.5 Miles)
Typical Cross-Section	**Typical Section:** 4-Lane with Raised Medians/Flushed Medians **Typical Lane Widths:** 12' Travel Lanes, 4' Bike Lanes, 20' Median, Curb and Gutter/6'-10' Outside Shoulder
Speed Limit	45 MPH
Number of Driveways	22 (15 Driveways/Mile)
Number of Median Openings	8
Number of Signalized Intersections	4
Major Intersecting Roadways	
SR 204/Abercorn Street Eastbound/Westbound Ramps	**Cross-Section:** Four-Lane Divided with Raised Median **Speed Limit:** 55 MPH **2024 AADT:** • Northbound Off-Ramp: 2,300 VPD • Northbound On-Ramp: 15,800 VPD • Southbound Off-Ramp: 2,700 VPD • Southbound On-Ramp: 14,900 VPD
Little Neck Road	**Cross-Section:** Two-Lane Undivided **Speed Limit:** 45 MPH **2024 AADT:** 9,900 VPD
Traffic Characteristics	
Existing Traffic Volume Data[1]	**2024 AADT:** 33,900 VPD **2024 DHV:** 2,680 VPH **K Factor:** 7.9% **Daily Truck Percentage:** 5%
Historic Traffic Volume Data[2]	**5-Year Historic Growth Rate:** 2.65% **10-Year Historic Growth Rate:** 2.23%

[1] Existing traffic volume data represents an average of the factored AADT volumes calculated from field-collected data on Segment 2

[2] Historic Traffic Growth based on AADT counts from GDOT TADA

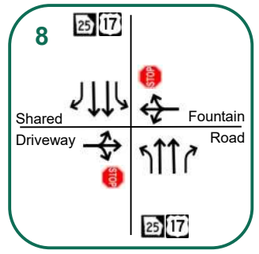


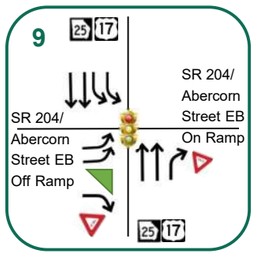
Segment 2: Study Intersections

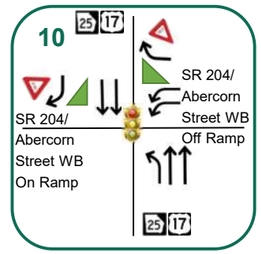
SR 25/US 17 at…

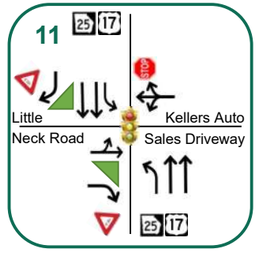
7. Walmart Driveway
8. Fountain Road
9. SR 204/Abercorn Street Eastbound Ramps
10. SR 204/Abercorn Street Westbound Ramps
11. Little Neck Road
12. Old Grove Point Road

Existing Geometry & Intersection Control









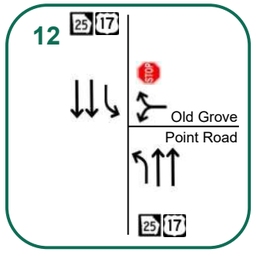


Photo: SR 25/US 17 at SR 204/Abercorn Street Westbound Ramps (Looking South)

Photo: SR 25/US 17 at SR 204/Abercorn Street Eastbound Ramps (Looking North)

Photo: SR 25/US 17 at Little Neck Road (Looking South)

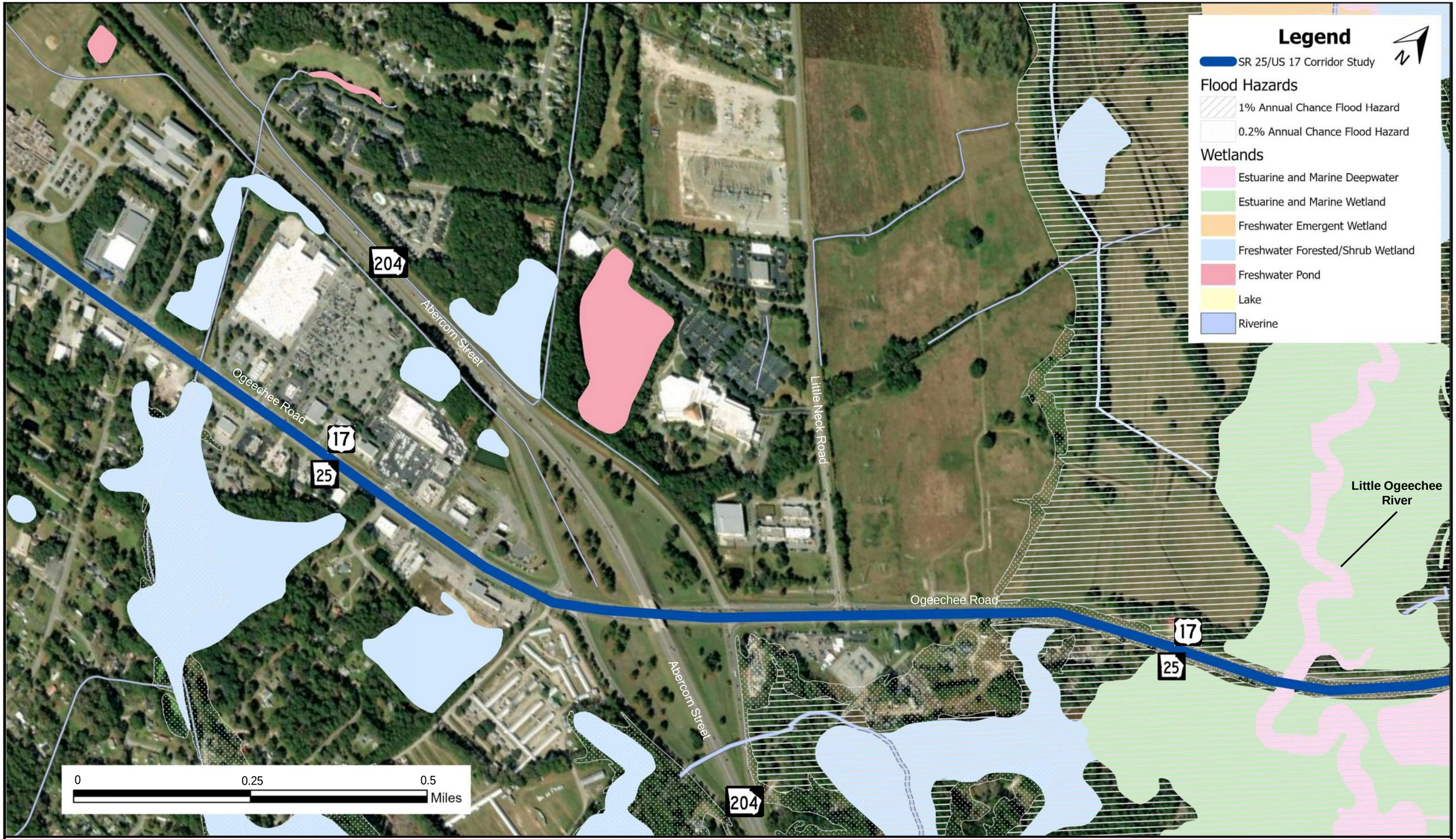
SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 4 – Study Intersections and Key Characteristics

Segment 2 – Commercial South

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 5 – Environmental Feature Map

Segment 2 – Commercial South

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

3.1.3 Segment 3 – Berwick

Segment 3 is a 2.9-mile-long section of the SR 25/US 17 corridor that runs between the Little Ogeechee River and SR 307/Dean Forest Road. This segment of SR 25/US 17 is comprised of residential, retail, and restaurant uses and exhibits low average travel speeds during the AM and PM peak hours. Key characteristics of this segment are summarized in **Table 3**, and existing geometry, traffic volumes, and field-collected photographs are provided in **Figure 6**. Environmental features along this segment are summarized in **Figure 7**.

Traffic Operations

Along Segment 3, daily traffic volumes are greater than 90% of the theoretical capacity of a four-lane divided facility, with AADT volumes averaging 34,500 VPD and truck percentages ranging between 2% and 9% during the peak periods of travel. As shown in **Figure 6**, bi-directional volumes are highest during the AM peak period and approach 3,000 VPH. During this period, queues beginning at Cottonvale Road occasionally extended upstream through Berwick Boulevard between 7:00 AM and 8:00 AM. During the PM peak period, southbound queueing was observed beginning at Berwick Boulevard; however, queue lengths were not as substantial as those observed during the AM peak period.

Field travel time runs along Segment 3 yielded an average travel speed of approximately 28 MPH in the northbound direction and 27 MPH in the southbound direction during the AM and PM peak periods, respectively. Existing operations indicate that geometric modifications, signal timing improvements, and access management improvements are likely warranted in the short-term between Berwick Boulevard and Cottonvale Road. Further, as development occurs adjacent to Little Neck Road and future improvements are implemented at the SR 204/Abercorn Street interchange, additional long-term improvements may be needed along Segment 3 to service increased demand and throughput.

Roadway Geometry/Access Management

Segment 3 consists of four travel lanes, a center raised median, and auxiliary turn lanes at most intersections. The center raised median transitions to a two-way left-turn lane (TWLTL) approximately 1,000-feet-south of SR 307/Dean Forest Road. Segment 3 also includes 47 unsignalized driveways, which is equivalent to a spacing of 16 driveways per mile. Most of these driveways are restricted to RIRO access; however, their proximity to critical signalized intersections presents numerous opportunities to reduce conflicts and enhance operations through access management improvements.

Non-Motorist Facilities

CAT operates Route 17 along both directions of SR 25/US 17 for the entirety of Segment 3, and there are a total of 12 bus stops in this segment spaced at approximately half-mile intervals. Striped on-street bike lanes are present on both sides of SR 25/US 17 and end approximately 1,000-feet-south of SR 307/Dean Forest Road. Pedestrian facilities are present at all four signalized intersections in Segment 3, and sidewalk runs along both Quacco Road and Berwick Boulevard; however, sidewalk is not present along SR 25/US 17 in this segment. The CORE MPO's NMTP classifies the sections of SR 25/US 17 from Bridgewater Drive to Quacco Road and from Berwick Boulevard to SR 307/ Dean Forest Road as Pedestrian Focus Areas and recommends a sidewalk on both sides of SR 25/ US 17 within these locations. Further, improvements recommended by the *SR 25/US 17 at Silk Hope Road/Derrick Inn Road Traffic Engineering Study* (Atkins, 2022) are under consideration at the

intersection of SR 25/US 17 at Silk Hope Road/Derrick Inn Road. Recommended improvements include the installation of a pedestrian hybrid beacon (PHB) mid-block crossing on SR 25/US 17 north of this intersection and enhanced roadway lighting to improve driver visibility.

Environmental Features

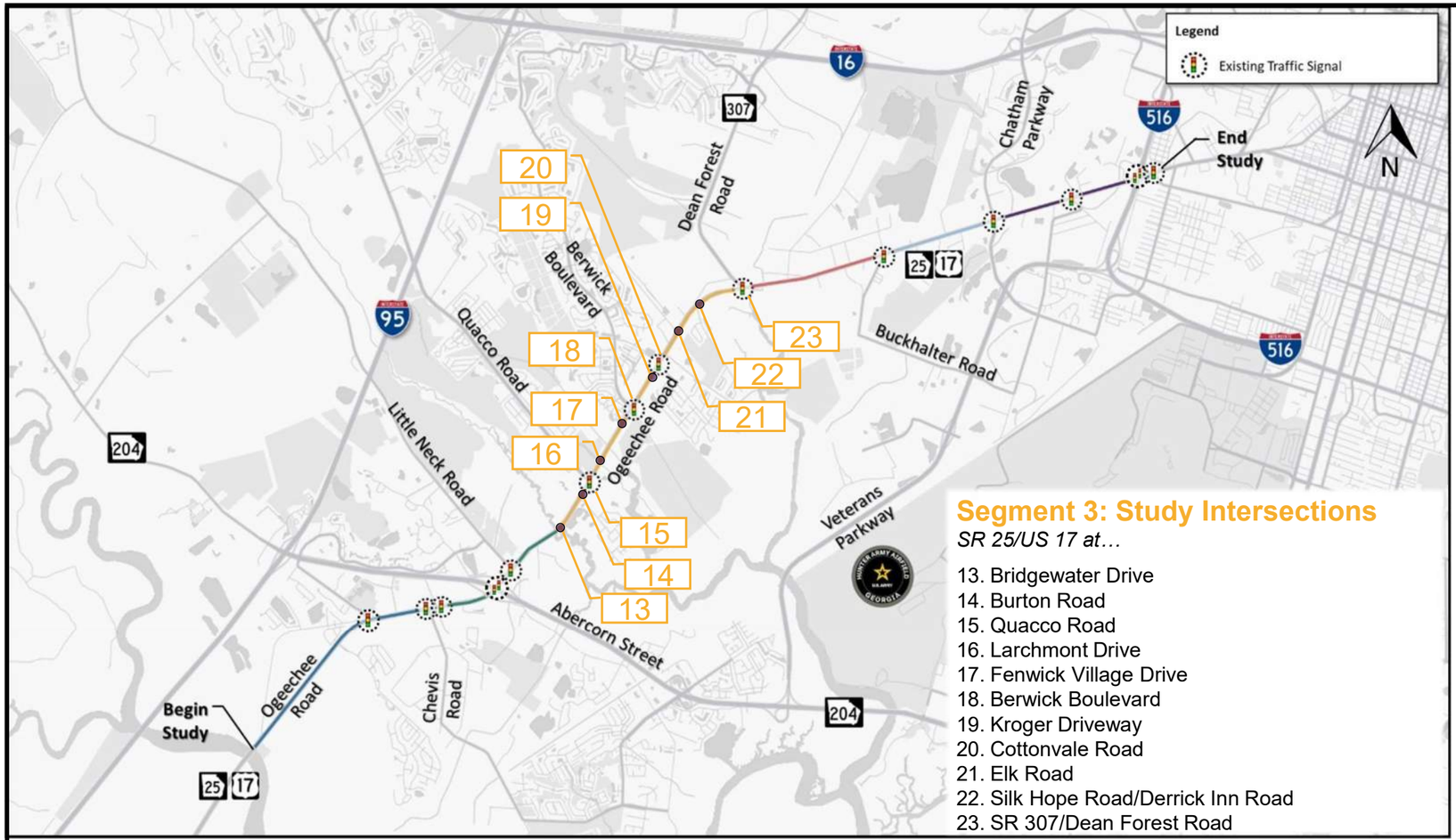
Estuarine and marine wetlands are located near the Little Ogeechee River and Salt Creek. There are also freshwater forested/shrub wetlands throughout Segment 3, notably along the Quacco Canal crossing approximately 1,000-feet-north of Quacco Road and along the west side of SR 25/US 17 at Cottonvale Road. The southern and northern ends of the segment fall within the FEMA Flood Zone AE.

Table 3: Segment 3 – Berwick Corridor Characteristics

Geometric and Functional Characteristics	
Extents	Little Ogeechee River to SR 307/Dean Forest Road (2.9 Miles)
Typical Cross-Section	**Typical Section:** 4-Lane Divided with a Raised Median/Flush median and Shoulder **Typical Lane Widths:** 12' Travel Lanes, 4' Bike Lanes, 20" Median, Curb and Gutter/4'-12' Outside Shoulder
Speed Limit	45 MPH
Number of Driveways	47 (16 Driveways/Mile)
Number of Median Openings	10
Number of Signalized Intersections	4
Major Intersecting Roadways	
Quacco Road	**Cross-Section:** Four-Lane Divided with Raised Median **Speed Limit:** 40 MPH **2024 AADT:** 17,900 VPD
SR 307/Dean Forest Road	**Cross-Section:** Four-Lane Divided with Raised Median **Speed Limit:** 45 MPH **2024 AADT:** 13,000 VPD
Traffic Characteristics	
Existing Traffic Volume Data[1]	**2024 AADT:** 34,500 VPD **2024 DHV:** 2,690 VPH **K Factor:** 7.8% **Daily Truck Percentage:** 7%
Historic Traffic Volume Data[2]	**5-Year Historic Growth Rate:** 4.1% **10-Year Historic Growth Rate:** 3.3%

[1] Existing traffic volume data represents an average of the factored AADT volumes calculated from field-collected data on Segment 3

[2] Historic Traffic Growth based on AADT counts from GDOT TADA

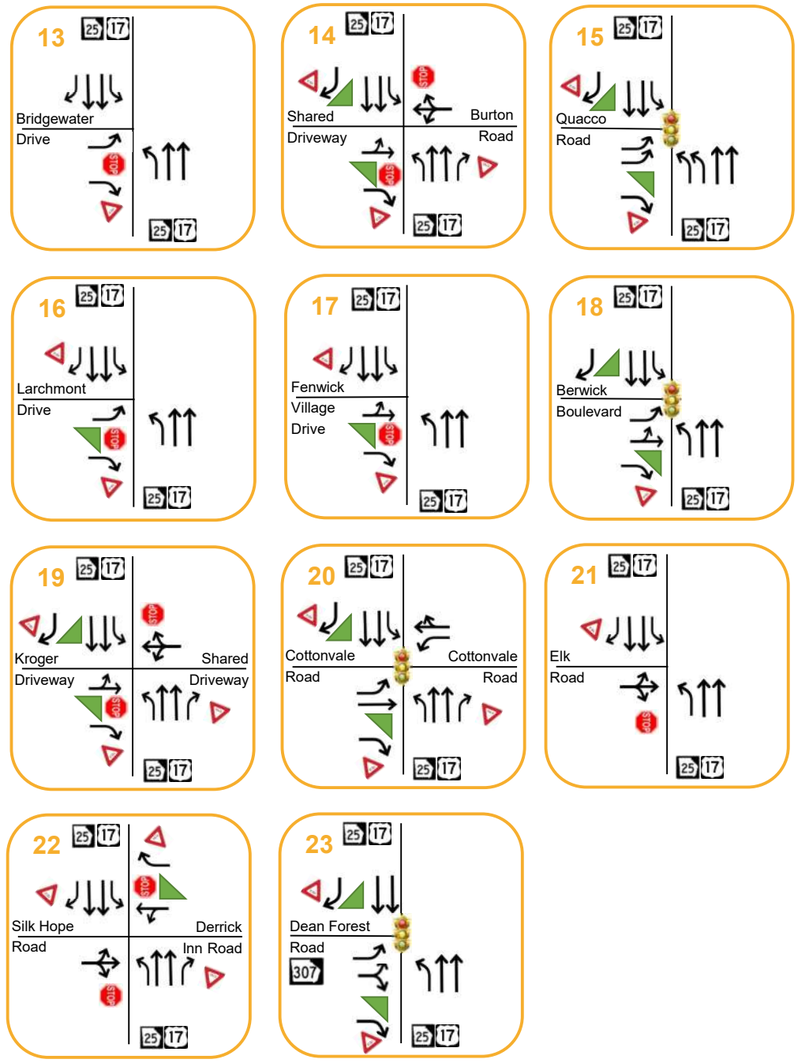


Segment 3: Study Intersections

SR 25/US 17 at…

13. Bridgewater Drive
14. Burton Road
15. Quacco Road
16. Larchmont Drive
17. Fenwick Village Drive
18. Berwick Boulevard
19. Kroger Driveway
20. Cottonvale Road
21. Elk Road
22. Silk Hope Road/Derrick Inn Road
23. SR 307/Dean Forest Road

Existing Geometry & Intersection Control



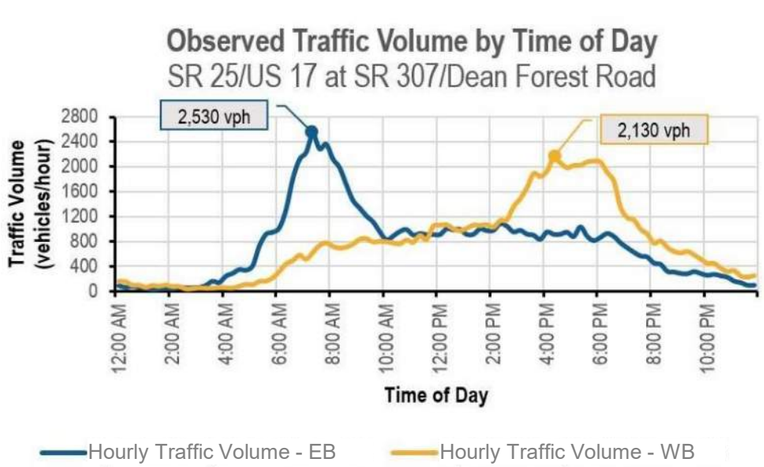


Photo: SR 25/US 17 at Cottonvale Road (Looking South)

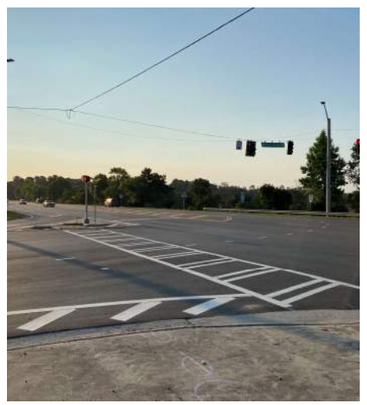


Photo: SR 25/US 17 at SR 307/Dean Forest Road (Looking North)

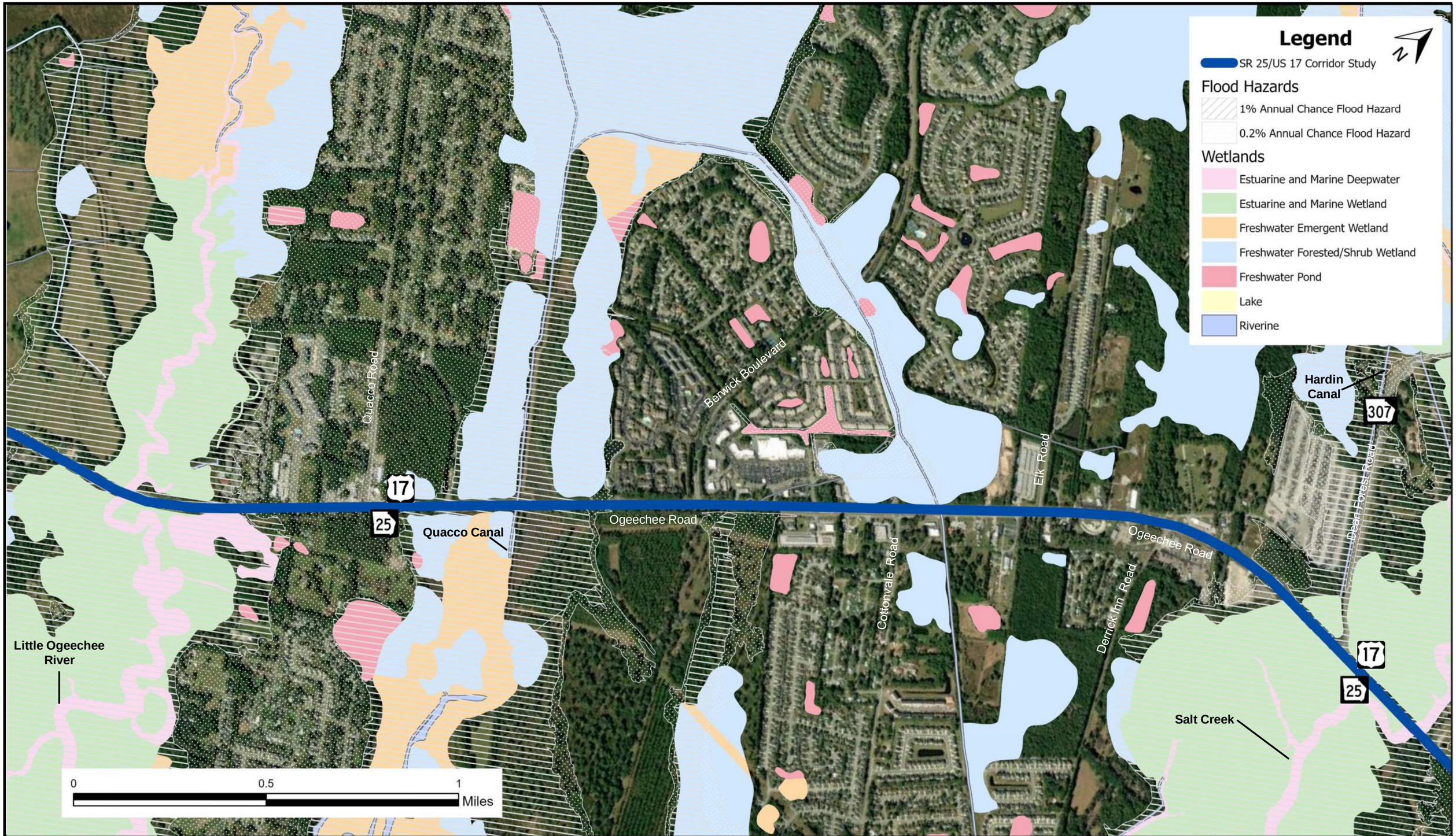
SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 6 – Study Intersections and Key Characteristics

Segment 3 – Berwick

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 7 – Environmental Feature Map

Segment 3 – Berwick

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

3.1.4 Segment 4 – Silk Hope

Segment 4 extends approximately 1.4 miles between SR 307/Dean Forest Road and Fall Avenue/ Buckhalter Road. This segment is predominantly comprised of single-family residential land uses. Key characteristics of this segment are summarized in **Table 4**, and existing geometry, traffic volumes, and field-collected photographs are provided in **Figure 8**. Environmental features along this segment are summarized in **Figure 9**.

Traffic Operations

Daily traffic volumes on Segment 4 average 31,500 VPD, approximately 85% of the theoretical capacity of a four-lane divided facility, and truck percentages range from 2% to 9% during the peak periods of travel. Field observations indicate that moderate recurring congestion occurs at the Fall Avenue/ Buckhalter Road intersection in the northbound and southbound directions during the AM and PM peak periods, respectively. The longest queues were observed during the AM peak period, when northbound traffic extended up to 2,000 feet upstream near the Sandman Motel driveway. During the same period, downstream congestion near the Chatham Parkway intersection occasionally impeded the flow of northbound through traffic.

Field travel time runs yielded an average travel speed of 33 MPH or greater during each peak period. Based on modeled and observed existing operations, access management strategies may offer the most opportunity for operational and safety gains on Segment 4. However, as growth continues along the SR 25/US 17 corridor, additional geometric and intersection control improvements may be needed over the long-term horizon.

Roadway Geometry/Access Management

Segment 4 includes 54 unsignalized driveways, which is equivalent to a spacing of 19 driveways per mile. This segment primarily consists of a five-lane roadway with a center TWLTL and a paved shoulder through Salt Creek Road, at which point a curb and gutter section begins. Driveway density and existing crash history indicate the need for access management strategies (e.g., movement restrictions, center raised median) along this segment of the corridor.

Non-Motorist Facilities

CAT operates Route 17 along both directions of SR 25/US 17 for the entirety of Segment 4, and there are a total of eight bus stops in this segment; one bidirectional pair is located at Salt Creek Road, and three bidirectional pairs are spaced at approximately 1,000-foot-intervals between Old Buckhalter Road and Buckhalter Road/Fall Avenue. No sidewalks are provided along Segment 4, and the narrow shoulder provides limited buffer for pedestrians and cyclists from adjacent motorist traffic that often travels at speeds in excess of 50 MPH based on field observations. Pedestrian crossings are provided at Barbour Drive, Tower Drive, and Fall Avenue/Buckhalter Road, and existing bus stops are provided at Salt Creek Road and Fall Avenue/Buckhalter Road. Further, a worn footpath is present along portions of this segment. Each of these observations are indicative of latent non-motorized demand and suggest the need for linear pedestrian and bicycle facilities. The CORE MPO's NMTP classifies the entirety of Segment 4 as a Pedestrian Focus Area and recommends a shared-use path on both sides of SR 25/US 17 within this segment.

Environmental Features

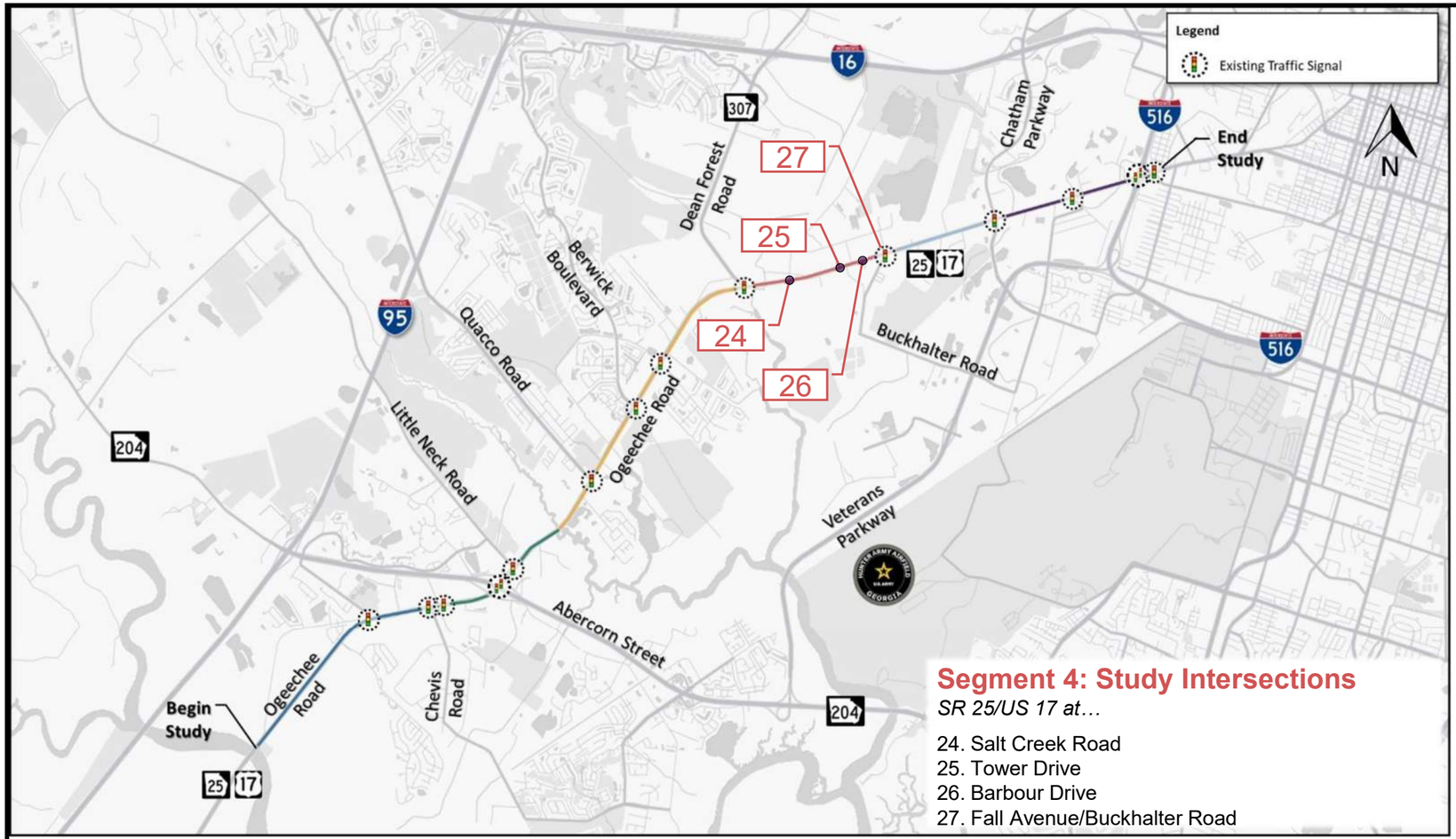
The southern end of Segment 4 is surrounded by estuarine and marine wetlands near Salt Creek. The rest of Segment 4 has minimal adjacent environmental features, and the existing wetlands and storm drainage from SR 25/US 17 outfall to Salt Creek.

Table 4: Segment 4 – Silk Hope Corridor Characteristics

Geometric and Functional Characteristics	
Extents	SR 307/Dean Forest Road to Buckhalter Road (1.4 Miles)
Typical Cross-Section	**Typical Section:** 5-Lane with Two-Way Left-Turn Lane (TWLTL) **Typical Lane Widths:** 12' Travel Lanes, 15" TWLTL, Curb and Gutter/ 2'-4' Outside Shoulder
Speed Limit	25 MPH school zone near Buckhalter Road 45 MPH posted speed elsewhere
Number of Driveways	54 (19 Driveways/Mile)
Number of Median Openings	N/A – TWLTL
Number of Signalized Intersections	2
Major Intersecting Roadways	
Fall Avenue/Buckhalter Road[1]	**Cross-Section:** Two-Lane Undivided **Speed Limit:** 25 MPH/40 MPH **2024 AADT:** 1,600 VPD (West); 2,100 VPD (East)
Traffic Characteristics	
Existing Traffic Volume Data[1]	**2024 AADT:** 31,500 VPD **2024 DHV:** 2,610 VPH **K Factor:** 8.3% **Daily Truck Percentage:** 6%
Historic Traffic Volume Data[2]	**5-Year Historic Growth Rate:** 1.8% **10-Year Historic Growth Rate:** 3.1%

[1] Existing traffic volume data represents an average of the factored AADT volumes calculated from field-collected data on Segment 4

[2] Historic Traffic Growth based on AADT counts from GDOT TADA

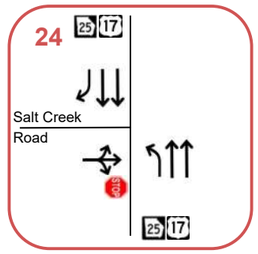


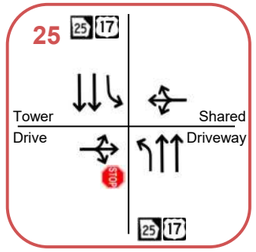
Segment 4: Study Intersections

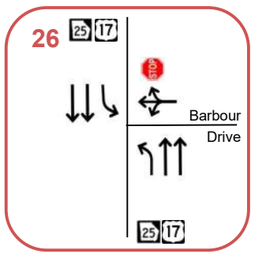
SR 25/US 17 at…

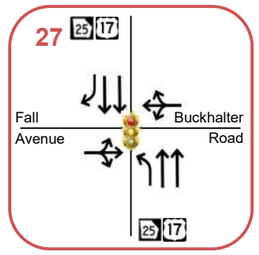
24. Salt Creek Road
25. Tower Drive
26. Barbour Drive
27. Fall Avenue/Buckhalter Road

Existing Geometry & Intersection Control









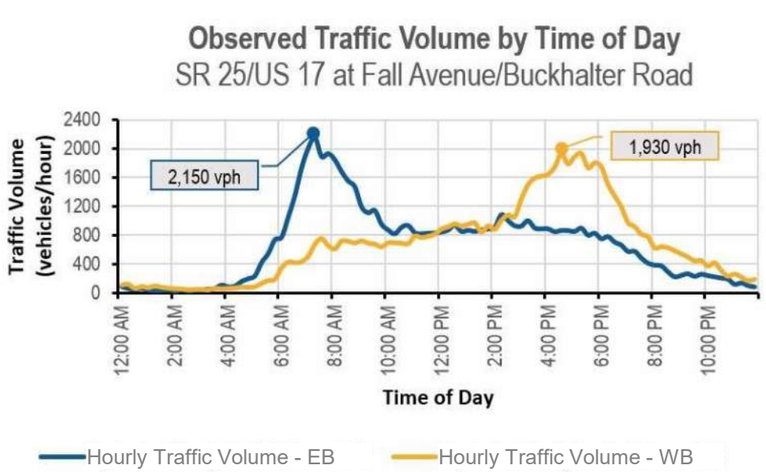


Photo: SR 25/US 17 at Barbour Drive (Looking North)

Photo: SR 25/US 17 at Fall Avenue/ Buckhalter Road (Looking South)

Photo: SR 25/US 17 at Salt Creek Road (Looking South)

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 8 – Study Intersections and Key Characteristics

Segment 4 – Silk Hope

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 9 – Environmental Feature Map

Segment 4 – Silk Hope

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

3.1.5 Segment 5 – Commercial North

Segment 5 includes the 1.1-mile-long segment of SR 25/US 17 from Fall Avenue/Buckhalter Road to Chatham Parkway. This segment is primarily characterized by commercial development approaching Chatham Parkway and exhibits heavy congestion and low average travel speeds during the AM and PM peak hours of travel. Key characteristics of Segment 5 are summarized in **Table 5**, and existing geometry, traffic volumes, and field-collected photographs are provided in **Figure 10**. Environmental features along this segment are summarized in **Figure 11**.

Traffic Operations

AADT volumes along Segment 5 average 30,800 VPD, approximately 85% of the theoretical capacity of a five-lane roadway, and truck percentages range between 2% and 11% during the peak periods of travel. Field observations indicate that operations at the Chatham Parkway intersection impact corridor-level operations more than theoretical capacity would suggest. For example, queues on northbound SR 25/ US 17 extended approximately 0.5 miles upstream to Savannah Speedway during the AM peak period. These queues are likely attributable to spillback from the heavy northbound left-turn movement at Chatham Parkway which exceeds 400 VPH based on collected count data. During the PM peak period, observed queues at Chatham Parkway exceeded 0.25 miles on the eastbound and westbound approaches and exceeded 0.5 miles on the southbound approach. These findings are indicative of significant capacity constraints at this intersection, which currently does not have auxiliary right-turn lanes on the southbound, westbound, or eastbound approaches.

Based on field travel time runs, Segment 5 operates with an average travel speed between 20 MPH and 35 MPH during the peak periods of the day. As noted above, observed delays and queues indicate that the intersection at Chatham Parkway operates poorly during the peak periods and contributes to most of the delay experienced on Segment 5. Accordingly, the *Coastal Empire Transportation Study* recommended geometric improvements and additional auxiliary turn lanes at the intersection of SR 25/US 17 with Chatham Parkway. Existing conditions suggest that additional auxiliary lanes are needed on all approaches at the intersection, and complementary signal upgrades and access management strategies are likely needed along this segment in the short-term. Over the long-term horizon, intersection reconfiguration or other cross-sectional improvements may be needed to support continued traffic growth on the SR 25/US 17 and Chatham Parkway corridors.

Roadway Geometry/Access Management

As shown in **Table 5**, Segment 5 includes 49 existing unsignalized driveways, which is equivalent to a spacing of 44 driveways per mile, the highest of any segment along the corridor. Most of these driveways are commercial driveways, though some residential driveways are present along Segment 5. Given the tight driveway spacing and higher travel speeds prevalent along the long tangent roadway section, access management strategies may be needed to enhance safety and operations at the unsignalized intersections along this segment.

Non-Motorist Facilities

CAT operates Route 17 along both directions of SR 25/US 17 for the entirety of Segment 5, and there are a total of seven bus stops in this segment; one bidirectional pair is located east of Buckhalter Road/

Fall Avenue; one pair is located south of Macaljon Court; one pair is located south of Heathcote Circle; and one southbound stop is located approximately 800-feet-south of Chatham Parkway.

Existing non-motorist facilities on Segment 5 are sparse and inconsistent. No bicycle facilities are provided, even though this portion of the corridor comprises part of the ECG. Isolated and noncongruent sidewalk sections were constructed as part of adjacent developments near Macaljon Court along the west side of SR 25/US 17 and along the east side of SR 25/US 17 south of Chatham Parkway. The CORE MPO's NMTP denotes Segment 5 as a Pedestrian Focus Area and recommends a shared-use path on both sides of SR 25/US 17 along this 1.1-mile-long segment.

Environmental Features

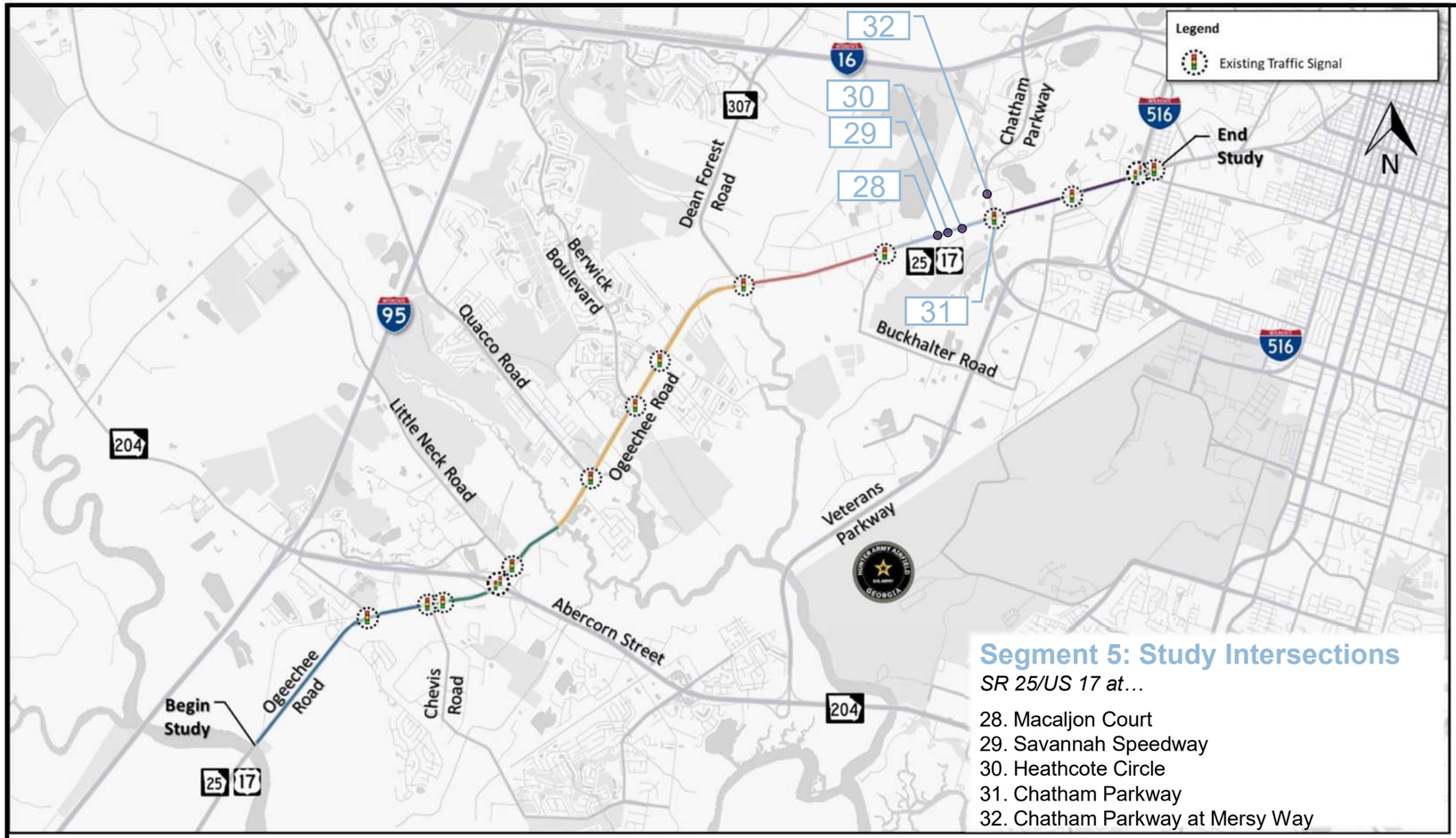
There are minimal environmental features present along Segment 5. Existing features include the freshwater forested/shrub wetlands located near the Chatham Parkway intersection. The small streams and wetlands in Segment 5 ultimately flow to Salt Creek.

Table 5: Segment 5 – Commercial North Corridor Characteristics

Geometric and Functional Characteristics	
Extents	Buckhalter Road to Chatham Parkway (1.1 Miles)
Typical Cross-Section	**Typical Section:** Five-Lane with Two-Way Left-Turn Lane (TWLTL) **Typical Lane Widths:** 12' Travel Lanes, 15' TWLTL, Curb and Gutter/ 2'-4' Outside Shoulder
Speed Limit	25 MPH school zone starts in Segment 4 and ends 450 ft after Buckhalter Road 45 MPH posted speed elsewhere
Number of Driveways	49 (44 Driveways/Mile)
Number of Median Openings	N/A – TWLTL
Number of Signalized Intersections	1
Major Intersecting Roadways	
Chatham Parkway[1]	**Cross-Section:** Four-Lane with Raised Median/Flush Median **Speed Limit:** 45 MPH/35 MPH **2024 AADT:** 18,200 VPD (West); 16,600 VPD (East)
Traffic Characteristics	
Existing Traffic Volume Data[1]	**2024 AADT:** 30,800 VPD **2024 DHV:** 2,560 VPH **K Factor:** 8.3% **Daily Truck Percentage:** 6%
Historic Traffic Volume Data[2]	**5-Year Historic Growth Rate:** 1.8% **10-Year Historic Growth Rate:** 3.1%

[1] Existing traffic volume data represents an average of the factored AADT volumes calculated from field-collected data on Segment 5

[2] Historic Traffic Growth based on AADT counts from GDOT TADA

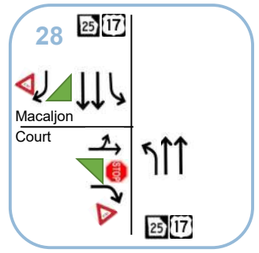


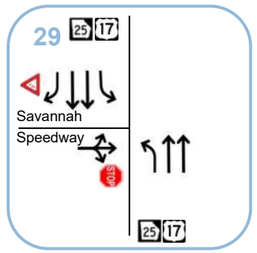
Segment 5: Study Intersections

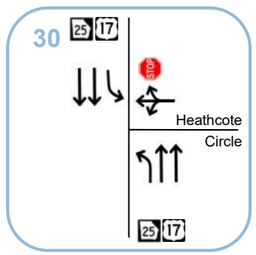
SR 25/US 17 at…

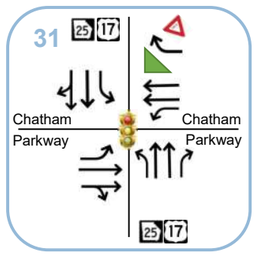
28. Macaljon Court
29. Savannah Speedway
30. Heathcote Circle
31. Chatham Parkway
32. Chatham Parkway at Mersy Way

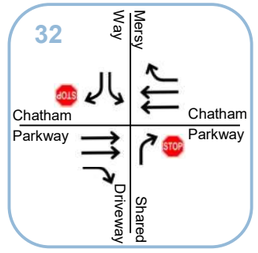
Existing Geometry & Intersection Control











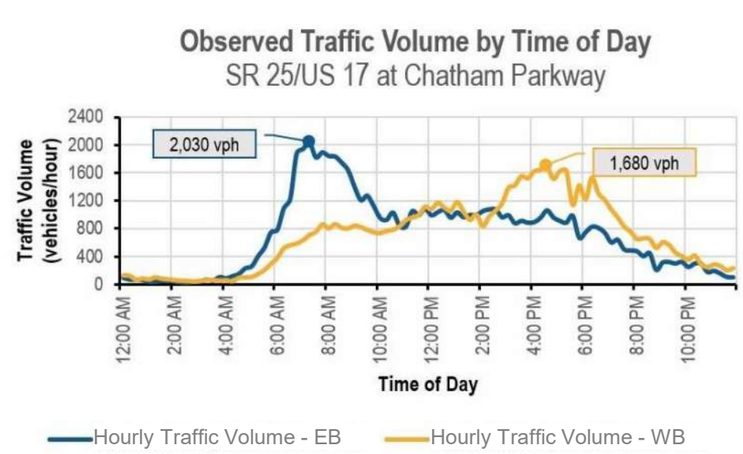
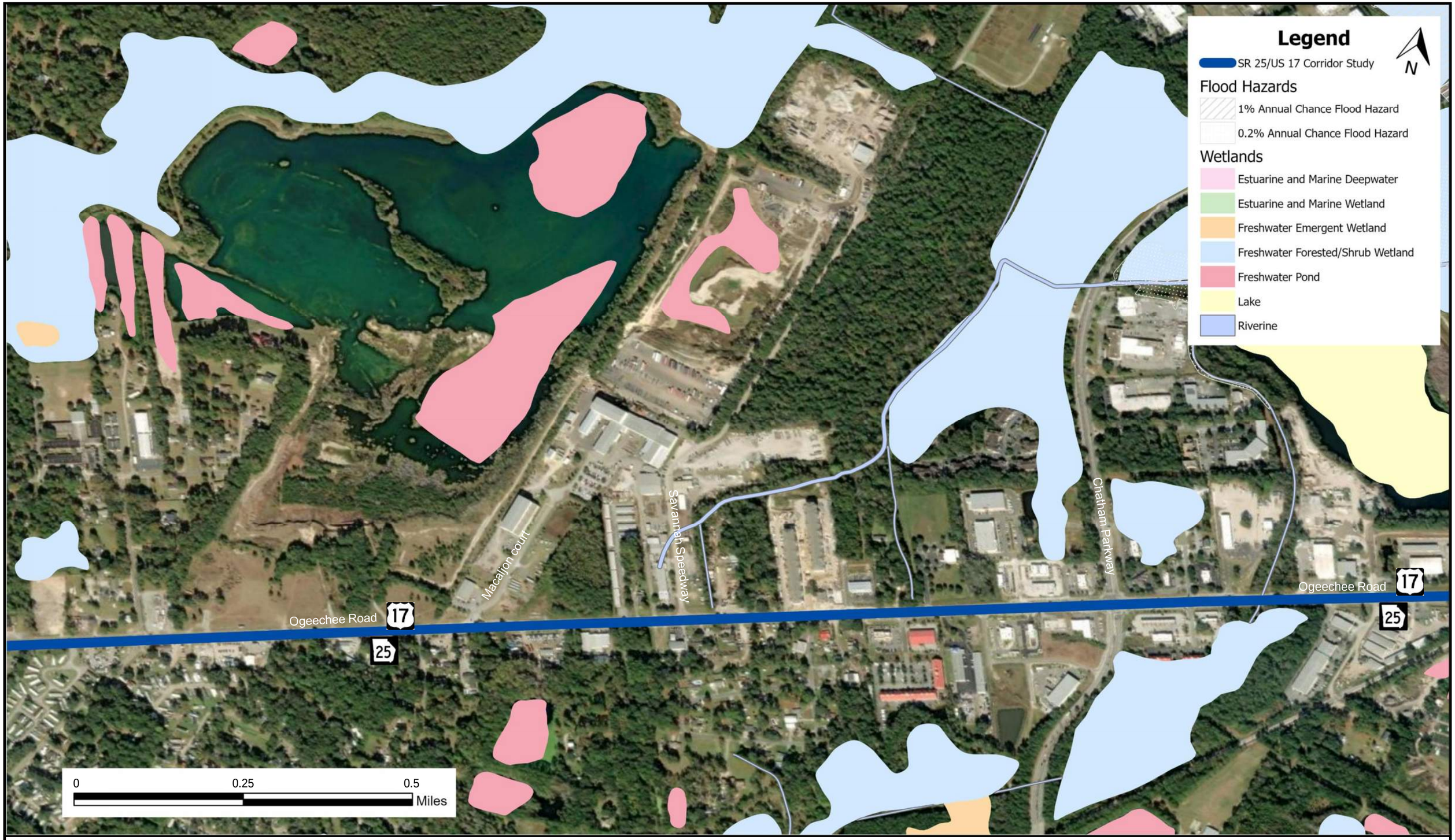


Photo: SR 25/US 17 at Chatham Parkway PM Peak Hour Queuing (Looking East)

Photo: SR 25/US 17 at Heathcote Circle (Looking South)

Photo: SR 25/US 17 at Macaljon Court (Looking North)



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 11 – Environmental Feature Map

Segment 5 – Commercial North

SR 25/US 17 CORRIDOR STUDY

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3.1.6 Segment 6 – Northern Gateway

Segment 6 is a 1.6-mile-long corridor that extends from Chatham Parkway to Plymouth Avenue/ Mills Lane. This segment is categorized by commercial and industrial land uses, a grade-separated rail crossing over CSX Transportation (Crossing ID 641165S) railroad lines, and the I-516/SR 21 interchange. Key characteristics of Segment 6 are summarized in **Table 6**, and existing geometry, traffic volumes, and field-collected photographs are provided in **Figure 12**. Environmental features along this segment are summarized in **Figure 13**.

Traffic Operations

Daily traffic volumes along Segment 6 average 27,000 VPD, approximately 75% of the theoretical capacity of a five-lane roadway, and truck percentages range between 2% and 13% during the peak periods of travel. In part due to disruptions in traffic flow attributable to heavy truck volumes, observed average travel speeds were 24 MPH during the AM peak period and 21 MPH during the PM peak period in the northbound and southbound directions, respectively. Observed queues occasionally extended between the I-516/SR 21 ramp termini; this trend appeared to be attributable to heavy turning movement volumes and a downstream bottleneck on SR 25/US 17 in the northbound direction, where the cross section tapers to a two-lane section north of the study area. Intersection improvements along SR 25/ US 17 at both I-516/SR 21 ramp termini are currently under construction as part of PI No. S015891. These improvements include increased left-turn storage along SR 25/US 17 and are expected to mitigate queueing along SR 25/US 17 between the ramp termini.

Roadway Geometry/Access Management

Segment 6 includes 62 unsignalized driveways, which is equivalent to a spacing of 39 driveways per mile. Segment 6 is a five-lane roadway with a TWLTL, and as for Segment 4 and Segment 5, access management strategies, including a raised median, could be considered to alleviate existing operations and safety constraints.

Non-Motorist Facilities

CAT operates Route 17 along both directions of SR 25/US 17 for the entirety of Segment 6, and there are a total of eight bus stops in this segment. One bidirectional pair is located north of Chatham Parkway, and the remaining three bidirectional pairs are spaced at approximately 1,000-foot-intervals between Gamble Road and Westgate Boulevard. Further, CAT Route 25 also traverses SR 25/US 17 between Chatham Parkway and Gamble Road but has no bus stops along this segment.

Segment 6 has no bicycle lanes and limited sidewalks which are primarily located near the I-516/SR 21 interchange. The CORE MPO's NMTP highlights this segment of SR 25/US 17 as a Pedestrian Focus Area and recommends a shared-use path south of I-516/SR 21 and bicycle lanes north of I-516/SR 21.

Environmental Features

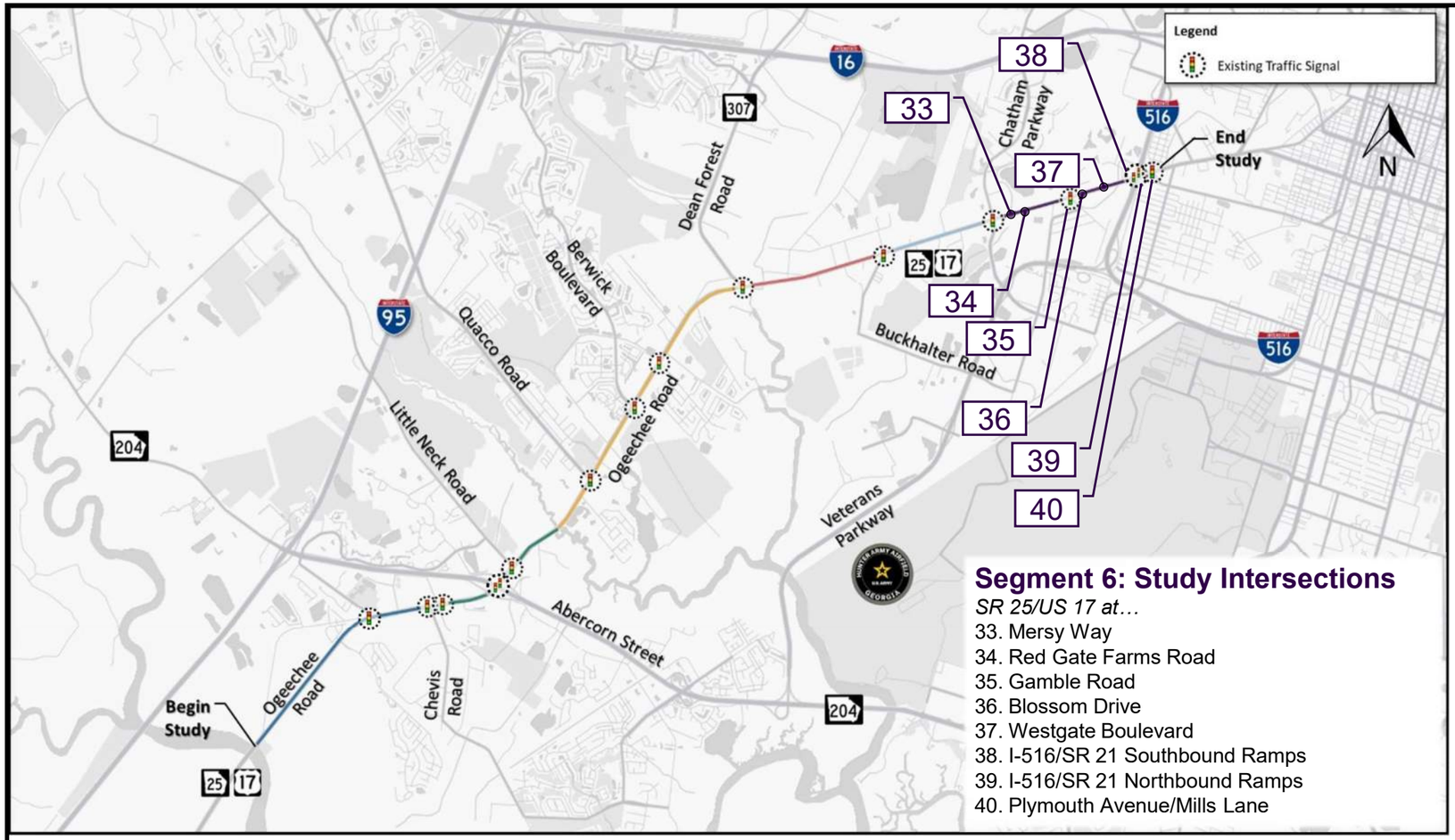
Segment 6 crosses several small streams, and there are freshwater forested/shrub wetlands on both sides of SR 25/US 17. However, these features should not impact opportunities for future roadway improvements or development. Beginning at Gamble Road, the segment lies in the FEMA Flood Zone AE, and the existing wetlands and storm drainage from SR 25/US 17 outfall to either the Little Ogeechee River or Salt Creek.

Table 6: Segment 6 – Northern Gateway Corridor Characteristics

Geometric and Functional Characteristics	
Extents	Chatham Parkway to Plymouth Avenue/Mills Lane (1.6 Miles)
Typical Cross-Section	**Typical Section:** Five-Lane with Raised Median/Two-Way Left-Turn Lane (TWLTL) **Typical Lane Widths:** 12' Travel Lanes, 14' TWLTL, Curb and Gutter/ 2'-4' Outside Shoulder
Speed Limit	45 MPH
Number of Driveways	62 (39 Driveways/Mile)
Number of Median Openings	N/A – TWLTL (Chatham Parkway to Westgate Boulevard) 3 openings (Westgate Boulevard to Plymouth Avenue/Mills Lane)
Number of Signalized Intersections	4
Major Intersecting Roadways	
Gamble Road[1]	**Cross-Section:** Two-Lane Undivided **Speed Limit:** 25 MPH **2024 AADT:** 1,000 VPD (West); 4,400 VPD (East)
I-516/SR 21 Northbound/Southbound Ramps[1]	**Cross-Section:** Four-Lane Divided with Depressed Median **Speed Limit:** 55 MPH • Northbound Off-Ramp: 4,400 VPD • Northbound On-Ramp: 6,100 VPD • Southbound Off-Ramp: 8,100 VPD • Southbound On-Ramp: 3,500 VPD
Plymouth Avenue/Mills Lane[1]	**Cross-Section:** Two-Lane Undivided **Speed Limit:** 25 MPH **2024 AADT:** 1,000 VPD (West); 10,900 VPD (East)
Traffic Characteristics	
Existing Traffic Volume Data[1]	**2024 AADT:** 27,000 VPD **2024 DHV:** 2,160 VPH **K Factor:** 8.0% **Daily Truck Percentage:** 7%
Historic Traffic Volume Data[2]	**5-Year Historic Growth Rate:** -1.7% **10-Year Historic Growth Rate:** -0.6%

[1] Existing traffic volume data represents an average of the factored AADT volumes calculated from field-collected data on Segment 6

[2] Historic Traffic Growth based on AADT counts from GDOT TADA

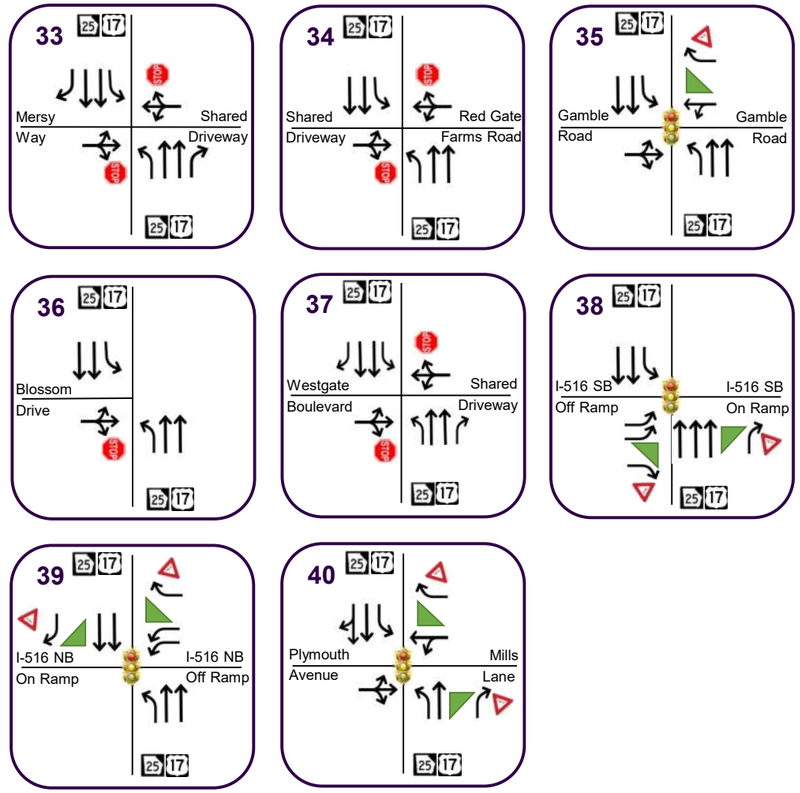


Segment 6: Study Intersections

SR 25/US 17 at…

33. Mersy Way
34. Red Gate Farms Road
35. Gamble Road
36. Blossom Drive
37. Westgate Boulevard
38. I-516/SR 21 Southbound Ramps
39. I-516/SR 21 Northbound Ramps
40. Plymouth Avenue/Mills Lane

Existing Geometry & Intersection Control



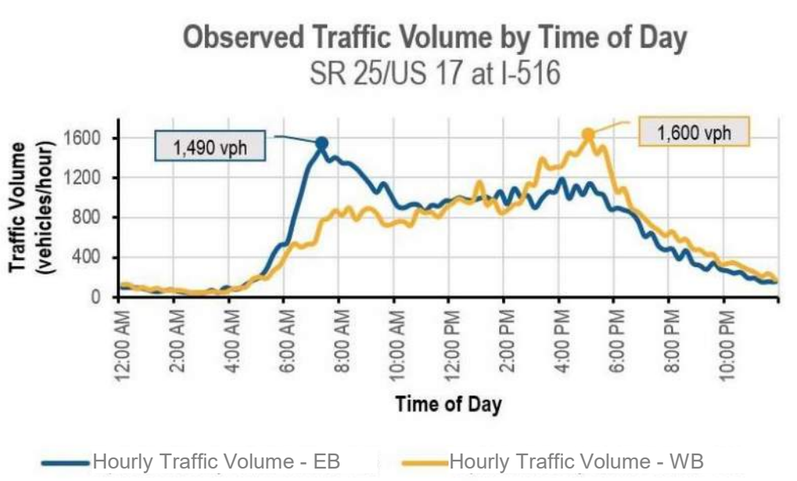
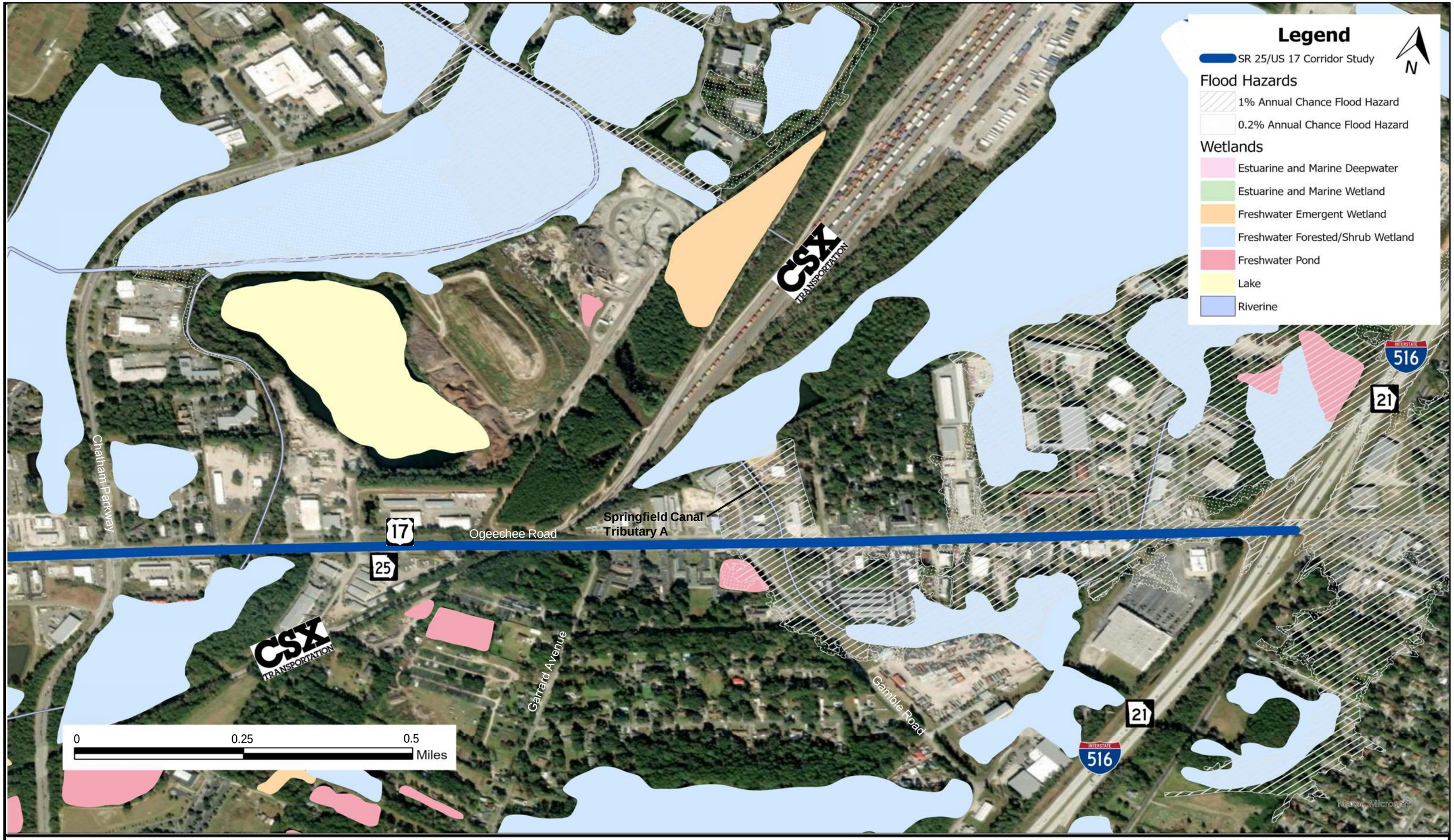


Photo: SR 25/US 17 at Gamble Road (Looking North)

Photo: SR 25/US 17 at I-516/SR /21 (Looking North)

Photo: SR 25/US 17 at Plymouth Avenue/Mills Lane PM Peak Hour Queuing (Looking East)



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 13 – Environmental Feature Map

Segment 6 – Northern Gateway

SR 25/US 17 CORRIDOR STUDY

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3.2 Existing Land Use Summary

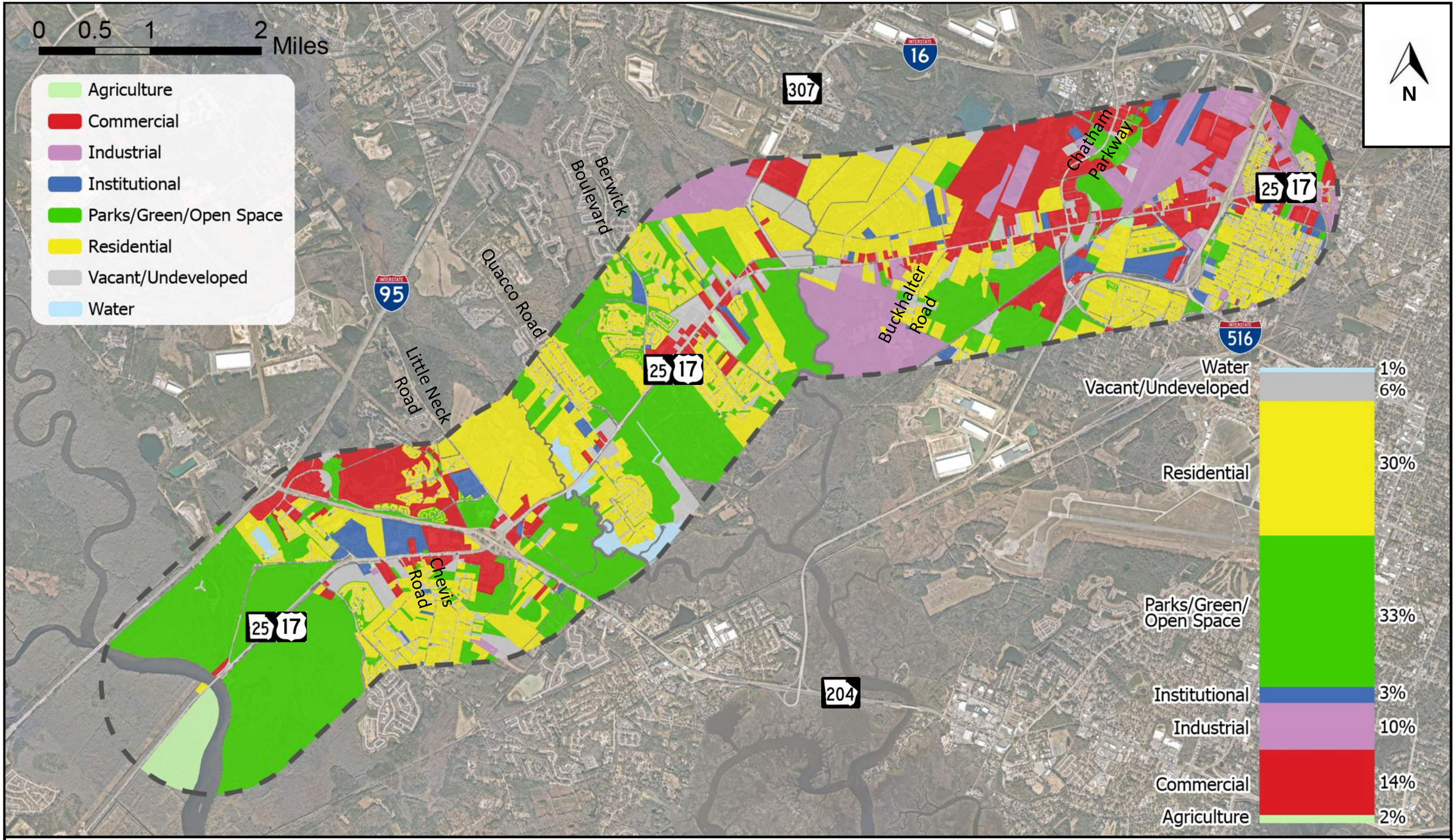
The SR 25/US 17 study corridor traverses the jurisdictional boundaries of Savannah, Garden City, and unincorporated Chatham County. Adjacent parcels are primarily comprised of a mix of residential, commercial, industrial, and green space uses. This corridor serves as a key north-south alternate to I-95 that provides connectivity to and from the City of Savannah, Port of Savannah, and surrounding municipalities. Defining current land use is a critical component in understanding existing travel patterns and development trends and provides a foundation from which to anticipate future growth and changes in needs, opportunities, and constraints along the study corridor.

The existing land use map shown in **Figure 14** was created through an assessment of data sourced from Geographic Information Systems (GIS), current zoning and other parcel information, and a review of zoning history and approved planned urban developments (PUD) provided by the Chatham County-Savannah Metropolitan Planning Commission (MPC). The following PUD or residential development information (listed from south-to-north) was incorporated into **Figure 14** and will be considered in developing future volume projections and project recommendations:

- Bradley Pointe South – April 2023
- Pointe Grand – July 2023
- Hopeton Landing – May 2021
- Hopeton Landing South – May 2021
- Waterford – April 2022
- Lebanon Plantation – October 2022

The approach for evaluating existing and planned land uses as part of this study was reviewed with MPC staff on May 8, 2024. The existing land use map depicts eight land use categories, and Parks/Green/Open Space represents the largest percentage of existing land uses (33%) followed by Residential (30%), Commercial (14%), Industrial (10%), and Vacant/Undeveloped (6%). Institutional, Agricultural, and Water uses each comprise less than 5% of existing land uses adjacent to the SR 25/ US 17 corridor.

Green space is primarily concentrated along the southern half of the study corridor in Segment 1 through Segment 3, while residential land uses are dispersed throughout the corridor and comprised of both multi- and single-family uses. Commercial land uses are concentrated at major intersections along the corridor, most notably near SR 204/Abercorn Street, Berwick Boulevard, Chatham Parkway, and I-516/SR 21.



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 14 – Existing Land Use Summary Map

SR 25/US 17 CORRIDOR STUDY

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3.3 Origin-Destination Analysis

An origin-destination (O-D) analysis was conducted using Replica's Places dataset to evaluate existing travel patterns for passenger car, truck, and non-motorist trips utilizing the SR 25/US 17 corridor. Replica compiles mobile location data from a sample of the population to develop and calibrate an activity-based travel demand model by region across the United States. This data can be used to estimate aggregate travel patterns by geography on an average weekday or weekend day during a given season between 2019 and 2023. For the current study, data from a typical Thursday in Fall 2019 and Spring 2023 were compiled and compared to evaluate travel patterns before and after the COVID-19 pandemic and construction on I-16 associated with GDOT PI No. 0012748. The study corridor was used as a "middle filter" between origins and destinations to isolate this larger database of trips to those using the SR 25/ US 17 corridor.

The following subsections summarize the results of the daily and peak hour O-D analyses conducted for passenger car, truck, and bicycle/pedestrian modes for a typical Thursday in Fall 2019 and Spring 2023. The comparisons drawn here are used to define existing O-D patterns on the SR 25/US 17 corridor, determine the potential influence of the COVID-19 pandemic, evaluate regional use of the corridor for trips that start or end outside of Chatham County, and assess the impact of GDOT PI No. 0012748 on the usage of alternate routes to I-16 and I-95 such as SR 25/US 17. The results of these analyses will be considered in developing future volume projections and project recommendations.

3.3.1 Existing O-D Patterns

Existing O-D patterns were analyzed by mode and with consideration to local development and the construction at the I-95 at I-16 interchange. Based on data from Replica's Places dataset, trips passing through the corridor have grown by approximately 11% between 2019 and 2023, or at an average rate of 2.5% annually. For comparison purposes, GDOT historic growth rates have averaged 2.5% and 2.1% annually over the previous five- and 10-year periods, respectively. Passenger car, truck, and non-motorist trip trends are described further in the following subsections.

Passenger Cars

Figure 15 provides a geographic summary of passenger car O-D patterns for a typical weekday during the Fall 2019 and Spring 2023 seasons. As shown in **Figure 15**, passenger car trips passing through the study corridor primarily start or end in immediately adjacent Census Block Groups. This finding is intuitive, as trip duration statistics from Replica indicate that approximately 40% of all existing passenger car trips utilizing the SR 25/US 17 corridor are 20 minutes or less in length. With respect to adjacent routes, most passenger car trips passing through the SR 25/US 17 corridor originate on or are destined for other high-volume arterials and collectors. Among these adjacent corridors, those comprising the highest proportion of all trips passing through the SR 25/US 17 corridor on an average weekday in Spring 2023 include SR 204/Abercorn Street (25%), I-516/SR 21 (18%), and SR 25/US 17 outside of the study area (19%). Comparing 2019 and 2023 data, an increasing share of the corridor's trips are represented by the Census Tracts near SR 204/Abercorn Street and to the south towards Bryan County.

Trucks

Figure 16 provides a geographic summary of truck O-D patterns for a typical weekday during the Fall 2019 and Spring 2023 seasons. As shown in **Figure 16**, most of the truck trips utilizing SR 25/US 17 start or end within the immediately adjacent commercial and industrial areas at the north end of the

corridor, with additional areas of concentration near Rockingham Farms along Veterans Parkway and warehousing uses near the interchange of I-16 with SR 307/Dean Forest Road. With respect to adjacent routes, those most represented among the trips passing through the SR 25/US 17 corridor on an average weekday in Spring 2023 include I-516/SR 21 (17%), SR 307/Dean Forest Road (12%), Chatham Parkway (10%), and SR 25/US 17 outside of the study area (10%). Comparing 2019 and 2023 data, the proportion of truck trips utilizing the SR 25 corridor has generally decreased and shifted towards Census Tracts closer to the corridor's centerline.

Non-Motorists

Figure 17 provides a geographic summary of pedestrian and bicyclist O-D patterns for a typical weekday during the Fall 2019 and Spring 2023 seasons. As shown in **Figure 17**, approximately 30% of all non-motorized travel occurring within the study area was observed within the Census Tracts immediately adjacent to SR 25/US 17 to the south of SR 204/Abercorn Street. These tracts include large residential areas along Fords Pointe Circle/Bradley Boulevard and Canebrake Road as well as the Southwest Elementary School and Southwest Middle School campuses. Elsewhere along the corridor, observed pedestrian and bicyclist activity was minimal and commensurate with the limited existing infrastructure provided for non-motorists.

Across modes, trends from 2019 to 2023 are in line with observed growth on the south end of the corridor and indicate that GDOT PI No. 0012748 has not significantly impacted travel patterns on SR 25/US 17.

Peak Hour Travel Patterns

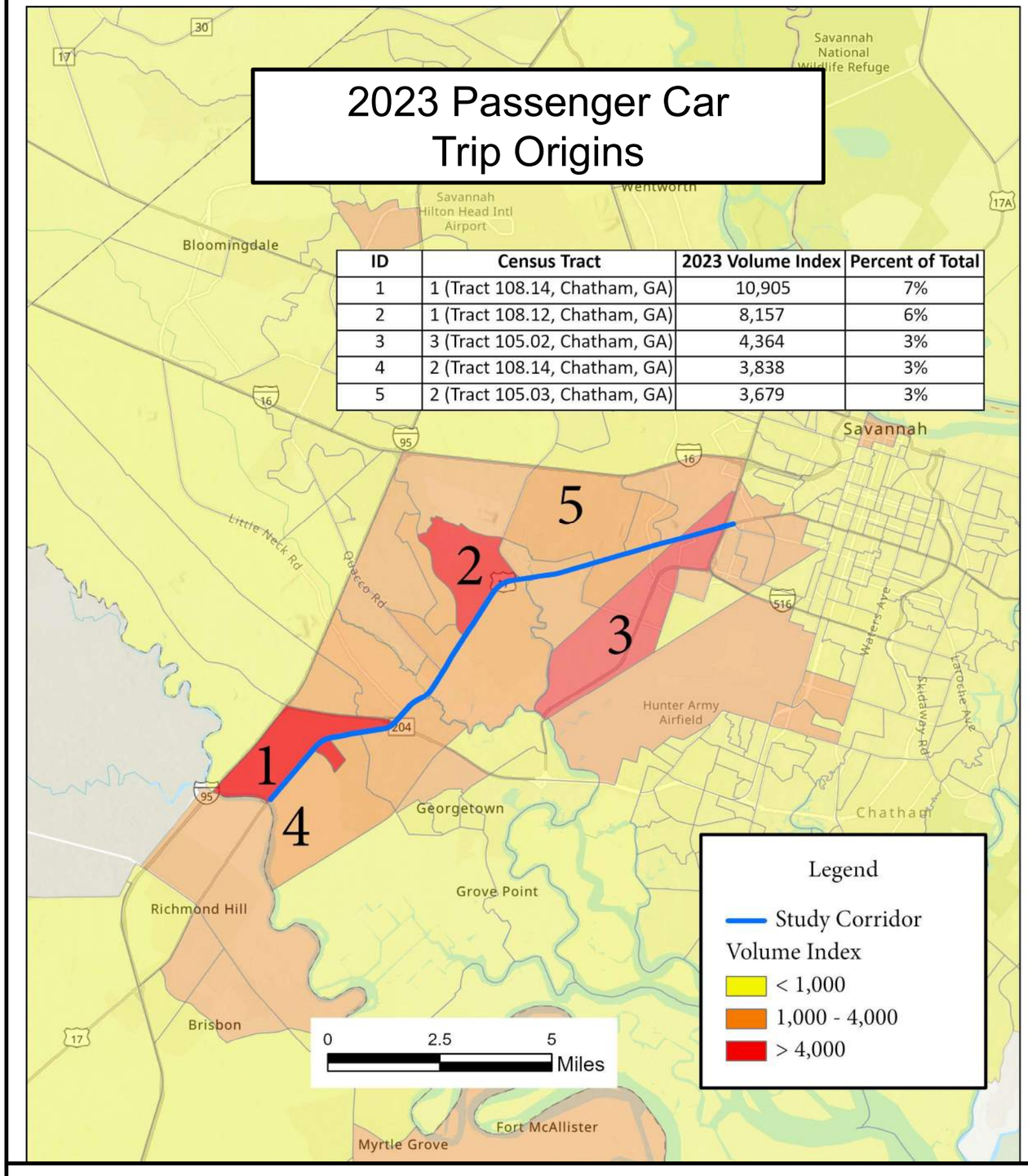
Figure 18 and **Figure 19** provide a geographic summary of AM peak hour and PM peak hour O-D patterns for all modes of travel on a typical weekday during the Spring 2023 season. As shown in these figures, the highest number of AM peak-hour origin and destination trips were observed within the Census Tracts immediately adjacent to SR 25/US 17, and most notably, the Census Tract containing Fords Pointe Circle and Canebrake Road south of SR 204/Abercorn Street. In line with field-observed travel patterns, approximately 22% (10,000 of 44,000) of all trips utilizing the SR 25/US 17 corridor during the AM and PM peak hours of travel originated in or were destined for Census Tracts south of SR 204/Abercorn Street. Among these trips, a significant portion originated in or were destined for Census Tracts in Bryan County, as discussed next.

Bryan County Travel Patterns

Figure 20, **Figure 21** and **Figure 22** provide a geographic summary of AM peak hour, PM peak hour, and daily O-D patterns to and from Bryan County for all modes of travel on a typical weekday during the Spring 2023 season. When looking at trips along the SR 25/US 17 corridor that either originate from or are destined to Bryan County, AM peak-hour trip destinations were concentrated at the Census Tract containing Fords Pointe Circle and Canebrake Road south of SR 204/Abercorn Street as well as beyond the northern end of the corridor and into Downtown Savannah. Intuitively, PM peak-hour trip origins were concentrated in similar locations. Among the 22% of peak hour trips noted for Census Tracts south of SR 204/Abercorn Street in the previous section, approximately 25% of these originate in or are destined for Census Tracts in Bryan County.

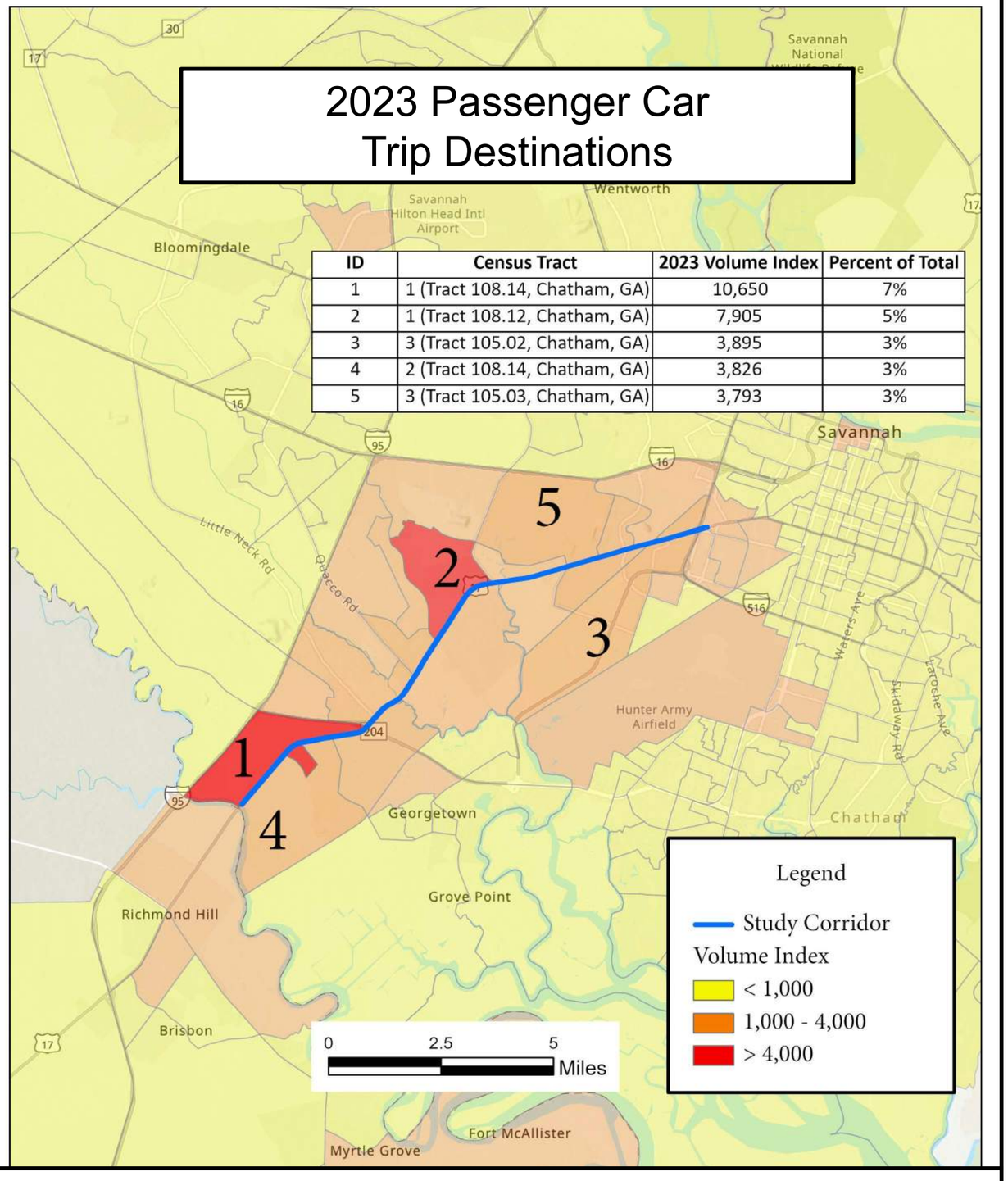
2023 Passenger Car Trip Origins

ID	Census Tract	2023 Volume Index	Percent of Total
1	1 (Tract 108.14, Chatham, GA)	10,905	7%
2	1 (Tract 108.12, Chatham, GA)	8,157	6%
3	3 (Tract 105.02, Chatham, GA)	4,364	3%
4	2 (Tract 108.14, Chatham, GA)	3,838	3%
5	2 (Tract 105.03, Chatham, GA)	3,679	3%



2023 Passenger Car Trip Destinations

ID	Census Tract	2023 Volume Index	Percent of Total
1	1 (Tract 108.14, Chatham, GA)	10,650	7%
2	1 (Tract 108.12, Chatham, GA)	7,905	5%
3	3 (Tract 105.02, Chatham, GA)	3,895	3%
4	2 (Tract 108.14, Chatham, GA)	3,826	3%
5	3 (Tract 105.03, Chatham, GA)	3,793	3%



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 15 – Existing Origin-Destination Patterns – Passenger Cars

SR 25/US 17 CORRIDOR STUDY

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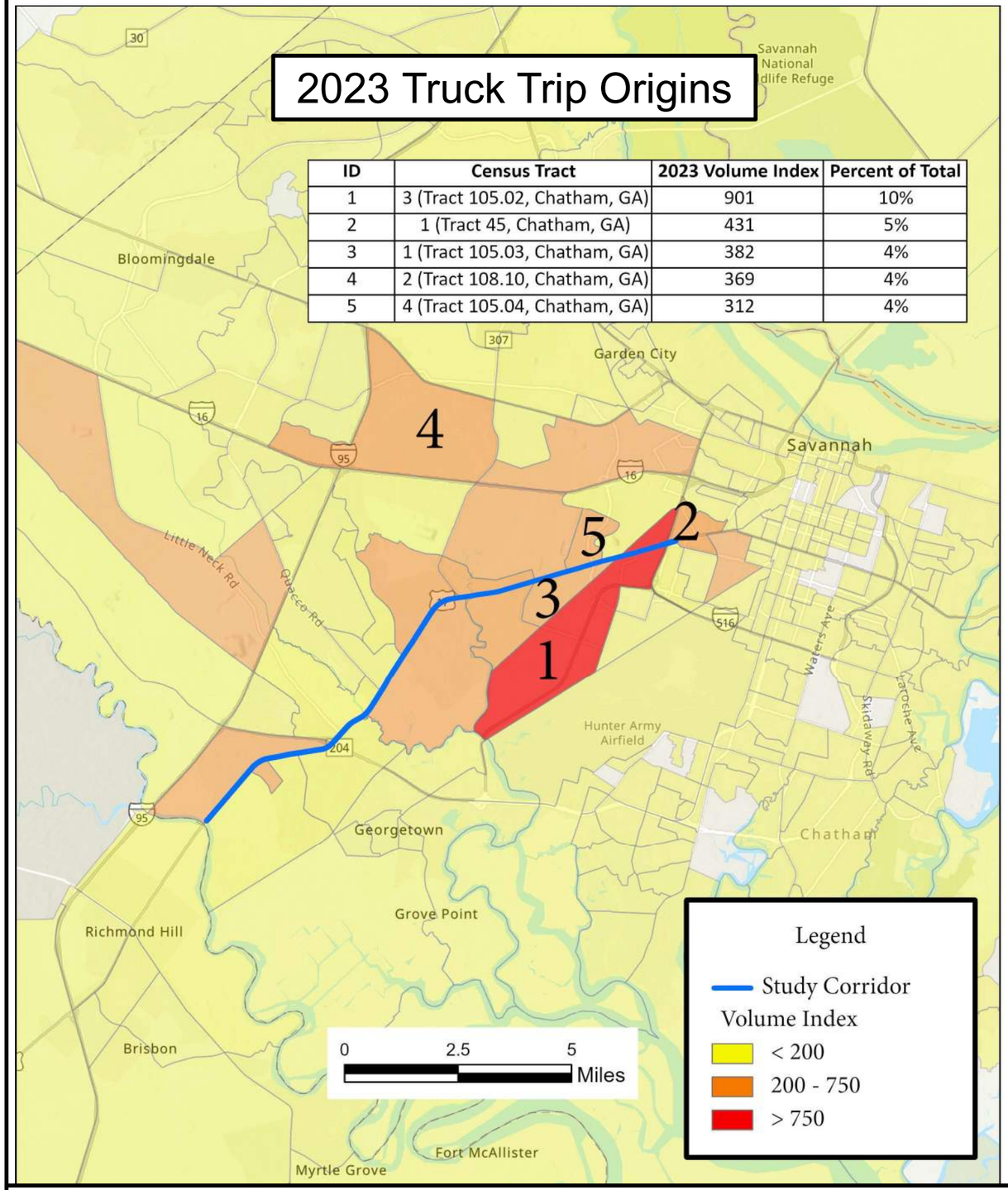
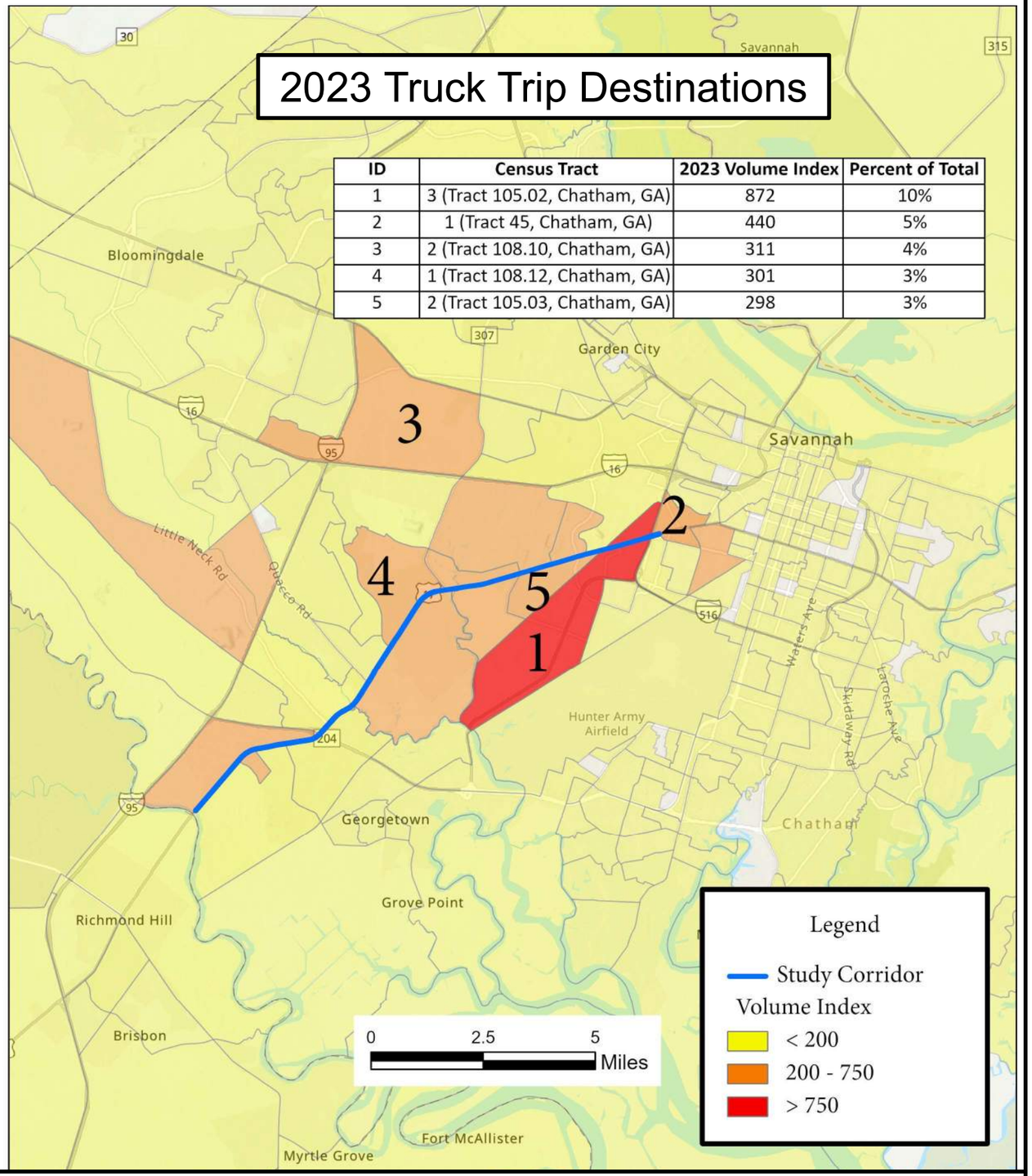
2023 Truck Trip Origins

ID	Census Tract	2023 Volume Index	Percent of Total
1	3 (Tract 105.02, Chatham, GA)	901	10%
2	1 (Tract 45, Chatham, GA)	431	5%
3	1 (Tract 105.03, Chatham, GA)	382	4%
4	2 (Tract 108.10, Chatham, GA)	369	4%
5	4 (Tract 105.04, Chatham, GA)	312	4%



2023 Truck Trip Destinations

ID	Census Tract	2023 Volume Index	Percent of Total
1	3 (Tract 105.02, Chatham, GA)	872	10%
2	1 (Tract 45, Chatham, GA)	440	5%
3	2 (Tract 108.10, Chatham, GA)	311	4%
4	1 (Tract 108.12, Chatham, GA)	301	3%
5	2 (Tract 105.03, Chatham, GA)	298	3%



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

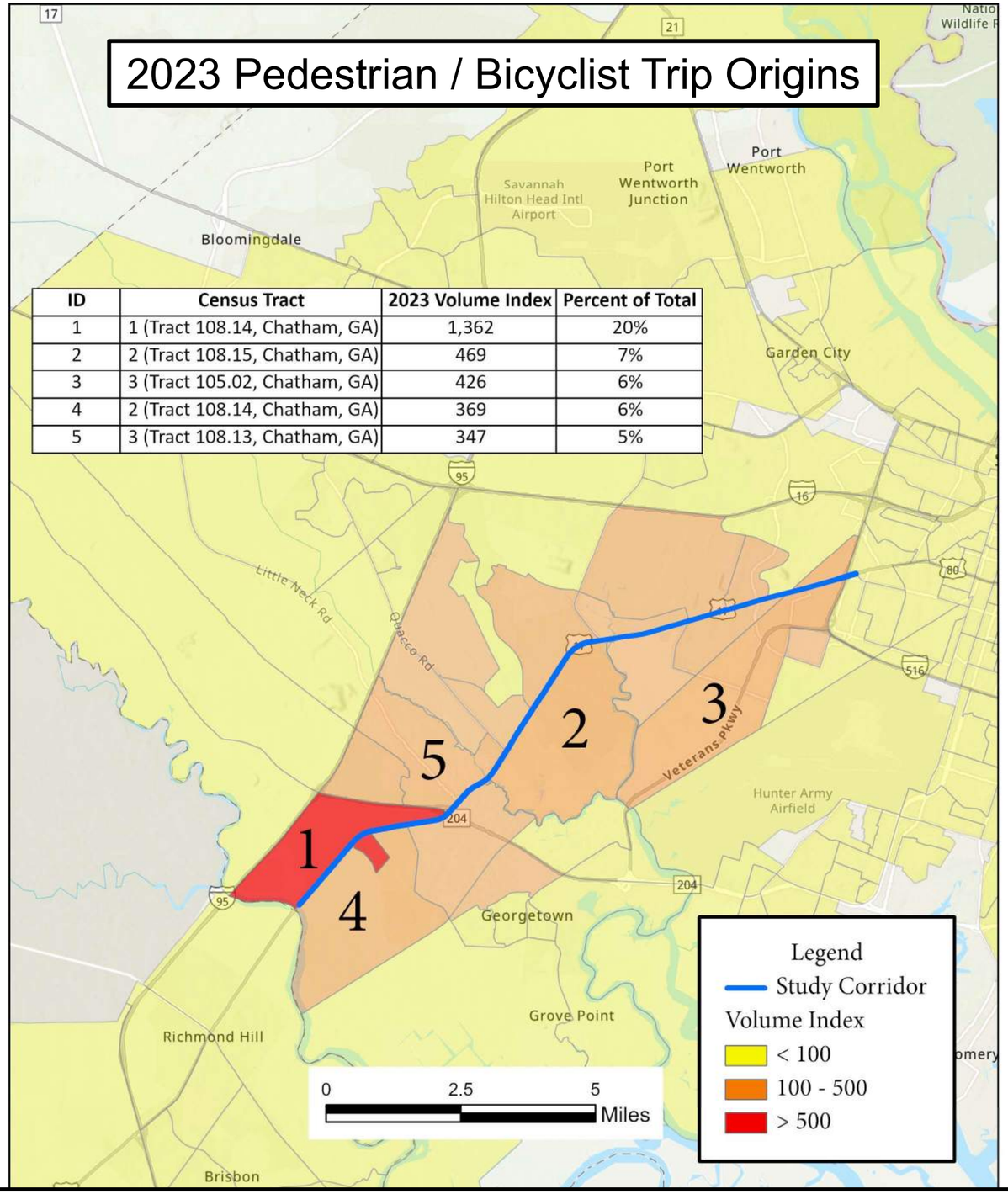
Figure 16 – Existing Origin-Destination Patterns – Trucks

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

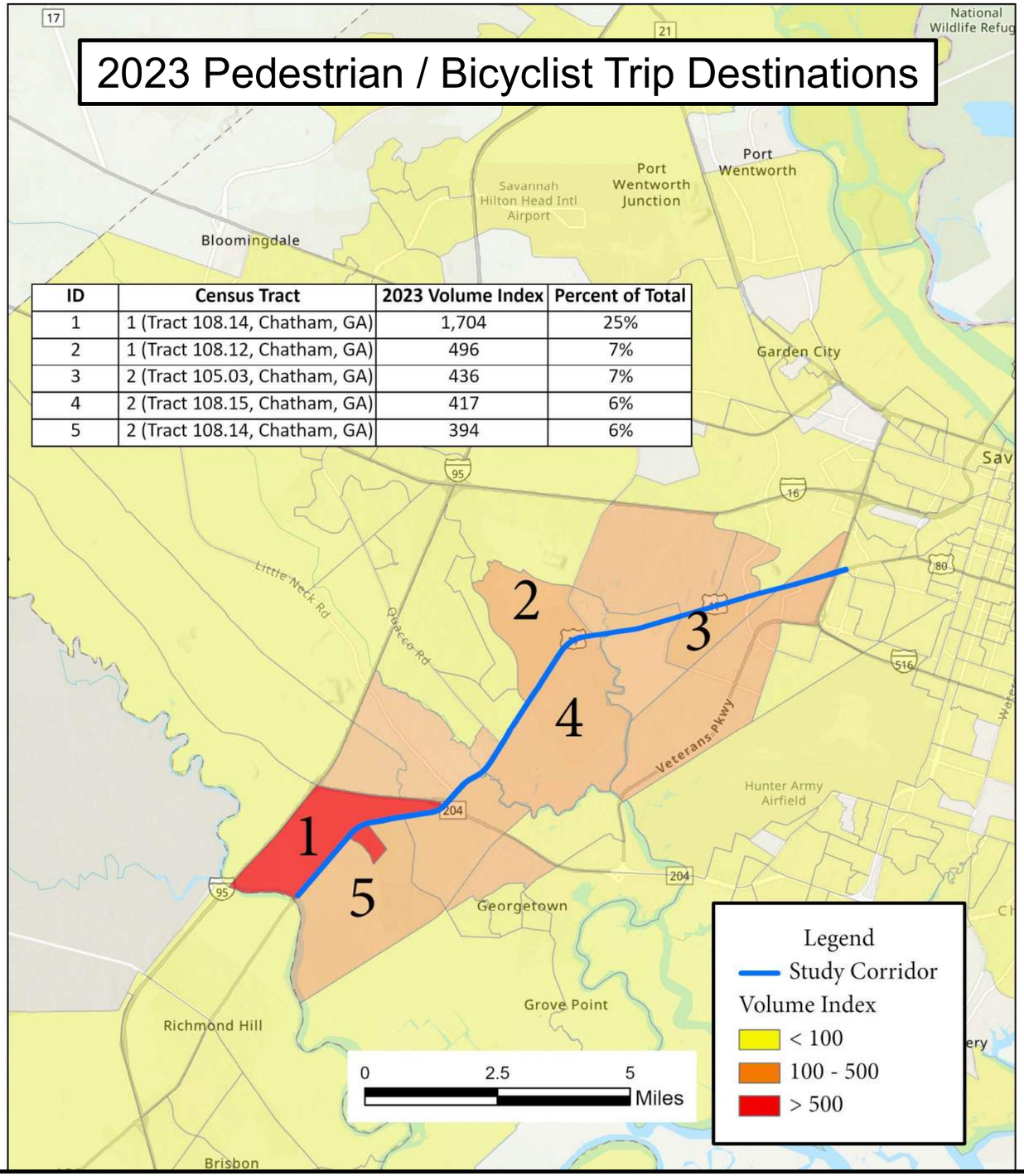
2023 Pedestrian / Bicyclist Trip Origins

ID	Census Tract	2023 Volume Index	Percent of Total
1	1 (Tract 108.14, Chatham, GA)	1,362	20%
2	2 (Tract 108.15, Chatham, GA)	469	7%
3	3 (Tract 105.02, Chatham, GA)	426	6%
4	2 (Tract 108.14, Chatham, GA)	369	6%
5	3 (Tract 108.13, Chatham, GA)	347	5%



2023 Pedestrian / Bicyclist Trip Destinations

ID	Census Tract	2023 Volume Index	Percent of Total
1	1 (Tract 108.14, Chatham, GA)	1,704	25%
2	1 (Tract 108.12, Chatham, GA)	496	7%
3	2 (Tract 105.03, Chatham, GA)	436	7%
4	2 (Tract 108.15, Chatham, GA)	417	6%
5	2 (Tract 108.14, Chatham, GA)	394	6%



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 17 – Existing Origin-Destination Patterns – Non-Motorists

SR 25/US 17 CORRIDOR STUDY

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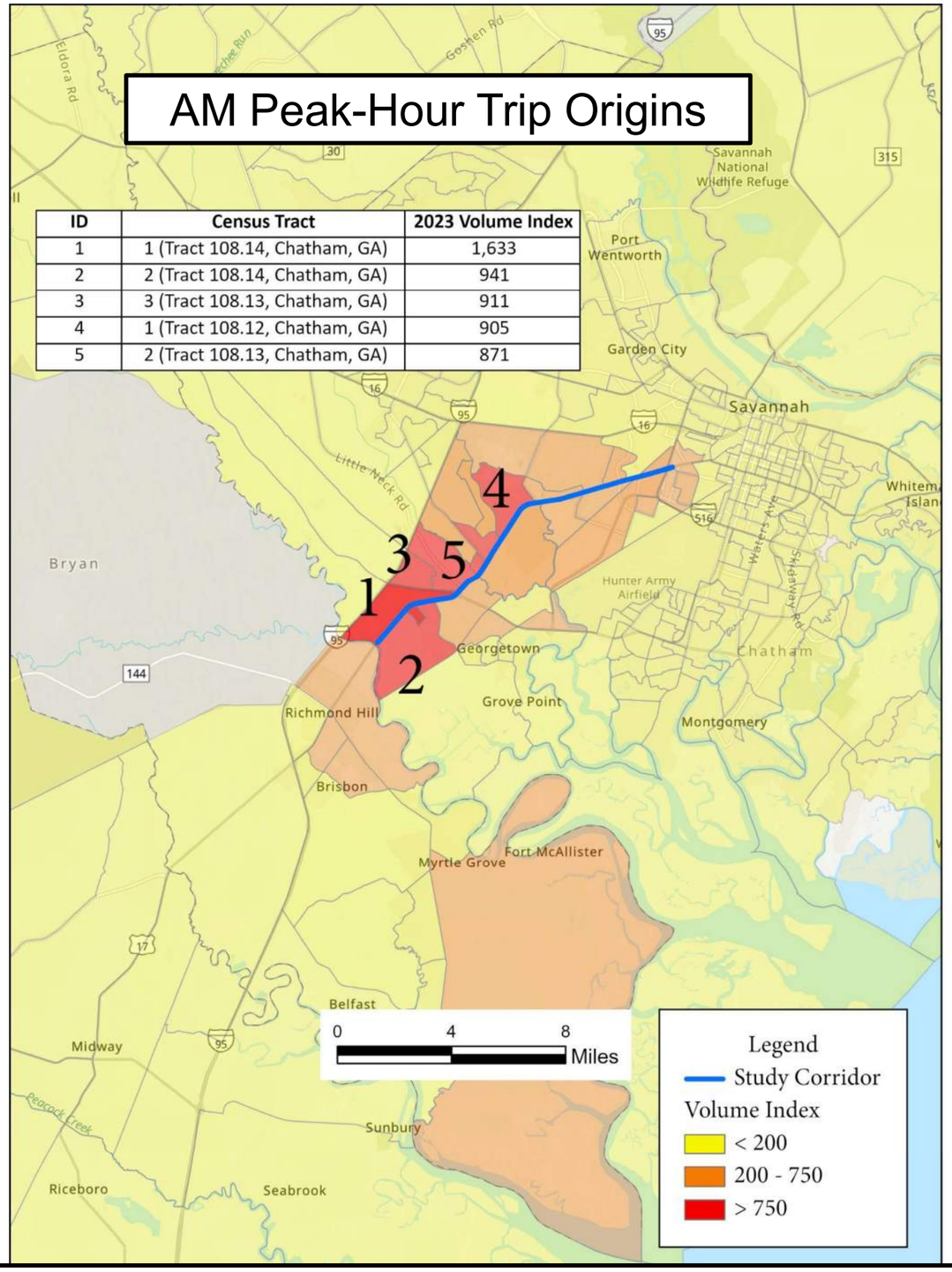
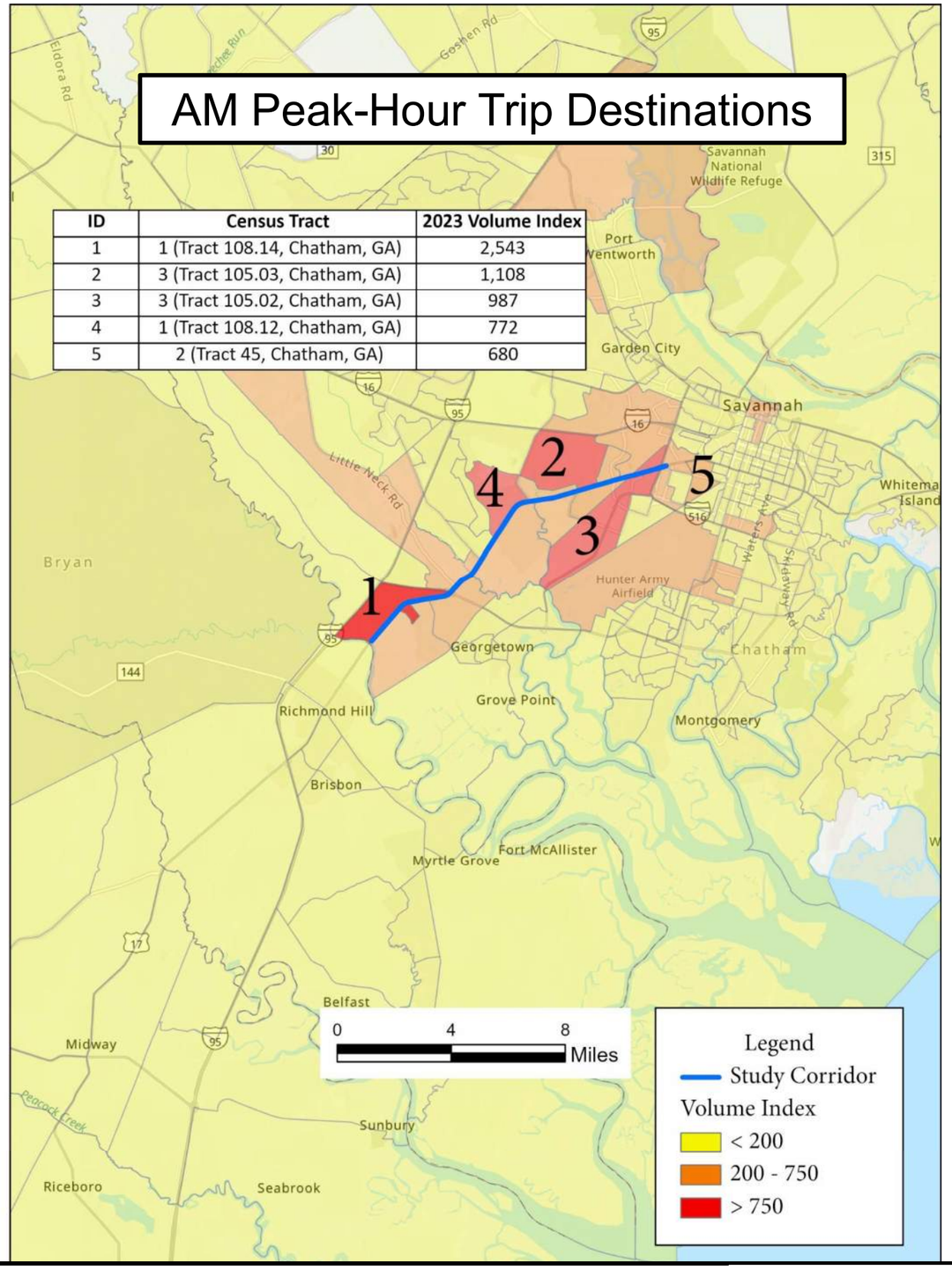
AM Peak-Hour Trip Origins

ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	1,633
2	2 (Tract 108.14, Chatham, GA)	941
3	3 (Tract 108.13, Chatham, GA)	911
4	1 (Tract 108.12, Chatham, GA)	905
5	2 (Tract 108.13, Chatham, GA)	871



AM Peak-Hour Trip Destinations

ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	2,543
2	3 (Tract 105.03, Chatham, GA)	1,108
3	3 (Tract 105.02, Chatham, GA)	987
4	1 (Tract 108.12, Chatham, GA)	772
5	2 (Tract 45, Chatham, GA)	680



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

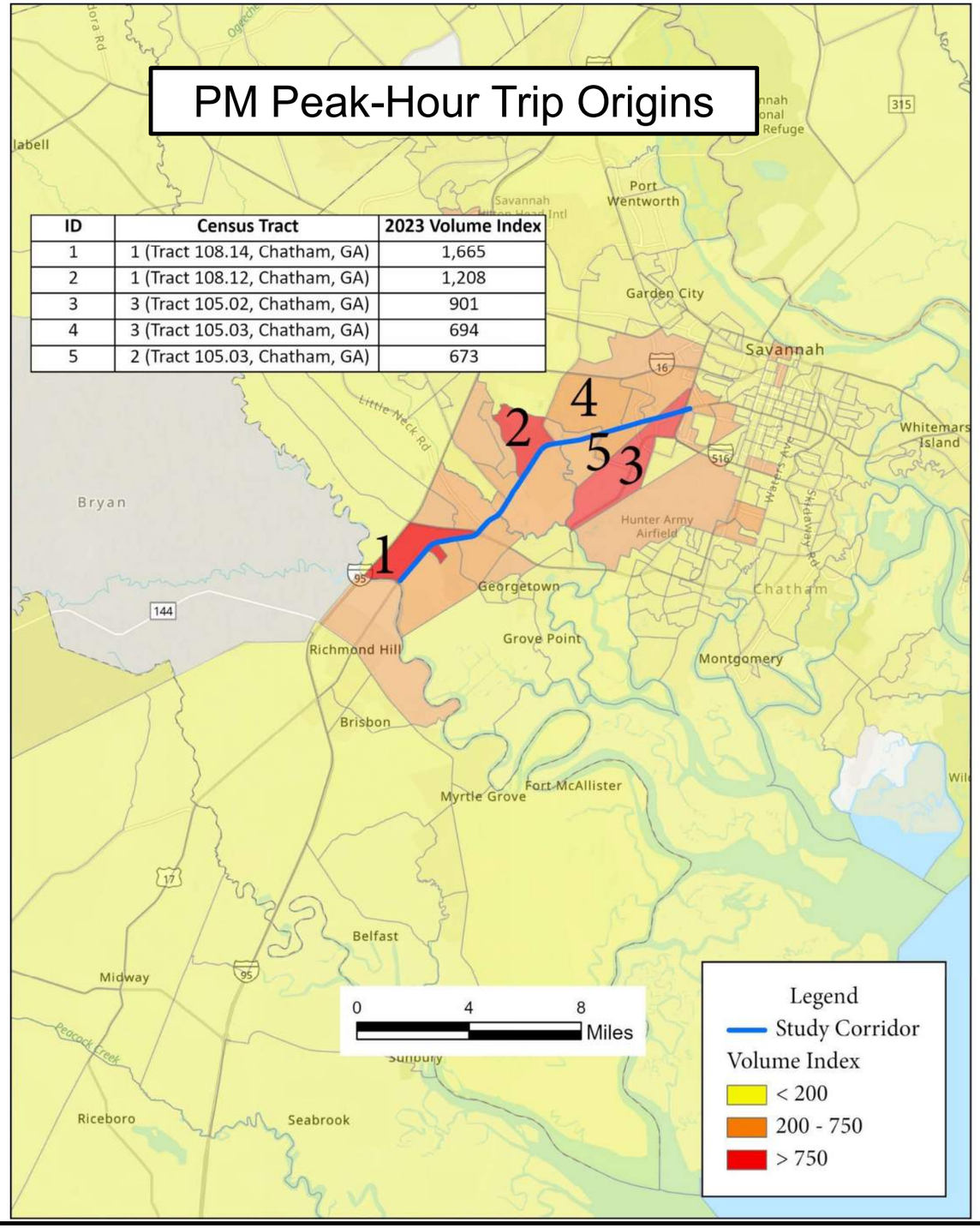
Figure 18 – Existing Origin-Destination Patterns – All Modes AM Peak Hour

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

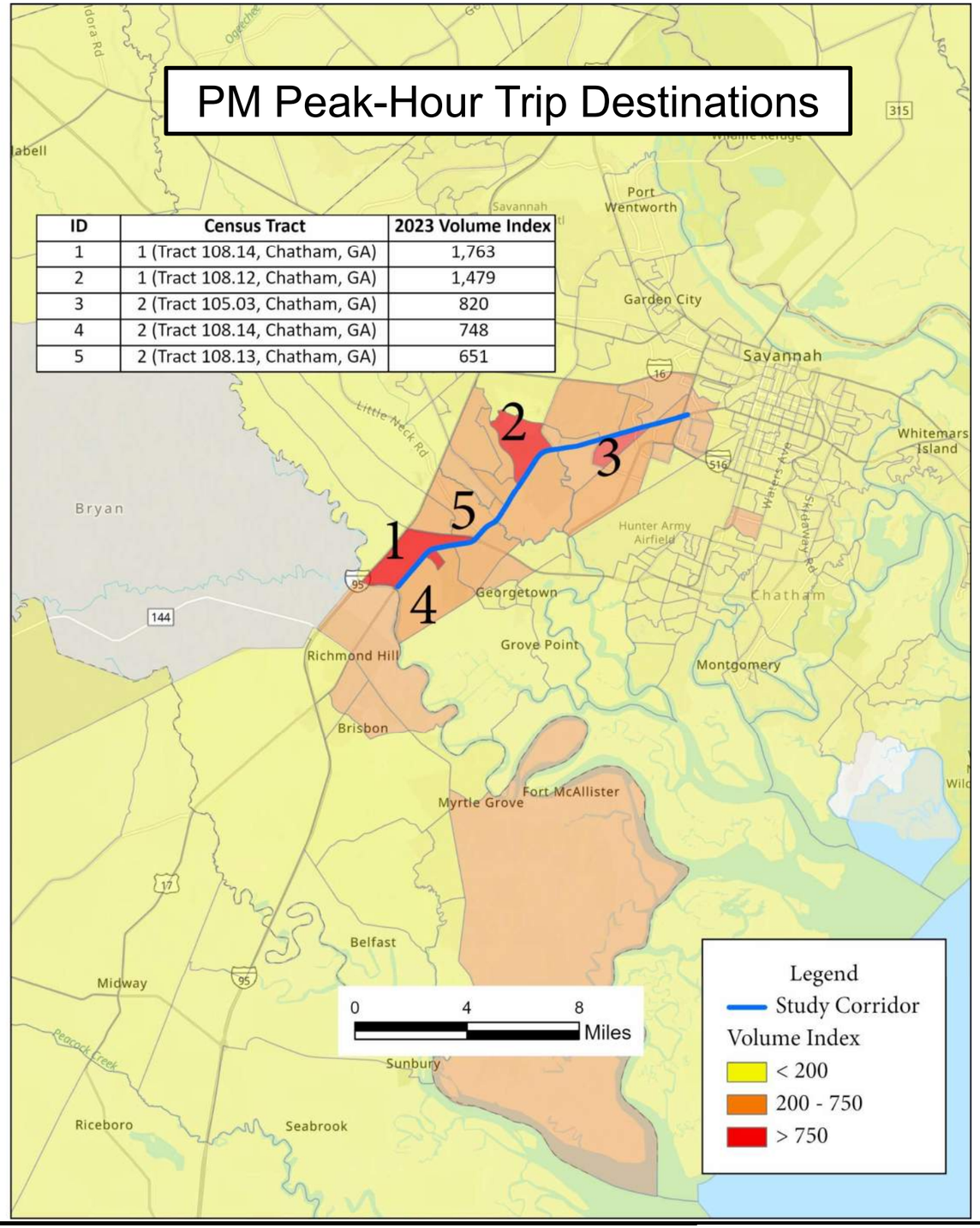
PM Peak-Hour Trip Origins

ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	1,665
2	1 (Tract 108.12, Chatham, GA)	1,208
3	3 (Tract 105.02, Chatham, GA)	901
4	3 (Tract 105.03, Chatham, GA)	694
5	2 (Tract 105.03, Chatham, GA)	673



PM Peak-Hour Trip Destinations

ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	1,763
2	1 (Tract 108.12, Chatham, GA)	1,479
3	2 (Tract 105.03, Chatham, GA)	820
4	2 (Tract 108.14, Chatham, GA)	748
5	2 (Tract 108.13, Chatham, GA)	651



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 19 – Existing Origin-Destination Patterns – All Modes PM Peak Hour

SR 25/US 17 CORRIDOR STUDY

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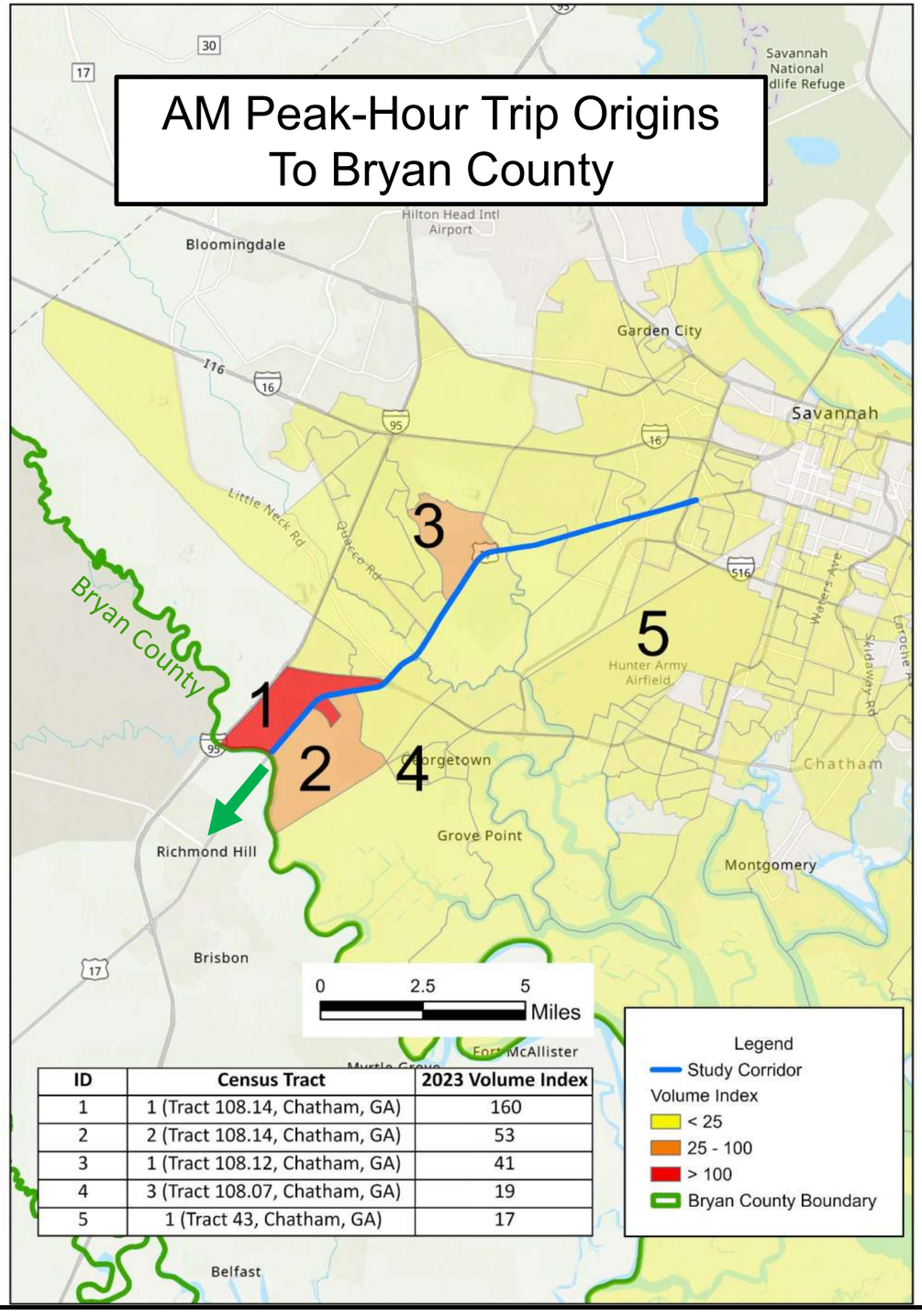
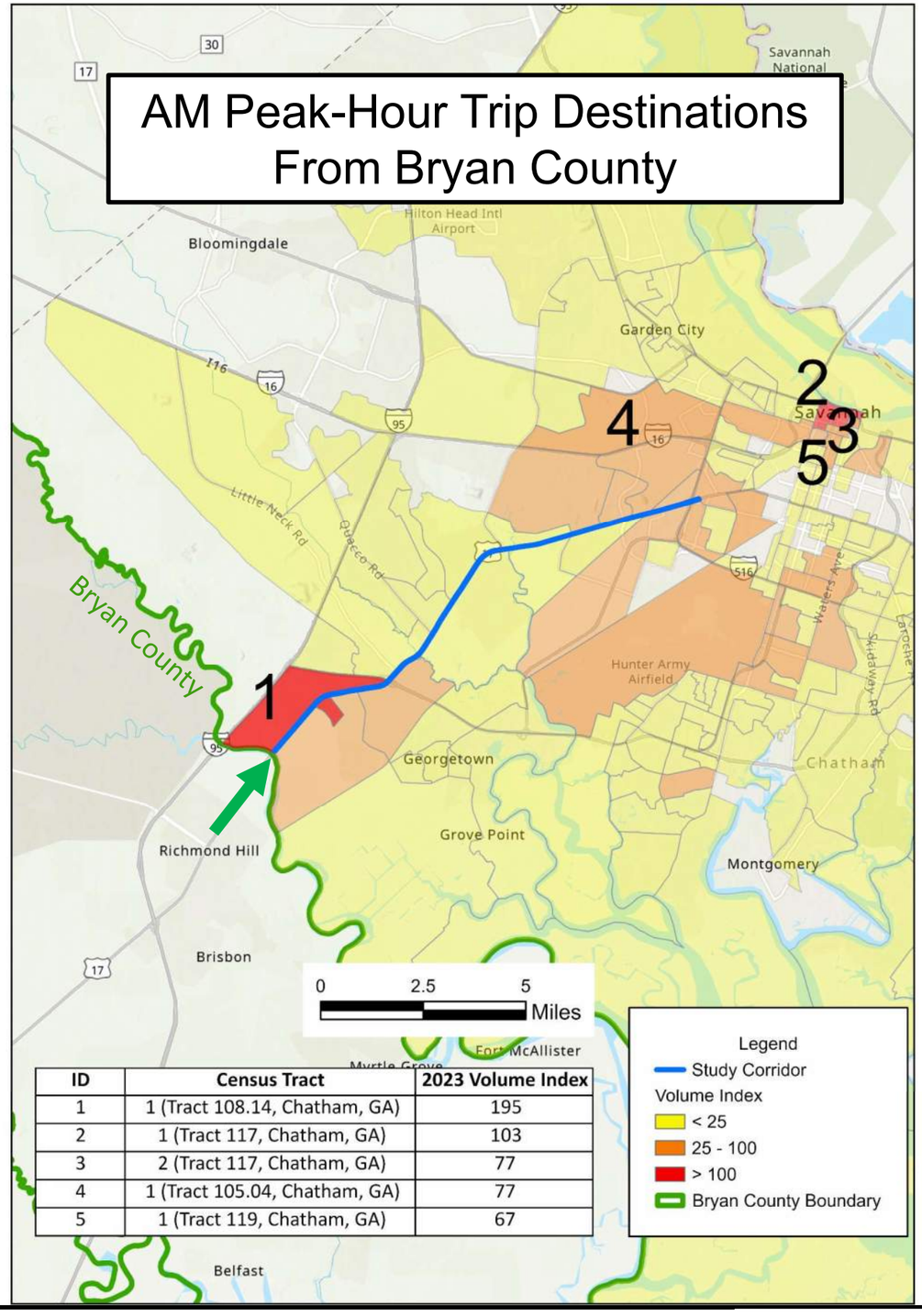
AM Peak-Hour Trip Origins To Bryan County



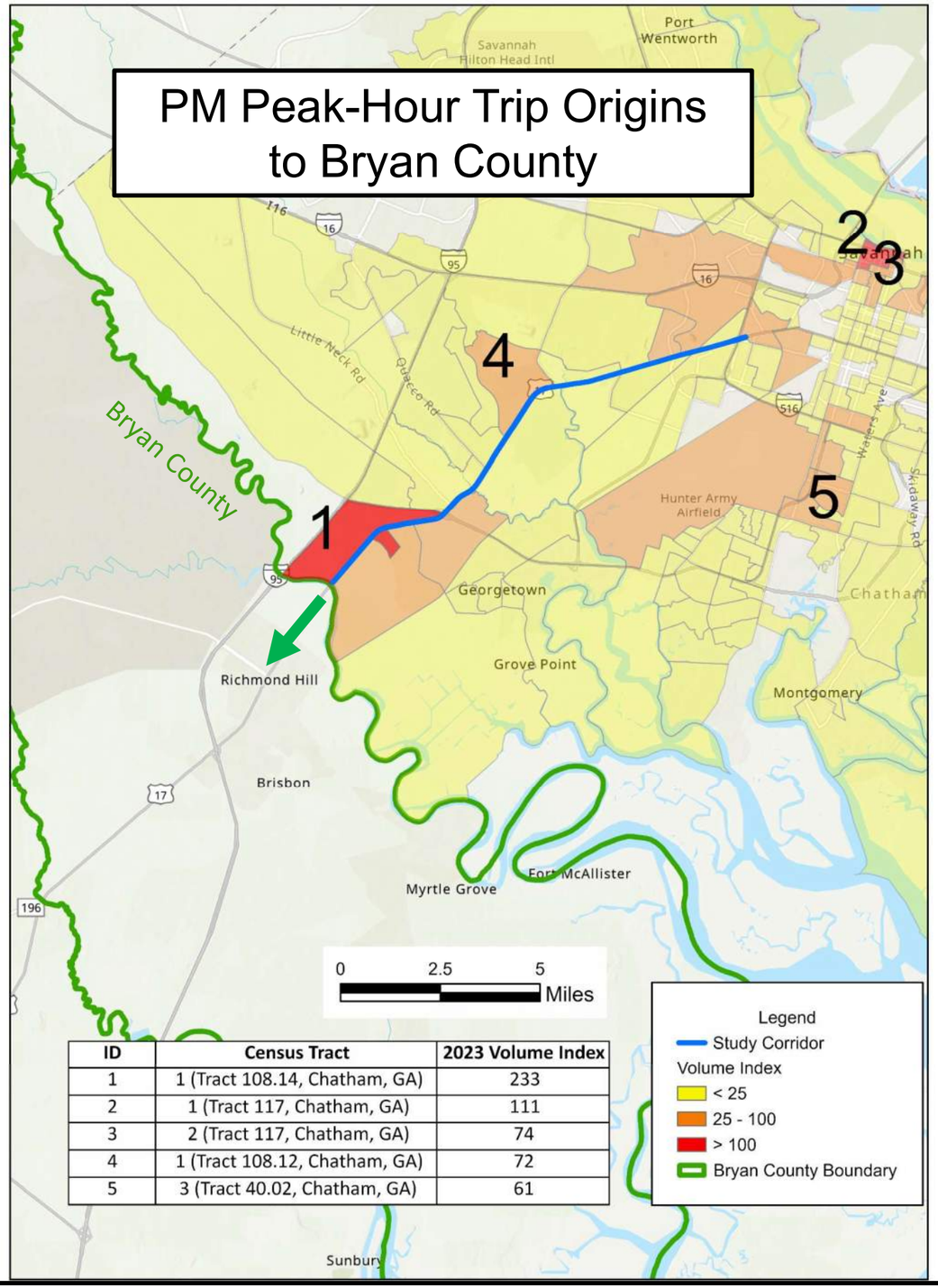
ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	160
2	2 (Tract 108.14, Chatham, GA)	53
3	1 (Tract 108.12, Chatham, GA)	41
4	3 (Tract 108.07, Chatham, GA)	19
5	1 (Tract 43, Chatham, GA)	17

AM Peak-Hour Trip Destinations From Bryan County



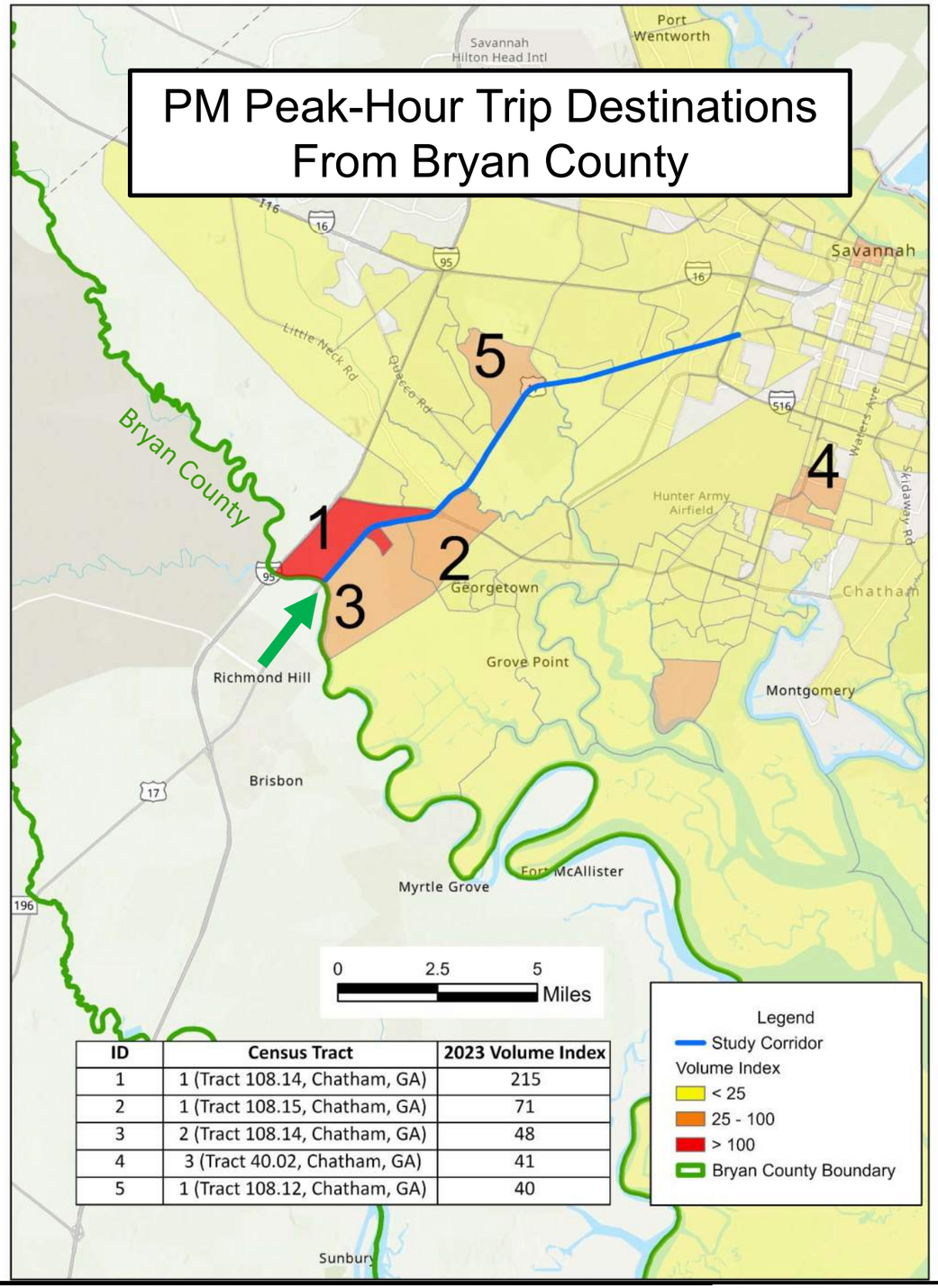
ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	195
2	1 (Tract 117, Chatham, GA)	103
3	2 (Tract 117, Chatham, GA)	77
4	1 (Tract 105.04, Chatham, GA)	77
5	1 (Tract 119, Chatham, GA)	67

PM Peak-Hour Trip Origins to Bryan County



ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	233
2	1 (Tract 117, Chatham, GA)	111
3	2 (Tract 117, Chatham, GA)	74
4	1 (Tract 108.12, Chatham, GA)	72
5	3 (Tract 40.02, Chatham, GA)	61

PM Peak-Hour Trip Destinations From Bryan County



ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	215
2	1 (Tract 108.15, Chatham, GA)	71
3	2 (Tract 108.14, Chatham, GA)	48
4	3 (Tract 40.02, Chatham, GA)	41
5	1 (Tract 108.12, Chatham, GA)	40

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 21 – Existing Origin-Destination Patterns – All Modes PM Peak Hour Bryan County

SR 25/US 17 CORRIDOR STUDY

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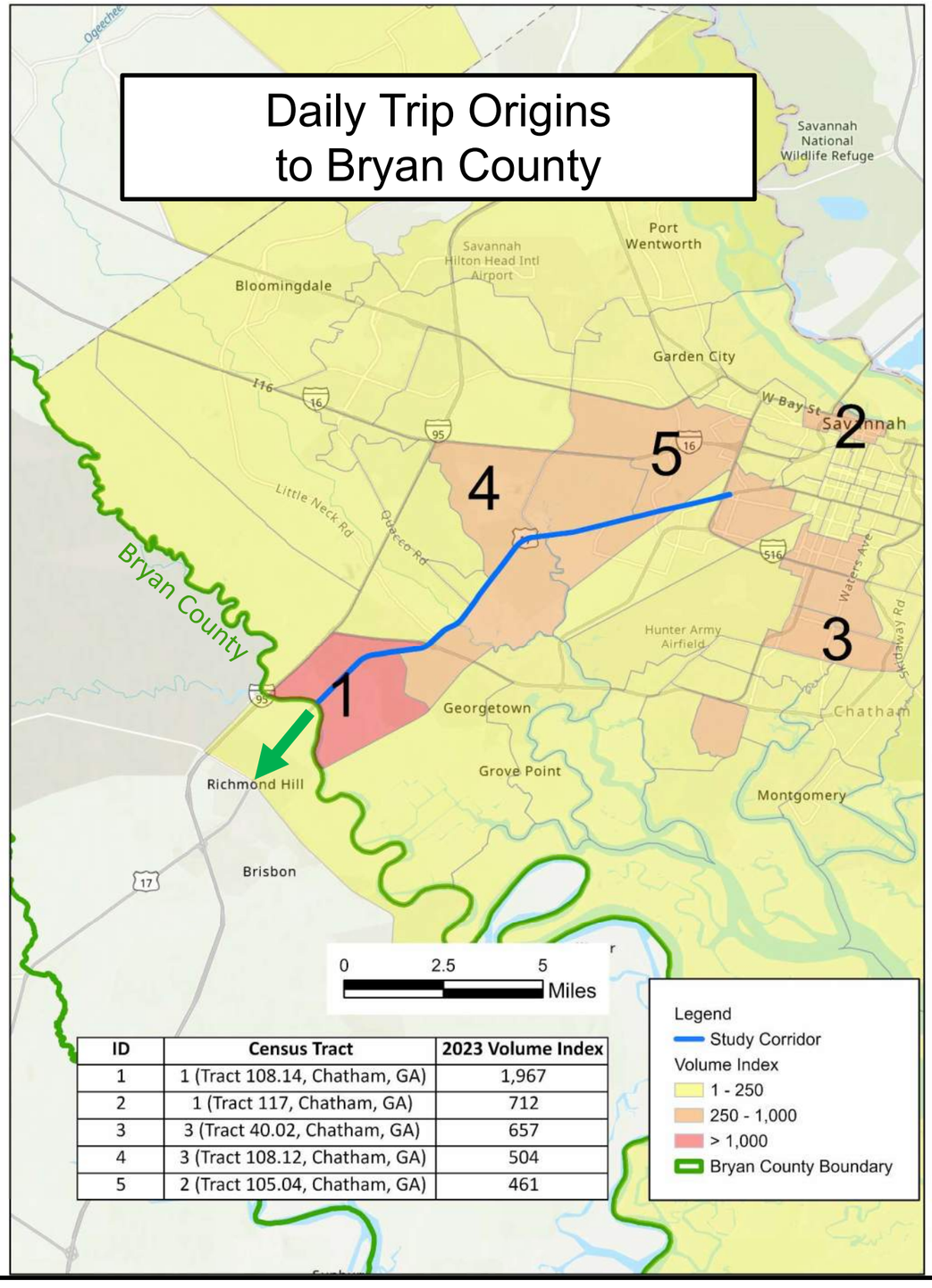
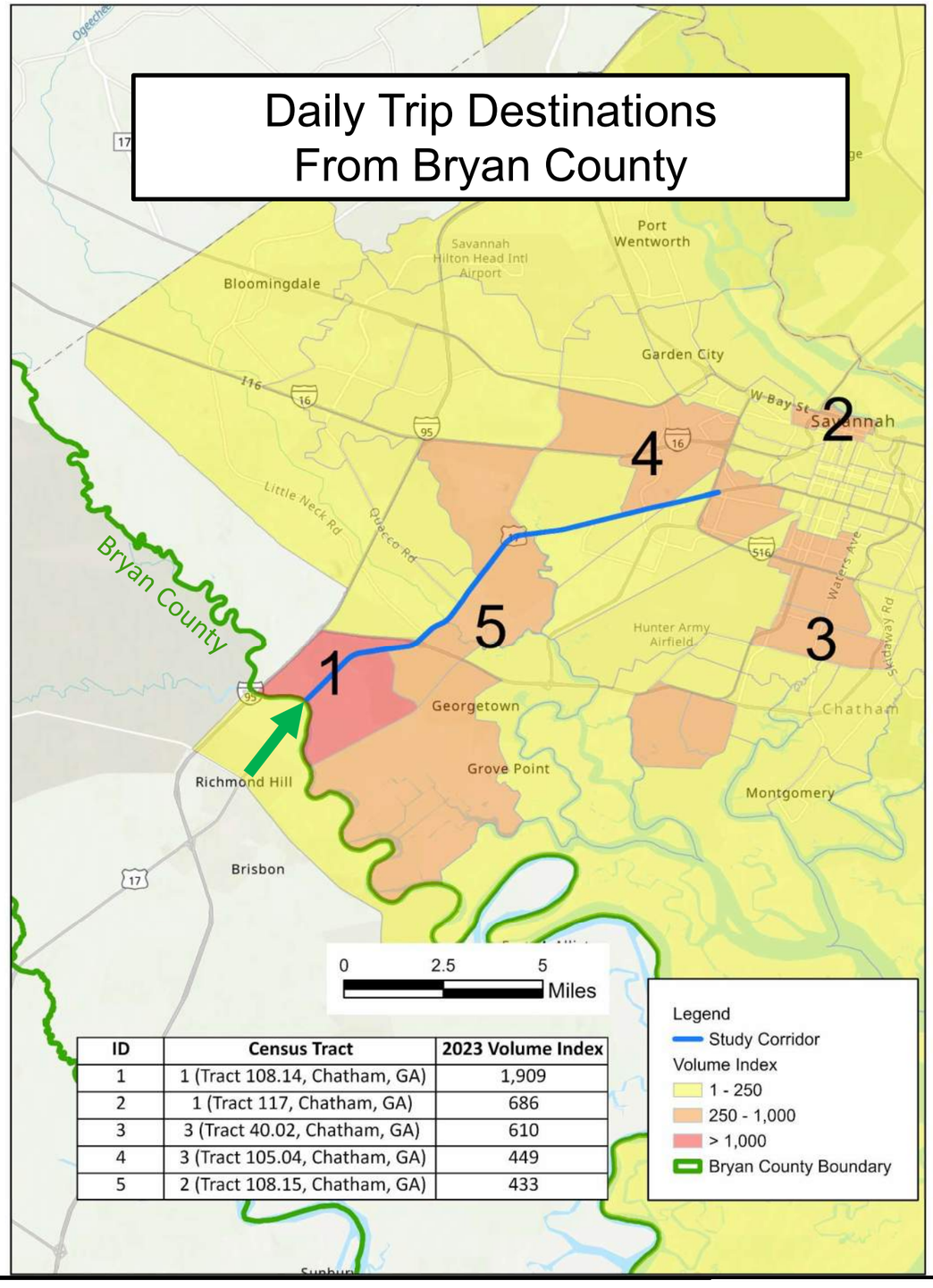
Daily Trip Origins to Bryan County



ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	1,967
2	1 (Tract 117, Chatham, GA)	712
3	3 (Tract 40.02, Chatham, GA)	657
4	3 (Tract 108.12, Chatham, GA)	504
5	2 (Tract 105.04, Chatham, GA)	461

Daily Trip Destinations From Bryan County



ID	Census Tract	2023 Volume Index
1	1 (Tract 108.14, Chatham, GA)	1,909
2	1 (Tract 117, Chatham, GA)	686
3	3 (Tract 40.02, Chatham, GA)	610
4	3 (Tract 105.04, Chatham, GA)	449
5	2 (Tract 108.15, Chatham, GA)	433

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 22 – Existing Origin-Destination Patterns – All Modes Daily Bryan County

SR 25/US 17 CORRIDOR STUDY

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3.3.2 Existing Trip Characteristics

Figure 23 summarizes the primary modes of transportation used through the study area based on data from Replica's Places dataset. Since 2019, freight trips have represented a decreasing proportion of the trips utilizing the SR 25/US 17 corridor and decreased from 11% in 2019 to 5% in 2023. This modal shift may be attributable to increases in residential development immediately adjacent to the study corridor, while industrial growth in Chatham County has been focused in areas outside the study area. Among the passenger car trips observed, approximately 70% consisted of single occupancy vehicle trips. Trips made via cycling, walking, and transit each constitute less than 5% of all trips made on the SR 25/US 17 corridor.

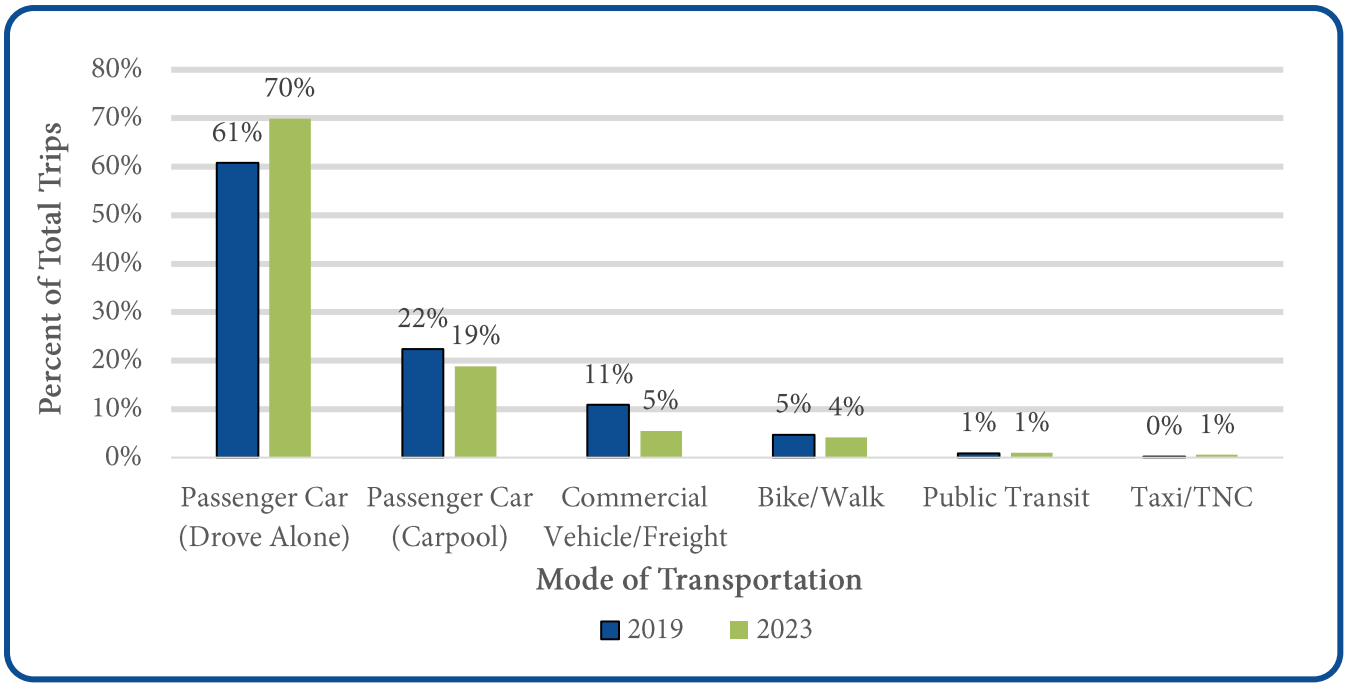


Figure 23: Existing Trip Characteristics – Mode of Transportation

Figure 24 summarizes the trip purposes represented among travel through the SR 25/US 17 corridor. These trip purposes are defined as follows:

- **Home/Work** – Trips that ended at the trip maker's home or place of work, regardless of origin
- **Utilitarian** – Trips that ended at restaurant, retail, or school uses, regardless of origin
- **Commercial** – Trips made by a commercial vehicle or heavy truck
- **Social and Recreation** – Trips made for social or recreational purposes
- **Other** – All other trip purposes

As shown in **Figure 24**, approximately half of all trips made on the SR 25/US 17 corridor are for travel to and from home and work (i.e., commuting), while approximately one-third of all trips have a utilitarian purpose (i.e., pick up/drop off at school, dining, or errands). The SR 25/US 17 corridor is currently used minimally for all other trip purposes. These trends are reflective of the surrounding land use on the corridor, which is predominantly residential with pockets of dense commercial development. As an alternate route to I-95 and I-16, the corridor serves a significant number of commuters to and from downtown Savannah, including those living in Bryan County.

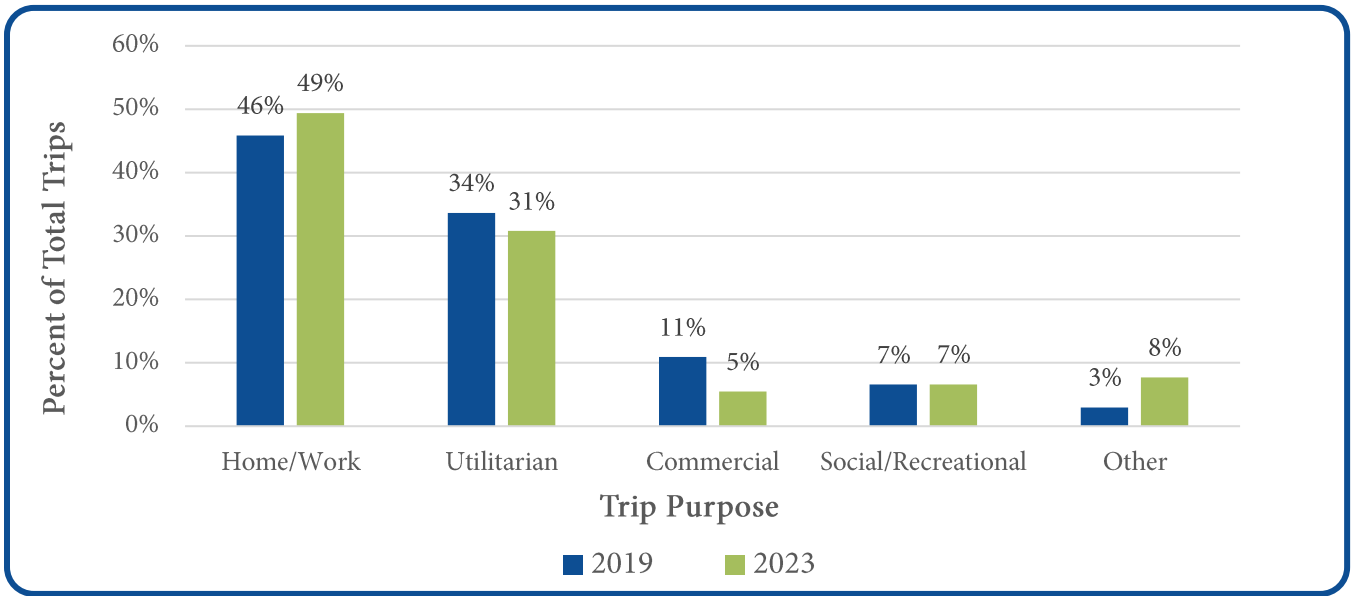


Figure 24: Existing Trip Characteristics – Trip Purpose

Figure 25 shows the time-of-day distribution for trips utilizing the SR 25/US 17 corridor. The trends depicted in **Figure 25** generally mirror those of the collected traffic count data and summarized in **Section 2.1**. For example, a sharp peak is observed during the AM peak period, then followed by a decrease in demand through the middle of the day and an elongated PM peak period between 3:00 PM and 6:00 PM. Comparing 2019 data to 2023 data, peak trip-making periods have generally decreased, and trips made during the evening hours do not substantially decrease until after 8:00 PM. These trends may be attributable to growth along the corridor and shifts in travel behavior following the COVID-19 pandemic.

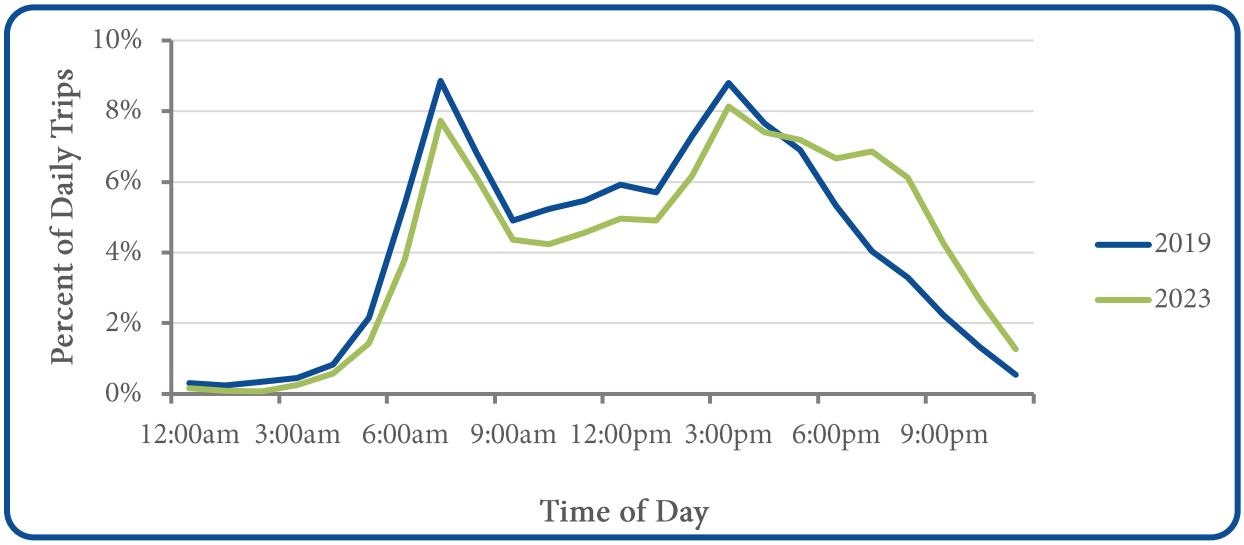


Figure 25: Existing Trip Characteristics – Trips by Time of Day

Figure 26 shows the distribution of the typical duration of trips utilizing the SR 25/US 17 corridor. The majority (43%) of trips occurring in Spring 2023 had a duration between 20 and 40 minutes, while 38% of all trips had a duration less than 20 minutes and 19% had a duration greater than 40 minutes. Comparing 2019 data to 2023 data, trip duration has remained nearly consistent, with a slight uptick in trip durations between 20 and 40 minutes. These trends may be attributable to increases in delay on the

SR 25/US 17 corridor but are also reflective of growth trends in the region; as noted earlier, the SR 25/US 17 corridor is one of two primary north-south routes between the City of Richmond Hill in Bryan County and the City of Savannah. Based on Replica's Places dataset, approximately 20% of all trips occurring on the SR 25/US 17 corridor traversed its entire length from the Ogeechee River to I-516/SR 21, which indicates that such long-distance trips from Bryan County are occurring at a relatively high frequency.

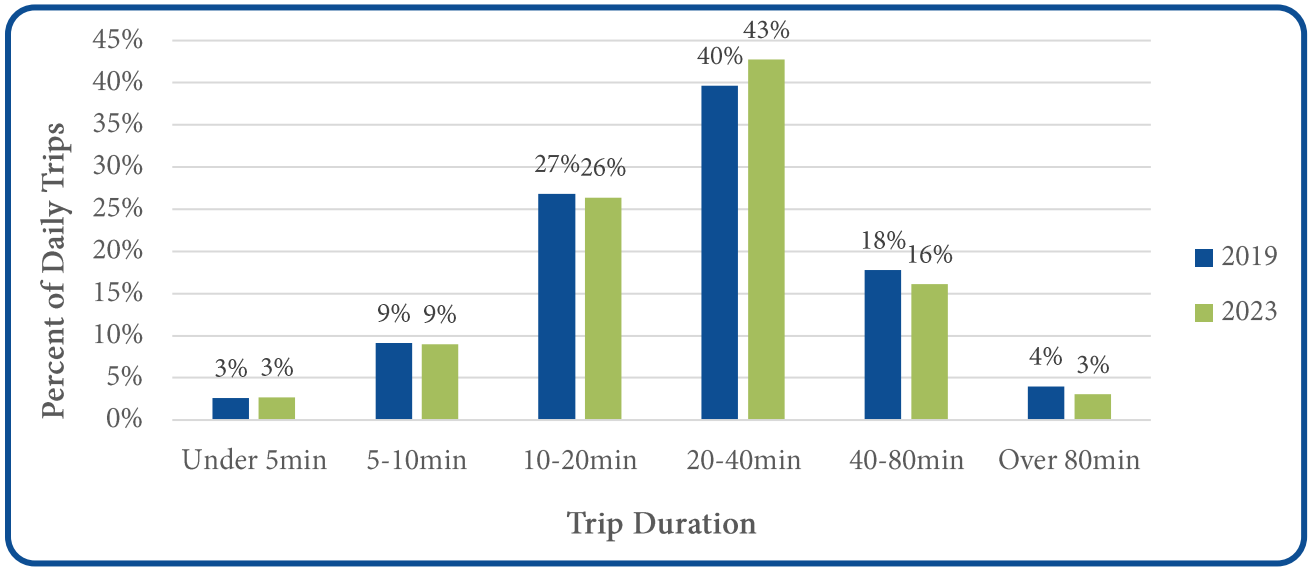


Figure 26: Existing Trip Characteristics – Trip Duration

3.3.3 Origin-Destination Analysis Summary

An origin-destination (O-D) analysis was conducted using Replica's Places dataset to evaluate existing daily travel patterns for passenger car, truck, and non-motorist trips utilizing the SR 25/US 17 corridor, as well as all modes of transportation during the AM peak hour, PM peak hour, and to and from Bryan County. The findings from this analysis indicate the following:

- Passenger car trip-making characteristics are reflective of growth along the southern portion of the SR 25/US 17 corridor and into Bryan County; approximately 30% of all trips that start on, end on, or pass through the SR 25/US 17 corridor begin or end in Census Tracts to the south of SR 204/Abercorn Street, including those in Bryan County.
- Truck trip-making along the SR 25/US 17 corridor has generally decreased in proportion to passenger car trips since 2019; in 2019, approximately 11% of all trips on the study corridor were made by commercial vehicles, while only 5% fit this category in 2023. These trends reflect growth patterns that are largely residential in nature along the SR 25/US 17 corridor.
- Few trips are made by walking, biking, or transit on the SR 25/US 17 corridor; each category constitutes less than 5% of all trips made on the study corridor in Spring 2023. Low usage for these modes of transportation is attributable to the lack of existing facilities, and investment is recommended to serve the latent demand.
- Approximately 25% of peak-hour trips that utilize at least a portion of the SR 25/US 17 corridor originate in or are destined for tracts south of SR 204/Abercorn Street in Chatham and Bryan counties. To help manage growth along the SR 25/US 17 corridor, travel time information could be communicated via dynamic message signs to encourage the use of other corridors.

3.4 Capacity Analysis

The segment characteristics and field observations summarized previously were supplemented with existing traffic data to develop a model of the 10.7-mile-long SR 25/US 17 corridor in Synchro Version 11 software. This model was used to assess existing traffic operations at the intersection- and segment-level throughout the study area based on measures of effectiveness (MOEs) such as speed, travel time, control delay, and queue length. The existing capacity analyses described in this section are critical for establishing a baseline for the evaluation of short- and long-term improvements. Combined with field observations, these analyses provide an estimate of typical traffic conditions throughout the corridor. The following subsections detail the analysis methodology, existing traffic volume development, intersection-level capacity analysis results, segment-level capacity analysis results, and key findings from these efforts.

3.4.1 Analysis Methodology

The evaluations presented throughout the remainder of this section are based on methodologies contained within the *Highway Capacity Manual, 6th Edition* (HCM6), which evaluates the operating characteristics of intersections and segments under given geometric, intersection control, and traffic demand scenarios. Traffic operations are defined by HCM6 in terms of level of service (LOS) grades that range from LOS A to LOS F and are directly related to the average traveler's perception of the operating efficiency of a facility as defined by delay at intersections or travel speed on segments. However, the underlying complexity of traffic flow cannot be fully distilled to a letter grade, nor is achieving LOS A an objective in designing roadways. Rather, roadways are designed such that some decline in LOS is to be expected during the peak periods of travel, and MOEs related to a variety of factors including operations, safety, environment, and cost are considered in right-sizing transportation infrastructure.

Intersection Capacity Analysis

As noted above, intersection-level traffic analyses were performed in Synchro Version 11 software, which applies methodologies prescribed by HCM6. The LOS thresholds published in HCM6 for signalized and unsignalized intersections are presented in **Table 7**.

Table 7: HCM6 LOS Thresholds for Signalized and Unsignalized Intersections

Level of Service	Control Delay (Seconds/Vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

Segment-Level Analysis

Segment-level capacity analysis was performed by applying the Urban Street Facilities methodology provided in Chapter 16 of HCM6 to SimTraffic simulation outputs and field travel time data. The LOS of an urban street facility is defined based on a comparison of Average Travel Speed (ATS) to the Base Free Flow Speed (BFFS) of each segment, where segments are typically delineated by major boundary intersections and changes in corridor context. The ATS is calculated from the segment length, running time (i.e., time to traverse the distance between boundary intersections without considering control delay), and control delay experienced at each boundary intersection. Running time and control delay may be determined through field observations or traffic simulation software such as SimTraffic. The BFFS of a given segment is estimated based on Equation 18-3 and Exhibit 18-11 in HCM6, each of which are calibrated to nationwide data that relates free flow speed to median type, cross-section, access point density, presence of on-street parking, and traffic signal spacing.

The LOS thresholds published in HCM6 for urban street segments are provided in **Table 8**. The LOS for an urban street facility comprised of multiple segments is estimated based on a length-weighted average of the ATS and BFFS of each segment. As noted in the table, and not unlike the conditions described for unsignalized intersections, urban street segments operating at LOS C or better typically exhibit short delays at the boundary intersections and stable conditions overall. At LOS D or LOS E, an urban street segment operates with less stability and may be susceptible to large increases in delay under even slight fluctuations in traffic demand. At LOS F, an urban street segment is operating over capacity which is likely due to bottleneck conditions and long delays experienced at one of its boundary intersections.

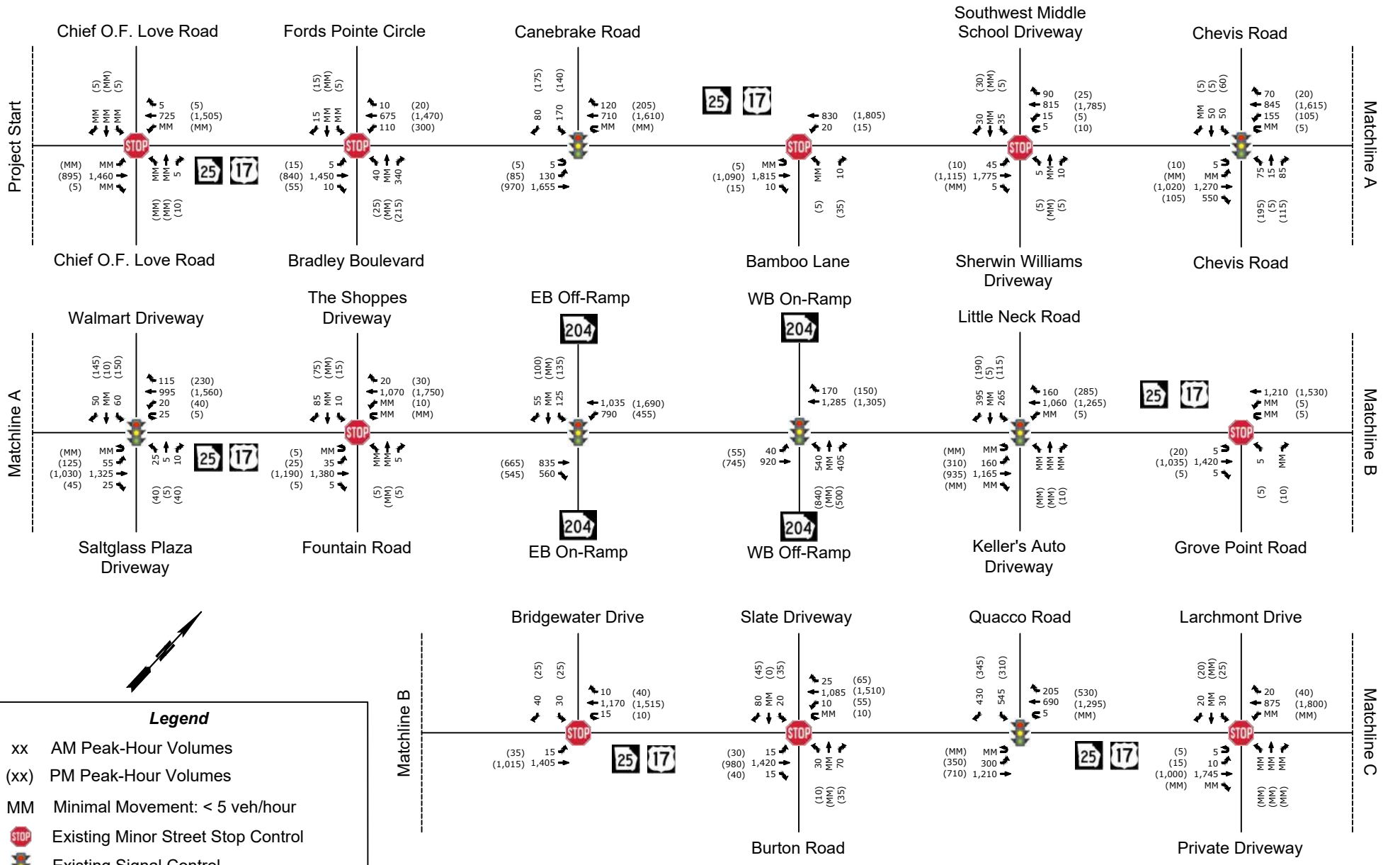
Table 8: HCM6 LOS Thresholds for Urban Street Segments

Level of Service	Average Travel Speed (% of Base Free Flow Speed)	
A	≥ 80%	Stable Flow
B	67% - 80%	
C	50% - 67%	
D	40% - 50%	Unstable Flow
E	30% - 40%	
F	< 30%	Congested Flow

3.4.2 Traffic Volume Development

Existing turning movement counts (TMCs) were collected at 36 of the 40 intersections listed in **Section 3.1** during the AM (6:00 AM to 9:00 AM) and PM (3:30 PM to 6:30 PM) peak periods of travel on Wednesday, January 24, 2024. The TMCs for the remaining four intersections were collected from previous traffic studies completed in 2022 and 2023. In accordance with guidelines set forth in the GDOT *Design Traffic Forecasting Manual*, 48-hour classification counts were also collected at 105 locations on Wednesday, January 24, 2024, and Thursday, January 25, 2024 to facilitate the development of 2024 AADT estimates and establish an understanding of the distribution of traffic volumes and vehicle classes over the course of a typical day.

The overall peak hours for the study corridor were identified by summing all approach volumes along SR 25/US 17 during each rolling hour from 6:00 AM to 6:00 PM. The morning peak hour was determined to occur from 7:15 AM to 8:15 AM, and the evening peak hour was determined to occur from 4:15 PM to 5:15 PM. These periods were analyzed throughout the traffic forecasting process. 2024 Existing Year peak hour traffic volumes used as part of the subject capacity analyses are summarized in **Figure 27**, **Figure 28,** and **Figure 29**, and existing AADT traffic volumes are summarized in **Figure 30**, **Figure 31**, and **Figure 32**.



Legend

xx	AM Peak-Hour Volumes
(xx)	PM Peak-Hour Volumes
MM	Minimal Movement: < 5 veh/hour
STOP	Existing Minor Street Stop Control
	Existing Signal Control

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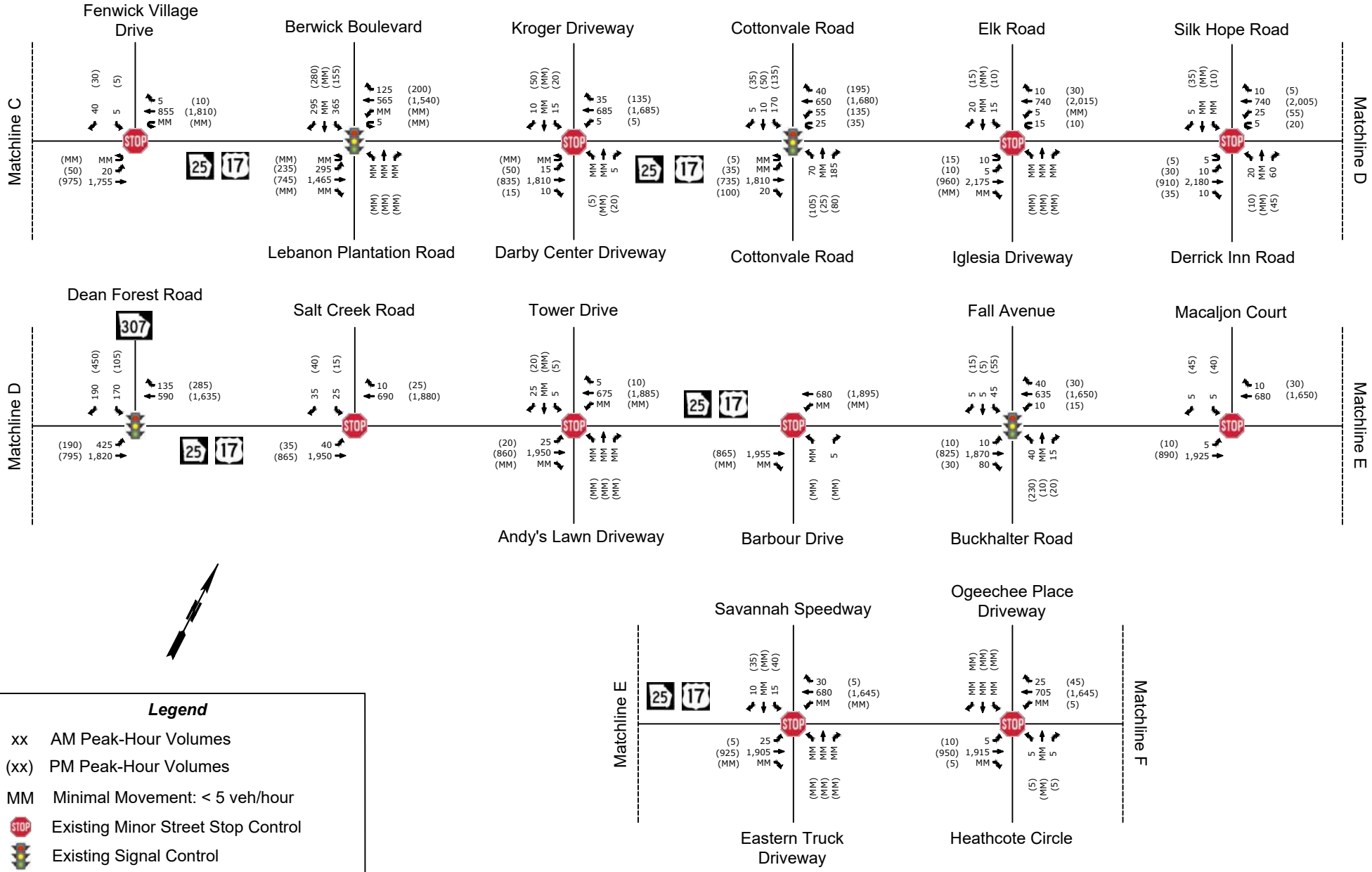
SR 25/US 17 CORRIDOR STUDY

Figure 27 — Existing 2024 Peak Hour Volumes

Intersections 1-16



Legend

xx	AM Peak-Hour Volumes
(xx)	PM Peak-Hour Volumes
MM	Minimal Movement: < 5 veh/hour
STOP	Existing Minor Street Stop Control
	Existing Signal Control

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Figure 28 — Existing 2024 Peak Hour Volumes
Intersections 17-30

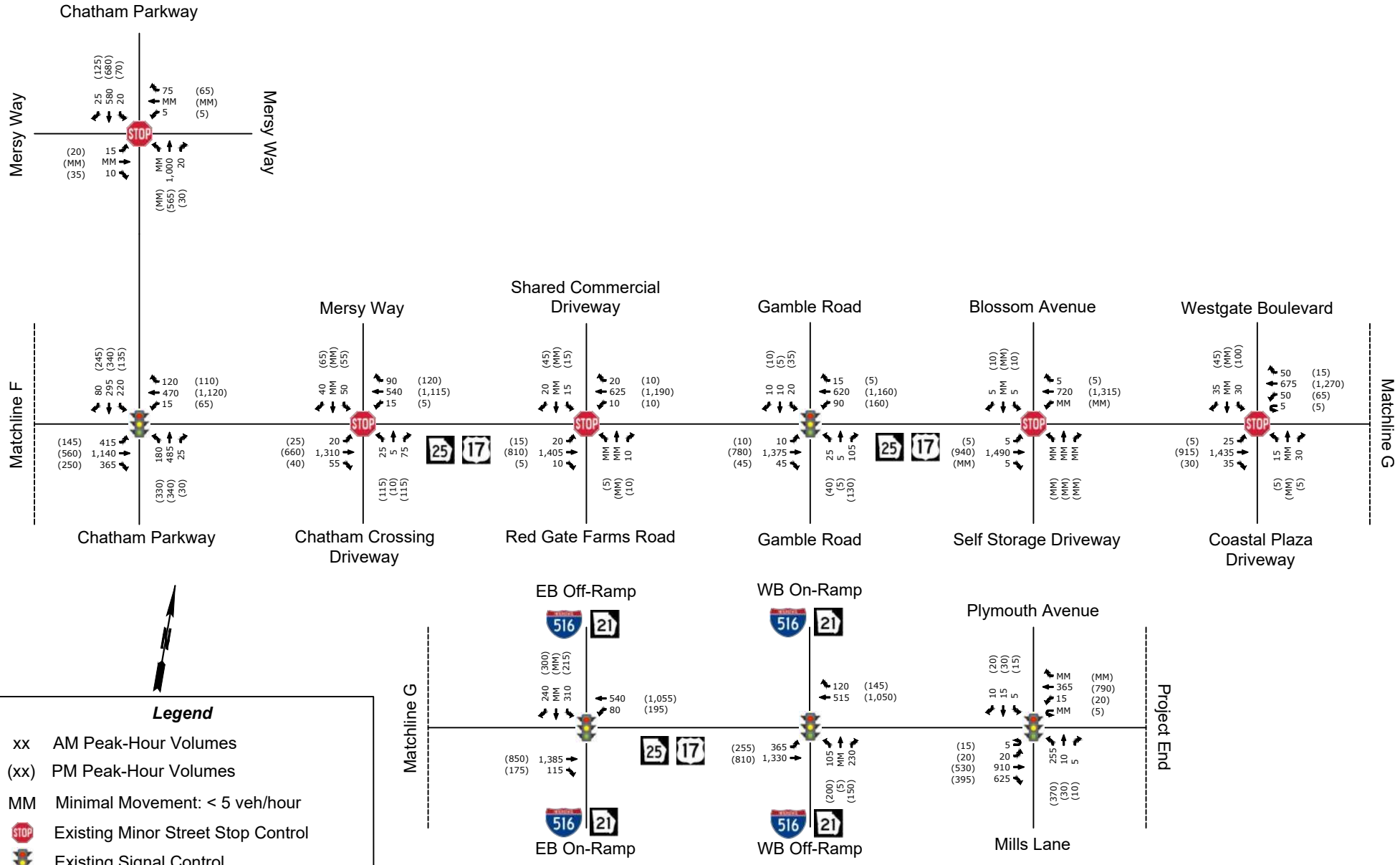

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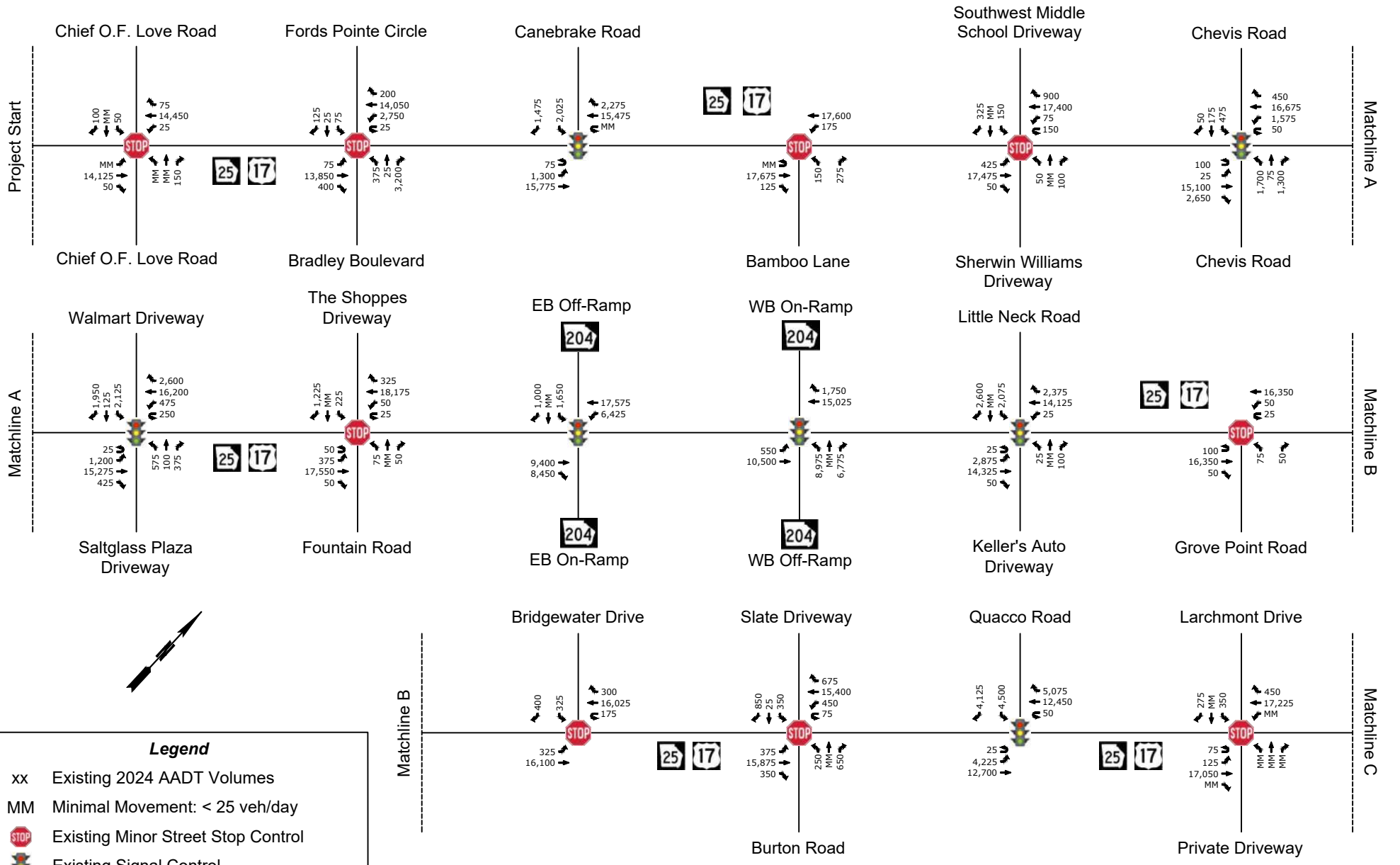
Figure 29 — Existing 2024 Peak Hour Volumes
Intersections 31-40



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SR 25/US 17 CORRIDOR STUDY

Figure 30 — Existing 2024 AADT Volumes
Intersections 1-16

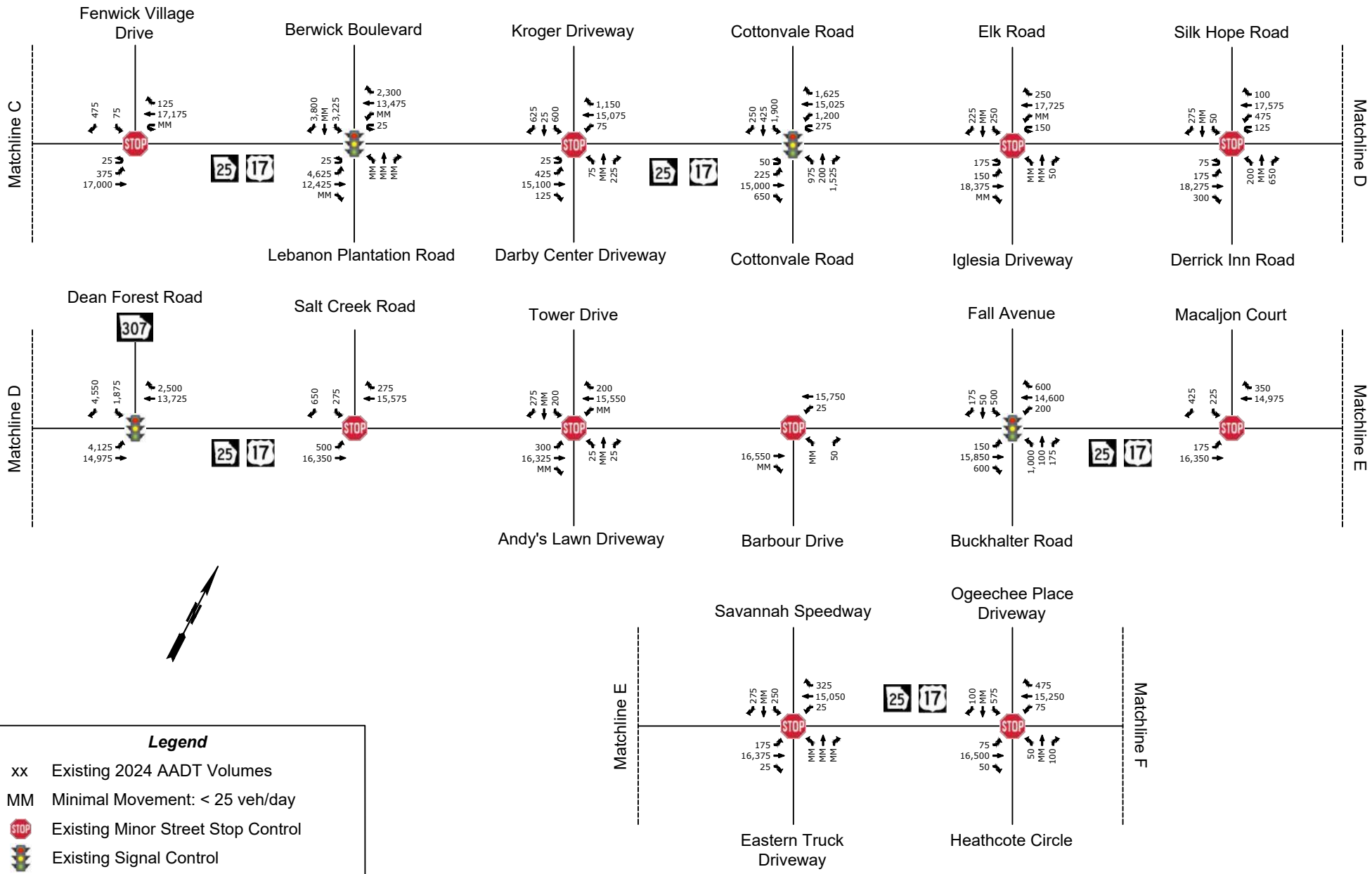
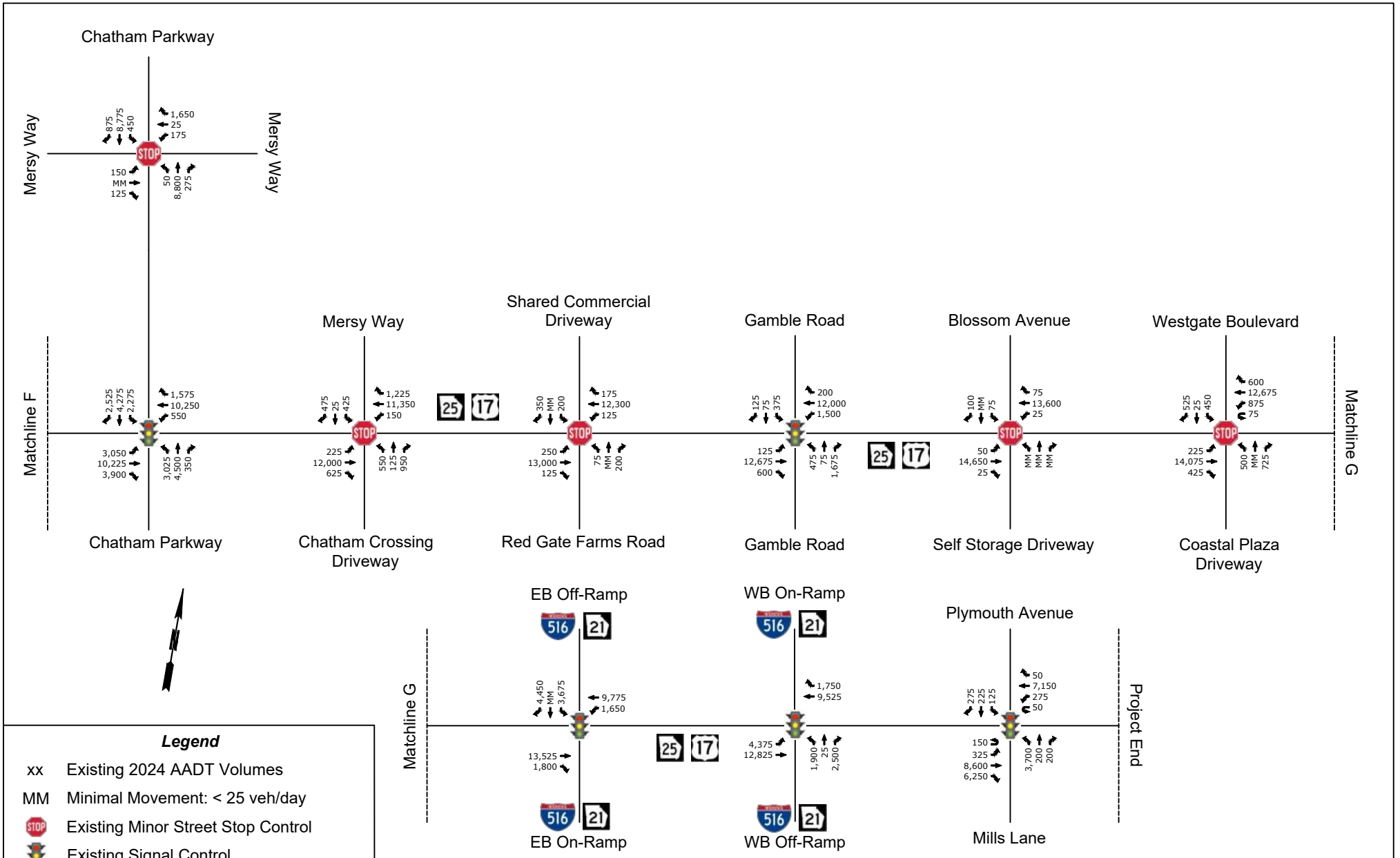


Figure 31 — Existing 2024 AADT Volumes
Intersections 17-30



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SR 25/US 17 CORRIDOR STUDY

Figure 32 — Existing 2024 AADT Volumes
Intersections 31-40

3.4.3 Intersection Analysis Results

Capacity analysis results for each of the 40 study intersections are summarized by contextual segment in **Table 9** (AM Peak Hour) and **Table 10** (PM Peak Hour). The methodologies prescribed by HCM6 consider each intersection in isolation and do not account for the potential for queues to persist and propagate between intersections across multiple periods under oversaturated conditions. As such, corridor operations were also simulated in SimTraffic Version 11 software to identify existing deficiencies at the network level. Key findings are discussed below with a focus on intersections exhibiting significant delay during one or both peak periods. All references to delay and LOS refer to calculated, not observed, values.

Segment 1 – Southern Gateway

As noted in **Section 3.1.1**, Segment 1 extends from the Chatham County/Bryan County line to Chevis Road and includes six study intersections. Segment 1 includes two signalized intersections with Canebrake Road and Chevis Road which both operate at LOS B during the AM and PM peak hours of travel. The four other unsignalized intersections operate under two-way stop control (TWSC), and most of these serve fewer than 50 vehicles per hour (VPH) on the minor street approaches. The TWSC intersections in Segment 1 operate at LOS C or worse during the AM peak hour and at LOS E or worse during the PM peak hour.

The unsignalized intersection of SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard operates at LOS F in both peak hours. During both peak hours, the minor street approaches of this intersection experience delays exceeding five minutes. Further, the TWSC intersection at the Southwest Middle School driveway operates at LOS F during the AM peak hour, which is comparable to observations made in the field during the school start period. Other unsignalized intersections that operate at LOS F during one or both peak periods exhibited minimal queues based on field observations, and existing median space offers opportunities for two-stage crossing maneuvers that reduce minor street delays throughout Segment 1. Therefore, the control delay estimates that are shown in **Table 9** and **Table 10**.

Traffic volumes at three of the four TWSC intersections are not expected to meet signal warrants prescribed by the *Manual on Uniform Traffic Control Devices* (MUTCD), but monitoring may be needed in the future as development progresses along the corridor. A traffic signal warrant analysis was conducted for the intersection of SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard due to the high minor street volumes and associated delays. Notably, signal warrants were met, and this underscores the need for improvements to alleviate the delays experienced at this intersection during the peak periods of travel. As mentioned in **Section 3.1.1**, access to the Alta Bradley residential development will form a fourth leg at the intersection of SR 25/US 17 at Canebrake Road, and the intersection is expected to continue operating acceptably once signal improvements are constructed as documented in the *Alta Bradley Multifamily Site Traffic Impact Analysis*. This development will also include an access point on Bradley Boulevard which further supports the need to signalize the intersection of SR 25/US 17 with Fords Pointe Circle/Bradley Boulevard.

Table 9: Existing Intersection Capacity Analysis Results – AM Peak Hour

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1]				Intersection Delay (sec/veh)[2]
			EB	WB	NB	SB	
Segment 1 — Southern Gateway							
1	SR 25/US 17 at Chief O.F. Love Road	Stop	C (24.3)	D (33.1)	A (9.2)	B (13.3)	-
	SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard	Stop	F ($)	F (94.5)	A (9.1)	C (17.5)	-
3	SR 25/US 17 at Canebrake Road	Signal	E (74.4)	-	A (6.6)	A (7.9)	B (11.1)
4	SR 25/US 17 at Bamboo Lane	Stop	-	D (33.7)	B (14.1)	C (17.5)	-
5	SR 25/US 17 at Southwest Middle School Driveway	Stop	E (47.0)	F (50.0)	B (10.0)	D (26.8)	-
6	SR 25/US 17 at Chevis Road	Signal	E (67.3)	E (69.7)	A (9.3)	A (2.9)	B (10.9)
Segment 2 — Commercial South							
7	SR 25/US 17 at Walmart Driveway	Signal	E (68.8)	E (65.7)	A (3.2)	A (3.3)	A (5.7)
8	SR 25/US 17 at Fountain Road	Stop	C (19.4)	E (38.5)	B (12.8)	B (12.8)	-
9	SR 25/US 17 at SR 204/Abercorn Street Eastbound Ramps	Signal	E (68.8)	-	A (0.8)	C (24.7)	B (19.5)
10	SR 25/US 17 at SR 204/Abercorn Street Westbound Ramps	Signal	-	E (65.3)	A (1.6)	A (1.0)	B (12.9)
11	SR 25/US 17 at Little Neck Road	Signal	E (72.1)	-	A (1.7)	B (15.7)	B (14.4)
12	SR 25/US 17 at Old Grove Point Road	Stop	-	D (25.8)	D (28.0)	B (13.2)	-
Segment 3 — Berwick							
13	SR 25/US 17 at Bridgewater Drive	Stop	C (24.5)	-	B (11.6)	D (30.4)	-
14	SR 25/US 17 at Burton Road	Stop	C (22.4)	F (54.9)	B (11.0)	B (13.3)	-
15	SR 25/US 17 at Quacco Road	Signal	F (160.6)	-	C (20.2)	B (17.4)	E (62.6)
16	SR 25/US 17 at Larchmont Drive	Stop	C (23.3)	-	B (12.2)	E (46.5)	-
17	SR 25/US 17 at Fenwick Village Drive	Stop	B (11.2)	-	A (9.9)	E (44.7)	-
18	SR 25/US 17 at Berwick Boulevard	Signal	D (44.6)	E (57.4)	B (17.8)	B (14.7)	C (23.0)
19	SR 25/US 17 at Kroger Driveway	Stop	D (29.1)	F (52.1)	A (9.1)	C (19.2)	-
20	SR 25/US 17 at Cottonvale Road	Signal	F (113.4)	D (49.9)	C (28.1)	B (10.0)	C (30.6)
21	SR 25/US 17 at Elk Road	Stop	D (25.9)	-	B (12.2)	F (110.1)	-
22	SR 25/US 17 at Silk Hope Road/Derrick Inn Road	Stop	F (81.9)	F (122.8)	B (10.9)	F (70.6)	-
23	SR 25/US 17 at SR 307/Dean Forest Road	Signal	D (50.2)	-	A (7.2)	B (11.2)	B (11.3)

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1]				Intersection Delay (sec/veh)[2]
			EB	WB	NB	SB	
Segment 4 — Silk Hope							
24	SR 25/US 17 at Salt Creek Road	Stop	C (19.3)	-	A (9.3)	A (0.0)	-
25	SR 25/US 17 at Tower Drive	Stop	C (23.0)	F (66.4)	A (9.1)	C (18.3)	-
26	SR 25/US 17 at Barbour Drive	Stop	-	E (40.5)	A (0.0)	C (18.3)	-
27	SR 25/US 17 at Fall Avenue/Buckhalter Road	Signal	E (72.0)	E (72.7)	A (5.3)	A (2.2)	A (7.3)
Segment 5 — Commercial North							
28	SR 25/US 17 at Macaljon Court	Stop	C (19.1)	-	A (9.7)	A (0.0)	-
29	SR 25/US 17 at Savannah Speedway	Stop	D (27.2)	-	A (9.7)	A (0.0)	-
30	SR 25/US 17 at Heathcote Circle	Stop	D (34.0)	F (58.3)	A (9.2)	C (17.9)	-
31	SR 25/US 17 at Chatham Parkway	Signal	E (69.1)	F (92.6)	C (21.8)	D (37.9)	D (44.2)
32	Chatham Parkway at Mersy Way	Stop	B (10.9)	A (0.0)	B (10.8)	B (14.4)	-
Segment 6 — Northern Gateway							
33	SR 25/US 17 at Mersy Way	Stop	D (28.5)	E (43.7)	A (9.0)	B (14.2)	-
34	SR 25/US 17 at Red Gate Farms Road	Stop	D (30.9)	D (30.6)	B (11.3)	B (13.4)	-
35	SR 25/US 17 at Gamble Road	Signal	C (31.3)	C (30.9)	C (24.1)	A (6.1)	B (18.4)
36	SR 25/US 17 at Blossom Drive	Stop	D (25.0)	D (34.2)	A (9.2)	B (13.6)	-
37	SR 25/US 17 at Westgate Boulevard	Stop	E (36.5)	E (36.2)	A (9.2)	C (16.6)	-
38	SR 25/US 17 at I-516/SR 21 Eastbound Ramps	Signal	D (43.6)	-	A (9.7)	A (9.8)	B (16.7)
39	SR 25/US 17 at I-516/SR 21 Westbound Ramps	Signal	-	C (26.0)	B (10.1)	B (12.8)	B (12.8)
40	SR 25/US 17 at Plymouth Avenue/Mills Lane	Signal	D (48.3)	E (66.8)	A (3.0)	A (7.8)	B (15.5)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on Existing Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

Table 10: Existing Intersection Capacity Analysis Results – PM Peak Hour

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1]				Intersection Delay (sec/veh)[2]
			EB	WB	NB	SB	
Segment 1 — Southern Gateway							
1	SR 25/US 17 at Chief O.F. Love Road	Stop	E (35.9)	C (24.0)	B (13.7)	A (9.9)	-
2	SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard	Stop	F ($)	E (42.3)	B (13.8)	B (13.2)	-
3	SR 25/US 17 at Canebrake Road	Signal	F (90.9)	-	A (4.3)	A (10.0)	B (11.7)
4	SR 25/US 17 at Bamboo Lane	Stop	-	C (15.7)	F (71.9)	B (12.3)	-
5	SR 25/US 17 at Southwest Middle School Driveway	Stop	E (39.4)	E (40.3)	C (16.5)	B (11.1)	-
6	SR 25/US 17 at Chevis Road	Signal	E (67.0)	F (84.8)	B (11.0)	A (1.3)	B (11.5)
Segment 2 — Commercial South							
7	SR 25/US 17 at Walmart Driveway	Signal	E (78.5)	E (69.3)	A (9.5)	A (7.1)	B (12.8)
8	SR 25/US 17 at Fountain Road	Stop	E (41.7)	F (53.6)	C (18.5)	B (11.7)	-
9	SR 25/US 17 at SR 204/Abercorn Street Eastbound Ramps	Signal	F (83.4)	-	A (0.3)	B (14.9)	B (14.7)
10	SR 25/US 17 at SR 204/Abercorn Street Westbound Ramps	Signal	-	E (67.9)	D (37.9)	B (15.0)	D (35.3)
11	SR 25/US 17 at Little Neck Road	Signal	F (84.7)	-	A (3.8)	B (10.4)	B (10.5)
12	SR 25/US 17 at Old Grove Point Road	Stop	-	C (20.7)	E (36.3)	B (14.3)	-
Segment 3 — Berwick							
13	SR 25/US 17 at Bridgewater Drive	Stop	D (33.8)	-	B (14.5)	C (17.2)	-
14	SR 25/US 17 at Burton Road	Stop	F (66.4)	D (28.5)	B (14.3)	B (12.4)	-
15	SR 25/US 17 at Quacco Road	Signal	F ($)	-	C (28.0)	B (16.8)	**F (85.6)**
16	SR 25/US 17 at Larchmont Drive	Stop	F (50.4)	-	D (26.9)	C (16.7)	-
17	SR 25/US 17 at Fenwick Village Drive	Stop	C (18.3)	-	C (18.7)	C (16.3)	-
18	SR 25/US 17 at Berwick Boulevard	Signal	E (68.8)	E (71.1)	C (22.1)	C (33.3)	C (34.9)
19	SR 25/US 17 at Kroger Driveway	Stop	E (45.4)	D (28.3)	C (16.9)	A (9.7)	-
20	SR 25/US 17 at Cottonvale Road	Signal	D (50.0)	E (63.0)	C (21.1)	B (14.3)	C (21.5)
21	SR 25/US 17 at Elk Road	Stop	F (63.4)	-	F (64.9)	C (16.9)	-
22	SR 25/US 17 at Silk Hope Road/Derrick Inn Road	Stop	F (123.0)	E (45.6)	D (34.7)	B (13.5)	-
23	SR 25/US 17 at SR 307/Dean Forest Road	Signal	E (68.9)	-	A (7.2)	B (11.9)	B (12.4)

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1]				Intersection Delay (sec/veh)[2]
			EB	WB	NB	SB	
Segment 4 — Silk Hope							
24	SR 25/US 17 at Salt Creek Road	Stop	E (49.9)	-	C (20.4)	A (0.0)	-
25	SR 25/US 17 at Tower Drive	Stop	E (45.8)	E (40.9)	C (19.3)	A (9.8)	-
26	SR 25/US 17 at Barbour Drive	Stop	-	C (19.2)	A (0.0)	A (9.9)	-
27	SR 25/US 17 at Fall Avenue/Buckhalter Road	Signal	E (56.3)	E (75.9)	A (9.4)	B (14.8)	B (19.7)
Segment 5 — Commercial North							
28	SR 25/US 17 at Macaljon Court	Stop	E (43.6)	-	C (15.3)	A (0.0)	-
29	SR 25/US 17 at Savannah Speedway	Stop	F (66.4)	-	B (14.9)	A (0.0)	-
30	SR 25/US 17 at Heathcote Circle	Stop	E (46.2)	E (40.5)	C (18.2)	B (10.2)	-
31	SR 25/US 17 at Chatham Parkway	Signal	E (73.4)	D (54.3)	C (27.4)	E (56.1)	D (51.7)
32	Chatham Parkway at Mersy Way	Stop	A (9.0)	A (0.0)	B (10.9)	B (11.3)	
Segment 6 — Northern Gateway							
33	SR 25/US 17 at Mersy Way	Stop	E (41.3)	F (62.6)	B (12.0)	A (9.0)	-
34	SR 25/US 17 at Red Gate Farms Road	Stop	D (25.4)	C (21.5)	C (16.3)	A (9.6)	-
35	SR 25/US 17 at Gamble Road	Signal	F (80.4)	E (79.9)	A (7.4)	A (3.7)	A (8.3)
36	SR 25/US 17 at Blossom Drive	Stop	D (34.5)	D (27.4)	B (12.7)	B (10.4)	-
37	SR 25/US 17 at Westgate Boulevard	Stop	F (274.0)	D (31.4)	B (14.8)	B (11.5)	-
38	SR 25/US 17 at I-516/SR 21 Eastbound Ramps	Signal	D (44.2)	-	A (4.6)	B (11.1)	B (14.8)
39	SR 25/US 17 at I-516/SR 21 Westbound Ramps	Signal	-	D (46.0)	B (15.4)	C (21.0)	C (22.1)
40	SR 25/US 17 at Plymouth Avenue/Mills Lane	Signal	C (20.8)	C (32.3)	B (10.9)	B (14.6)	B (17.5)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on Existing Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

Segment 2 – Commercial South

As described in **Section 3.1.2**, Segment 2 extends from Chevis Road to the Little Ogeechee River and includes the SR 25/US 17 at SR 204/Abercorn Street interchange. Segment 2 consists of six intersections, four of which are signalized. Fountain Road and Old Grove Point Road are both unsignalized and operate at LOS D or worse during both peak hours; notably, the intersection with Fountain Road operates at LOS F during the PM peak hour. Like other unsignalized intersections along the corridor, it is expected that two-stage crossing maneuvers that utilize the median break reduce field-observed delays relative to those obtained through traffic analyses. The minor street approaches for both of these TWSC intersections mostly serve fewer than 50 VPH and are not expected to meet signal warrants prescribed by the MUTCD.

Among the signalized intersections along Segment 2, the intersection of SR 25/US 17 at the SR 204/Abercorn Street westbound ramps operates worst, and modeled and observed queues extend beyond the available westbound off-ramp storage during the PM peak hour. Model outputs suggest that the other signalized intersections along Segment 2 operate at LOS B or better; however, the eastbound queues for the intersection of SR 204/Abercorn Street at Don Zipperer Drive extend through the eastbound on-ramp at SR 25/US 17 and approximately 2,000-feet-south along SR 25/US 17 during the AM peak hour. This queueing contributes to an observed LOS worse than indicated in the model, and improvements to the intersection of SR 204/Abercorn Street at Don Zipperer Drive will be evaluated as part of PI No. 0019010.

Segment 3 – Berwick

As described in **Section 3.1.3**, Segment 3 includes 11 intersections, four of which are signalized, and extends from the Little Ogeechee River to SR 307/Dean Forest Road. The signalized intersection of SR 25/US 17 and Quacco Road operates at LOS E and LOS F during the AM and PM peak hours of travel, respectively. Synchro model outputs suggest that delays often exceed five minutes during the PM peak on the eastbound approach. Further, field observations indicate queues exceeding available storage of newly constructed auxiliary turn lanes during both peak periods. The remaining signalized intersections along Segment 3 operate at LOS C or better during both peak periods.

The intersection of SR 25/US 17 at Cottonvale Road operates at LOS B and LOS C overall in the AM and PM peak hours, respectively, but the actual delay incurred by through traffic on SR 25/US 17 is not fully captured within Synchro and SimTraffic software. Field observations indicate that northbound queues extended past the Kroger Driveway during the AM peak hour. Similarly, field observations recorded heavy southbound queueing at the SR 25/US 17 and Berwick Boulevard intersection that extended beyond the Kroger Driveway during the PM peak hour. Although model outputs showed the intersection of SR 25/US 17 at SR 307/Dean Forest Road operating at LOS B during both peak hours, field observed queues frequently exceeded available northbound left-turn storage on SR 25/US 17. These observations are supported by the intersection improvements recommended by the *SR 307 Corridor Study Final Report* (Kimley-Horn, 2022), which included the construction of dual northbound left-turn lanes on SR 25/US 17 and signal upgrades.

The existing unsignalized intersections on Segment 3 each operate at LOS D or worse in the AM peak hour, and six out of the seven operate at LOS D or worse during the PM peak hour. Notably, four of the

seven unsignalized intersections operate at LOS F during both peak hours. Most of the minor street approaches serve 50 VPH or less and are not expected to meet signal warrants prescribed by the MUTCD. Like other unsignalized intersections along the corridor, it is expected that two-stage crossing maneuvers that utilize the median break reduce field-observed delays relative to those obtained through Synchro and SimTraffic analyses.

Segment 4 – Silk Hope

Segment 4 includes four intersections and extends from SR 307/Dean Forest Road to the signalized intersection at Fall Avenue/Buckhalter Road as described in **Section 3.1.4**. SR 25/US 17 at Fall Avenue/Buckhalter Road operates at LOS A during the AM peak hour and at LOS B during the PM peak hour based on model results, but field observations recorded northbound queueing over 1,500 feet in length during the AM peak hour. These findings may be attributable to northbound queue spillback originating at Chatham Parkway. Additionally, diverted trips that utilize Garrard Avenue to access Fall Avenue/Buckhalter Road and avoid westbound congestion on Chatham Parkway likely increase the westbound left-turn volumes from Buckhalter Road onto SR 25/US 17 during the PM peak hour. This surge in left-turn volume necessitates additional green time on the minor street approaches at this intersection and exacerbates delay in both directions on SR 25/US 17.

The three TWSC intersections in Segment 4 operate at LOS C or worse during the AM and PM peak hours, and the intersection of SR 25/US 17 at Tower Drive operates at LOS F during the AM peak hour. As in other segments, most of the minor street approaches serve less than 50 VPH and are not expected to meet signal warrants prescribed by the MUTCD. Further, the existing TWLTL provides opportunities for two-stage crossing maneuvers that may reduce actual delay relative to the results shown in **Table 9** and **Table 10**. Field observations confirm that these maneuvers are common throughout the corridor.

Segment 5 – Commercial North

As described in **Section 3.1.5,** Segment 5 includes five intersections including the signalized intersection at Chatham Parkway. Three of the four existing unsignalized intersections operate at LOS C or worse during the AM peak hour and at LOS E or worse during the PM peak hour. Notably, the TWSC intersection at Heathcote Circle operates at LOS F during the AM peak hour while SR 25/US 17 at Savannah Speedway operates at LOS F during the PM peak hour. As in other segments, field observations showed a two-stage crossing maneuver utilizing the TWLTL at unsignalized intersections; accordingly, modeled intersection delays may be overestimated as compared to field observations.

Capacity analysis results show that the signalized intersection of SR 25/US 17 at Chatham Parkway operates at LOS D during both peak periods, but field observations and SimTraffic simulation runs indicate that actual delay and queueing are more significant. During the PM peak hour, field-observed southbound queues extended beyond the grade-separated rail crossing located 0.5-miles-north of Chatham Parkway, and northbound queues exceeded available left-turn storage during both peak hours. Further, westbound queues on Chatham Parkway extended to Red Gate Farms Trail during the PM peak hour. As noted in **Section 3.1.5**, GDOT's *Coastal Empire Transportation Study* recommended geometric improvements and additional auxiliary turn lanes at the intersection of SR 25/US 17 at Chatham Parkway, and the findings presented herein suggest similar improvements could be effective to mitigate queueing and enhance traffic operations.

Segment 6 – Northern Gateway

Segment 6 consists of eight intersections including the I-516/SR 21 interchange ramp termini. This segment consists of four signalized intersections which operate at LOS D or better during both peak periods. However, the ramp termini at I-516/SR 21 operate with extensive queueing during the PM peak period, and field observations similarly indicated that long queues persist along both off-ramps. As noted in **Section 3.1.6**, intersection improvements at both ramp termini are currently under construction as part of PI No. S015891. These improvements include increased left-turn storage along SR 25/US 17 and are expected to mitigate queueing along SR 25/US 17 between the ramp termini.

During the PM peak hour, the unsignalized intersections at Westgate Boulevard and Mersy Way both operate at LOS F which corresponds to field-observed queues on the eastbound approach at Westgate Boulevard and on the westbound approach at Mersy Way. Accordingly, the calculated delay is slightly less than five minutes and exceeds one minute for these two approaches, respectively, which is primarily due to the high volume of left-turning vehicles. Traffic signal warrants prescribed by the MUTCD were evaluated for both intersections, but MUTCD warrants were not met. Access management strategies and movement restrictions may be warranted due to intersection spacing constraints.

3.4.4 Segment Analysis Results

The existing traffic volumes and capacity analysis results presented in this report are intended to capture typical conditions along the SR 25/US 17 corridor during an average weekday while school is in session. However, “typical” conditions are difficult to capture with a single set of model inputs, and intersection capacity analysis results alone are not adequate for describing corridor operations holistically. Accordingly, this section describes segment-level capacity analysis conducted using both SimTraffic Version 11 simulation software and field-collected travel time data.

Corridor travel time outputs from SimTraffic are aggregated by contextual segment and are shown in **Table 11** and **Table 12** for the AM and PM peak hours, respectively. These travel time outputs were converted to average travel speed (ATS) and compared to the theoretical base free flow speed (BFFS) to calculate the vehicular LOS as defined by the HCM6 Urban Street Facilities methodology. The results of the analysis generally reflect those presented in **Section 3.2.3** for the major crossings along the study corridor, whereas known bottlenecks throughout the corridor do not produce as much delay in Synchro and SimTraffic software as that observed in the field. On the contrary, there are also cases where the simulation calculated more delay than what was observed in the field. This may be attributable to the model inputs not being fully capable of replicating the complexity of real-world traffic flow. Modeled traffic volumes are also intended to represent an average day, whereas what was observed in the field was one specific set of volumes/conditions. The field travel time runs were conducted on Tuesday, January 23, 2024, and were compiled and post-processed to determine the HCM-based vehicular LOS. Raw travel time data and LOS estimates are presented in **Table 13** and **Table 14** for the AM and PM peak periods, respectively. Both SimTraffic analysis and field travel time data provided an overall corridor LOS of LOS C in the northbound direction and LOS B in the southbound direction during the AM peak hour. Similarly, during the PM peak hour, SimTraffic and field travel time data provided an overall corridor LOS of LOS B in the northbound direction and LOS C in the southbound direction.

Table 11: SimTraffic Corridor Travel Time and LOS by Segment – AM Peak Hour

Segment	Length (mi)	Minimum Travel Time (mm:ss)	Maximum Travel Time (mm:ss)	Average Travel Time (mm:ss)	BFFS (mph)	Average Travel Speed (mph)	LOS
Northbound							
1	2.2	03:28	03:34	03:31	50.2	37.6	B
2	1.5	03:35	03:51	03:40	46.7	24.5	C
3	2.9	05:26	05:39	05:30	47.2	31.6	B
4	1.4	02:15	02:18	02:17	46.1	36.7	A
5	1.1	02:07	02:22	02:15	45.8	29.4	C
6	1.6	03:51	05:38	04:32	45.7	21.2	D
Total	**10.7**	**20:41**	**23:21**	**21:45**	**46.9**	**29.5**	**C**
Southbound							
1	2.2	03:09	03:14	03:10	50.1	41.6	A
2	1.5	02:53	03:01	02:57	47.2	30.5	C
3	2.9	05:15	05:25	05:19	46.9	32.7	B
4	1.4	02:14	02:19	02:17	46.1	36.8	A
5	1.1	01:40	01:44	01:42	46.1	38.8	A
6	1.6	03:23	03:38	03:30	45.8	27.4	C
Total	**10.7**	**18:33**	**19:20**	**18:56**	**46.9**	**33.9**	**B**

Table 12: SimTraffic Corridor Travel Time and LOS by Segment – PM Peak Hour

Segment	Length (mi)	Minimum Travel Time (mm:ss)	Maximum Travel Time (mm:ss)	Average Travel Time (mm:ss)	BFFS (mph)	Average Travel Speed (mph)	LOS
Northbound							
1	2.2	03:14	03:18	03:16	50.2	40.4	A
2	1.5	02:50	03:11	03:02	46.7	29.7	C
3	2.9	04:41	04:50	04:45	47.2	36.6	B
4	1.4	02:10	02:14	02:12	46.1	38.3	A
5	1.1	02:09	02:15	02:12	45.8	29.9	C
6	1.6	03:11	03:59	03:40	45.7	26.2	C
Total	**10.7**	**18:15**	**19:47**	**19:07**	**46.9**	**33.6**	**B**
Southbound							
1	2.2	03:16	03:24	03:21	50.1	39.3	B
2	1.5	03:08	03:26	03:19	47.2	27.1	C
3	2.9	05:30	05:42	05:36	46.9	31.1	B
4	1.4	02:24	02:31	02:27	46.1	34.3	B
5	1.1	01:56	02:03	02:00	46.1	33.1	B
6	1.6	04:08	05:00	04:38	45.8	20.7	D
Total	**10.7**	**20:23**	**22:07**	**21:21**	**46.9**	**30.1**	**C**

Table 13: Average Field Travel Time and LOS – January 23, 2024 – AM Peak Period

Segment	Direction	Length (mi)	Base Free Flow Speed (mph)	Run 1 Travel Time (mm:ss)	Run 2 Travel Time (mm:ss)	Average Travel Time (mm:ss)	Average Travel Speed (mph)	LOS
Ogeechee River to Chevis Road	NB	2.2	50.2	02:44	03:17	03:00	43.8	A
	SB		50.1	02:51	03:12	03:01	43.5	A
Chevis Road to Little Ogeechee River	NB	1.5	46.7	03:12	01:59	02:36	34.6	B
	SB		47.2	03:31	03:12	03:22	26.7	C
Little Ogeechee River to SR 307/ Dean Forest Road	NB	2.9	47.2	07:04	05:12	06:08	28.4	C
	SB		46.9	04:09	04:12	04:10	41.6	A
SR 307/Dean Forest Road to Buckhalter Road	NB	1.4	46.1	01:55	01:58	01:57	43.4	A
	SB		46.1	01:48	01:51	01:50	46.2	A
Buckhalter Road to Chatham Parkway	NB	1.1	45.8	02:53	03:29	03:11	20.7	D
	SB		46.1	01:48	02:08	01:58	33.6	B
Chatham Parkway to Plymouth Avenue/Mills Lane	NB	1.6	45.7	03:45	04:25	04:05	23.5	C
	SB		45.8	03:40	02:39	03:39	30.3	B
Overall	***NB***	***10.7***	***46.9***	***21:33***	***20:20***	***20:56***	***30.7***	***C***
	SB		***46.9***	***17:47***	***17:14***	***17:30***	***36.7***	***B***

Table 14: Average Field Travel Time and LOS – January 23, 2024 – PM Peak Period

Segment	Direction	Length (mi)	Base Free Flow Speed (mph)	Run 1 Travel Time (mm:ss)	Run 2 Travel Time (mm:ss)	Average Travel Time (mm:ss)	Average Travel Speed (mph)	LOS
Ogeechee River to Chevis Road	NB	2.2	50.2	03:00	02:27	02:44	48.3	A
	SB		50.1	02:45	02:47	02:46	47.7	A
Chevis Road to Little Ogeechee River	NB	1.5	46.7	03:53	03:37	03:45	24.0	C
	SB		47.2	03:44	03:57	03:51	23.4	C
Little Ogeechee River to SR 307/ Dean Forest Road	NB	2.9	47.2	03:40	03:42	03:41	47.2	A
	SB		46.9	07:25	05:38	06:31	26.7	C
SR 307/Dean Forest Road to Buckhalter Road	NB	1.4	46.1	02:17	01:50	02:03	41.0	A
	SB		46.1	02:12	02:50	02:31	33.4	B
Buckhalter Road to Chatham Parkway	NB	1.1	45.8	02:41	01:47	02:14	29.6	C
	SB		46.1	02:10	01:32	01:51	35.7	B
Chatham Parkway to Plymouth Avenue/Mills Lane	NB	1.6	45.7	03:52	02:26	03:09	30.5	B
	SB		45.8	03:54	05:22	04:38	35.7	B
Overall	***NB***	***10.7***	***46.9***	***19:23***	***15:49***	***17:36***	***36.5***	***B***
	SB		***46.9***	***22:10***	***22:06***	***22:08***	***29.0***	***C***

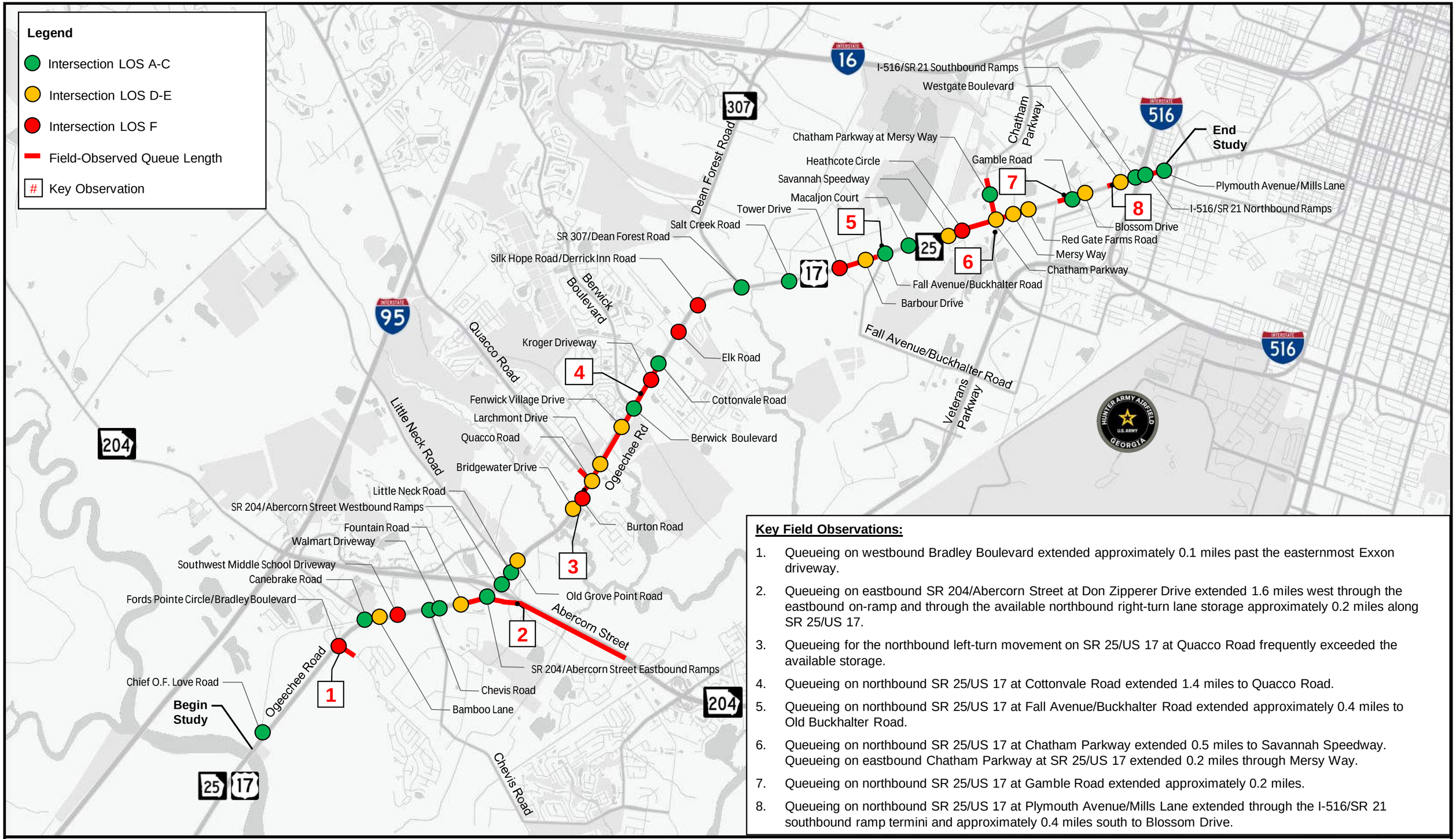
As shown in **Table 13** and **Table 14,** field travel time runs and associated LOS estimates were generally comparable to the data obtained from SimTraffic analysis. Differences were most pronounced on northbound SR 25/US 17 during the AM peak hour in Segment 5 where an ATS of approximately 20 MPH (i.e., representative of LOS D conditions) was observed through field travel time runs between Fall Avenue/Buckhalter Road and Chatham Parkway as compared to the LOS C conditions predicted by SimTraffic. Field observations reported northbound queue lengths that extended over 1,000 feet at the intersection with Chatham Parkway. Further, SimTraffic calculated an average northbound travel speed of over 21 MPH (i.e., representative of LOS D conditions) on Segment 6 during the AM peak hour as compared to a field-measured LOS C.

Southbound SR 25/US 17 along Segment 6 operated with an ATS of just over 20 MPH (i.e., representative of LOS D conditions) in both the simulation and field-measured data during the PM peak hour. Within Segment 6, field observations reported that the longest queues occurred at the I-516/SR 21 interchange and the Chatham Parkway intersection. Segment 1 through Segment 4 operated at LOS C or better during both peak hours according to simulation outputs; however, Synchro and SimTraffic outputs for Segment 2 differed from field observations, specifically at the SR 25/US 17 and SR 204/Abercorn Street interchange, as outlined in **Section 2.2.3**. This interchange was modeled to operate at LOS C or better during both peak hours, but field observations suggested that heavier delays occurred. This discrepancy may be attributable to the SimTraffic model not accounting for queues originating outside the study area on SR 204/Abercorn Street. Further, despite Segment 3 operating at LOS C or better during both peak hours, field observations confirmed congestion between the intersections of Quacco Road and Cottonvale Road; notably, northbound queueing for Cottonvale Road extended south of Quacco Road during the AM peak hour. The calculated delay for this segment may be underestimated due to the northern portion of Segment 3 from Cottonvale Road to SR 307/ Dean Forest Road generally having speeds closer to the BFFS calculated for this segment.

When considering whether field observations were typical of an “average” weekday over the course of the year, comparisons of field observations with supplemental data available from Google typical traffic conditions suggest that traffic conditions are variable along the corridor. Likewise, the segment analysis results presented herein demonstrate that Segment 5 and Segment 6 operate near the LOS D threshold that defines “unstable flow” and are therefore susceptible to substantial variability in traffic conditions under even minor changes in demand. These findings are critical to understanding existing and potential operational deficiencies along the study corridor and informing future improvements.

3.4.5 Capacity Analysis Summary

The intersection and segment analysis results presented in this section demonstrate that the southern end of the SR 25/US 17 corridor near the Chatham County/Bryan County line operates with minimal disruptions under existing conditions. However, bottlenecks and congestion in Segment 2 through Segment 6 lead to significant delays throughout the corridor. Planned or active improvements along SR 25/US 17 at the intersections of Canebrake Road, Little Neck Road, and the I-516/SR 21 ramp termini are expected to enhance the operational performance of these intersections; however, as development continues along the corridor and contributes to increasing traffic volumes, further improvements will likely be needed to ensure the SR 25/US 17 corridor operates acceptably. The maps shown in **Figure 33** and **Figure 34** graphically summarize existing operations along the study corridor as defined by capacity analysis, SimTraffic outputs, and field observations. Capacity analysis reports are included in **Appendix B**.



Key Field Observations:

1. Queueing on westbound Bradley Boulevard extended approximately 0.1 miles past the easternmost Exxon driveway.
2. Queueing on eastbound SR 204/Abercorn Street at Don Zipperer Drive extended 1.6 miles west through the eastbound on-ramp and through the available northbound right-turn lane storage approximately 0.2 miles along SR 25/US 17.
3. Queueing for the northbound left-turn movement on SR 25/US 17 at Quacco Road frequently exceeded the available storage.
4. Queueing on northbound SR 25/US 17 at Cottonvale Road extended 1.4 miles to Quacco Road.
5. Queueing on northbound SR 25/US 17 at Fall Avenue/Buckhalter Road extended approximately 0.4 miles to Old Buckhalter Road.
6. Queueing on northbound SR 25/US 17 at Chatham Parkway extended 0.5 miles to Savannah Speedway. Queueing on eastbound Chatham Parkway at SR 25/US 17 extended 0.2 miles through Mersy Way.
7. Queueing on northbound SR 25/US 17 at Gamble Road extended approximately 0.2 miles.
8. Queueing on northbound SR 25/US 17 at Plymouth Avenue/Mills Lane extended through the I-516/SR 21 southbound ramp termini and approximately 0.4 miles south to Blossom Drive.

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 33 – Existing Corridor Operations Summary – AM Peak Hour

SR 25/US 17 CORRIDOR STUDY

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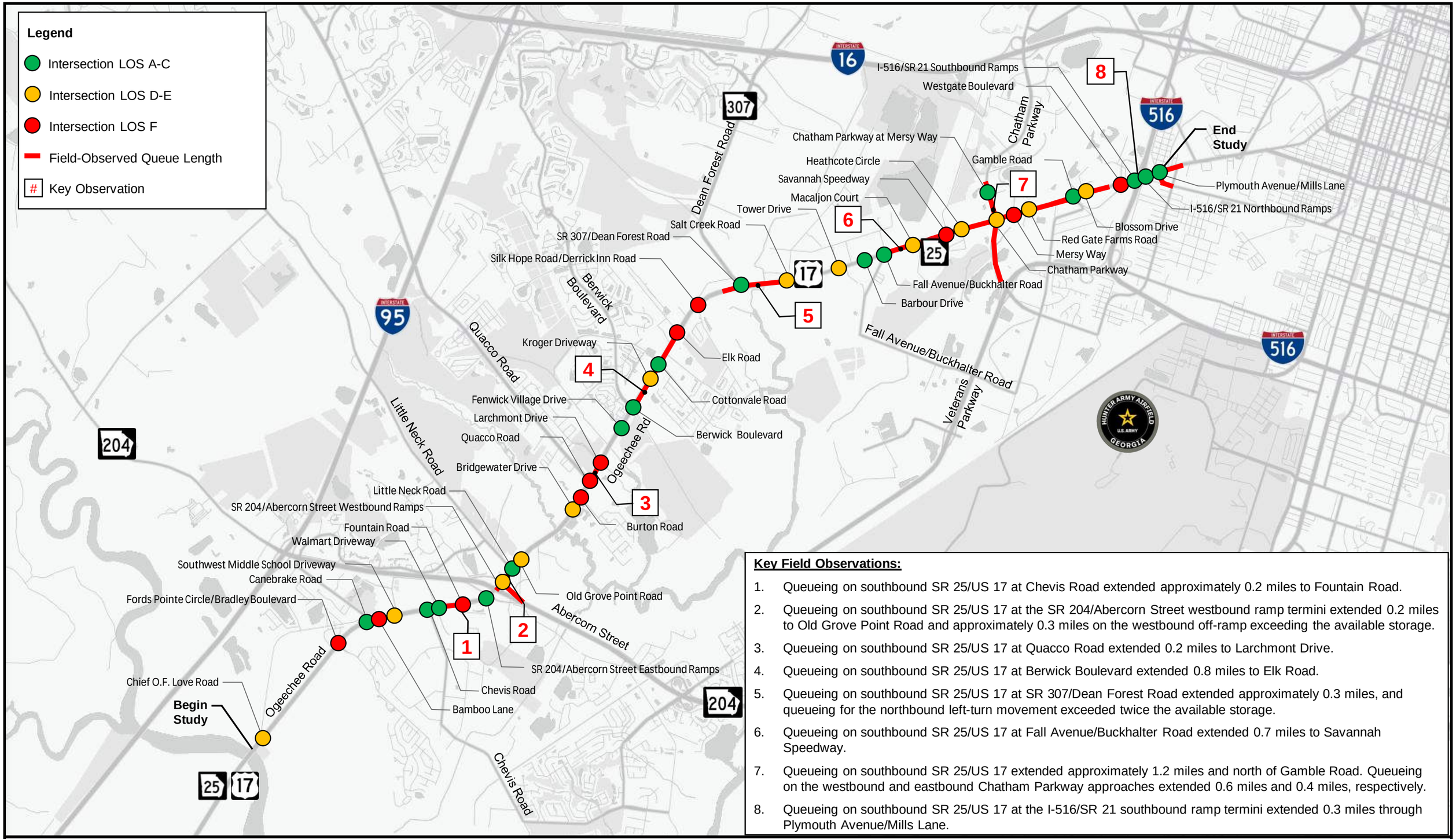

Key Field Observations:

1. Queueing on southbound SR 25/US 17 at Chevis Road extended approximately 0.2 miles to Fountain Road.
2. Queueing on southbound SR 25/US 17 at the SR 204/Abercorn Street westbound ramp termini extended 0.2 miles to Old Grove Point Road and approximately 0.3 miles on the westbound off-ramp exceeding the available storage.
3. Queueing on southbound SR 25/US 17 at Quacco Road extended 0.2 miles to Larchmont Drive.
4. Queueing on southbound SR 25/US 17 at Berwick Boulevard extended 0.8 miles to Elk Road.
5. Queueing on southbound SR 25/US 17 at SR 307/Dean Forest Road extended approximately 0.3 miles, and queueing for the northbound left-turn movement exceeded twice the available storage.
6. Queueing on southbound SR 25/US 17 at Fall Avenue/Buckhalter Road extended 0.7 miles to Savannah Speedway.
7. Queueing on southbound SR 25/US 17 extended approximately 1.2 miles and north of Gamble Road. Queueing on the westbound and eastbound Chatham Parkway approaches extended 0.6 miles and 0.4 miles, respectively.
8. Queueing on southbound SR 25/US 17 at the I-516/SR 21 southbound ramp termini extended 0.3 miles through Plymouth Avenue/Mills Lane.

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 34 – Existing Corridor Operations Summary – PM Peak Hour

SR 25/US 17 CORRIDOR STUDY

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3.5 Safety Analysis

3.5.1 Introduction and Corridor Descriptive Statistics

The primary objective of this study is to identify and prioritize short- and long-term improvement projects needed for the SR 25/US 17 corridor to operate at an acceptable LOS; however, both operations and safety are critical to achieving this goal. This section is focused on evaluating trends in crash history along each contextual segment of the study corridor based on the most recent five years of data (2018-2022) from GDOT's Numetric dashboard. Based on these trends, potential mitigation measures and their associated benefits are identified for consideration as part of future corridor improvements.

As shown in **Table 15**, 3,621 total crashes occurred on the SR 25/US 17 corridor during the five-year period between 2018 and 2022 including 24 fatal crashes and 555 non-fatal injury crashes. The 10.7-mile-long study corridor exhibited just over 338 crashes per mile over this period at a comprehensive crash cost of $850.7 million, or $170.1 million per year (GDOT, 2023). The segments of SR 25/US 17 from Chevis Road to the Little Ogeechee River (Segment 2) and Buckhalter Road/Fall Avenue to Plymouth Avenue/Mills Lane (Segment 5 and Segment 6, respectively) each exhibited an average crash rate more than double the statewide average per hundred million vehicle miles traveled (HMVMT) on principal arterials over the study period. Overall, the study corridor exhibited a crash rate approximately double the statewide average and a fatal crash rate approximately three times the statewide average over the study period, which underscores the need for safety-focused investments.

GDOT conducted a Safety Screening Analysis in February 2024 along SR 25/US 17 from Berwick Boulevard to the I-516/SR 21 interchange based on the frequency and severity of pedestrian-involved crashes. Between December 2012 and December 2022, there were 3,659 total crashes, 24 of which were fatal; notably, of the 60 reported pedestrian-involved crashes, 14 resulted in fatalities. Based on these findings, several safety improvements were recommended which included additional roadway lighting; sidewalks on both sides of SR 25/US 17; pedestrian hybrid beacons at five locations; and raised medians to provide pedestrian refuge opportunities.

The five-year crash history for each segment is annualized in **Table 15** along with comparing crash rates against the statewide average for principal arterials. The average crash rate over the entire study period is graphically summarized in **Figure 35**.

Table 15: Corridor Crash Data Summary – 2018 to 2022

Segment	Crash Frequency by Severity					Crash Rate Per HMVMT (Comparison to Statewide Average)				
	Fatal	Serious Injury	Visible Injury	PDO	Total	2018	2019	2020	2021	2022
1	4	15	40	322	381	294.2 (-25.7%)	350.2 (-8.3%)	397.2 (+18.6%)	411.8 (+10.1%)	437.0 (+17.5%)
2	3	8	55	900	966	1020.7 (+157.7%)	902.9 (+136.4%)	930.4 (+177.7%)	1182.2 (+216.1%)	1212.5 (+225.9%)
3	6	28	121	834	989	555.3 (+40.2%)	497.7 (+30.3%)	636.7 (+90.1%)	759.0 (+102.9%)	645.4 (+73.5%)
4	4	9	15	259	287	328.4 (-17.1%)	357.5 (-6.4%)	381.7 (+13.9%)	365.4 (-2.3%)	405.9 (+9.1%)
5	2	16	40	354	412	388.3 (-2.0%)	554.5 (+45.2%)	504.6 (+50.6%)	770.2 (+105.9%)	785.2 (+111.1%)
6	5	16	192	373	586	829.8 (+109.5%)	570.8 (+49.4%)	732.8 (+118.7%)	1344.8 (+259.6%)	1125.2 (+202.5%)
Total	**24**	**92**	**463**	**3042**	**3621**	**564.3 (+42.5%)**	**535.4 (+40.2%)**	**607.5 (+81.3%)**	**775.7 (+107.4%)**	**730.9 (+96.5%)**

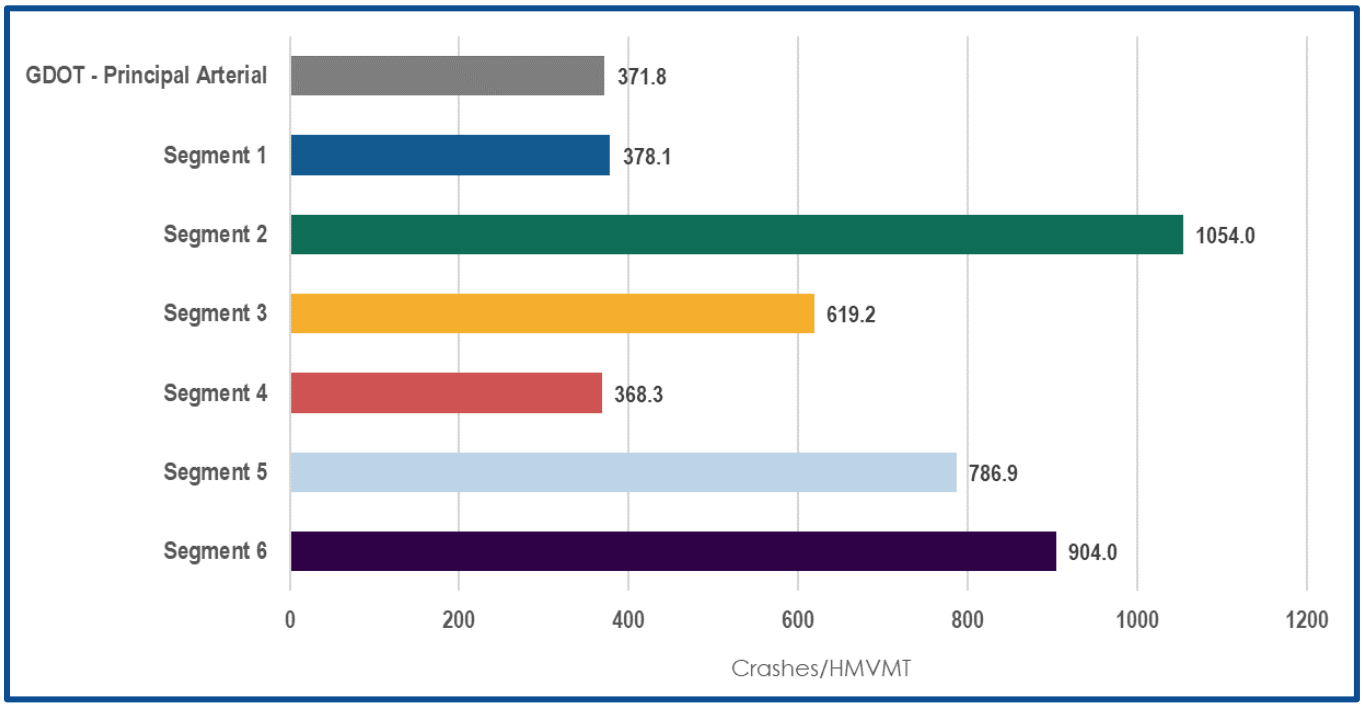
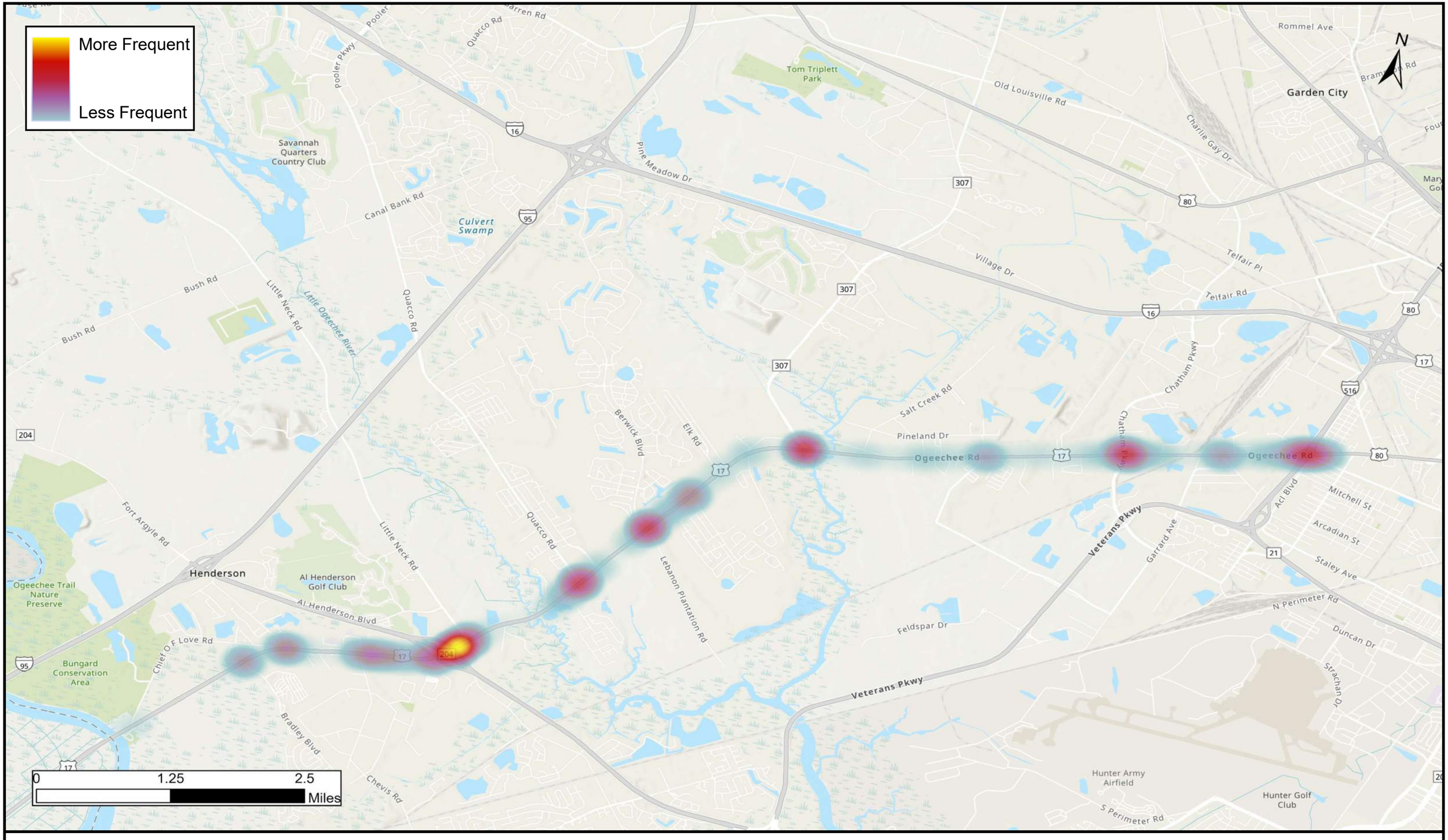


Figure 35: 5-Year Average Crash Rate Comparison by Segment

As illustrated in **Figure 35**, Segment 4 exhibited a five-year average crash rate lower than the statewide average for principal arterials, while all other segments exhibited a higher rate. Segment 2 experienced the highest crash frequency on the corridor, and 29% of all reported crashes occurred within this segment. Further, the crash rate in Segment 2 is nearly triple the statewide average, and crashes were primarily concentrated near the SR 204/Abercorn Street interchange. However, Segment 3 included the greatest number of fatalities (6/24, or 25%), serious injuries (28/92, or 30%), and pedestrian-involved crashes (11/34, or 32%).

The following figures graphically display all crashes occurring between 2018 and 2022 on the SR 25/US 17 corridor. **Figure 36** presents all crashes in a “heat map” that highlights locations with the highest frequency of crashes, and **Figure 37** presents all crashes by severity. Raw crash data is included in **Appendix C**.



SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 36 – Crash Frequency Heat Map – 2018 to 2022

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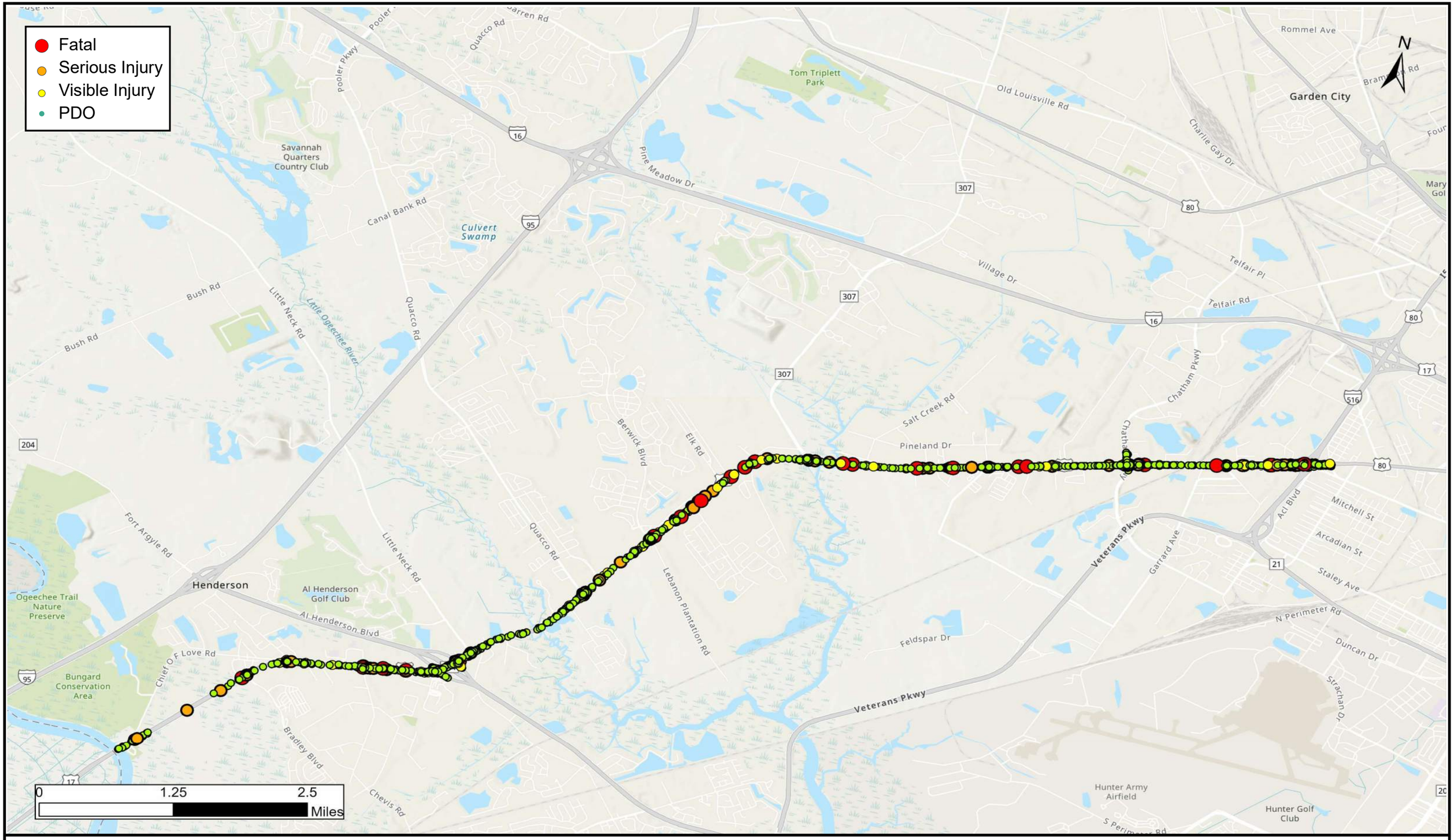

SR 25/US 17 Corridor Study – Existing Conditions/Needs Assessment

Figure 37 – Crash Severity Map – 2018 to 2022

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3.5.2 Segment 1 Crash History

Segment 1 extends approximately 2.2 miles between the Ogeechee River at the Chatham County/ Bryan County line and Chevis Road. Segment 1 crash frequency by severity and manner of collision over the five-year period between 2018 and 2022 is summarized in **Figure 38**.

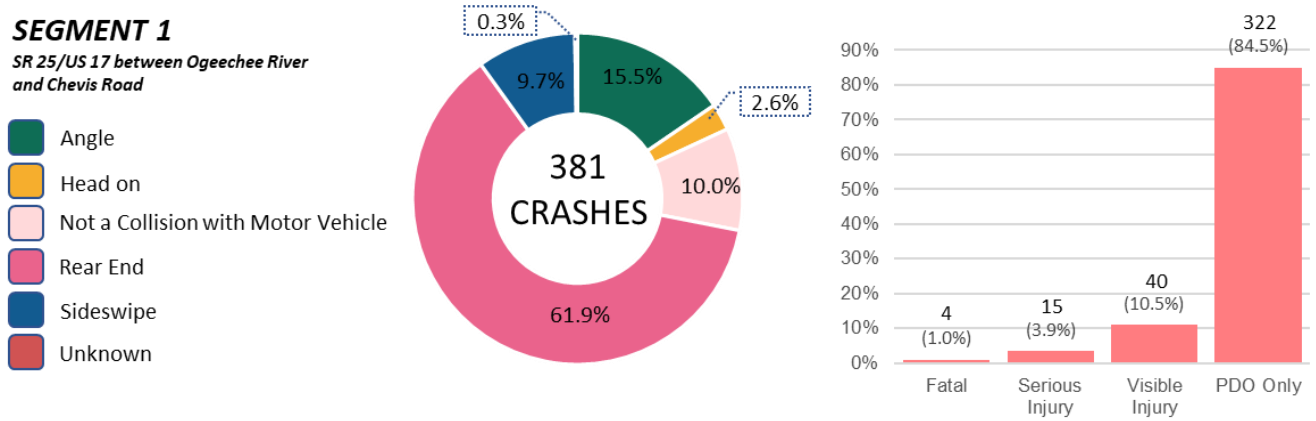


Figure 38: Segment 1 Crash Profile

As shown in **Figure 38**, rear-end crashes (61.9%) were the predominant crash type observed in Segment 1 over the study period followed by angle crashes (15.5%) and single-vehicle crashes (10.0%). Most crashes were property damage only (PDO) (84.5%). This segment exhibited 15 serious injury crashes and four fatal crashes, one of which involved a pedestrian crossing the intersection of SR 25/ US 17 with Chevis Road during dark conditions. Crashes occurring along Segment 1 over the five-year study period are displayed in **Figure 39**.

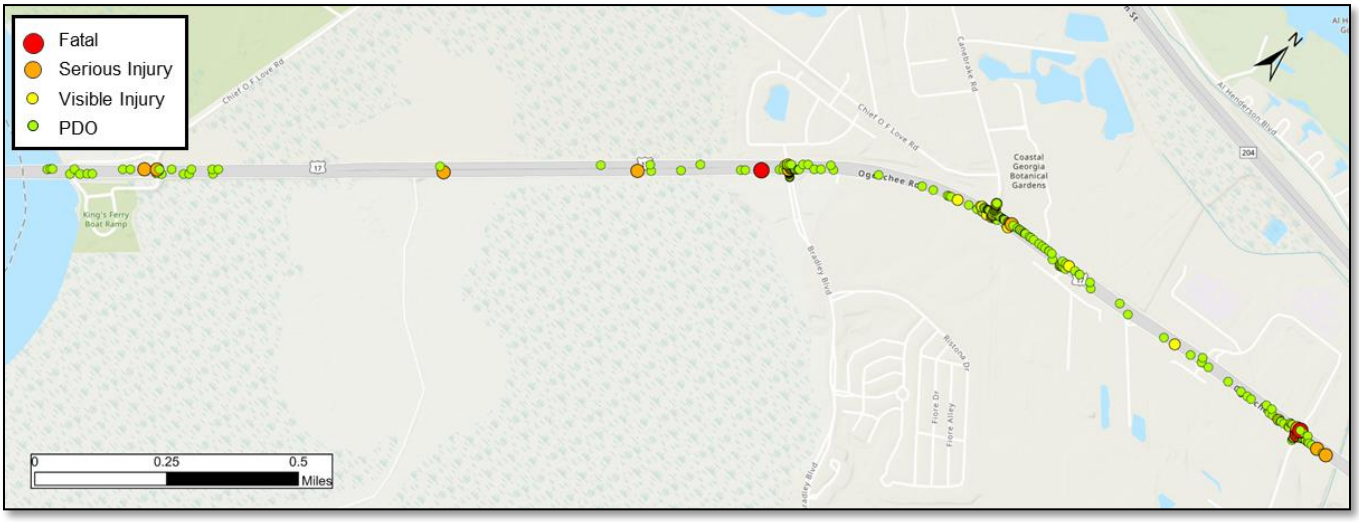


Figure 39: Segment 1 Crash Severity Map

As shown in **Figure 38** and **Figure 39**, 381 crashes were observed throughout Segment 1, primarily at the SR 25/US 17 intersections with Fords Pointe Circle/Bradley Boulevard, Canebrake Road, and Chevis Road. This segment had the highest percentage of single-vehicle crashes among the six

contextual segments with 38 crashes occurring between 2018 and 2022. This is likely attributable to the lower density of driveways and intersecting streets to the south of Bradley Boulevard. Two of four fatal crashes and 60 (16%) of all crashes on Segment 1 occurred at the intersection with Chevis Road, which serves as the primary access point for Southwest Elementary School.

3.5.3 Segment 2 Crash History

Segment 2 extends approximately 1.5 miles between Chevis Road and the Little Ogeechee River. Segment 2 crash frequency by severity and manner of collision over the five-year period between 2018 and 2022 is summarized in **Figure 40**.

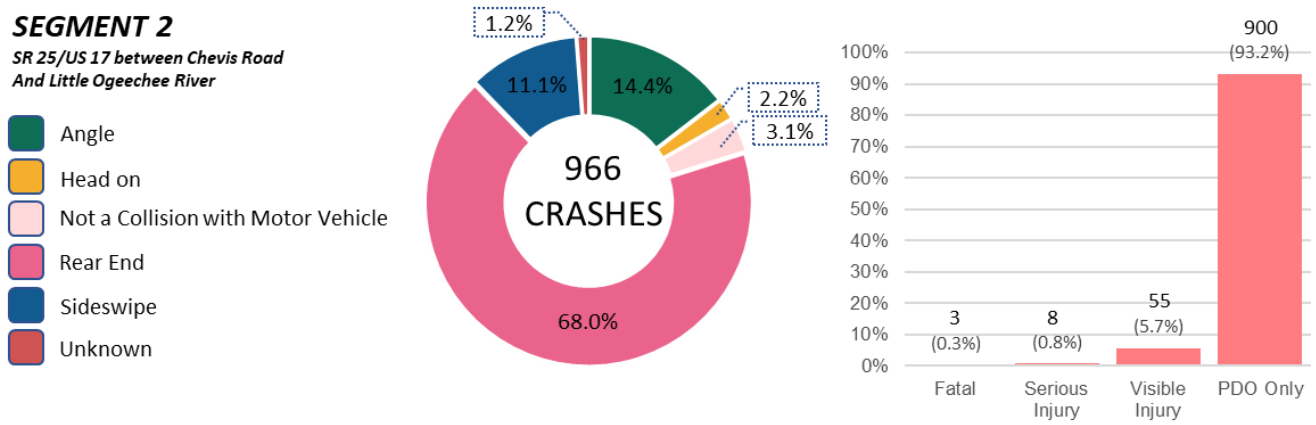


Figure 40: Segment 2 Crash Profile

As shown in **Figure 40**, rear-end crashes (68.0%) were the predominant manner of collision observed in Segment 2 followed by angle crashes (14.4%) and sideswipe crashes (11.1%). This segment exhibited the highest proportion of sideswipe, same direction crashes and rear-end crashes among the studied segments. These trends are likely attributable to the high density of unsignalized driveways, most of which are not served by right-turn lanes, and driver lane-changing behavior related to the heavy northbound right-turn movement from SR 25/US17 to SR 204/Abercorn Street. Of the rear-end crashes observed, those with reported contributing factors were primarily related to inattention and following too closely, both of which may be related to the stop-and-go traffic present on Segment 2 during the peak periods of the day.

As displayed in **Figure 41**, clusters of crashes are present throughout Segment 2 but are concentrated near the Walmart driveway and the SR 204/Abercorn Street ramp termini. Although most crashes (93.2%) observed along Segment 2 were PDO, there were eight serious injury crashes and three fatal crashes, one of which involved a pedestrian crossing SR 25/US 17 at the intersection with Fountain Road during day light hours.

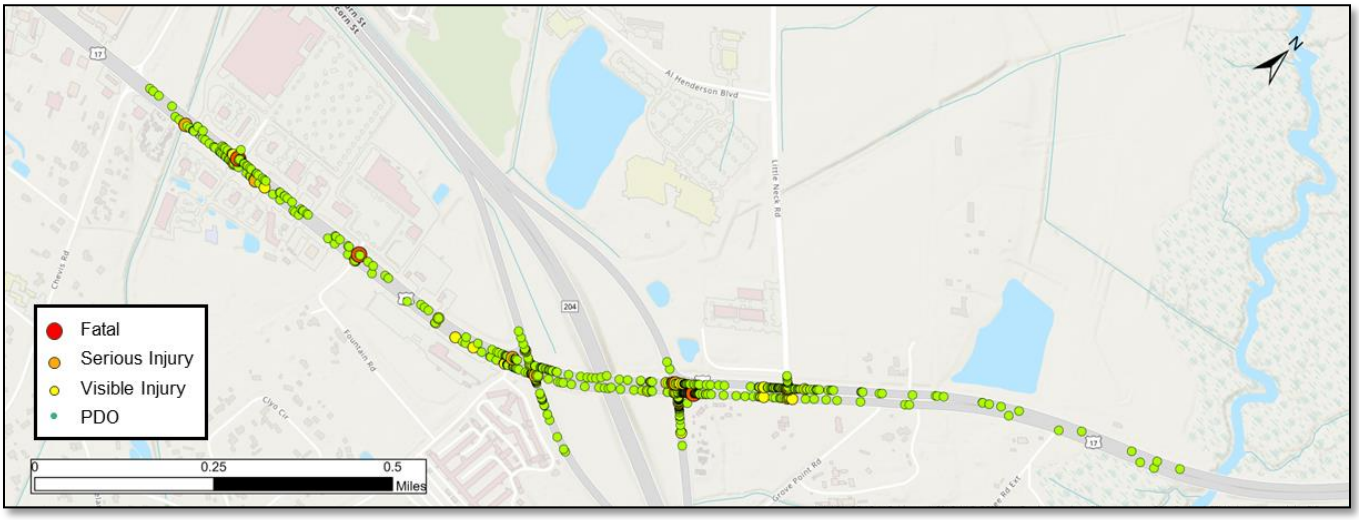


Figure 41: Segment 2 Crash Severity Map

3.5.4 Segment 3 Crash History

Segment 3 extends approximately 2.9 miles between the Little Ogeechee River and SR 307/ Dean Forest Road. Segment 3 crash frequency by severity and manner of collision over the five-year period between 2018 and 2022 is summarized in **Figure 42**.

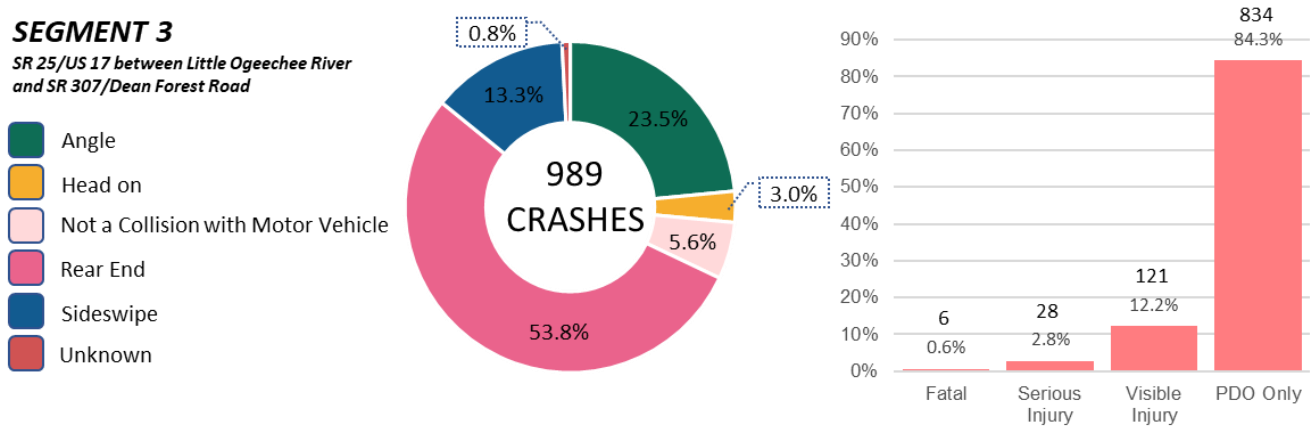


Figure 42: Segment 3 Crash Profile

As shown in **Figure 42**, rear-end crashes (53.8%) were the predominant manner of collision in Segment 3 followed by angle crashes (23.5%) and sideswipe crashes (13.3%). Segment 3 included the greatest number of fatalities (6/24, or 25%), serious injuries (28/92, or 30%), and pedestrian-involved crashes (11/34, or 32%) among the studied segments. This is likely attributable to higher traffic volumes and limited pedestrian facilities along Segment 3.

As shown in **Figure 43**, crashes are generally clustered at the major intersections along this segment. including Quacco Road, Larchmont Drive, Berwick Boulevard, Cottonvale Road, and SR 307/ Dean Forest Road. Most crashes occurring in Segment 3 were PDO (84.3%); however, there were 28 serious injury crashes, three of which involved pedestrians and one that involved a bicycle. All of the

serious injury crashes occurred during dark conditions. There were also six fatal crashes observed along this section, two of which involved pedestrians at night in non-lit areas. These trends indicate the need to enhance pedestrian and bicycle accommodations and to improve lighting, particularly at intersections and areas with non-motorist demand.

Figure 43: Segment 3 Crash Severity Map

3.5.5 Segment 4 Crash History

Segment 4 extends approximately 1.4 miles between SR 307/Dean Forest Road and Fall Avenue/ Buckhalter Road. Segment 4 crash frequency by severity and manner of collision over the five-year period between 2018 and 2022 is summarized in **Figure 44**.

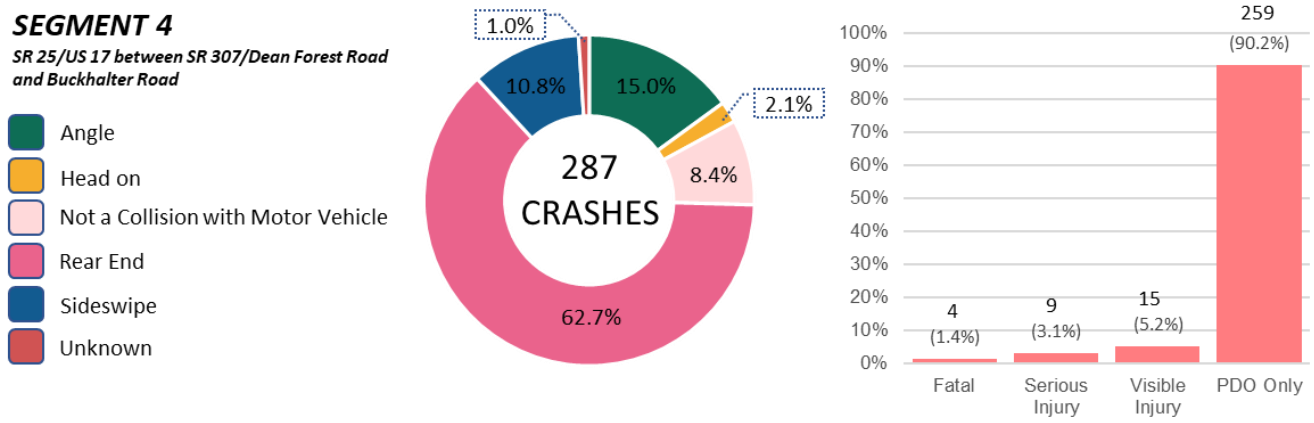


Figure 44: Segment 4 Crash Profile

As shown in **Figure 44**, rear-end crashes (62.7%) were the predominant manner of collision in Segment 4 followed by angle crashes (15.0%) and sideswipe crashes (10.8%). The majority of the crashes along Segment 4 happened at or near intersections as illustrated in **Figure 45.**

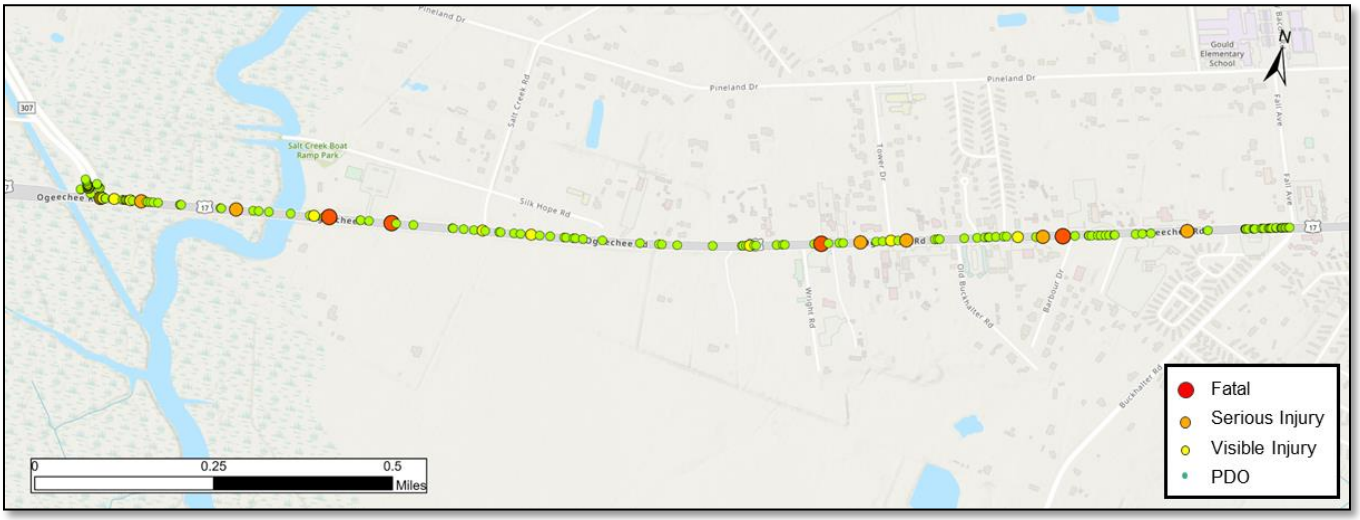


Figure 45: Segment 4 Crash Severity Map

Segment 4 exhibited the lowest total number of crashes (287) over the study period, and most crashes were PDO (90.2%). Four fatal crashes occurred along this segment over the five-year study period, each of which involved pedestrians at night in non-lit areas. These trends indicate the need to improve pedestrian and bicycle accommodations along this segment, which is particularly important given that Segment 4 provides access to and from a mix of land uses, including parks, schools, residential areas, and businesses.

3.5.6 Segment 5 Crash History

Segment 5 extends approximately 1.1 miles between Buckhalter Road and Chatham Parkway. Segment 5 crash frequency by severity and manner of collision over the five-year period between 2018 and 2022 is summarized in **Figure 46**.

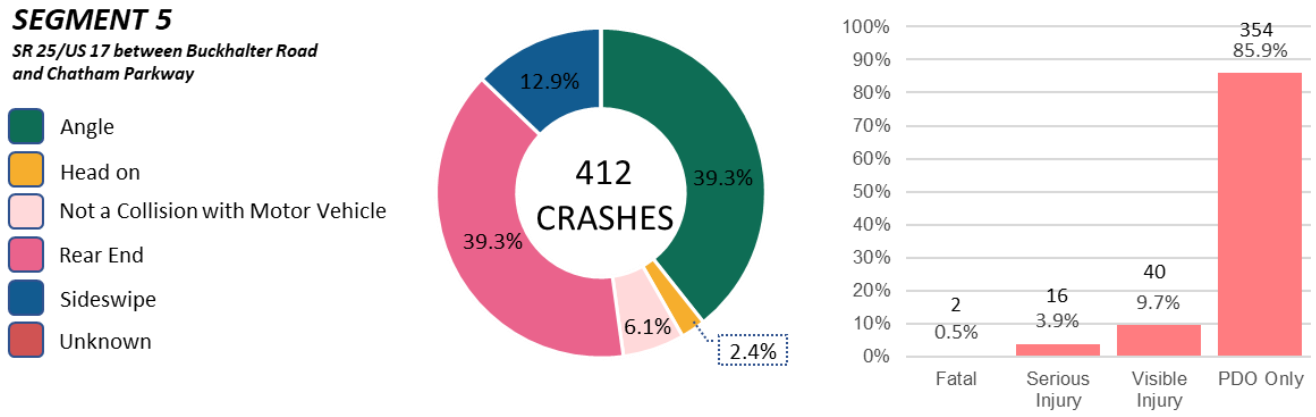


Figure 46: Segment 5 Crash Profile

As shown in **Figure 46**, rear-end crashes (39.3%) were the predominant manner of collision in Segment 5, but this segment also exhibited the highest proportion of angle crashes (39.3%) among the six contextual segments. As shown in **Figure 47**, approximately half of all crashes observed in Segment 5

occurred at or near the Chatham Parkway intersection. Most crashes were PDO (85.9%); however, 16 serious injury crashes occurred on Segment 5, five of which happened near the intersection with Chatham Parkway. There were also two fatal crashes that occurred along this segment, one of which involved a pedestrian at night in a non-lit area. These trends may be attributable to recurring congestion at Chatham Parkway intersection during peak periods of travel and poor access management throughout the segment.

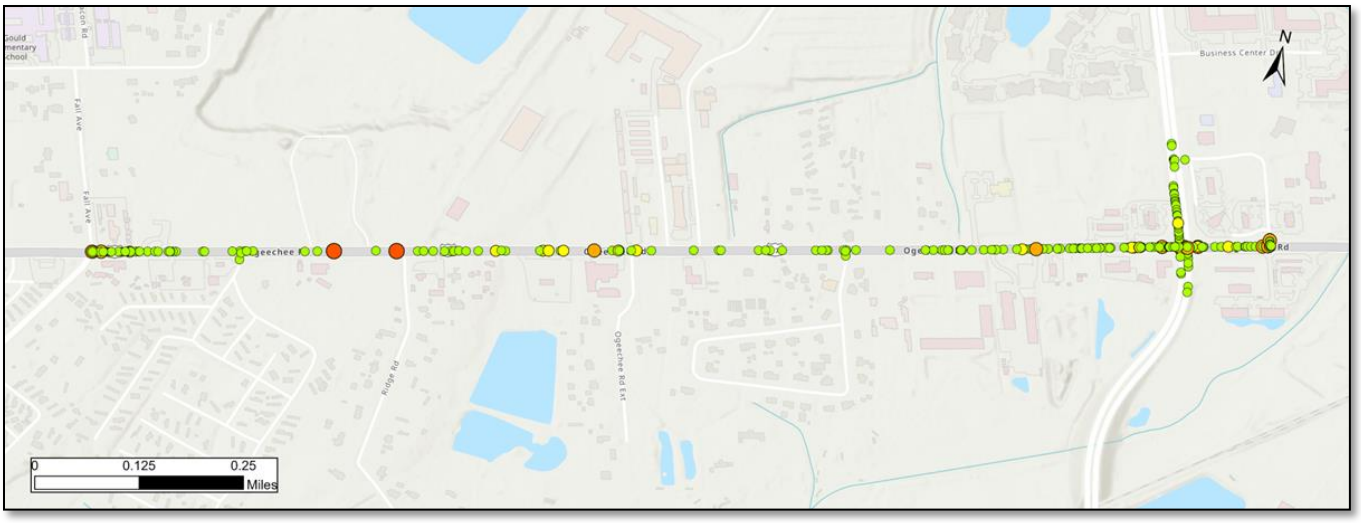


Figure 47: Segment 5 Crash Severity Map

3.5.7 Segment 6 Crash History

Segment 6 extends approximately 1.6 miles between Chatham Parkway to Plymouth Avenue/Mills Lane. Segment 6 crash frequency by severity and manner of collision over the five-year period between 2018 and 2022 is summarized in **Figure 48**.

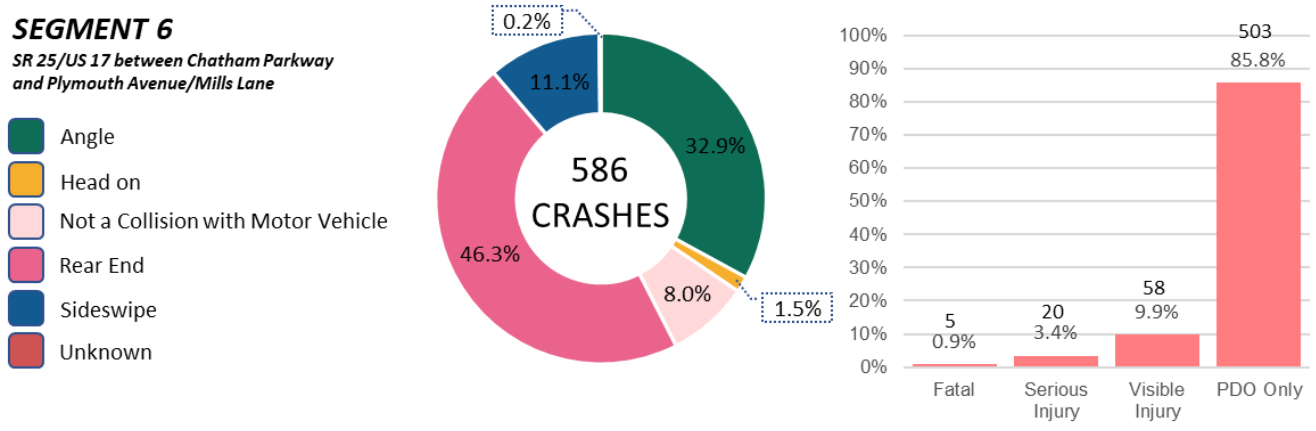


Figure 48: Segment 6 Crash Profile

As shown in **Figure 48**, rear-end crashes (46.3%) were the predominant manner of collision in Segment 6 over the study period, and this segment exhibited a high proportion of angle crashes (32.9%). The map shown in **Figure 49** demonstrates that more than half of the crashes reported in this segment occurred

at the intersections of SR 35/US 17 with Gamble Road and with the I-516/SR 21 ramp termini. Most crashes were PDO (85.8%), but five fatalities occurred along this section, four of which involved pedestrians. There were 20 serious injury crashes that occurred along this section, five of which occurred at the intersections of SR 25/US 17 at Gamble Road and at the I-516/SR 21 ramp termini.

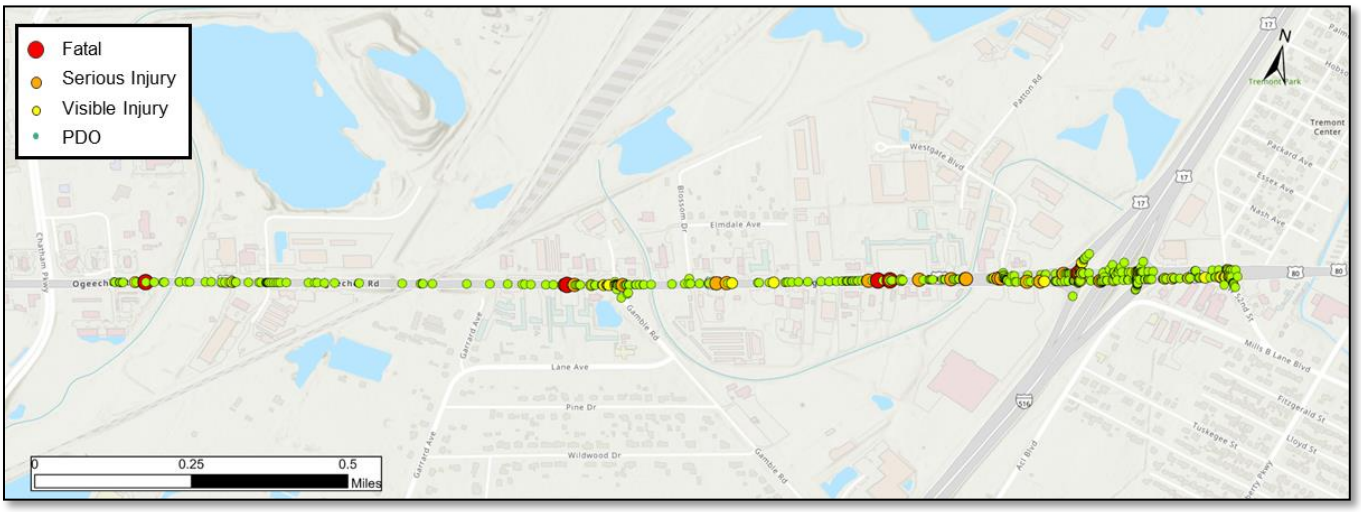


Figure 49: Segment 6 Crash Severity Map

3.5.8 Pedestrian/Bicycle Involvement

As shown in **Figure 50,** 50 pedestrian-involved and 17 bicycle-involved crashes occurred along the corridor between 2018 and 2022; of the 50 pedestrian-involved incidents, 13 resulted in fatalities, 13 resulted in serious injuries, and 56% of all incidents occurred at night in non-lit areas which may be attributable to a lighting deficiency throughout the corridor.

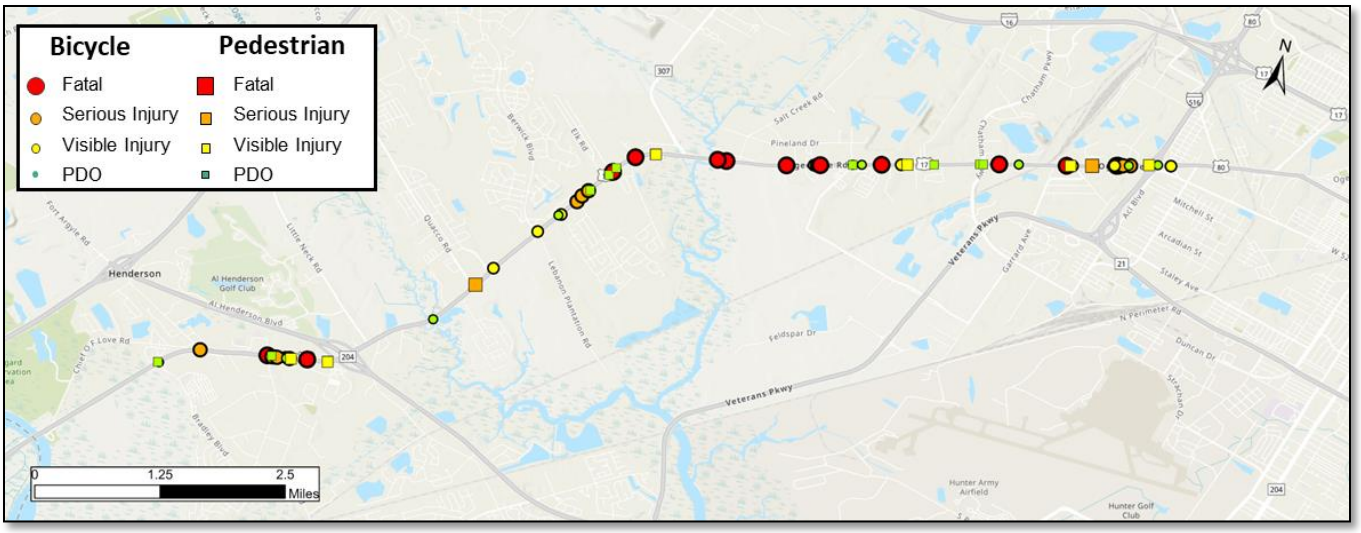


Figure 50: Summary of Bicycle and Pedestrian Crashes

Georgia State Bicycle Route 95 runs along the entire SR 25/US 17 study corridor, and the ECG traverses SR 25/US 17 from south of the Bryan County/Chatham County line to Chief O.F. Love Road and from Canebrake Road to Salt Creek Road. The corridor's cross-section alternates between an urban section

with curb and gutter and a rural section with varying shoulder widths, and this creates a general disjointedness that is not conducive to effective pedestrian or bicycle connectivity. In fact, the ECG labels SR 25/US 17 as a "High-Stress Road," which is nomenclature for facilities on which greenway users are advised to exercise caution. During field observations, moderate pedestrian and cycling activity was noted throughout the corridor but was most prevalent along residential and commercial areas in Segment 2 through Segment 6. Bicycle lanes are present along the corridor from south of Fords Pointe Circle/Bradley Boulevard to SR 307/Dean Forest Road, but sidewalks are sparse, and most of the study corridor has no sidewalks.

3.5.9 Safety Analysis Summary

The corridor and segment safety analyses presented in the previous subsections illustrate that trends in existing crash history are a product of the SR 25/US 17 corridor characteristics, specifically:

- ***The SR 25/US 17 corridor exhibited a fatal crash rate nearly triple the statewide average and an overall crash rate approximately double the statewide average for principal arterials*.** Much of these trends may be attributable to a lack of pedestrian and bicycle facilities throughout the corridor despite apparent demand. Of the 24 fatal crashes that occurred over the study period, 13 (54%) involved a pedestrian or cyclist, and 10 (42%) occurred at night in non-lot areas which may be attributable to a lighting deficiency throughout the corridor.
- ***This study corridor includes approximately 244 unsignalized driveways, which is equivalent to an average spacing of 23 driveways per mile*.** Full-movement, unsignalized driveways are most heavily concentrated between Fall Avenue/Buckhalter Road and Plymouth Avenue/Mills Lane (Segment 5 and Segment 6). Unsurprisingly, 355 (43%) of all angle crashes occurred in these segments despite comprising just 25% of the study corridor by length.
- ***Congested conditions at major intersections along the study corridor likely contribute to an increased frequency of rear-end crashes*.** Approximately 2,038 (56%) of all crashes in the study database were rear-end crashes; 1,189 (33%) of these occurred between the intersections with Chevis Road and SR 307/Dean Forest Road, particularly near the SR 204/Abercorn Street interchange, where congested conditions are prevalent. Elsewhere, significant congestion was observed near the intersection with Chatham Parkway, particularly during the PM peak period.

These findings suggest that access management improvements are needed across the corridor, particularly on Segment 5 and Segment 6, which include approximately 41 unsignalized driveways per mile. Implementation of raised median sections and reduced conflict intersection designs have the potential to mitigate these trends and reduce disruptions to traffic operations during the peak hours of travel. Second, studies have shown that a positive correlation exists between congestion and crash rates. The need for geometric and intersection control upgrades near the SR 204/Abercorn Street interchange and the intersection with Chatham Parkway is evident based on crash trends. Finally, the high frequency of pedestrian-involved crashes during dark conditions and limited existing non-motorist infrastructure on the SR 25/US 17 corridor indicate that corridor-wide investments in non-motorized facilities and improved lighting could be effective safety countermeasures.

4 Future Conditions Assessment

4.1 Introduction

The Existing Conditions Assessment detailed in **Section 3** summarized a comprehensive data collection effort, existing land use summary, origin-destination analysis, capacity analysis, and safety analysis conducted to assess existing conditions along the SR 25/US 17 corridor and to identify transportation challenges, needs, and opportunities to be considered throughout the remainder of the study. The SR 25/US 17 corridor from the Chatham County/Bryan County line to Plymouth Avenue/Mills Lane east of I-516/SR 21 serves as a key alternate to I-95 and I-16, provides access to freight routes such as SR 307/Dean Forest Road and to GPA facilities, connects the City of Richmond Hill and Bryan County to Chatham County, and comprises parts of Georgia State Bicycle Route 95 and the ECG. The 10.7-mile-long study corridor includes a diverse mix of commercial, residential, and recreational facilities, and portions of the route are utilized by the SCCPSS and CAT. Prioritizing the safe and efficient movement of all modes along this multi-functional route is key to the long-term success of the surrounding area. To satisfy the goals and objectives of the CORE MPO's MTP and complementary transportation planning initiatives, the findings summarized in **Section 3** suggest the following:

- ***Capacity improvements should be prioritized at the corridor's critical bottlenecks.*** Approximately 56% of all crashes in the study database were rear-end crashes, and 33% of these occurred between the intersections with Chevis Road and SR 307/Dean Forest Road, particularly near the SR 204/Abercorn Street interchange, where congestion is prevalent during the peak periods of travel. Potential improvements along SR 204/Abercorn Street are under consideration as part of PI No. 0019010, and an additional Chatham County project proposes improvements on Little Neck Road near the intersection with SR 25/US 17. Potential geometric upgrades have also been recommended at Chatham Parkway as part of GDOT's *Coastal Empire Transportation Study*. These improvements would help mitigate existing operational constraints, but further improvements are recommended on SR 25/US 17 as growth occurs over the short- and long-term horizons.
- ***Non-motorist facilities should be considered throughout the SR 25/US 17 corridor*****.** The corridor exhibited a fatal crash rate nearly triple the statewide average for principal arterials, and of the 24 fatal crashes that occurred over the study period, 13 (54%) involved a pedestrian or cyclist. The corridor's alternating cross section and inconsistent provisions for non-motorists discourage walking and cycling activity and create a "High-Stress Road" environment as classified by the ECG. Providing new non-motorized facilities and new or upgraded crossings would address recommendations from the CORE MPO's NMTP as well as a recent Safety Screening completed by GDOT. Further, these facilities would better serve alternative travel modes while mitigating the risk of future pedestrian-involved fatal and serious injury crashes.
- ***Access management strategies should be implemented throughout the SR 25/US 17 corridor to reduce conflicts, manage speeds, and plan for future growth*****.** The study corridor includes approximately 244 unsignalized driveways, equal to an average spacing of 23 driveways per mile. The 2.7-mile-long segment between Fall Avenue/Buckhalter Road and Plymouth Avenue/Mills Lane exhibits a density of approximately 41 driveways per mile and accounts for nearly half of all angle crashes along the entire corridor. Proactive access management planning, including identifying locations for raised medians and reduced conflict intersections, will likely provide opportunities to enhance safety and mitigate congestion. Examples include the southern portion of the corridor where extensive residential development is anticipated between Fords Pointe Circle/Bradley Boulevard and Berwick Boulevard.

The outcomes of the Existing Conditions Assessment were used to inform the development of comprehensive improvement concepts for the SR 25/US 17 corridor. The remainder of this section summarizes future conditions along the study corridor with known roadway improvement projects, future development, and regional growth. Conceptual alternatives for the study corridor were evaluated against baseline "No-Build" traffic conditions under short-term (0-5 Years) and long-term (5+ Years) time horizons, and a list of recommended projects was compiled for consideration as part of the CORE MPO MTP process.

4.2 Background & Future Traffic Volume Development

4.2.1 Horizon Year No-Build Traffic Volume Development

The methodology and projected traffic volumes presented in this section were drawn from the *SR 25/ US 17 Corridor Study Traffic Forecasting Technical Memorandum* dated October 16, 2024. This Memorandum is attached in **Appendix A** for reference.

Baseline 2024 Existing Year traffic volumes were developed as discussed in **Section 3.4.2**. The future traffic volumes for the SR 25/US 17 corridor were approximated for the short- (i.e., Base Year, or 2030) and long-term (i.e., Design Year, or 2050) horizon years. Growth along the study corridor was estimated through a two-tiered approach. First, separate baseline background growth rates were calculated for the period from the Existing Year to the Base Year (i.e., 2024 through 2030) and the Base Year through the Design Year (i.e., 2030 through 2050). Background growth rates were determined for the corridor segments based on CORE MPO Travel Demand Model (TDM) outputs, historic AADT data from the GDOT Traffic Analysis and Data Application (TADA) website, and population projections from the Georgia Governor's Office of Planning and Budget (OPB). The resulting background growth rates are summarized in **Table 16**.

Table 16: **Selected Project Growth Rates**

Segments	2024-2030	2030-2050
Segment 1 SR 25/US 17 from Ogeechee River to Chevis Road	1.3%	1.0%
Segment 2 SR 25/US 17 from Chevis Road to Little Ogeechee River	1.4%	0.5%
Segment 3 SR 25/US 17 from Little Ogeechee River to SR 307/Dean Forest Road	1.3%	0.9%
Segment 4 SR 25/US 17 from SR 307/Dean Forest Road to Buckhalter Road/Fall Avenue	1.4%	1.0%
Segment 5 SR 25/US 17 from Buckhalter Road to Chatham Parkway	1.2%	0.7%
Segment 6 SR 25/US 17 from Chatham Parkway to Plymouth Avenue/Mills Lane	1.4%	1.3%
SR 204/Abercorn Street Ramps	1.3%	0.5%
I-516/SR 21 Ramps	1.1%	0.7%
Side Streets	1.6%	1.1%

Next, trips associated with known developments were assigned to the study network based on recently completed traffic impact analyses (TIAs) and other planning studies. Based on coordination with the Chatham County Department of Engineering ('the County") and the Chatham County – Savannah Metropolitan Planning Commission (MPC), multiple developments are expected to be constructed and operational along the study corridor by 2030. Notably, the Hopeton Landing and Keller Mix-Used

developments along Little Neck Road west of SR 25/US 17 are expected to generate approximately 36,000 net new daily trips upon full build-out. Based on updated development information provided on October 8, 2024, the Keller Mixed-Use development will be developed in two phases such that approximately 50% of this development will be operational by 2030. Given that construction has not started, 50% of both developments have been assumed to be completed by 2030 with the remaining 50% assumed to be completed by 2050. This assumption accounts for uncertainty surrounding the exact developmental timeframe.

All other known developments were assumed to be fully operational by 2030, and **Table 17** summarizes the developments expected to impact the study corridor. Where trip generation estimates were not provided by a supporting study, the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, *11th Edition* was used to estimate the peak hour trip-making characteristics of the developments listed in **Table 17**.

Table 17: **Summary of Known Developments**

Development Name	Description/Land Use(s)	Source	Horizon
Bradley Boulevard (East of Study Area)			
Alta Bradley Development	246 apartment units and 9 acres of commercial property	*Traffic Impact Analysis* (Thomas & Hutton, 2022)	Short-Term (2030)
Canebrake Road (East of Study Area)			
Pointe Grand Savannah	348 apartment units, 63 Townhomes and 25,000 square feet of Fire Station building	*Traffic Impact Analysis* (Lumin8, 2023)	Short-Term (2030)
Little Neck Road (East of Study Area)			
Hopeton Landing Development	478 acres used for a mix of residential, commercial and institutional uses	*Traffic Impact and Access Study* (EPC, LLC, 2021)	Short-Term (2030)/ Long-Term (2050)
Keller Mixed-Use Development	Total of 240,000 square feet used for 534, multifamily housing and 308 units of senior living, and their amenities	*Traffic Study* (A & R Engineering Inc., 2024)	Short-Term (2030)/ Long-Term (2050)
Berwick Boulevard (West of Study Area)			
Waterford Subdivision Residential Development	188 acres used for 171 single family detached and 112 single family attached townhomes	*Traffic Impact Study* (NV5 Engineers and Consultants, Inc., 2023)	Short-Term (2030)
Cottonvale Road (East of Study Area)			
Lebanon Plantation Development	237 acres used for 290 single family residences with amenities	*Rezoning Application* (Thomas & Hutton, 2022)	Short-Term (2030)
Cottonvale Road (West of Study Area)			
Olympus Berwick	13 acres used for 180 multifamily residential units	*Trip Generation Summary* (Kimley-Horn, 2022)	Short-Term (2030)
Salt Creek Road (East of Study Area)			
Highway 17 Laydown Yard Development	9 acres of light industrial space	*Site Plan* (Ball Maritime Group, LLC, 2022)	Short-Term (2030)
SAIA Savannah Development	107,000 square feet of Warehousing Space	*Rezoning Application* (City of Garden City, 2024)	Short-Term (2030)
Buckhalter Road (East of Study Area)			
Southlake Savannah Development	26 duplex units 645 townhomes, 240 apartments	*Traffic Impact Analysis* (Bihl Engineering, 2023)	Short-Term (2030)
Chatham Parkway (West of Study Area)			
Savannah-Preston Drive Development	28 acres used for 312 multifamily residential units	*Site Plan (*KSH Engineering, 2024)	Short-Term (2030)

The roadway projects along and adjacent to the SR 25/US 17 corridor that could impact travel patterns in the area were identified by reviewing projects on GDOT's GeoPI database and the engineering projects listed on the County's website. These projects were incorporated into the traffic forecasting efforts and carried throughout the No-Build analyses. Further detail regarding these roadway projects is attached in **Appendix A**.

The 2030 and 2050 traffic forecasts were developed as follows:

- The balanced and factored 2024 Existing Year AADT volumes were adjusted using the chosen baseline growth rates.
- Existing K and D factors were applied to calculate baseline future DHVs.
- The 2030 Base Year and 2050 Design Year daily, AM peak hour, and PM peak hour traffic volumes were balanced as appropriate.
- Daily, AM peak hour, and PM peak hour trips associated with known developments were assigned to the balanced study network.

Each of these steps are discussed in greater detail in the *SR 25/US 17 Corridor Study Traffic Forecasting Technical Memorandum* dated October 16, 2024, attached in **Appendix A**. The balanced 2030 No-Build and 2050 No-Build traffic volume diagrams are provided in **Figure 51** through **Figure 59**.

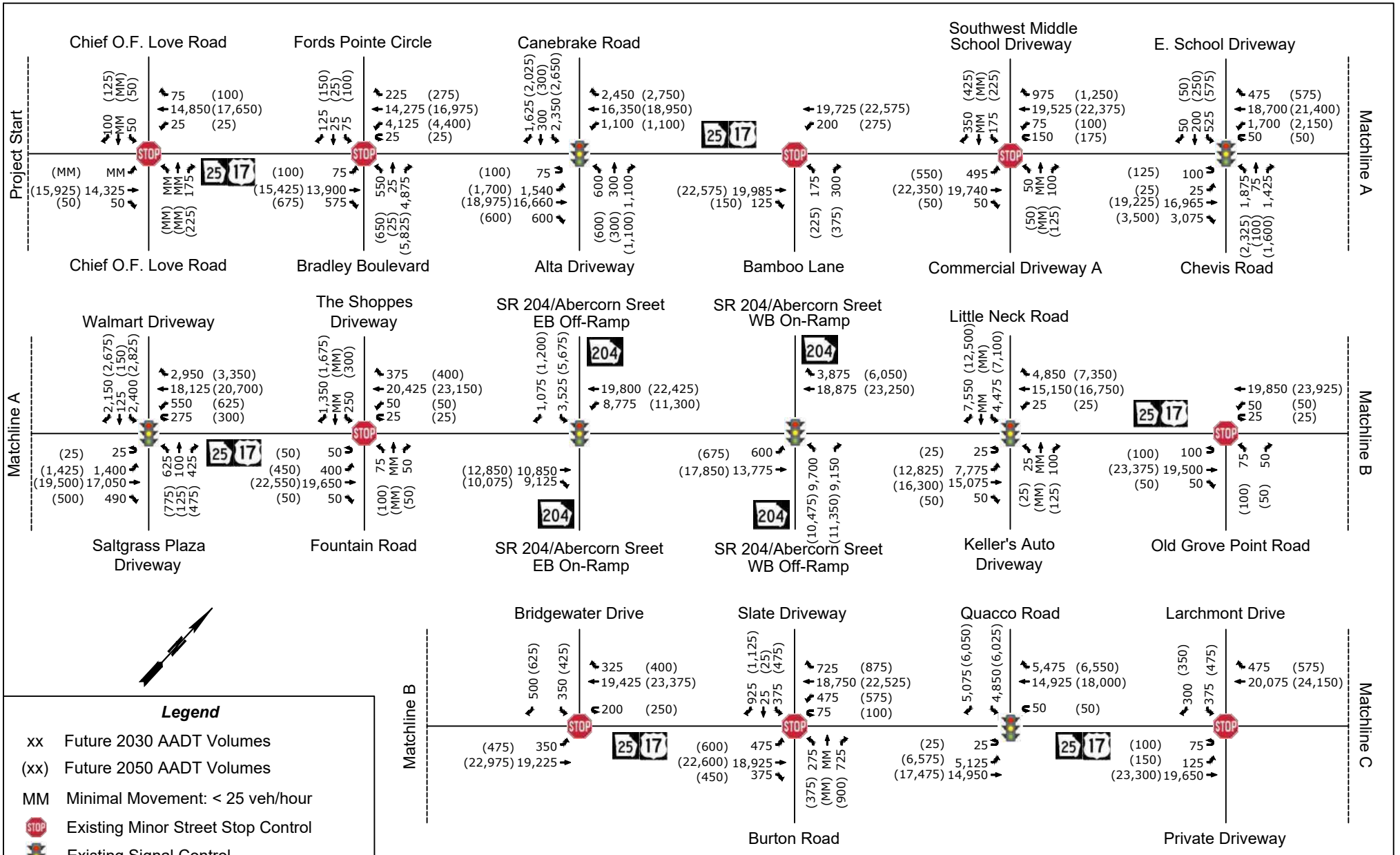


Figure 51 – 2030 No-Build & 2050 No-Build AADT Volumes
Intersections 1-16

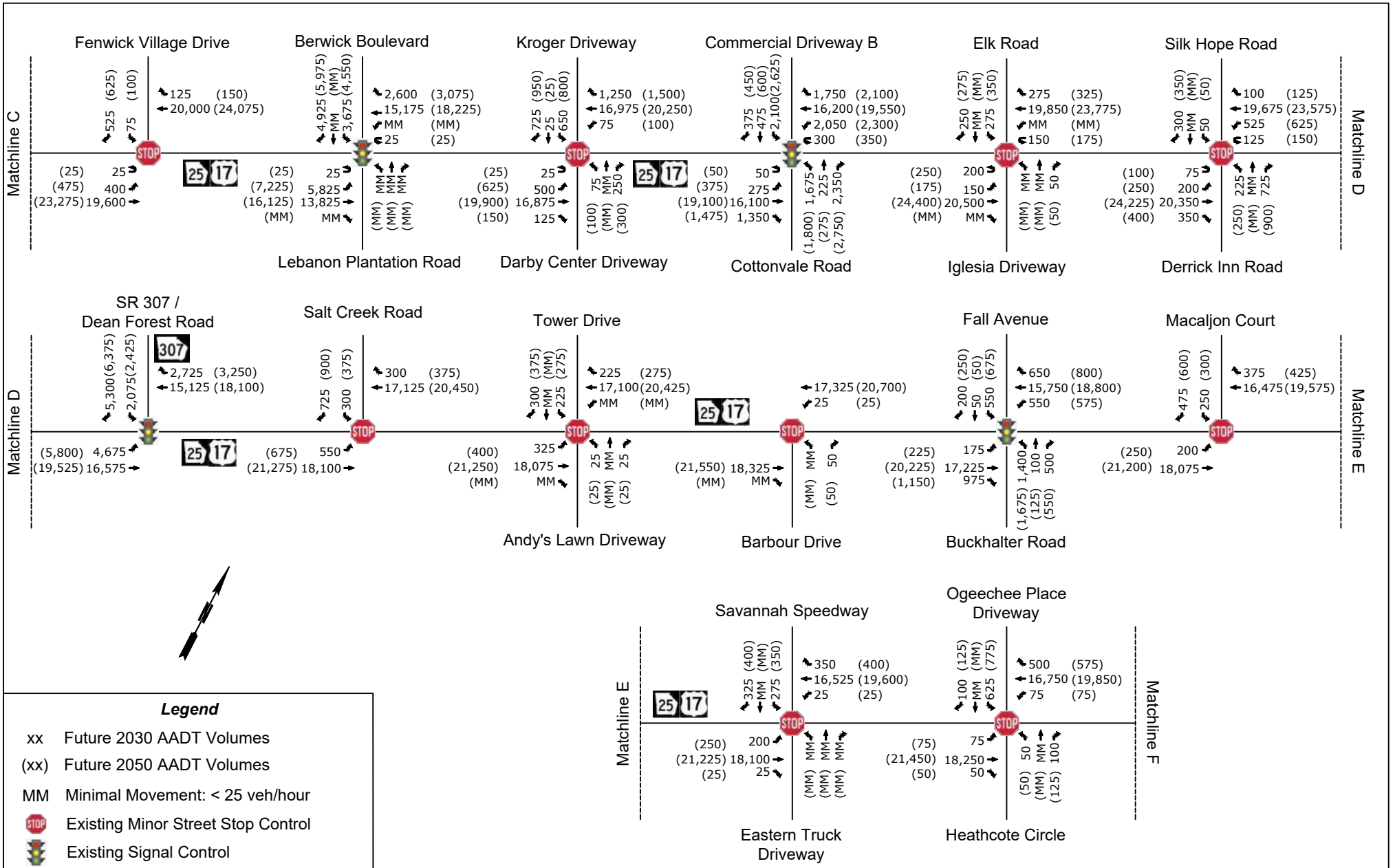
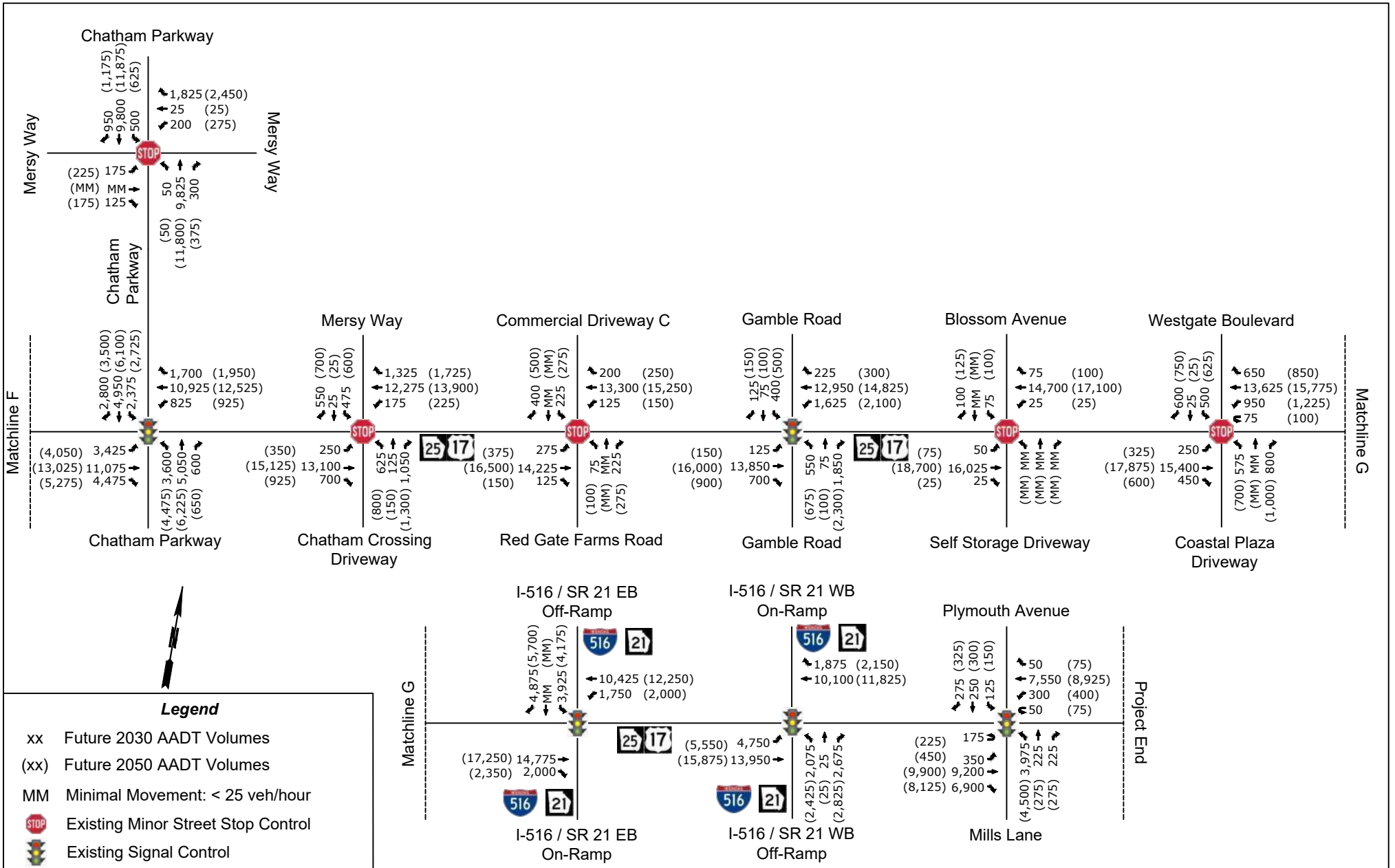


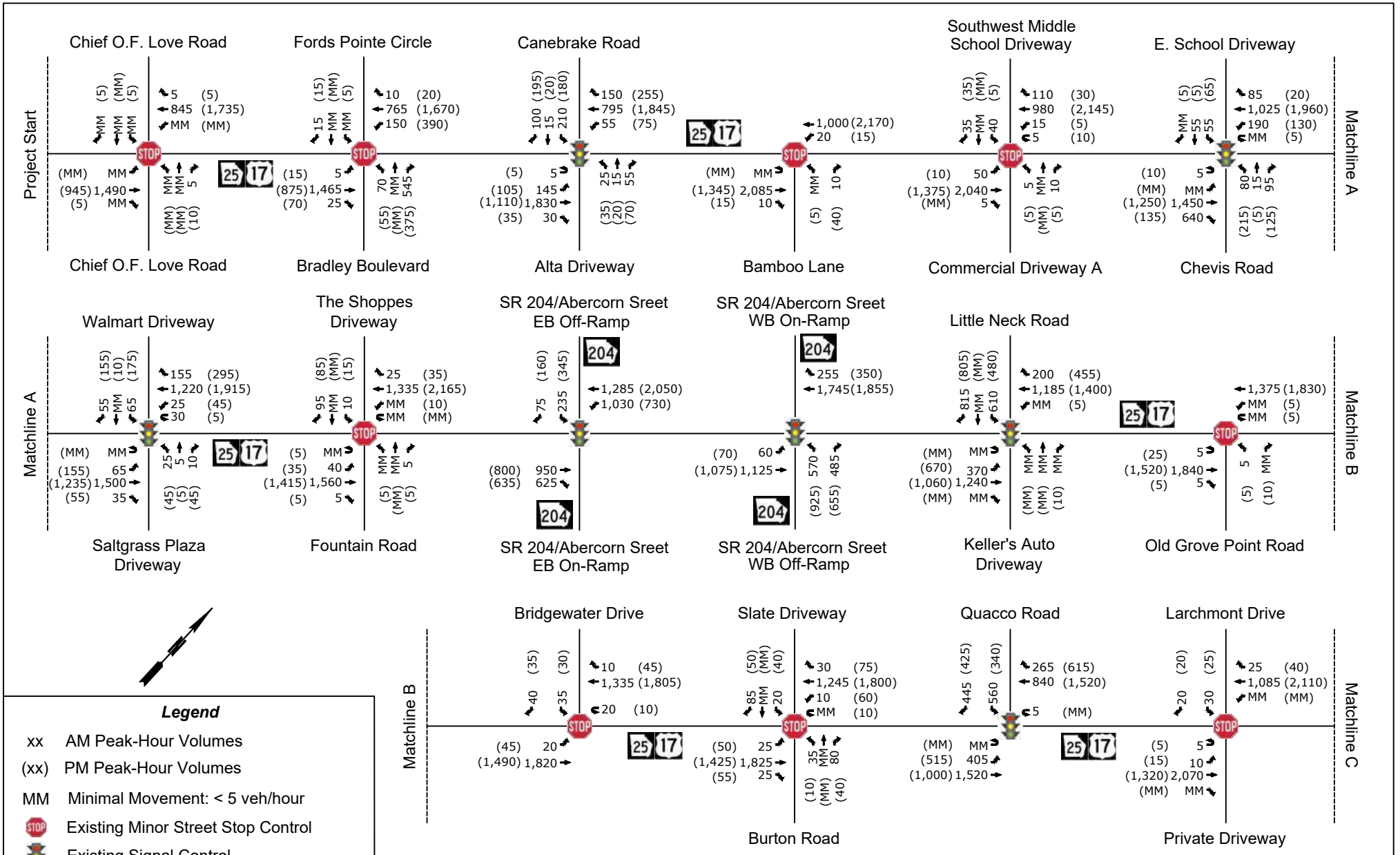
Figure 52 – 2030 No-Build & 2050 No-Build AADT Volumes
Intersections 17-30



Kimley»Horn

SR 25/US 17 CORRIDOR STUDY

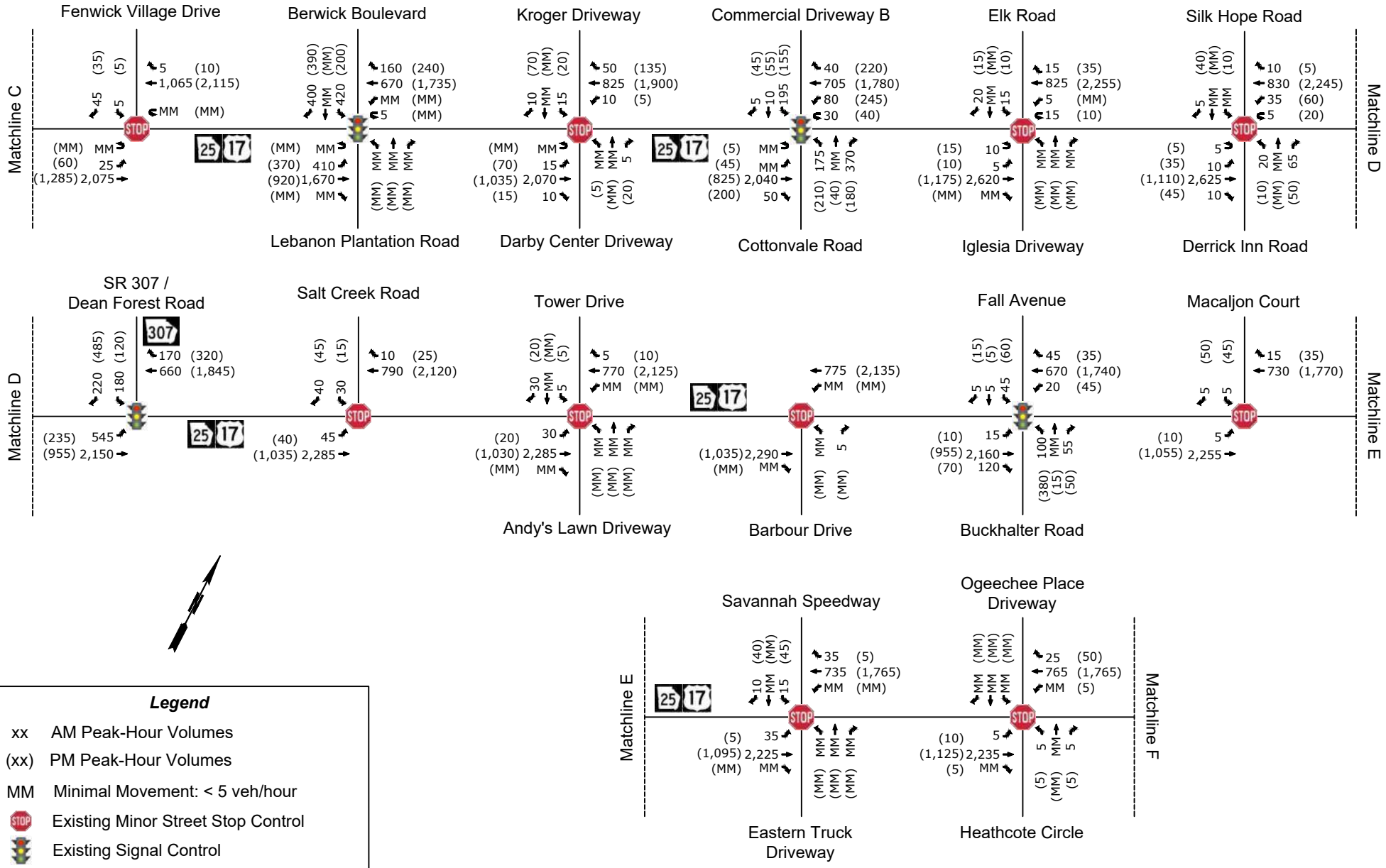
Figure 53 – 2030 No-Build & 2050 No-Build AADT Volumes
Intersections 31-40



Kimley»Horn

SR 25/US 17 CORRIDOR STUDY

Figure 54 – 2030 No-Build Peak Hour Volumes
Intersections 1-16



Legend

- xx AM Peak-Hour Volumes
- (xx) PM Peak-Hour Volumes
- MM Minimal Movement: < 5 veh/hour
- Existing Minor Street Stop Control
- Existing Signal Control

Kimley»Horn

SR 25/US 17 CORRIDOR STUDY

Figure 55 – 2030 No-Build Peak Hour Volumes
Intersections 17-30

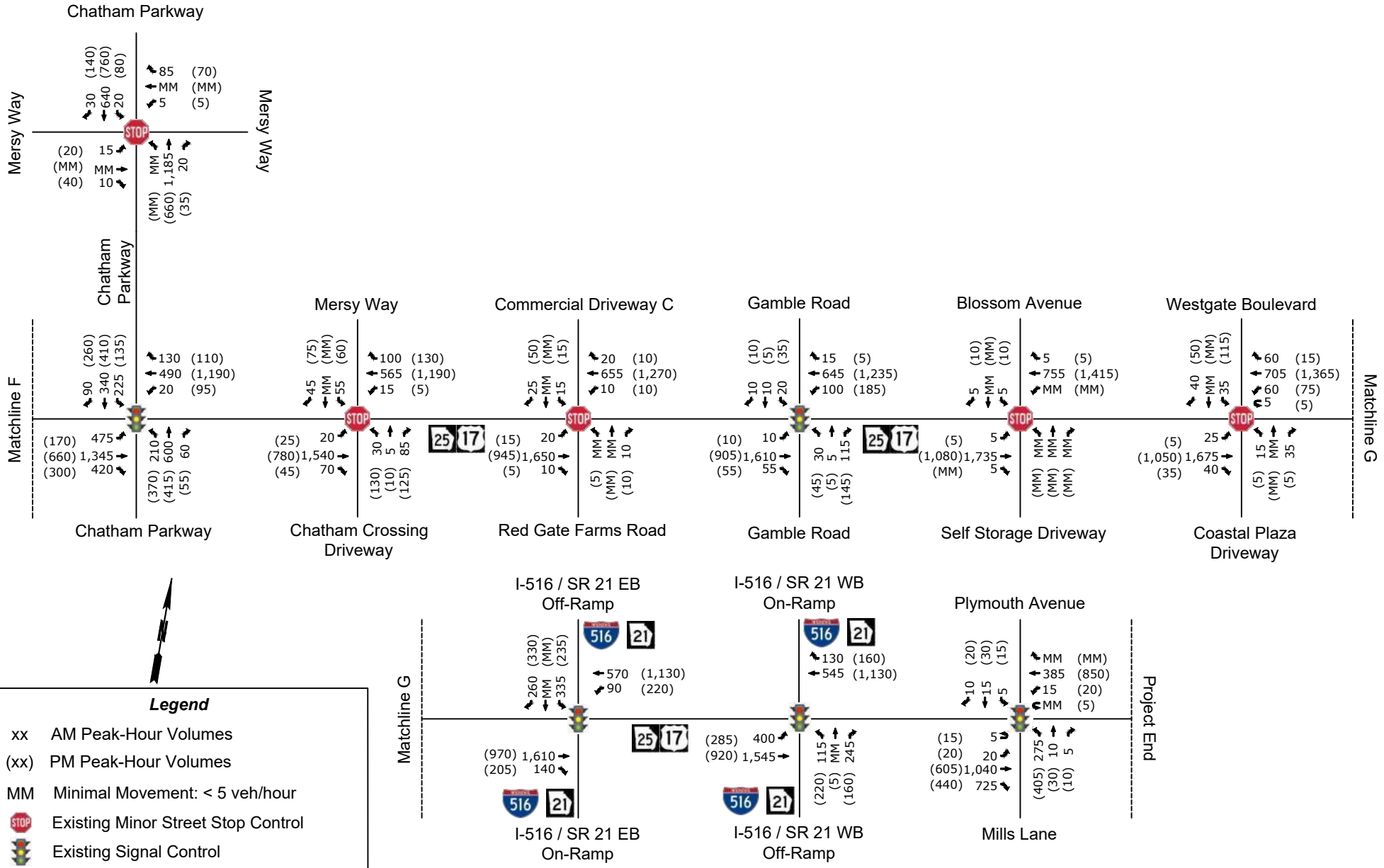


Figure 56 – 2030 No-Build Peak Hour Volumes
Intersections 31-40

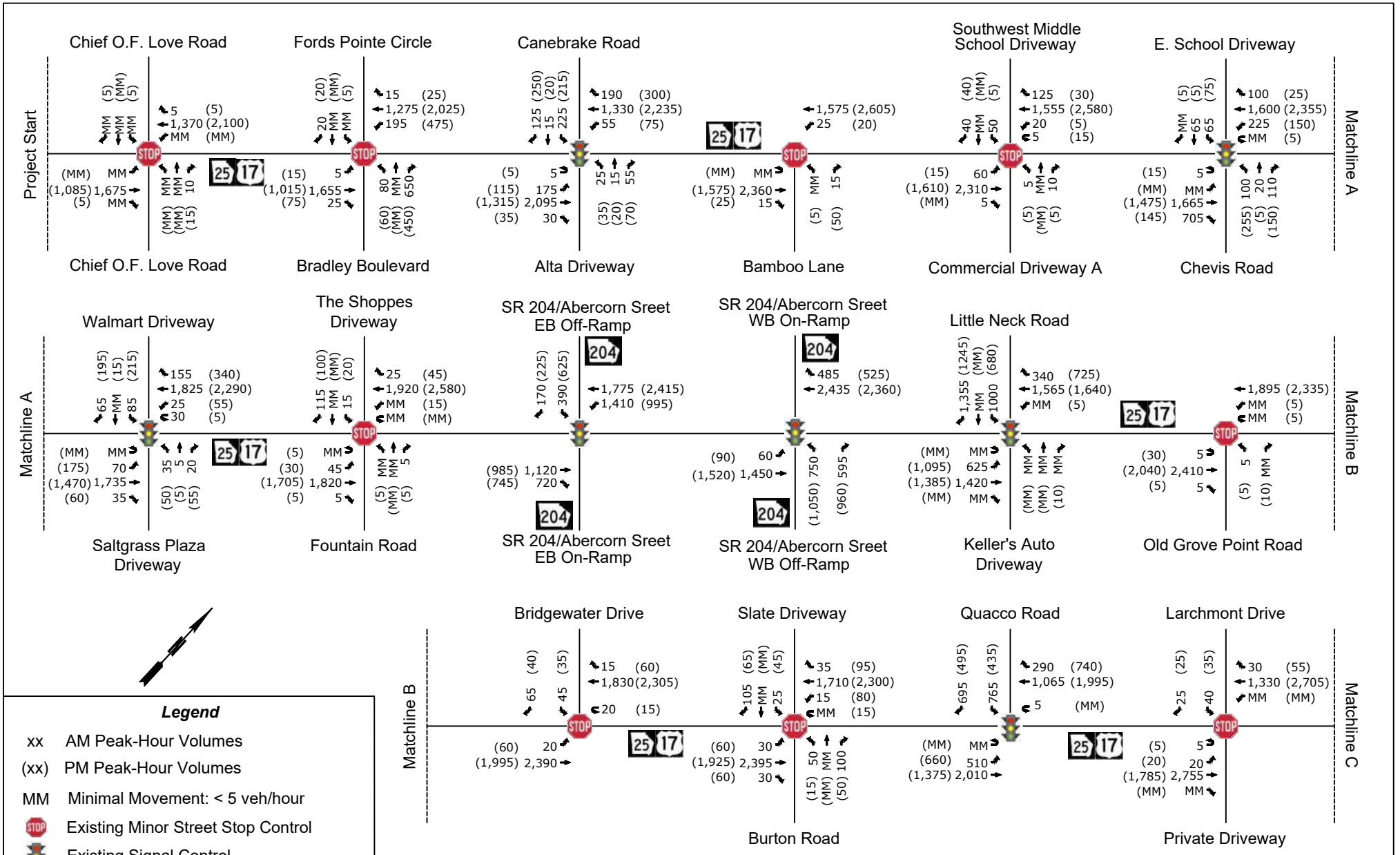


Figure 57 – 2050 No-Build Peak Hour Volumes
Intersections 1-16

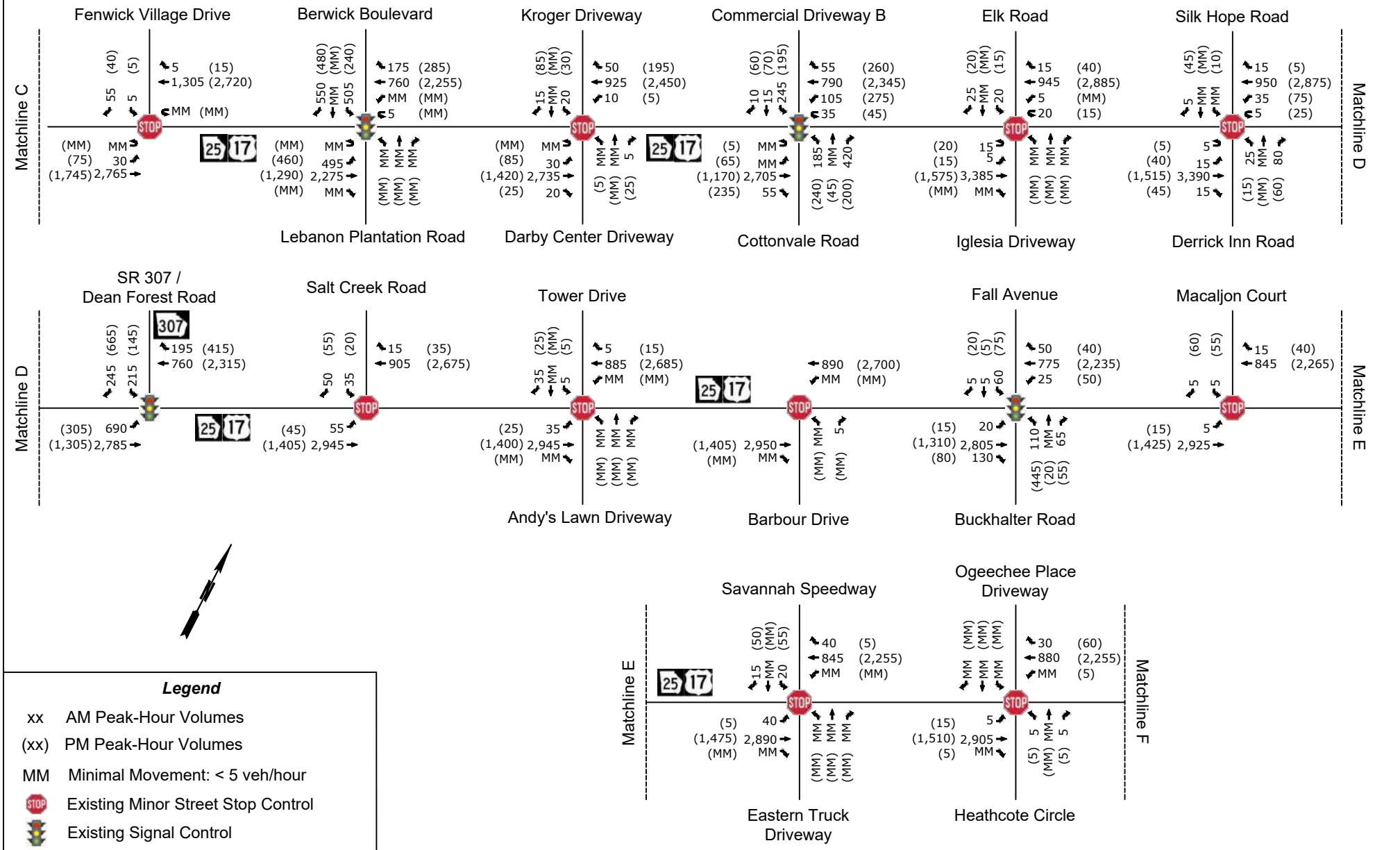
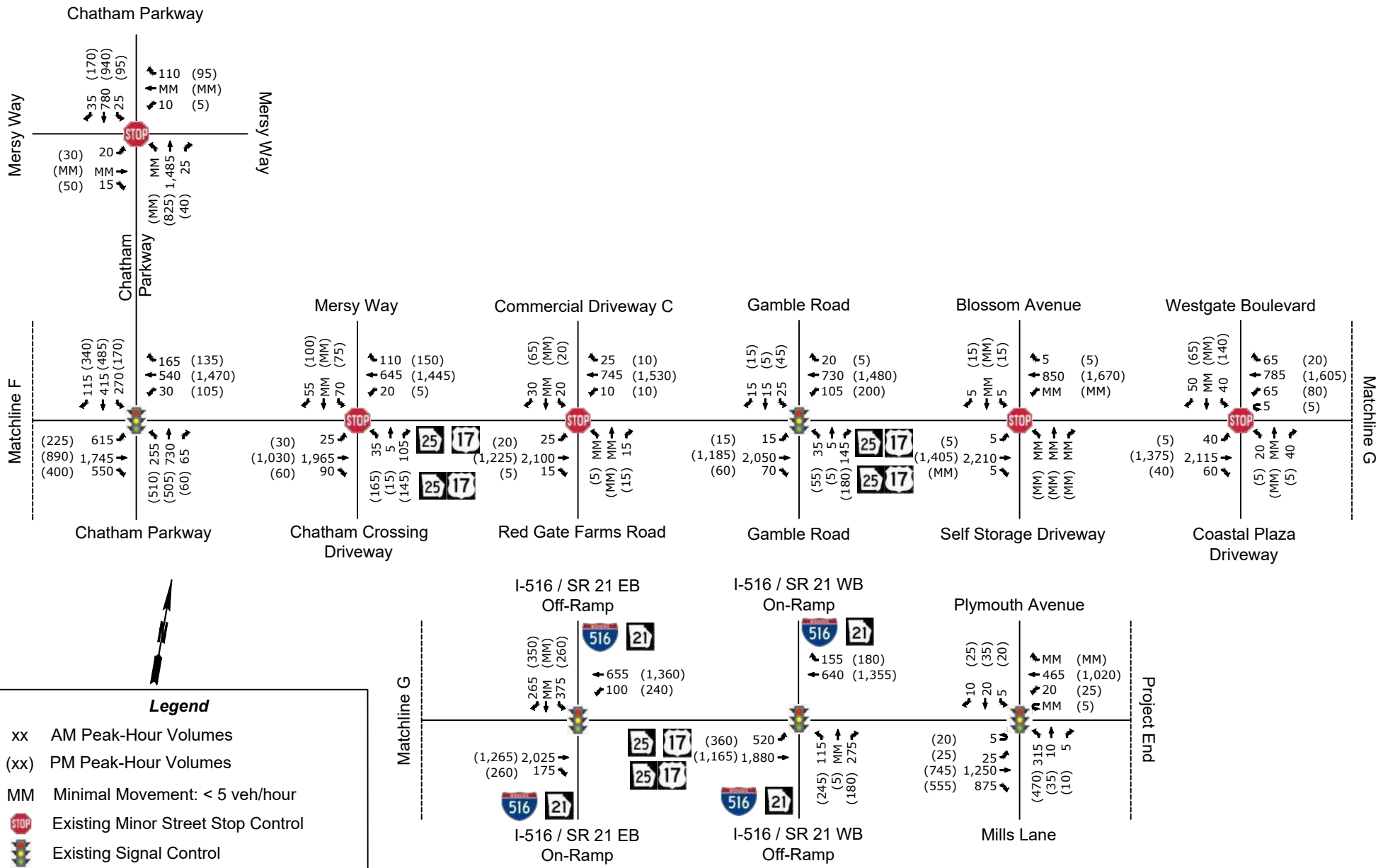


Figure 58 – 2050 No-Build Peak Hour Volumes
Intersections 17-30



Kimley»Horn

SR 25/US 17 CORRIDOR STUDY

Figure 59 – 2050 No-Build Peak Hour Volumes
Intersections 31-40

4.3 Horizon Year No-Build Traffic Analysis

4.3.1 Horizon Year No-Build Traffic Volume Development

As described in **Section 3.4**, Synchro Version 11 was used to develop a model of the study corridor based on field observations conducted in January 2024 and supplemental desktop review. This model was initially calibrated to existing geometry, intersection control, and travel patterns throughout the study area. These baseline model inputs were then adjusted to reflect the known roadway improvement projects and future development (including expected schedules of completion) as summarized in **Section 4.2**. At the time of the Existing Conditions Assessment, Synchro 12 had not yet been released; therefore, all traffic models were later transferred or created using Synchro Version 12 software to ensure the most up-to-date results.

Throughout the remainder of this section, MOEs such as speed, travel time, control delay, and queue length post-processed from Synchro and SimTraffic software are compared across scenarios to assess traffic operations under baseline "No-Build" conditions and identify future operational constraints along the study corridor. Numeric results are converted to a letter grade-based LOS as defined by HCM6 Chapter 19/Signalized Intersections, Chapter 20/Two-Way Stop-Controlled Intersections, and Chapter 16/Urban Street Facilities. The thresholds used to make these LOS determinations are detailed further in **Section 3.4** along with key concepts that should be considered when interpreting the results presented herein.

Where applicable, traffic signal warrant analyses and GDOT Intersection Control Evaluations (ICE) analyses were performed based on guidance within the GDOT *Design Policy Manual,* Part 4 of the *Manual on Uniform Traffic Control Devices* (MUTCD), and GDOT's Policy 4A-5 – *Intersection Control Evaluation (ICE) Policy*.

4.3.2 Intersection Analysis Results

Capacity analysis results for each of the study intersections are summarized by contextual segment in **Table 18** (2030 No-Build) and **Table 19** (2050 No-Build). Key findings are discussed below with a focus on trends in operations between 2030 and 2050 intersections exhibiting significant delay during one or both peak periods. All references to LOS refer to calculated, not observed, values. For reporting purposes, SR 25/US 17 is designated with a north-south orientation throughout the study corridor.

Segment 1 – Southern Gateway

As shown in **Table 18** and **Table 19**, the intersection with Canebrake Road is anticipated to operate acceptably through 2050 with the proposed intersection improvements as part of the Alta Bradley development. However, the intersection with Chevis Road is anticipated to operate at LOS F by 2030 during the AM peak hour despite improvements from PI 0017975 with continued degradation through 2050 as growth occurs along the study corridor. Further, all four of the unsignalized intersections within this segment are expected to have at least one minor-street approach operate at LOS E or worse in 2030. Of these, the intersection of SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard is anticipated to experience the most significant delays and queues with both minor street stop-controlled approaches experiencing over five minutes of delay during the 2030 AM peak hour.

To best facilitate operations and safety on the SR 25/US 17 corridor through the 2050 Design Year, the phased improvements listed in **Table 22** and **Table 23** at the conclusion of **Section 4.3.5** were advanced for further consideration as part of the GDOT ICE process. In Segment 1, these improvements include

widening SR 25/US 17 to a six-lane divided facility from approximately 600 feet south of Fords Pointe Circle/Bradley Boulevard to the northern terminus of Segment 1 and signalizing the Fords Pointe Circle/Bradley Boulevard intersection, when warranted. This signal is expected to meter through traffic which will provide opportunities for turning vehicles to maneuver through unsignalized intersections while reducing long delays and crashes. Additionally, access management strategies are recommended such as converting the unsignalized intersections to RCUT configurations. Finally, a shared-use path is recommended on both sides of SR 25/US 17 from approximately 725 feet south of Fords Pointe Circle/Bradley Boulevard to Chevis Road in accordance with recommendations from the CORE MPO's NMTP, stakeholder outreach efforts, and field observations.

Segment 2 – Commercial South

Under 2030 No-Build conditions, the signalized intersections along Segment 2 are projected to operate at LOS C or better. However, the SR 25/US 17 interchange with SR 204/Abercorn Street interchange is an existing bottleneck for through traffic, and related delay and queueing impacts extend through adjacent intersections during the peak periods of travel as noted in **Section 3.1.2**. Operations are expected to degrade based on projected growth along the corridor, and capacity analysis results indicate that auxiliary turn lane improvements at both ramp termini are warranted for acceptable operations. A sensitivity analysis was conducted to determine when the existing diamond interchange with auxiliary turn lane improvements would no longer operate acceptably. Based on results from this analysis, the interchange is anticipated to fail before 2040 due to significant delays and queues, and capacity analysis results indicate that an interchange reconfiguration is warranted. While committed projects such as Chatham County's Little Neck Road Rehabilitation Project and PI 0020089 aim to alleviate congestion at Little Neck Road and the SR 204/Abercorn Street interchange, respectively, further improvements may be needed as traffic volumes continue to grow and developments such as Hopeton Landing become fully operational.

The methodologies prescribed by HCM6 consider each intersection in isolation and do not account for the potential for queues to persist and propagate between intersections across multiple periods under oversaturated conditions as mentioned in **Section 3.4.3**. Therefore, it is anticipated that the corridor will operate worse than indicated by the capacity analysis results. Under 2050 No-Build conditions, the Little Neck Road intersection is expected to operate at LOS F during the AM peak hour, and the SR 25/ US 17 intersection with the SR 204/Abercorn Street westbound ramps is expected to operate at LOS E during the PM peak hour with long delays and queues for the westbound and southbound approaches. Further, the unsignalized minor street approaches at Fountain Road and Old Grove Point Road are anticipated to operate at LOS E or worse during both peak periods of travel.

To address these challenges, the phased improvements listed in **Table 22** and **Table 23** at the conclusion of **Section 4.3.5** were advanced for further consideration as part of the GDOT ICE process. These improvements include widening SR 25/US 17 to a six-lane divided facility throughout the entirety of Segment 2, reconfiguring the SR 204/Abercorn Street interchange to a diverging diamond interchange (DDI), and providing a fourth southbound through lane on SR 25/US 17 from the SR 204/Abercorn Street eastbound ramps to 350 feet north of Little Neck Road. Additionally, auxiliary turn lane improvements are recommended at the Little Neck Road intersection. Access management strategies are recommended such as converting the unsignalized intersections along the segment to RCUT configurations. Finally, a shared-use path is recommended on both sides of SR 25/US 17 throughout Segment 2 in accordance with recommendations from the CORE MPO's NMTP, stakeholder outreach efforts, and field observations.

Table 18: 2030 No-Build Intersection Capacity Analysis Results

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 1 — Southern Gateway												
1	SR 25/US 17 at Chief O.F. Love Road	Stop	D (26.7)	E (35.2)	A (9.7)	B (13.6)	-	E (46.6)	D (27.6)	C (15.6)	B (10.1)	-
2	SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard	Stop	F ($)	F ($)	A (9.5)	C (20.0)	-	F (87.2)	F (266.3)	C (15.3)	C (15.4)	-
3	SR 25/US 17 at Canebrake Road	Signal	D (44.9)	C (25.1)	C (29.5)	A (8.6)	C (24.3)	D (35.1)	C (27.3)	B (18.0)	A (8.4)	B (14.6)
4	SR 25/US 17 at Bamboo Lane	Stop	-	F (50.3)	C (18.9)	C (23.7)	-	-	C (19.0)	F (137.8)	B (14.6)	-
5	SR 25/US 17 at Southwest Middle School Driveway	Stop	F (120.7)	F (91.9)	B (11.1)	E (41.5)	-	F (71.3)	F (68.3)	C (21.7)	C (22.6)	-
6	SR 25/US 17 at Chevis Road	Signal	F ($)	D (39.2)	F (118.7)	C (22.2)	**F (87.2)**	F (264.7)	E (79.7)	B (19.9)	B (18.0)	C (28.9)
Segment 2 — Commercial South												
7	SR 25/US 17 at Walmart Driveway	Signal	C (26.1)	D (46.0)	A (4.6)	A (6.6)	A (6.8)	C (34.9)	D (39.9)	A (4.7)	B (19.3)	B (16.1)
8	SR 25/US 17 at Fountain Road	Stop	D (25.9)	F (58.3)	C (16.0)	B (14.5)	-	F (124.9)	F (214.5)	F (62.6)	B (13.3)	-
9	SR 25/US 17 at SR 204/Abercorn Street Eastbound Ramps	Signal	E (60.7)	-	D (39.1)	A (8.8)	C (20.6)	D (52.9)	-	D (41.7)	A (5.5)	B (17.1)
10	SR 25/US 17 at SR 204/Abercorn Street Westbound Ramps	Signal	-	D (45.0)	A (1.2)	C (26.8)	C (21.4)	-	D (41.6)	A (1.9)	C (27.2)	C (23.5)
11	SR 25/US 17 at Little Neck Road	Signal	D (37.1)	E (60.0)	B (19.1)	C (32.6)	C (29.1)	D (40.0)	E (59.2)	C (22.8)	D (37.0)	C (32.4)
12	SR 25/US 17 at Old Grove Point Road	Stop	-	E (41.9)	E (36.1)	F (109.8)	-	-	E (35.9)	F (62.3)	C (23.5)	-
Segment 3 — Berwick												
13	SR 25/US 17 at Bridgewater Drive	Stop	F (68.5)	-	B (12.9)	F (91.4)	-	F (79.4)	-	C (18.0)	E (41.6)	-
14	SR 25/US 17 at Burton Road	Stop	C (17.8)	D (34.4)	B (12.4)	C (17.4)	-	D (25.3)	C (17.3)	C (17.8)	C (18.3)	-
15	SR 25/US 17 at Quacco Road	Signal	D (37.9)	-	B (16.3)	B (10.0)	C (19.9)	D (44.0)	-	C (21.8)	A (6.1)	B (18.1)
16	SR 25/US 17 at Larchmont Drive	Stop	D (31.6)	-	B (14.5)	F (78.9)	-	F (79.9)	-	E (37.3)	C (23.3)	-
17	SR 25/US 17 at Olympus Fenwick Driveway	Stop	B (12.5)	-	B (10.9)	F (70.6)	-	C (23.1)	-	C (25.0)	C (23.0)	-
18	SR 25/US 17 at Berwick Boulevard	Signal	D (37.9)	D (41.9)	B (13.8)	B (19.7)	C (20.5)	D (47.9)	D (41.6)	B (16.0)	D (50.8)	D (38.7)
19	SR 25/US 17 at Kroger Driveway	Stop	E (38.8)	F (74.4)	A (9.6)	C (24.1)	-	F (66.5)	F (58.8)	C (21.1)	B (10.5)	-
20	SR 25/US 17 at Cottonvale Road	Signal	F (102.8)	F (143.9)	E (76.2)	A (5.7)	E (71.5)	D (49.8)	D (49.8)	B (11.6)	A (7.0)	B (15.5)
21	SR 25/US 17 at Elk Road	Stop	F (51.7)	-	B (13.0)	F (265.3)	-	F (127.0)	-	F (111.5)	C (22.8)	-
22	SR 25/US 17 at Silk Hope Road/Derrick Inn Road	Stop	B (12.0)	F (71.3)	B (11.5)	F (299.9)	-	E (37.0)	B (14.6)	F (55.9)	C (17.0)	-
23	SR 25/US 17 at SR 307/Dean Forest Road	Signal	D (37.5)	-	B (10.9)	C (22.2)	B (15.7)	D (49.7)	-	B (10.2)	C (20.2)	C (21.8)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2030 No-Build Conditions

1 Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

2 HCM6 does not support overall intersection LOS unsignalized intersections

3 $ Approach delay exceeds five minutes

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 4 — Silk Hope												
24	SR 25/US 17 at Salt Creek Road	Stop	C (24.8)	-	A (9.8)	A (0.0)	-	F (84.4)	-	D (26.4)	A (0.0)	-
25	SR 25/US 17 at Tower Drive	Stop	D (27.3)	F (100.9)	A (9.5)	C (22.2)	-	F (67.2)	F (58.3)	C (23.7)	B (10.6)	-
26	SR 25/US 17 at Barbour Drive	Stop	-	F (57.3)	A (0.0)	C (22.7)	-	-	C (22.5)	A (0.0)	B (10.7)	-
27	SR 25/US 17 at Fall Avenue/Buckhalter Road	Signal	E (55.7)	F (133.0)	C (21.3)	A (7.2)	C (24.2)	E (64.5)	E (70.8)	C (21.1)	D (38.4)	D (38.0)
Segment 5 — Commercial North												
28	SR 25/US 17 at Macaljon Court	Stop	C (21.5)	-	A (9.9)	A (0.0)	-	F (60.8)	-	C (26.5)	A (0.0)	-
29	SR 25/US 17 at Savannah Speedway	Stop	D (33.8)	-	B (10.0)	A (0.0)	-	F (98.9)	-	C (15.9)	A (0.0)	-
30	SR 25/US 17 at Heathcote Circle	Stop	E (45.2)	F (92.5)	A (9.4)	C (22.2)	-	F (54.5)	E (49.7)	C (19.7)	B (11.0)	-
31	SR 25/US 17 at Chatham Parkway	Signal	D (49.4)	D (50.8)	C (28.2)	D (40.4)	D (37.4)	F (108.8)	E (56.9)	C (31.6)	D (53.0)	E (58.8)
32	Chatham Parkway at Mersy Way	Stop	B (12.1)	A (0.0)	B (11.1)	C (16.6)	-	A (9.5)	A (0.0)	B (11.3)	B (11.9)	-
Segment 6 — Northern Gateway												
33	SR 25/US 17 at Mersy Way	Stop	E (42.9)	F (102.3)	A (9.1)	C (17.0)	-	F (54.2)	F (117.7)	B (12.4)	A (9.4)	-
34	SR 25/US 17 at Red Gate Farms Road	Stop	E (37.1)	E (41.9)	B (11.6)	C (15.7)	-	D (28.4)	C (24.6)	C (17.6)	B (10.2)	-
35	SR 25/US 17 at Gamble Road	Signal	D (54.5)	D (53.9)	B (19.6)	A (6.8)	B (16.8)	E (59.9)	E (59.9)	A (7.7)	A (3.9)	A (7.6)
36	SR 25/US 17 at Blossom Drive	Stop	D (29.4)	E (45.2)	A (9.3)	C (15.6)	-	E (40.7)	D (31.9)	B (13.5)	B (11.1)	-
37	SR 25/US 17 at Westgate Boulevard	Stop	F (61.4)	E (48.7)	A (9.3)	C (20.5)	-	F ($)	E (38.4)	C (16.1)	B (12.8)	-
38	SR 25/US 17 at I-516 Eastbound Ramps	Signal	C (33.4)	-	A (4.0)	B (10.8)	B (11.3)	C (28.9)	-	A (6.2)	B (12.2)	B (12.9)
39	SR 25/US 17 at I-516 Westbound Ramps	Signal	-	C (31.4)	A (9.5)	B (18.2)	B (14.1)	-	C (34.5)	A (7.6)	B (12.9)	B (13.5)
40	SR 25/US 17 at Plymouth Avenue/Mills Lane	Signal	D (36.2)	E (70.2)	A (9.3)	A (8.8)	B (16.5)	D (43.7)	D (54.0)	A (8.8)	B (18.4)	C (21.3)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2030 No-Build Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS unsignalized intersections

[3] $ Approach delay exceeds five minutes

Table 19: 2050 No-Build Intersection Capacity Analysis Results

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 1 — Southern Gateway												
1	SR 25/US 17 at Chief O.F. Love Road	Stop	E (43.5)	E (43.6)	B (12.8)	C (15.2)	-	F (80.0)	D (34.2)	C (20.1)	B (10.8)	-
2	SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard	Stop	F ($)	F ($)	B (12.4)	D (33.7)	-	F ($)	F ($)	C (19.7)	C (24.9)	-
3	SR 25/US 17 at Canebrake Road	Signal	E (70.2)	C (29.9)	D (35.1)	B (7.4)	C (27.3)	E (61.4)	C (33.5)	B (18.9)	C (13.3)	C (20.4)
4	SR 25/US 17 at Bamboo Lane	Stop	F (68.7)	-	E (42.6)	F (66.1)	-	-	C (23.7)	F ($)	C (23.1)	-
5	SR 25/US 17 at Southwest Middle School Driveway	Stop	F ($)	F (248.2)	C (16.6)	F (62.5)	-	F (185.3)	F (186.6)	D (30.6)	E (36.0)	-
6	SR 25/US 17 at Chevis Road	Signal	F ($)	E (72.5)	F (235.0)	F (105.1)	**F (181.4)**	F ($)	F (110.9)	C (32.8)	E (79.8)	E (72.0)
Segment 2 — Commercial South												
7	SR 25/US 17 at Walmart Driveway	Signal	D (36.5)	D (52.9)	B (18.7)	C (28.3)	C (24.6)	E (72.9)	D (45.7)	A (7.3)	E (65.2)	D (45.1)
8	SR 25/US 17 at Fountain Road	Stop	F (73.6)	F (160.1)	D (28.1)	C (17.6)	-	F ($)	F ($)	F ($)	C (16.4)	-
9	SR 25/US 17 at SR 204/Abercorn Street Eastbound Ramps	Signal	F (140.7)	-	E (76.8)	C (26.2)	D (48.0)	E (78.5)	-	C (31.2)	B (15.8)	C (26.6)
10	SR 25/US 17 at SR 204/Abercorn Street Westbound Ramps	Signal	-	D (53.2)	A (0.5)	A (1.3)	A (8.5)	-	D (46.9)	A (3.7)	F (111.4)	E (67.9)
11	SR 25/US 17 at Little Neck Road	Signal	F (98.7)	E (69.9)	E (56.8)	F (89.6)	**F (81.8)**	E (58.0)	E (69.2)	D (42.6)	F (158.3)	E (78.9)
12	SR 25/US 17 at Old Grove Point Road	Stop	-	F (89.2)	F (87.2)	D (26.7)	-	-	F (216.6)	F (230.3)	E (46.3)	-
Segment 3 — Berwick												
13	SR 25/US 17 at Bridgewater Drive	Stop	F ($)	-	C (18.2)	F ($)	-	F (51.3)	-	D (30.4)	F (188.8)	-
14	SR 25/US 17 at Burton Road	Stop	D (32.5)	F (154.2)	C (17.2)	D (28.1)	-	F (53.4)	D (26.7)	D (29.0)	F (50.5)	-
15	SR 25/US 17 at Quacco Road	Signal	E (73.1)	-	E (63.1)	C (25.1)	E (56.2)	F (80.6)	-	D (43.9)	B (18.7)	D (37.8)
16	SR 25/US 17 at Larchmont Drive	Stop	F (85.9)	-	C (17.0)	F (274.8)	-	F ($)	-	F (97.7)	E (42.9)	-
17	SR 25/US 17 at Olympus Fenwick Driveway	Stop	B (14.7)	-	B (12.5)	F (239.5)	-	F (70.5)	-	F (61.4)	E (43.0)	-
18	SR 25/US 17 at Berwick Boulevard	Signal	E (68.4)	D (49.6)	B (19.3)	B (15.3)	C (29.5)	F (86.0)	D (49.2)	C (24.4)	F (144.8)	**F (94.2)**
19	SR 25/US 17 at Kroger Driveway	Stop	F (106.3)	F (282.8)	B (10.2)	E (45.1)	-	F ($)	F ($)	E (44.1)	B (12.9)	-
20	SR 25/US 17 at Cottonvale Road	Signal	F (244.3)	F (243.4)	F (180.7)	B (13.3)	**F (157.1)**	F (109.9)	F (140.8)	C (21.2)	B (15.6)	C (34.7)
21	SR 25/US 17 at Elk Road	Stop	F ($)	-	C (15.2)	F ($)	-	F (59.0)	-	F ($)	E (44.1)	-
22	SR 25/US 17 at Silk Hope Road/Derrick Inn Road	Stop	B (12.7)	F ($)	B (12.3)	F ($)	-	F (87.9)	C (20.1)	F ($)	E (36.3)	-
23	SR 25/US 17 at SR 307/Dean Forest Road	Signal	F (99.8)	-	C (23.7)	D (36.6)	C (33.1)	F (105.0)	-	C (21.7)	D (35.3)	D (42.6)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2050 No-Build Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 4 — Silk Hope												
24	SR 25/US 17 at Salt Creek Road	Stop	E (41.1)	-	B (10.4)	A (0.0)	-	F ($)	-	F (53.9)	A (0.0)	-
25	SR 25/US 17 at Tower Drive	Stop	F (50.2)	F (296.4)	A (9.8)	E (37.5)	-	F (229.6)	F ($)	E (42.4)	B (12.9)	-
26	SR 25/US 17 at Barbour Drive	Stop	F (146.2)	-	A (0.0)	E (38.7)	-	-	D (33.5)	A (0.0)	B (13.2)	-
27	SR 25/US 17 at Fall Avenue/Buckhalter Road	Signal	E (67.9)	F (260.7)	E (69.2)	A (8.7)	E (65.0)	F (84.3)	F (149.4)	C (25.2)	F (87.2)	E (74.6)
Segment 5 — Commercial North												
28	SR 25/US 17 at Macaljon Court	Stop	D (28.9)	-	B (10.5)	A (0.0)	-	F (250.1)	-	C (24.4)	A (0.0)	-
29	SR 25/US 17 at Savannah Speedway	Stop	F (58.3)	-	B (10.7)	A (0.0)	-	F ($)	-	C (22.4)	A (0.0)	-
30	SR 25/US 17 at Heathcote Circle	Stop	F (112.7)	F ($)	A (10.0)	E (38.1)	-	F (130.4)	F (119.2)	D (31.4)	B (13.6)	-
31	SR 25/US 17 at Chatham Parkway	Signal	F (107.1)	F (102.3)	E (65.6)	E (70.1)	E (79.0)	F (210.5)	F (106.5)	D (51.5)	F (124.8)	**F (116.4)**
32	Chatham Parkway at Mersy Way	Stop	B (14.8)	A (0.0)	B (12.0)	C (22.7)	-	B (10.4)	A (0.0)	B (12.5)	B (13.3)	-
Segment 6 — Northern Gateway												
33	SR 25/US 17 at Mersy Way	Stop	F ($)	F ($)	A (9.5)	C (24.9)	-	F (211.2)	F ($)	B (14.8)	B (10.5)	-
34	SR 25/US 17 at Red Gate Farms Road	Stop	F (87.3)	F (78.1)	B (12.5)	C (22.0)	-	F (56.5)	D (32.9)	C (22.9)	B (11.8)	-
35	SR 25/US 17 at Gamble Road	Signal	E (66.1)	E (64.4)	C (22.5)	A (9.2)	C (20.1)	E (66.7)	E (66.6)	C (28.7)	A (7.2)	B (18.5)
36	SR 25/US 17 at Blossom Drive	Stop	E (45.6)	F (86.7)	A (9.7)	C (21.7)	-	F (72.0)	E (49.0)	C (15.9)	B (13.4)	-
37	SR 25/US 17 at Westgate Boulevard	Stop	A (4.4)	F (174.8)	A (9.7)	E (37.1)	-	F ($)	F (64.1)	C (19.5)	C (17.1)	-
38	SR 25/US 17 at I-516 Eastbound Ramps	Signal	D (41.9)	-	A (5.2)	B (17.0)	B (14.2)	C (32.0)	-	A (7.0)	B (16.8)	B (15.3)
39	SR 25/US 17 at I-516 Westbound Ramps	Signal	-	D (49.9)	B (17.0)	C (34.0)	C (24.4)	-	D (37.6)	B (15.4)	C (22.2)	C (21.1)
40	SR 25/US 17 at Plymouth Avenue/Mills Lane	Signal	D (48.0)	E (79.6)	C (31.6)	B (10.9)	C (33.7)	D (48.9)	E (61.4)	B (11.5)	C (22.5)	C (24.9)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2050 No-Build Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

Segment 3 – Berwick

Intersection capacity analysis results indicate that three out of the four signalized intersections within this segment operate acceptably under 2030 No-Build conditions. However, by 2050, three out of the four are expected to degrade to LOS E or worse, which is attributable to the growing traffic volumes and future developments along Segment 3. As noted in **Section 3.1.3**, the section along SR 25/US 17 between Berwick Boulevard and Cottonvale Road is, and is anticipated to be, a major bottleneck for through traffic. Under 2030 No-Build conditions, for example, the intersection with Cottonvale Road is anticipated to operate at LOS E with multiple movements expected to have volume-to-capacity (V/C) ratios greater than 1.0, which indicates oversaturated conditions. Further, vehicular queues originating at the intersection with Cottonvale Road are expected to extend into upstream intersections, exacerbating delays. At the northern end of Segment 3, the intersection with SR 307/Dean Forest Road is expected to experience over-capacity conditions, as V/C ratios were calculated to be greater than 1.00 for multiple movements at the intersection. Consistent with observations in Segment 1 and 2, unsignalized minor street approaches are anticipated to experience significant delays characteristic of LOS F conditions. Notably, the minor street approaches at the intersection with SR 25/US 17 and Kroger Driveway are expected to operate at LOS F with over 5 minutes of delay during the PM peak hour under 2030 No-Build conditions.

To mitigate operations and safety constraints along Segment 3, the phased improvements listed in **Table 22** and **Table 23** at the conclusion of **Section 4.3.5** were advanced for further consideration as part of the GDOT ICE process. Proposed recommendations include widening SR 25/US 17 a to six-lane divided facility and installing a traffic signal at the intersection of SR 25/US 17 and the Kroger Driveway once traffic signal warrants are met. It is anticipated that the future signalized intersection with the Kroger Driveway will divert traffic away from the adjacent signalized intersections with Berwick Boulevard and Cottonvale Road, thereby improving operations for all three intersections. However, in the short-term, reconfiguring the Kroger Driveway intersection to an RCUT is recommended until signal warrants are met. Additionally, the intersection of SR 25/US 17 at Cottonvale Road is recommended as a thru-cut to simplify signal operations and allocate additional green time to SR 25/US 17 through traffic. At the SR 307/Dean Forest Road intersection, a Continuous Green-T (CGT) with free-flowing northbound through traffic is recommended to alleviate over-capacity conditions and improve throughput. Additionally, this intersection would serve as the terminus for the proposed SR 25/US 17 six-lane widening. Recommendations from the *SR 307 Corridor Study Final Report* (Kimley-Horn, 2022) were considered as a starting point for developing the phased improvements listed in **Table 22** and **Table 23**, and short-term recommendations for the SR 307/Dean Forest Road intersection are in alignment with those from the SR 307 Corridor Study. However, due to recently approved developments, additional long-term growth necessitated more extensive improvements to ensure acceptable operations at this intersection.

Access management strategies are also recommended such as converting the unsignalized intersections along Segment 3 to RCUT configurations. A shared-use path is recommended on both sides of SR 25/ US 17 throughout Segment 3 in accordance with recommendations from the CORE MPO's NMTP, stakeholder outreach efforts, and field observations. Lastly, in accordance with recommendations from the *US 17/SR 25 at Derrick Inn Road, Chatham County Traffic Engineering Study* (Atkins, 2023), a Pedestrian Hybrid Beacon (PHB) is proposed on SR 25/US 17 north of the intersection with Silk Hope Road/Derrick Inn Road.

Segment 4 – Silk Hope

The capacity analysis results presented in **Table 22** and **Table 23** indicate the signalized intersection with Fall Avenue/Buckhalter Road is anticipated to operate at LOS C during the AM peak hour and LOS D during PM peak hour by 2030. As growth continues along the corridor, the intersection operations are expected to degrade to LOS E during both peak periods of travel under 2050 No-Build conditions. Despite acceptable overall operations, the minor street approaches (Fall Avenue and Buckhalter Road) are expected to operate at LOS E or worse by 2030. As growth along Segment 4 continues, minor street approaches at unsignalized intersections are expected to experience approximately five minutes of delay during the AM peak hour under 2050 No-Build conditions. Additionally, all three unsignalized intersections within this segment are expected to have one or more minor street approach operate at LOS F during the AM or PM peak hours under 2050 No-Build conditions.

To improve operations and safety along Segment 4, the phased improvements listed in **Table 22** and **Table 23** at the conclusion of **Section 4.3.5** were advanced for further consideration as part of the GDOT ICE process. These recommendations include removing the existing two-way left-turn lane (TWLTL) and installing a raised median and converting the unsignalized intersections to RCUT configurations. A thru-cut is recommended at the Fall Avenue/Buckhalter Road intersection to simplify signal operations and improve minor street delay while also providing sufficient green time for the SR 25/US 17 approaches. Additionally, a shared-use path is recommended on both sides of SR 25/US 17 throughout Segment 4 in accordance with recommendations from the CORE MPO's NMTP, stakeholder outreach efforts, and field observations.

Segment 5 – Commercial North

Based on capacity analysis results, the intersection with Chatham Parkway is expected to operate at LOS D during the AM peak hour and LOS E during the PM peak hour under 2030 No-Build conditions. As growth continues along the SR 25/US 17 corridor and along Chatham Parkway, the intersection operations are anticipated to degrade to LOS E and LOS F during the AM and PM peak hours, respectively, under 2050 No-Build conditions. As detailed in **Section 3.1.5**, field observations conducted in January 2024 concluded that both eastbound and westbound approaches had observed queue lengths exceeding 0.25 miles, while the southbound approach had an observed queue length exceeding 0.5 miles. These trends are expected to amplify as traffic volumes grow along Segment 5. Further, three of the four unsignalized intersections along Segment 5 are expected to have one or more minor street approaches operate at LOS F under 2030 No-Build conditions, and multiple minor street stop-controlled approaches are expected to experience over five minutes of delay under 2050 No-Build conditions.

To mitigate existing and projected operations, the phased improvements listed in **Table 22** and **Table 23** at the conclusion of **Section 4.3.5** were advanced for further consideration as part of the GDOT ICE process. These recommendations include grade-separating Chatham Parkway over SR 25/US 17 and reconstructing the existing northwest and southeast quadrant roadways of Mersy Way and Woodspring Drive, respectively, to provide access between SR 25/US 17 and Chatham Parkway. All four intersections created by the quadrant roadways should be signalized, and the eastbound and westbound approaches from Mersy Way and Woodspring Drive, respectively, should be restricted to right-turns only onto SR 25/US 17 to simplify traffic signal operations and improve throughput along SR 25/US 17.

Additional access management strategies are recommended which include converting all driveways along the quadrant roadways to RIRO configurations, removing the TWLTL and constructing a raised

median, and reconfiguring the unsignalized intersections in Segment 5 to RCUT intersections. To accommodate emergency service vehicles from Chatham Fire Station #10, the proposed RCUT at Heathcote Circle should be constructed with a flush median. Finally, a shared-use path is recommended on both sides of SR 25/US 17 throughout Segment 5 in accordance with recommendations from the CORE MPO's NMTP, stakeholder outreach efforts, and field observations.

Segment 6 – Northern Gateway

All four existing signalized intersections along Segment 6 are anticipated to operate at LOS C or better under 2050 No-Build conditions. This may be attributable to committed GDOT projects at three of these intersections, including PIs S015891, S015994, and S015995, which include auxiliary turn lane improvements at both ramp termini for the I-516/SR 21 interchange, and PI 521855, which includes auxiliary turn lane improvements at the intersection with Plymouth Avenue/Mills Lane. However, the four unsignalized intersections along Segment 6 are anticipated to have at least one minor street approach operate at LOS F under 2050 No-Build conditions. During the AM peak hour, the minor street stop-controlled approaches at Mersy Way are anticipated to operate at LOS F with delays exceeding five minutes. This is primarily due to the high-left turn demand from the minor streets and long southbound queues from Chatham Parkway which block minor street movements from turning onto SR 25/US 17. Similarly, the unsignalized intersection with Westgate Boulevard experiences similar deficiencies due to its proximity to the I-516/SR 21 interchange.

The phased improvements listed in **Table 22** and **Table 23** were advanced for further consideration as part of the GDOT ICE process. These recommendations include constructing a raised median between the segment's southern terminus and Westgate Boulevard and auxiliary turn lane extensions at the I-516/SR 21 interchange. Additionally, access management strategies are recommended such as reconfiguring the unsignalized intersections to RCUTs. A shared-use path is recommended on both sides of SR 25/US 17 throughout Segment 6 in accordance with recommendations from the CORE MPO's NMTP, stakeholder outreach efforts, and field observations. Lastly, in accordance with recommendations from the *US 17/SR 25 from Railroad Bridge to I-516 WB Ramps, Chatham County Traffic Engineering Study* (Atkins, 2024), two PHBs are proposed between the intersections of Blossom Drive and Westgate Boulevard.

4.3.3 Segment Analysis Results

As noted in **Section 3.4.4**, projected No-Build traffic volumes and capacity analysis results presented in this section are intended to be representative of future conditions along the SR 25/US 17 corridor during an average weekday while school is in session. Given that "average" conditions are difficult to capture through one set of model inputs and that intersection capacity analysis results consider each node in isolation, these node-level results were supplemented with system-level results from simulation runs conducted in SimTraffic Version 12 software. In order to determine necessary geometric improvements, the 2030 and 2050 No-Build models included optimized signal timing.

Corridor travel time outputs from SimTraffic are summarized in **Table 20** and **Table 21** for the AM and PM peak hours of travel, respectively. These travel time outputs were converted to a corresponding average travel speed and compared to the theoretical base free flow speed, which was assumed to be equivalent to the posted speed limit on SR 25/US 17 with adjustments based on the geometry, intersection control, and vehicle fleet characteristics of each study segment. The LOS was then determined as defined by the HCM6 Urban Street Facilities methodology.

Table 20: No-Build Corridor Travel Time and LOS Comparisons – AM Peak Hour

Measure	2024 Existing	2030 No-Build	2050 No-Build
Northbound SR 25/US 17			
Minimum Travel Time (mm:ss)	20:41	21:51	26:51
Maximum Travel Time (mm:ss)	23:21	27:02	33:36
Average Travel Speed (mph)	29.5	26.8	22.2
Overall Corridor LOS	C	C	D
Segment 1 LOS	B	C	B
Segment 2 LOS	C	C	C
Segment 3 LOS	B	D	F
Segment 4 LOS	A	B	B
Segment 5 LOS	C	C	D
Segment 6 LOS	D	B	C
Southbound SR 25/US 17			
Minimum Travel Time (mm:ss)	18:33	18:58	25:22
Maximum Travel Time (mm:ss)	19:20	24:07	40:48
Average Travel Speed (mph)	33.9	31.3	21.6
Overall Corridor LOS	B	B	D
Segment 1 LOS	A	A	A
Segment 2 LOS	C	D	F
Segment 3 LOS	B	B	D
Segment 4 LOS	A	A	C
Segment 5 LOS	A	A	A
Segment 6 LOS	C	B	C

Table 21: No-Build Corridor Travel Time and LOS Comparisons – PM Peak Hour

Measure	2024 Existing	2030 No-Build	2050 No-Build
Northbound SR 25/US 17			
Minimum Travel Time (mm:ss)	18:15	18:31	20:43
Maximum Travel Time (mm:ss)	19:47	21:41	25:01
Average Travel Speed (mph)	33.6	33.4	28.3
Overall Corridor LOS	B	B	C
Segment 1 LOS	A	B	B
Segment 2 LOS	C	C	E
Segment 3 LOS	B	B	B
Segment 4 LOS	A	B	B
Segment 5 LOS	C	C	E
Segment 6 LOS	C	B	B
Southbound SR 25/US 17			
Minimum Travel Time (mm:ss)	20:23	21:58	22:44
Maximum Travel Time (mm:ss)	22:07	26:01	27:13
Average Travel Speed (mph)	30.1	26.7	26.1
Overall Corridor LOS	C	C	C
Segment 1 LOS	B	B	B
Segment 2 LOS	C	E	D
Segment 3 LOS	B	C	C
Segment 4 LOS	B	B	B
Segment 5 LOS	B	C	C
Segment 6 LOS	D	C	E

Based on the results summarized in **Table 20** and **Table 21**, operations on the SR 25/US 17 corridor are expected to decline from the 2024 Existing Year to the 2030 Base Year. These findings are indicative of existing capacity constraints coupled with substantial growth projected along the corridor in the short-term. SimTraffic outputs suggest that under 2030 No-Build conditions, the average travel speed will decrease by approximately 3 MPH in both peak periods relative to 2024 Existing Year conditions. Further, the range of simulated peak period travel times (i.e., the difference between the minimum and maximum travel times) is expected to be three minutes at most under 2024 Existing Year conditions but up to five minutes under 2030 No-Build conditions.

These trends are amplified when comparing 2050 No-Build conditions to 2024 Existing Year conditions as travel speeds are expected to decrease by as much as 12 MPH, with four out of the six segments expected to operate at an unacceptable LOS. Further, the expected range of peak period travel times is as much as 16 minutes under 2050 No-Build conditions. Collectively, these results indicate that in the absence of improvements, the corridor is expected to experience significant increases in delay and decreases in travel time reliability.

4.3.4 GDOT ICE Analysis

Stage 1 Intersection Control Evaluation (ICE) analyses were completed for all study intersections to screen and identify feasible alternatives for intersection control based on practicality, project scale, potential for crash reduction, and potential to improve traffic operations. Stage 1 alternatives were identified through a multi-step process. First traffic signal warrant analyses were conducted for all unsignalized study intersections and at those proposed as part of future developments. These analyses considered diverted traffic from the recommended intersections that restrict movements (i.e., RCUTs, RIROs, and thru-cuts). Among these, the intersection of SR 25/US 17 and Fords Pointe Circle/ Bradley Boulevard is anticipated to meet traffic signal warrants by 2030, and the following intersections are anticipated to meet traffic signal warrants by 2050:

- SR 25/US 17 at Burton Road
- SR 25/US 17 at Kroger Driveway
- SR 25/US 17 at Silk Hope Road/Derrick Inn Road
- SR 25/US 17 at Mersy Way
- SR 25/US 17 at Westgate Boulevard

At each of these locations, the feasibility of multi-lane roundabouts was also reviewed. However, roundabouts were determined to be undesirable alternatives for intersection control along the study corridor based on planning-level guidance provided by GDOT's Roundabout Analysis Tool. Specifically, projected major street traffic volumes exceed the entering volume threshold (i.e., 45,000 VPD) and/or minor street volumes do not constitute at least 10% of the overall entering volume.

Next, in conjunction with proposed raised medians for sections with existing TWLTLs, RCUT or RIRO configurations were recommended for all existing unsignalized intersections not expected to meet traffic signal warrants. The appropriate degree of access for these intersections was selected based on projected volumes, intersection spacing, and adjacent driveway interconnectivity. Elsewhere, auxiliary turn lane improvements or other geometric modifications were considered based on No-Build capacity analysis results and then selected as feasible alternatives as appropriate on the ICE Stage 1 worksheets. The Stage 1 ICE worksheets are included in **Appendix D**.

4.3.5 Capacity Analysis Summary

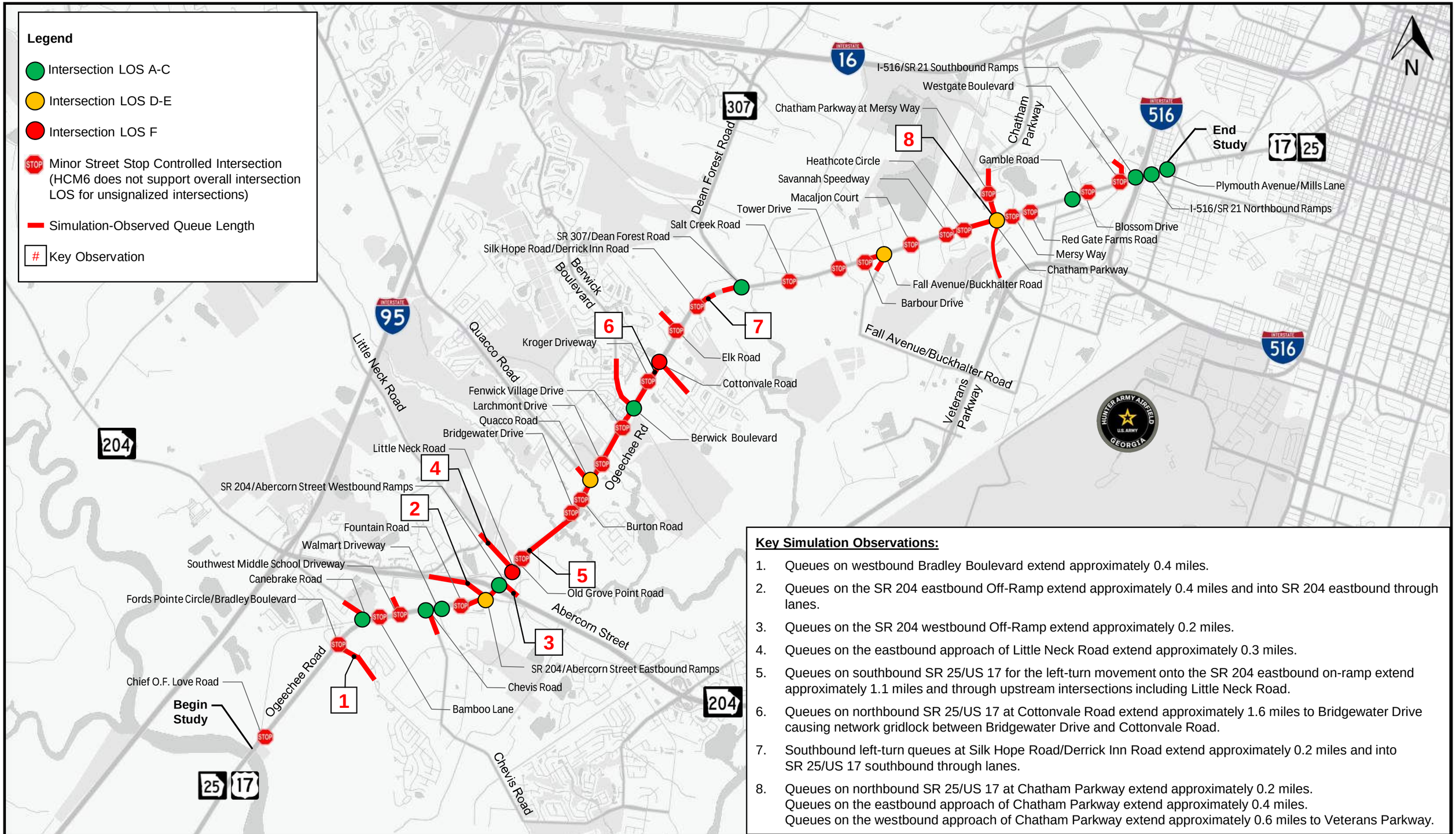
The intersection and corridor-level operations summarized in **Section 4.3.2** and **Section 4.3.3** are captured graphically in **Figure 60** and **Figure 61** for 2050 No-Build conditions. As noted on the preceding pages, traffic operations on the SR 25/US 17 corridor are expected to deteriorate in the absence of improvements as growth along the corridor continues. Additionally, the conditions represented in the figures that follow may be experienced by road users sooner than the 2050 Design Year. Notable simulation observations illustrated in **Figure 60** and **Figure 61** include:

- AM Peak Hour Observations:
  - Queues on westbound approach at the Bradley Boulevard intersection extend approximately 0.4 miles.
  - Queues on the SR 204/Abercorn Street Eastbound Off-Ramp extend approximately 0.4 miles and into SR 204/Abercorn Street eastbound through lanes.

- Queues on southbound SR 25/US 17 for the left-turn movement onto the SR 204/ Abercorn Street Eastbound On-Ramp extend approximately 1.1 miles and through upstream intersections including Little Neck Road.
  - Queues on the eastbound approach of Little Neck Road extend approximately 0.3 miles due to long southbound SR 25/US 17 queues.
  - The average travel speed on southbound SR 25/US 17 between SR 204/Abercorn Street interchange and the Little Ogeechee River is less than 9 MPH.
- Queues on the northbound approach of SR 25/US 17 at Cottonvale Road extend approximately 1.6 miles to Bridgewater Drive.
- The average travel speed on northbound SR 25/US 17 between Berwick Boulevard and Cottonvale Road is less than 7 MPH.

- PM Peak Hour Operations:
  - Queues on the SR 204/Abercorn Street Westbound Off-Ramp extend approximately 0.4 miles and into SR 204/Abercorn Street westbound through lanes.
  - Queues on the southbound approach of SR 25/US 17 at Berwick Boulevard extend approximately 0.6 miles and through upstream intersections including Cottonvale Road.
    - Queues on the westbound approach of Cottonvale Road exceed 0.3 miles.
    - The average travel speed on southbound SR 25/US 17 between Berwick Boulevard and Cottonvale Road is less than 13 MPH.
  - Queues on the westbound approach of Buckhalter Road extend approximately 0.4 miles.
  - At the intersection of SR 25/US 17 and Chatham Parkway:
    - Northbound SR 25/US 17 queues originating from the left-turn movement extend approximately 0.6 miles and through upstream intersections, including the intersection of Savannah Speedway.
    - Queues on the eastbound approach of Chatham Parkway extend approximately 1.0 mile.
    - Queues on the southbound approach of SR 25/US 17 extend approximately 0.4 miles.

Findings from the Existing Conditions Assessment in **Section 3** and those detailed throughout this section were used to develop the short- and long-term recommendations listed in **Table 22** and **Table 23**. These improvements were advanced for further consideration as part of the GDOT ICE process and corridor alternatives development and analysis.



Key Simulation Observations:

1. Queues on westbound Bradley Boulevard extend approximately 0.4 miles.
2. Queues on the SR 204 eastbound Off-Ramp extend approximately 0.4 miles and into SR 204 eastbound through lanes.
3. Queues on the SR 204 westbound Off-Ramp extend approximately 0.2 miles.
4. Queues on the eastbound approach of Little Neck Road extend approximately 0.3 miles.
5. Queues on southbound SR 25/US 17 for the left-turn movement onto the SR 204 eastbound on-ramp extend approximately 1.1 miles and through upstream intersections including Little Neck Road.
6. Queues on northbound SR 25/US 17 at Cottonvale Road extend approximately 1.6 miles to Bridgewater Drive causing network gridlock between Bridgewater Drive and Cottonvale Road.
7. Southbound left-turn queues at Silk Hope Road/Derrick Inn Road extend approximately 0.2 miles and into SR 25/US 17 southbound through lanes.
8. Queues on northbound SR 25/US 17 at Chatham Parkway extend approximately 0.2 miles.
   Queues on the eastbound approach of Chatham Parkway extend approximately 0.4 miles.
   Queues on the westbound approach of Chatham Parkway extend approximately 0.6 miles to Veterans Parkway.

SR 25/US 17 Corridor Study – Alternatives Development & Analysis

Figure 60 – 2050 No-Build Corridor Operations Summary – AM Peak Hour

SR 25/US 17 CORRIDOR STUDY

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Legend

- Intersection LOS A-C
- Intersection LOS D-E
- Intersection LOS F
- Minor Street Stop Controlled Intersection (HCM6 does not support overall intersection LOS for unsignalized intersections)
- Simulation-Observed Queue Length
- # Key Observation

N

I-516/SR 21 Southbound Ramps
Westgate Boulevard
Chatham Parkway at Mersy Way
11
Chatham Parkway
End Study
Heathcote Circle
Savannah Speedway
Macaljon Court
Tower Drive
Salt Creek Road
SR 307/Dean Forest Road
Silk Hope Road/Derrick Inn Road
Berwick Boulevard
Elk Road
Cottonvale Road
Kroger Driveway
6
Fenwick Village Drive
Larchmont Drive
Quacco Road
7
8
9
Barbour Drive
Fall Avenue/Buckhalter Road
10
Plymouth Avenue/Mills Lane
I-516/SR 21 Northbound Ramps
Blossom Drive
Gamble Road
Red Gate Farms Road
Mersy Way
Chatham Parkway
Dean Forest Road
Quacco Road
Little Neck Road
Veterans Parkway
Ogeechee Rd
Berwick Boulevard
5
Little Neck Road
Bridgewater Drive
SR 204/Abercorn Street Westbound Ramps
Fountain Road
4
2
Walmart Driveway
Southwest Middle School Driveway
Canebrake Road
Fords Pointe Circle/Bradley Boulevard
Burton Road
Old Grove Point Road
Abercorn Street
3
SR 204/Abercorn Street Eastbound Ramps
Chevis Road
1
Bamboo Lane
Chief O.F. Love Road
Begin Study
Ogeechee Road
Chevis Road

Key Simulation Observations:

1. Queues on westbound Chevis Road extend approximately 0.2 miles.
2. Queues on southbound SR 25/US 17 at Chevis Road extend approximately 0.2 miles through Fountain Road.
3. Queues on the SR 204 westbound off-ramp extend approximately 0.4 miles and into SR 204 westbound through lanes.
4. Queues on northbound SR 25/US 17 for the left-turn movement at Little Neck Road extend approximately 0.4 miles and through upstream intersections including the SR 204 ramp intersections.
5. Queues on the eastbound approach of Quacco Road extend approximately 0.4 miles.
6. Queues on southbound SR 25/US 17 at Berwick Boulevard extend approximately 0.6 miles and through upstream intersections including Cottonvale Road.
7. Queueing on the westbound approach of Cottonvale Road extend approximately 0.3 miles.
8. Queues on each approach at the SR 25/US 17 and SR 307/Dean Forest Road intersection extend approximately 0.1 miles.
9. Queues on westbound Buckhalter Road extend approximately 0.4 miles.
10. Queues on northbound SR 25/US 17 for the left-turn movement at Chatham Parkway extend approximately 0.6 miles and through upstream intersections including Savannah Speedway.
11. Queues on northbound SR 25/US 17 for the left-turn movement at Chatham Parkway extend approximately 0.6 miles and through upstream intersections including Savannah Speedway.
    Queues on the eastbound approach of Chatham Parkway extend approximately 0.1 mile.
    Queues on the southbound approach of Chatham Parkway extend approximately 0.4 miles.

SR 25/US 17 Corridor Study – Alternatives Development & Analysis

Figure 61 – 2050 No-Build Corridor Operations Summary – PM Peak Hour

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

Table 22: Recommended Corridor-Level Improvements Summary

Corridor-Level Improvements	
Extents	**Description of Improvements**
SR 25/US 17 from the Bryan County/Chatham County Line to Plymouth Avenue/Mills Lane (All Segments)	Short-Term (0-5 Years) • Conduct a 10.7-mile-long corridor signal timing review to improve vehicular flow through time-of-day coordinated operations • Optimize signal cycle length, splits, and offsets in conjunction with other short-term improvements • Replace existing three-section permissive signal heads and five-section protected/permissive signal heads on SR 25/US 17 with four-section flashing yellow arrow signal heads Long-Term (5+ Years) • Conduct a 10.7-mile-long corridor signal timing review to improve vehicular flow through time-of-day coordinated operations • Optimize signal cycle length, splits, and offsets in conjunction with other long-term improvement
SR 25/US 17 from Bryan County/Chatham County Line to Chevis Road (Segment 1)	Short-Term (0-5 Years) • Construct RCUT intersections and/or U-turn eyebrows at Chief O.F. Love Road, the existing driveway approximately 2,300 feet north of Chief O.F. Love Road, Bamboo Lane, The Pointe Grande Multifamily Development Driveway approximately 700 feet north of Bamboo Lane, and Southwest Middle School Driveway • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only Long-Term (5+ Years) • Construct a third northbound and southbound through lane on SR 25/US 17 from approximately 600 feet south of Fords Pointe Circle/Bradley Boulevard to Chevis Road • Remove on-street bike lanes and construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 from approximately 725 feet south of Bradley Boulevard to Chevis Road • Construct a 10-foot-wide shared-use path along the south side of Canebrake Road to connect with the existing shared-use path • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths
SR 25/US 17 from Chevis Road to the Little Ogeechee River (Segment 2)	Short-Term (0-5 Years) • Construct RCUT intersections and/or U-turn eyebrows at Fountain Road, the Parker's driveway approximately 650 feet north of Fountain Road, Old Grove Pointe Road, and approximately 600 feet south of the Little Ogeechee River (Truck accommodations) • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only Long-Term (5+ Years) • Construct a third northbound and southbound through lane on SR 25/US 17 • Remove on-street bike lanes and construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths
SR 25/US 17 from Little Ogeechee River to SR 307/Dean Forest Road (Segment 3)	Short-Term (0-5 Years) • Construct RCUT intersections and/or U-turn eyebrows at Bridgewater Drive, Larchmont Drive, Fenwick Village Drive, approximately 500 feet north of Cottonvale Road, Elk Road, and approximately 900 feet south of SR 307/Dean Forest Road • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only Long-Term (5+ Years) • Construct a third northbound and southbound through lane on SR 25/US 17 • Remove on-street bike lanes and construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths

Corridor-Level Improvements	
Extents	**Description of Improvements**
SR 25/US 17 from SR 307/Dean Forest Road to Fall Avenue/Buckhalter Road (Segment 4)	Long-Term (5+ Years) • Construct a 20-foot-wide raised median along SR 25/US 17 • Construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 • Construct RCUT intersections and/or U-turn eyebrows at approximately 750 feet south of Salt Creek Road, Salt Creek Road, Tower Drive, and Barbour Drive • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install a Pedestrian Hybrid Beacon (PHB) approximately 375 feet north of Silk Hope Road/Derrick Inn Road in accordance with PI S016014 • Install pedestrian lighting adjacent to shared-use paths
SR 25/US 17 from Fall Avenue/Buckhalter Road to Chatham Parkway (Segment 5)	Short-Term (0-5 Years) • Reconstruct the intersection of Chatham Parkway at Mersy Way to a partial RCUT to allow eastbound left-turn movements and restrict the southbound approach to right-turns only • Construct a 20-foot-wide raised median along SR 25/US 17 from Woodspring Drive to Chatham Parkway Long-Term (5+ Years) • Construct a 20-foot-wide raised median along SR 25/US 17 • Construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 • Construct RCUT intersections and/or U-turn eyebrows at Ogeechee Road (Signalized with truck accommodations), Macaljon Court, Savannah Speedway, and Heathcote Circle • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths
SR 25/US 17 from Chatham Parkway to Plymouth Avenue/Mills Lane (Segment 6)	Short-Term (0-5 Years) • Reconstruct the intersection of SR 25/US 17 at Mersy Way to a partial RCUT to allow southbound left-turn movements and restrict the eastbound and westbound approaches to right-turns only • Construct RCUT intersections and/or U-turn eyebrows at approximately 500 feet south of Chatham Parkway at the south-most Enmarket Driveway and Westgate Boulevard • Construct a 20-foot-wide raised median along SR 25/US 17 from Chatham Parkway to Mersy Way Long-Term (5+ Years) • Construct a 20-foot-wide raised median along SR 25/US 17 from Mersy Way to Westgate Boulevard • Construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 • Extend the sidewalk constructed as part of PI 0017976 to connect with the proposed shared-use path • Construct a 10-foot-wide shared-use path on the west side of Gamble Road to connect to the shared-use path constructed as part of PI 0017976 • Construct RCUT intersections and/or U-turn eyebrows at approximately 700 feet south of Red Gate Farms Road (Truck accommodations), Red Gate Farms Road, and approximately 1,000 feet south of Westgate Boulevard (Signalized) • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only • Construct a right-in/right-out intersection at Blossom Drive • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths • Construct two PHBs between Blossom Drive and Westgate Boulevard in accordance with recommendations set forth from the *US 17/SR 25 from Railroad Bridge to I-516 WB Ramps, Chatham County Traffic Engineering Study* (Atkins, 2024)

Table 23: Recommended Intersection-Level Improvements Summary

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

2	SR 25/US 17 at
	Fords Pointe Circle/Bradley Boulevard
		Short-Term (0-5 Years)
		• Install a fully actuated traffic signal when MUTCD signal warrants are met
		• Reconstruct the westbound approach to include the following:
		  ○ One shared through/left-turn lane with 125 feet of full-width storage
		  ○ Dual right-turn lanes with 300 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy
		Long-Term (5+ Years)
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ One left-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 175 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left-turn lane 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane 175 feet of full-width storage
		• Reconstruct the eastbound approach to include one shared left/through/right lane
		• Reconstruct the westbound approach to include the following:
		  ○ One shared through/left-turn lane with 125 feet of full-width storage
		  ○ Dual right-turn lanes with 300 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

3	SR 25/US 17 at Canebrake Road	Short-Term (0-5 Years)
		• Construct intersection improvements associated with the Alta Bradley development
		• Extend the eastbound left-turn lane to accommodate 300 feet of full-width storage
		Long-Term (5+ Years)
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ One left-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 200 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left/U-turn lane 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane 200 feet of full-width storage
		• Reconstruct the eastbound approach to include the following
		  ○ One left-turn lane with 300 feet of full-width storage
		  ○ One through lane
		  ○ One right-turn lane with 225 feet of full-width storage
		• Reconstruct the westbound approach to include the following:
		  ○ One left-turn lane with 100 feet of full-width storage
		  ○ One through lane
		  ○ One right-turn lane
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

6	SR 25/US 17 at Chevis Road	<u>Short-Term (0-5 Years)</u>
		• Upgrade the existing traffic signal to accommodate other short-term improvements
		• Reconstruct the eastbound approach to include the following:
		  ○ One left-turn lane with 175 feet of full-width storage
		  ○ One shared through/right-turn lane
		• In addition to the improvements proposed by PI 0017975, reconstruct the westbound approach to include the following:
		  ○ One left-turn lane with 325 feet of full-width storage
		  ○ One through lane
		  ○ One right-turn lane with 150 of full-width storage
		<u>Long-Term (5+ Years)</u>
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ One left-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 300 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left-turn lane 275 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane 200 feet of full-width storage
		• Reconstruct the eastbound approach to include the following
		  ○ One left-turn lane with 175 feet of full-width storage
		  ○ One shared through/right-turn lane
		• Reconstruct the westbound approach to include the following:
		  ○ One left-turn lane with 325 feet of full-width storage
		  ○ One through lane
		  ○ One right-turn lane with 150 of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

1, 4, 5	SR 25/US 17 at Chief O.F. Love Road, Bamboo Lane, and Southwest Middle School driveway	<u>Short-Term (0-5 Years)</u> • Convert to an unsignalized RCUT configuration • Reconstruct eastbound and westbound approaches to allow for right-turns only

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

7	SR 25/US 17 at Walmart Driveway	Short-Term (0-5 Years)
		• Extend the westbound left-turn lane to accommodate 100 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		Long-Term (5+ Years)
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ One left-turn lane with 275 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 200 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left-turn lane 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane 175 feet of full-width storage
		• Reconstruct the eastbound approach to include the following
		  ○ One left-turn lane
		  ○ One shared through/left-turn lane
		  ○ One right-turn lane with 100 feet of full-width storage
		• Reconstruct the westbound approach to include the following:
		  ○ One left-turn lane with 100 feet of full-width storage
		  ○ One shared through/right-turn lane

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

9, 10	SR 25/US 17 at SR 204/Abercorn Street Interchange	<u>Short-Term (0-5 Years)</u>
		• Construct a free-flowing U-turn from the SR 204/Abercorn Street westbound off-ramp to the SR 204/Abercorn Street eastbound on-ramp in accordance with recommendations set forth in PI 0019010
		• Upgrade the existing traffic signals to accommodate other short-term improvements
		• In addition to the southbound left-turn lane extension proposed by PI 0020089, reconstruct the eastbound ramp terminal to include the following:
		  ○ Two northbound through lanes
		  ○ Dual northbound right-turn lanes with 350 feet of full-width storage
		  ○ Dual southbound left-turn lanes:
		  ▪ One with 200 feet of full-width storage
		  ▪ One as a drop lane that begins 350 feet north of Little Neck Road
		  ○ Two southbound through lanes
		  ○ Dual eastbound left-turn lanes with 375 feet of full-width storage
		  ○ One eastbound right-turn lane 325 feet of full-width storage
		• In addition to the westbound off-ramp left- and right-turn lane extensions proposed by PI 0020089, reconstruct the westbound ramp terminal to include the following:
		  ○ Three southbound through lanes
		  ○ One southbound right-turn lane with 550 feet of full-width storage
		  ○ Dual westbound left-turn lanes with 600 feet of full-width storage
		  ○ Dual westbound right-turn lanes with 750 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		<u>Long-Term (5+ Years)</u>
		• Convert the existing diamond interchange to a diverging diamond interchange (DDI)
		• Reconstruct the eastbound ramp terminal to include the following:
		  ○ Three northbound through lanes
		  ○ One northbound free-flow right-turn lane with 575 feet of full-width storage
		  ○ Dual southbound left-turn lanes:
		  ▪ Free-flow shared through/left
		  ▪ Free-flow drop lane
		  ○ Three southbound through lanes
		  ○ Dual eastbound left-turn lanes with 225 feet of full-width storage
		  ○ One eastbound right-turn lane 300 feet of full-width storage
		• Reconstruct the westbound ramp terminal to include the following:
		  ○ One free-flow northbound left-turn lane with 235 feet of full width storage
		  ○ Three northbound through lanes
		  ○ Four southbound through lanes
		  ○ One southbound right-turn lane 450 feet of full-width storage
		  ○ Dual westbound left-turn lanes with 600 feet of full-width storage
		  ○ Dual westbound right-turn lanes with 800 feet of full-width storage
		• Reconstruct the existing SR 204/Abercorn Street bridge to accommodate the proposed cross section along SR 25/US 17
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

11	SR 25/US 17 at Little Neck Road	Short-Term (0-5 Years)
		• Upgrade the existing traffic signal to accommodate other short-term improvements
		• Relocate the Keller Auto Sales Driveway from the signalized intersection with Little Neck Road to simplify and improve signal operations
		• In accordance with Chatham County's Little Neck Road Rehabilitation Project, construct the following improvements:
		  ○ Dual northbound left-turn lanes with 425 feet of full-width storage
		  ○ Dual eastbound left-turn lane with 300 feet of full-width storage
		  ○ Dual eastbound right-turn lanes with 1,400 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy
		Long-Term (5+ Years)
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ Dual left-turn lanes with 425 feet of full-width storage
		  ○ Three through lanes
		• Reconstruct the southbound approach to include the following:
		  ○ Dual right-turn lanes with 450 feet of full-width storage
		  ○ Four through lanes with the inside through lane beginning 350 feet north of Little Neck Road
		• Reconstruct the eastbound approach to include the following:
		  ○ Dual left-turn lanes with 600 feet of full-width storage
		  ○ Dual right-turn lanes with 1,400 feet of full width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy

8, 12	SR 25/US 17 at Fountain Road and Grove Point Road	Short-Term (0-5 Years) • Convert to an unsignalized RCUT configuration • Reconstruct eastbound and westbound approaches to allow for right-turns only

14	SR 25/US 17 at Burton Road	Short-Term (0-5 Years)
		• Construct an unsignalized RCUT intersection as part of PI S015908
		• Reconstruct the eastbound and westbound approaches to allow right-turns only
		Long-Term (5+ Years)
		• Install a fully actuated traffic signal when MUTCD signal warrants are met and accommodate RCUT improvements constructed as part of PI S015908
		• Reconstruct the northbound approach to include the following:
		  ○ One shared left/U-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 175 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One shared left/U-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 175 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

15	SR 25/US 17 at Quacco Road	Long-Term (5+ Years)
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ Dual left-turn lanes with 325 feet of full-width storage
		  ○ Three through lanes
		• Reconstruct the southbound approach to include the following:
		  ○ One U-turn lane with 475 feet of full width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 400 feet of full width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ Dual left-turn lanes with 600 feet of full-width storage
		  ○ Dual right-turn lanes with 600 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

18	SR 25/US 17 at Berwick Boulevard	Short-Term (0-5 Years)
		• Upgrade the existing traffic signal to accommodate other short-term improvements
		• Relocate the Lebanon Plantation driveway from the signalized intersection with Berwick Boulevard to simplify and improve signal operations
		• Construct dual northbound left-turn lanes with 350 feet of full-width storage
		• Reconstruct the channelized southbound right-turn free-flow movement to operate under yield control to accommodate two receiving lanes for the proposed dual northbound left-turn lanes
		• Convert the existing southbound left-turn lane into an exclusive U-turn lane
		• Extend the southbound U-turn lane with 275 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		Long-Term (5+ Years)
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ Dual left-turn lanes with 425 feet of full-width storage
		  ○ Three through lanes
		• Reconstruct the southbound approach to include the following:
		  ○ One U-turn lane with 275 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 625 feet of full-width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ Dual left-turn lanes with 375 feet of full-width storage
		  ○ Dual right-turn lanes with 375 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

19	SR 25/US 17 at Kroger Driveway	Short-Term (0-5 Years)
		• Convert to an unsignalized RCUT configuration
		• Reconstruct eastbound and westbound approaches to allow for right-turns only
		Long-Term (5+ Years)
		• Install a fully actuated traffic signal when MUTCD signal warrants are met and reconstruct the intersection to a full movement configuration
		• Reconstruct the northbound approach to include the following:
		  ○ One left-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane 175 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane 175 feet of full-width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ One left-turn lane with full-width storage extending to the internal intersection
		  ○ One right-turn lane with full-width storage extending to the internal intersection
		• Reconstruct the westbound approach to include the following:
		  ○ One left-turn lane with full-width storage extending to the internal intersection
		  ○ One shared through/right-turn lane with full-width storage extending to the internal intersection
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

20	SR 25/US 17 at Cottonvale Road	Short-Term (0-5 Years)
		• Upgrade the existing traffic signal to accommodate other short-term improvements
		• Reconstruct the westbound approach to include the following:
		  ○ One left-turn lane with 275 feet of full-width storage
		  ○ One through/right-turn lane
		  ○ One right-turn lane with 250 feet of full-width storage
		• Extend the northbound and southbound left-turn lanes to accommodate 235 feet of full-width storage
		• Extend the northbound and southbound right-turn lanes to accommodate 175 feet of full-width storage
		• Construct a U-turn location 450 feet north of Cottonvale Road and prohibit U-turns at the intersection
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		Long-Term (5+ Years)
		• Reconstruct the intersection to operate as a thru-cut and upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include the following:
		  ○ One U-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 300 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left-turn lane with 275 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 300 feet of full-width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ One left-turn lane with full-width storage extending to the internal intersection
		  ○ One right-turn lane with full-width storage extending to the internal intersection
		• Reconstruct the westbound approach to include the following:
		  ○ Dual left-turn lanes with 250 feet of full-width storage
		  ○ Dual right-turn lanes with 300 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

22	SR 25/US 17 at Silk Hope Road/Derrick Inn Road	Short-Term (0-5 Years)
		• Construct an unsignalized RCUT as part of PI S016013
		• Reconstruct the eastbound and westbound approaches to allow right-turns only
		Long-Term (5+ Years)
		• Install a fully actuated traffic signal for the northbound through, southbound left/U-turn, and westbound right-turn movements when MUTCD signal warrants are met
		• Accommodate RCUT improvements as part of PI S016013
		• Reconstruct the northbound approach to include the following:
		  ○ One left/U-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 175 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left/U-turn lane with 235 feet of full-width storage
		  ○ Three through lanes
		  ○ One right-turn lane with 175 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

23	SR 25/US 17 at SR 307/Dean Forest Road	Short-Term (0-5 Years)
		• Upgrade the existing traffic signal to accommodate other short-term improvements
		• Extend the northbound left-turn lane to accommodate 275 feet of full-width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ One left-turn lane
		  ○ Dual right-turn lanes with 350 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		Long-Term (5+ Years)
		• Reconstruct the intersection as a Continuous Green-T (CGT) configuration with concrete medians and channelization as required
		• Reconstruct the northbound approach to include the following:
		  ○ Two free-flowing through lanes
		  ○ Dual left-turn lanes:
		  ▪ One with 400 feet of full-width storage
		  ▪ One as a drop-lane
		• Reconstruct the southbound approach to include the following:
		  ○ Three through lanes with the inside through lane beginning 500 feet north of SR 307/Dean Forest Road
		  ○ One right-turn lane 225 feet of full-width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ One left-turn lane
		  ○ Dual right-turn lanes with 350 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**
13, 16, 17, 21	SR 25/US 17 at Bridgewater Drive, Larchmont Drive, Fenwick Village Drive, and Elk Road	Short-Term (0-5 Years) • Convert to an unsignalized RCUT configuration • Reconstruct eastbound and westbound approaches to allow for right-turns only

27	SR 25/US 17 at Fall Avenue/Buckhalter Road	Short-Term (0-5 Years)
		• Upgrade the existing traffic signal to accommodate other short-term improvements
		• Realign the westbound approach to a minimum intersection angle of 75 degrees
		• Construct northbound and southbound right-turn lanes along SR 25/US 17 with 175 feet of full-width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ One left-turn lane with 85 feet of full-width storage
		  ○ One through/right-turn lane
		• Reconstruct the westbound approach to include the following:
		  ○ One left-turn lane with 325 feet of full-width storage
		  ○ One through/right-turn lane
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		Long-Term (5+ Years)
		• Reconstruct the intersection to operate as a thru-cut and upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the northbound approach to include following:
		  ○ One left-turn lane with 235 feet of full-width storage
		  ○ Two through lanes
		  ○ One right-turn lane with 175 feet of full-width storage
		• Reconstruct the southbound approach to include the following:
		  ○ One left-turn lane with 235 feet of full-width
		  ○ Two through lanes
		  ○ One right-turn lane with 175 feet of full-width storage
		• Reconstruct the eastbound approach to include the following:
		  ○ One left-turn lane
		  ○ One right-turn lane with 175 feet of full-width storage
		• Reconstruct the westbound approach to include the following:
		  ○ Dual left-turn lanes with 275 feet of full-width storage
		  ○ One right-turn lane with 175 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

24, 25, 26	SR 25/US 17 at Salt Creek Road, Tower Drive, and Barbour Drive	Long-Term (5+ Years) • Convert to an unsignalized RCUT configuration concurrent with proposed median project along Segment 4 • Reconstruct eastbound and westbound approaches to allow for right-turns only

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

31, 32, 33	SR 25/US 17 at Chatham Parkway
	Chatham Parkway at Mersy Way
	SR 25/US 17 at Mersy Way
		Short-Term (0-5 Years)
		• Upgrade the existing traffic signal to accommodate other short-term improvements
		• Construct the following improvements at the intersection of SR 25/US 17 and Chatham Parkway:
		  ○ Construct a southbound right-turn lane with 175 feet of full-width storage
		  ○ Construct an eastbound right-turn lane with 175 feet of full-width storage
		  ○ Construct a westbound right-turn lane with 175 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		• Convert SR 25/US 17 at Mersy Way to an unsignalized RCUT configuration
		• Convert Chatham Parkway at Mersy Way to an unsignalized RCUT configuration
		Long-Term (5+ Years)
		• Construct a grade-separated interchange with Chatham Parkway over SR 25/US 17
		• Reconstruct the existing northwest and southeast quadrant roadways of Mersy Way and Woodspring Drive, respectively, to provide access between SR 25/US 17 and Chatham Parkway
		• Install fully actuated traffic signals, pedestrian signals, crosswalks, and ramps at the intersections of SR 25/US 17 at Woodspring Drive, SR 25/US 17 at Mersy Way, Chatham Parkway at Woodspring Drive, and Chatham Parkway at Mersy Way
		• Construct the intersection of SR 25/US 17 at Woodspring Drive as a partial RCUT configuration to include the following:
		  ○ Construct the northbound approach to include two signal-controlled through lanes, one U-turn lane with 235 feet of full-width storage, and one free-flowing right-turn lane with 225 feet of full-width storage
		  ○ Construct the southbound approach to include two free-flowing through lanes
		  ○ Reconstruct the westbound approach to include dual signal-controlled right-turn lanes with 200 feet of full-width storage
		• Construct the intersection of SR 25/US 17 at Mersy Way as a partial RCUT configuration to include the following:
		  ○ Construct the northbound approach to include two through lanes and one right-turn lane with 200 feet of full-width storage
		  ○ Construct the southbound approach to include two signal-controlled through lanes, one signal-controlled left-turn lane with 235 feet of full-width storage, and one free-flow right-turn lane with 450 feet of full-width storage
		  ○ Reconstruct the eastbound approach to include dual signal-controlled right-turn lanes with 400 feet of full-width storage
		  ○ Reconstruct the westbound approach to include a signal-controlled right-turn lane
		• Construct the intersection of Chatham Parkway at Woodspring Drive to include the following:
		  ○ Reconstruct the northbound approach to include one left-turn lane and one right-turn lane with 450 feet of full-width storage
		  ○ Construct the eastbound approach to include two through lanes, one right-turn lane with 225 feet of full-width storage, and one U-turn lane with 235 feet of full-width storage
		  ○ Construct the westbound approach to include two through lanes and one left-turn lane with 300 feet of full-width storage
		• Construct the intersection of Chatham Parkway at Mersy Way to include the following:
		  ○ Reconstruct the intersection as a thru-cut
		  ○ Reconstruct the northbound approach to include one left-turn lane and one right-turn lane with 200 feet of full-width storage
		  ○ Reconstruct the southbound approach to include one left-turn lane and one right-turn lane with 350 feet of full-width storage
		  ○ Construct the eastbound approach to include two through lanes, one left-turn lane with 250 feet of full-width storage, and one right-turn lane with 175 feet of full-width storage
		  ○ Construct the westbound approach to include two through lanes, one left-turn lane with 250 feet of full-width storage, and one right-turn lane with 300 feet of full-width storage

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**
28, 29, 30	SR 25/US 17 at Macaljon Court, Savannah Speedway, Heathcote Circle	Long-Term (5+ Years) • Convert to an unsignalized RCUT configuration concurrent with proposed median project along Segment 5 • Reconstruct eastbound and westbound approaches to allow for right-turns only
34	SR 25/US 17 at Red Gate Farms Road	Short-Term (5+ Years) • Construct a northbound right-turn lane with 350 feet of full-width storage • Construct a southbound right-turn lane with 175 feet of full-width storage Long-Term (0-5 Years) • Convert to an unsignalized RCUT configuration concurrent with proposed median project along Segment 6 • Reconstruct the eastbound and westbound approached to allow right-turns only • Construct northbound and southbound left-turn lanes with 235 feet of full-width storage
35	SR 25/US 17 at Gamble Road	Short-Term (0-5 Years) • Upgrade the existing traffic signal to accommodate other short-term improvements • Construct a northbound and southbound right-turn lanes with 175 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy Long-Term (5+ Years) • Upgrade the existing traffic signal to accommodate other long-term improvements • Realign the westbound in approach to minimum intersection angle of 75 degrees • Extend the southbound left-turn lane to accommodate 300 feet of full-width storage • Extend the westbound right-turn lane to accommodate 325 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
36	SR 25/US 17 at Blossom Drive	Short-Term (0-5 Years) • Construct a southbound right-turn lane with 175 feet of full-width storage Long-Term (5+ Years) • Convert to a right-in/right-out configuration concurrent with the proposed median project along Segment 6 • Reconstruct the eastbound approach to allow for right-turns only
37	SR 25/US 17 at Westgate Boulevard	Long-Term (5+ Years) • Convert to an unsignalized RCUT configuration • Reconstruct eastbound and westbound approaches to allow for right-turns only

Intersection-Level Improvements		
Intersection No.	**Location**	**Description of Improvements**

38, 39	I-516/SR 21 at SR 25/US 17 Interchange	Short-Term (0-5 Years)
		• Upgrade the existing traffic signals to accommodate other short-term improvements
		• Construct a third southbound through lane at the westbound terminal that begins 335 feet north of the westbound terminal in accordance with PI S015690
		Long-Term (5+ Years)
		• Upgrade the existing traffic signals to accommodate other long-term improvements
		• Reconstruct the eastbound ramp terminal to include the following:
		  ○ Extend the inside northbound through lane to accommodate 235 feet of full-width storage
		  ○ Extend the eastbound dual left-turn lanes to accommodate 525 feet of full-width storage
		• Reconstruct the westbound ramp terminal to include the following:
		  ○ Extend the inside southbound through lane to accommodate 350 feet of full-width storage
		  ○ Extend the westbound dual left-turn lanes to accommodate 300 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

40	SR 25/US 17 at Plymouth Ave/Mills Lane	Short-Term (0-5 Years)
		• In accordance with PI 521855, construct the following improvements:
		  ○ Extend the southbound left-turn lane to accommodate 350 feet of full-width storage
		  ○ Construct a southbound right-turn lane with 350 feet of full-width storage
		  ○ Construct an eastbound left-turn lane with 125 feet of full-width storage
		  ○ Construct an eastbound through lane
		  ○ Construct an eastbound right-turn lane with 125 feet of full-width storage
		  ○ Construct a westbound left-turn lane with 275 feet of full-width storage
		  ○ Construct a westbound through lane
		  ○ Construct a westbound right-turn lane with 275 feet of full-width storage
		• In addition to PI 521855, reconstruct the northbound approach to include the following:
		  ○ One left-turn lane with 235 feet of full-width storage
		  ○ Two through lanes
		  ○ One right-turn lane with 225 feet of full-width storage
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
		Long-term (5+ Years)
		• Upgrade the existing traffic signal to accommodate other long-term improvements
		• Reconstruct the westbound approach to include the following:
		  ○ Dual left-turn lanes with 325 feet of full-width storage
		  ○ One shared through/right-turn lane
		• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy

4.4 Alternative Development and Analysis

As detailed in **Section 4.3.4**, a Stage 1 ICE was completed per GDOT Policy 4A-5 for each of the study intersections along the SR 25/US 17 corridor. Stage 2 ICE or ICE Wavier forms should be completed as part of the subsequent project development as appropriate and in accordance with GDOT Policy. The following subsections summarize analyses conducted to develop short- and long-term recommendations for the study segments and intersections along the SR 25/US 17 corridor.

4.4.1 Corridor and Intersections Alternatives Development

Access Management Strategies

The improvements summarized in **Table 22** and **Table 23** primarily involve geometric modifications necessary for effective access management within the study corridor. Through guidance provided within the GDOT *Regulations for Driveway and Encroachment Control*, project team workshop sessions, and engineering judgment, driveways were consolidated, closed, or restricted to partial access as appropriate along the SR 25/US 17 study corridor. For unsignalized intersections that are not expected to meet signal warrants in the horizon years, reconstruction to RIRO or RCUT configurations is proposed.

These access control measures are depicted in the conceptual layouts in **Appendix E**. For the study intersections where movements are being restricted, the decision to close the median at some intersections while providing partial or full access at others was determined based on projected traffic volumes and traffic operations, environmental and right-of-way constraints, and implementation costs. The Savannah Area Geographic Information System (SAGIS) database and other available resources were leveraged, as applicable.

Signal Upgrades and Minor Intersection Improvements

New traffic signals are recommended at the intersections of SR 25/US 17 with Fords Pointe Circle/ Bradley Boulevard, Burton Road, Kroger Driveway, Silk Hope Road/Derrick Inn Road, and the four intersections created by the quadrant interchange at Chatham Parkway. Further, two signalized U-turn locations are recommended at Ogeechee Road and approximately 1,000 feet south of Westgate Boulevard. Each of these intersections are expected to meet MUTCD signal warrants based on projected traffic volumes or the need to accommodate diverted traffic volumes following construction of reduced conflict intersections or a raised median along the corridor. Of these intersections, only the traffic signal at Fords Pointe Circle/Bradley Boulevard is expected to meet warrants by 2030. The recommended traffic signals at Burton Road and Silk Hope Road/Derrick Inn Road will support future projects as part of PI S015908 and PI S016013, respectively. As documented in **Section 4.3.4**, multi-lane roundabout alternatives were considered but deemed infeasible at each location based on projected traffic volumes and desire to maintain continuity in intersection control along the study corridor.

Minor intersection improvements include construction of new or extended auxiliary turn lanes as detailed in **Table 22** and **Table 23**. Alternative intersection control or full reconfiguration was considered at each of these intersections but was deemed infeasible or unnecessary based on projected traffic volumes and traffic operations, environmental and right-of-way constraints, and implementation costs.

Grade Separation and Major Intersection Improvements

At the study corridor's most critical bottlenecks – specifically, the intersections of SR 25/US 17 at the SR 204/Abercorn Street ramps and Chatham Parkway – multiple improvement alternatives were considered. In each case, projected traffic volumes and location-specific right-of-way and environmental constraints were first identified to evaluate the feasibility of each alternative. Ultimately, the SR 204/Abercorn Street interchange is recommended as a diverging diamond interchange (DDI), while grade-separation is recommended for the Chatham Parkway intersection. The following subsections detail the analysis that supports these recommendations, and proposed interchange configurations are shown in the conceptual layouts in **Appendix E**.

SR 204/Abercorn Street Interchange

At the SR 25/US 17 and SR 204/Abercorn Street interchange, planning-level screening tools were used to estimate the volume-to-capacity (V/C) ratio for potential alternatives and to determine which are likely to operate best. The potential for tiered improvements (i.e., short-term improvements implemented ahead of the long-term solution) was also considered. Based on the results of these screening efforts, the following were advanced for further evaluation:

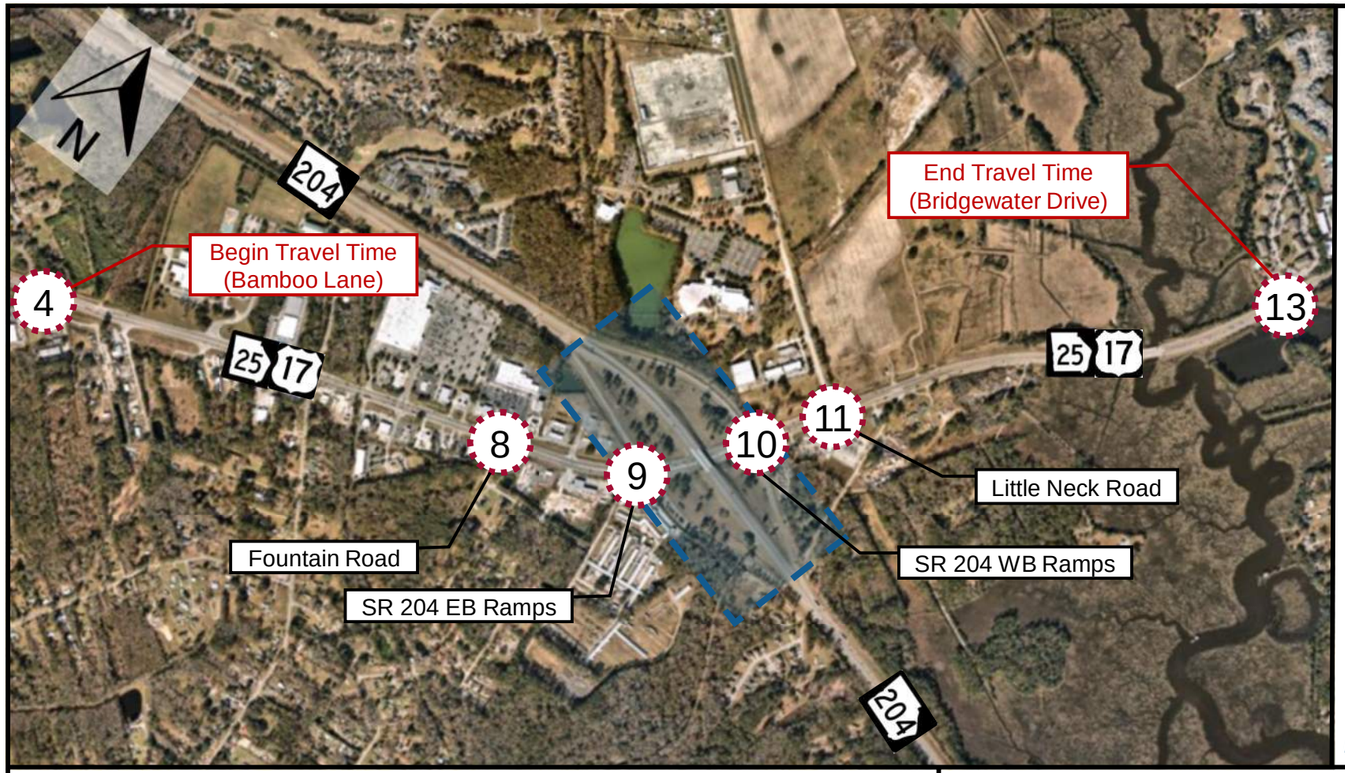
- Short-Term Horizon
  - Conventional Diamond Interchange with Auxiliary Turn Lane Improvements (Alternative A)
  - DDI within Existing Cross Section (Alternative B)
- Long-Term Horizon
  - Conventional Diamond Interchange with Corridor Widening and Auxiliary Turn Lane Improvements (Alternative A)
  - DDI with Corridor Widening (Alternative B)

Traffic operations were analyzed in Synchro and SimTraffic software under the two Alternatives listed for each time horizon. Initial simulation runs were conducted under No-Build conditions (i.e., existing geometry for the interchange and adjacent intersections) to establish a baseline understanding of traffic operations along and adjacent to the corridor without improvements. Subsequent simulations for interchange Alternatives included adjacent access management strategies, signal upgrades, and minor intersection improvements along the corridor so that the independent utility of each interchange Alternative could be evaluated. Travel time was measured between Bamboo Lane and Bridgewater Drive based on maximum model-observed queue lengths at the SR 204/Abercorn Street interchange under 2050 No-Build conditions. The results of these analyses are summarized in **Figure 62** and **Figure 63** along with the lane configuration assumptions associated with each Alternative.

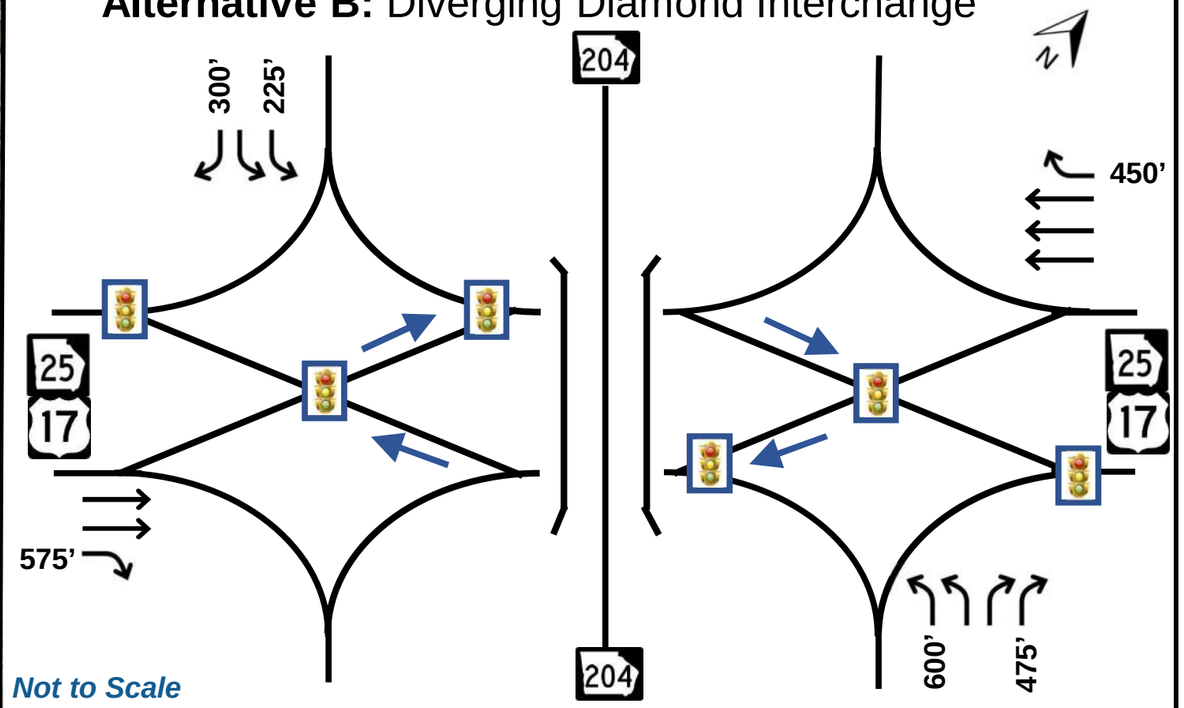
As shown in **Figure 62**, Alternative A is expected to operate acceptably under 2030 Build conditions. Although both Alternatives are expected to yield acceptable operations, the construction cost and implementation time of Alternative A are lower compared to Alternative B. Therefore, Alternative A is recommended for the short-term horizon. Additionally, a sensitivity analysis was conducted to determine the longevity of the recommended Alternative. Based on LOS, V/C ratios, and corridor travel time, Alternative A is expected to operate acceptably until 2040. An additional benefit of either short-term Alternative is that they do not impact the existing SR 204/Abercorn Street bridge and do not require substantial modifications to the cross section on SR 25/US 17. Further, Alternative B's long-term viability was analyzed, and it was determined that neither Alternative would operate acceptably by 2050. Therefore, two long-term Alternatives were considered as detailed on the following page.

Under 2050 Build conditions, the analysis results shown in **Figure 63** indicate that Alternative B is expected to operate at a more favorable V/C and LOS while providing greater travel time benefits for the corridor in comparison to Alternative A. Accordingly, Alternative B is recommended for the long-term horizon. The free-flowing U-turn lane from westbound SR 204/Abercorn Street to eastbound SR 204/ Abercorn Street proposed by PI 0019010 was evaluated in each Alternative, and it was determined that the free-flowing U-turn lane can be integrated with 2030 Alternative A without modifying the SR 204/ Abercorn Street bridge. Under 2050 Build conditions, the additional U-turn volume was analyzed as part of Alternative B, and the analysis confirmed that Alternative B can accommodate the increased volume with negligible degradation in interchange operations. Further, differences in travel times for motorists redirected to the interchange resulting from potential median closures on SR 204/Abercorn Street will be negligible, and geometric constraints (i.e., merging an additional lane on the eastbound SR 204 on-ramp) may make this free-flowing U-turn lane impractical.

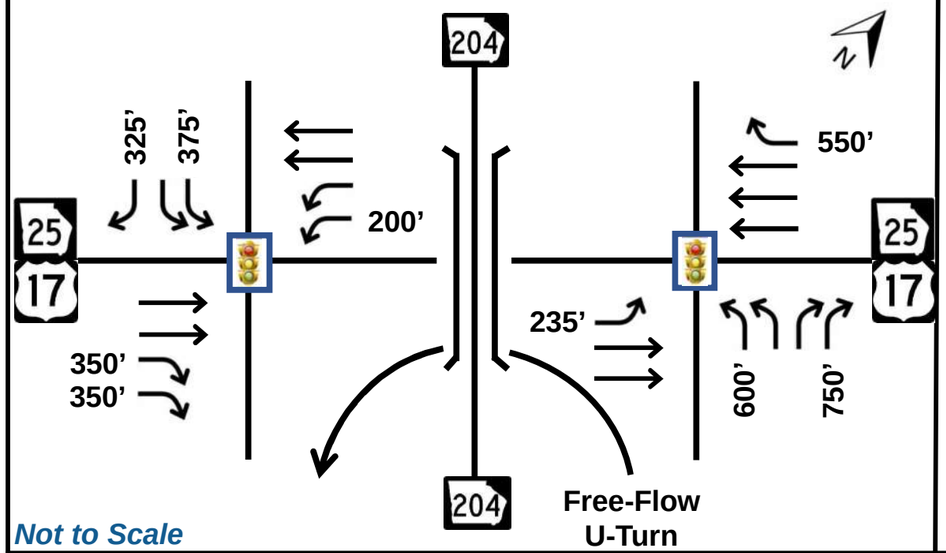
In summary, a free-flowing U-turn can be integrated into the recommended short-term improved diamond interchange as recommended by PI 0019010. Under long-term conditions, the recommended DDI can utilize the short-term U-turn lane pavement as part of the needed widening and accommodate the movement's traffic volume operationally while simplifying the roadway geometry and only requiring U-turning vehicles to navigate through one signalized intersection at the interchange.



Alternative B: Diverging Diamond Interchange



Alternative A: Conventional Intersections with Turn Lane Improvements



SR 25/US 17 at SR 204/Abercorn Street Interchange Alternative Comparisons (LOS, Delay, V/C Ratio, and Travel Time)

Conceptual Alternative	Measure of Effectiveness	SR 25/US 17 at SR 204/Abercorn Street Interchange Weighted Average Measures of Effectiveness*					SR 25/US 17 Average Travel Time** (mm:ss)	
		EB	WB	NB	SB	Overall		
AM Peak Hour								
2030 No-Build Existing Geometry	LOS (Delay, sec/veh)	B (14.2)	C (22.4)	B (10.5)	C (21.0)	**B (17.4)**	Northbound	04:49
							Southbound	05:39
2030 Build Alternative A	LOS (Delay, sec/veh)	B (11.4)	B (19.0)	B (10.3)	B (16.2)	**B (14.6)**	Northbound	04:14
							Southbound	04:37
2030 Build Alternative B	LOS (Delay, sec/veh)	B (17.6)	B (18.3)	B (14.6)	A (8.4)	**B (13.1)**	Northbound	04:45
							Southbound	04:58
PM Peak Hour								
2030 No-Build Existing Geometry	LOS (Delay, sec/veh)	C (20.6)	C (23.4)	B (10.4)	C (20.9)	**B (18.9)**	Northbound	06:34
							Southbound	05:43
2030 Build Alternative A	LOS (Delay, sec/veh)	C (20.5)	C (20.0)	B (11.2)	B (17.5)	**B (16.9)**	Northbound	04:07
							Southbound	04:50
2030 Build Alternative B	LOS (Delay, sec/veh)	B (15.9)	B (14.5)	B (18.0)	A (7.5)	**B (12.8)**	Northbound	04:50
							Southbound	05:20

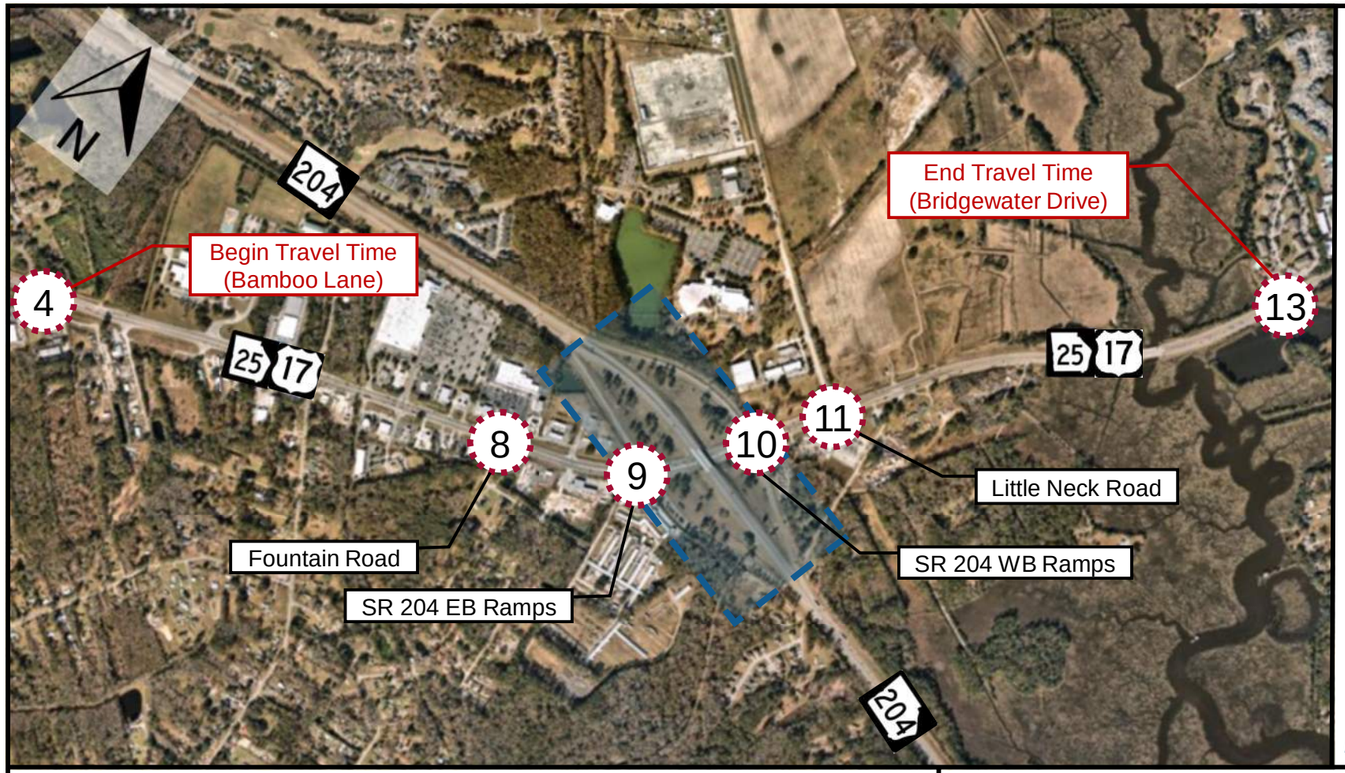
*Weighted average delay calculated for equivalent comparison with conventional intersection configuration
**Travel time was measured between Bamboo Lane and Bridgewater Drive (~2.3-mile travel distance)

SR 25/US 17 Corridor Study – Alternatives Development & Analysis

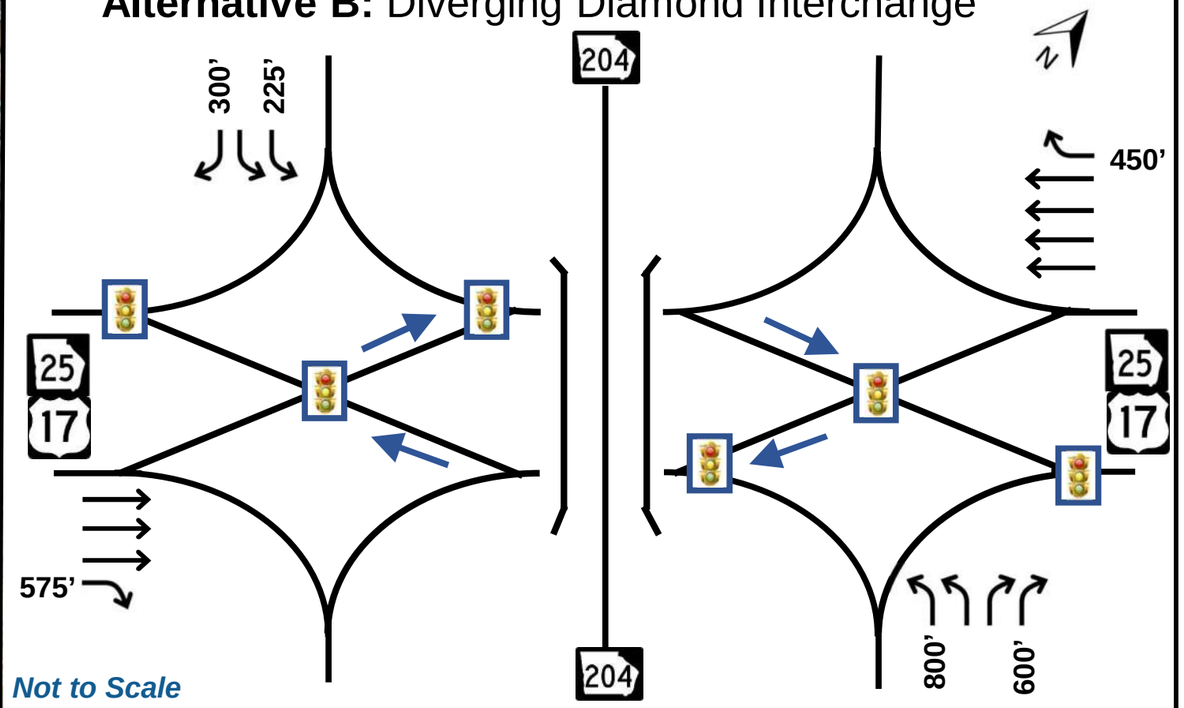
Figure 62 – Conceptual Alternative Comparisons – SR 25/US 17 at SR 204/Abercorn Street – Short Term

SR 25/US 17 CORRIDOR STUDY

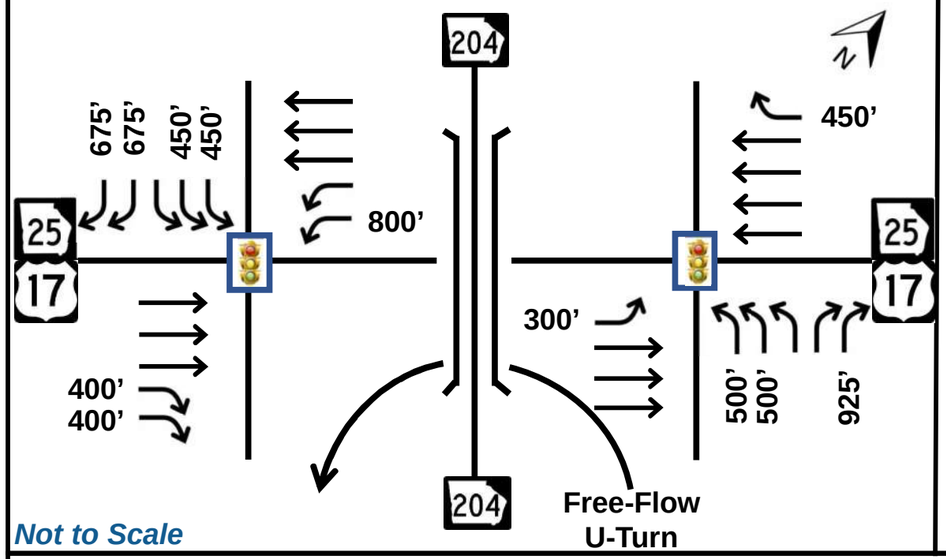
Kimley»Horn



Alternative B: Diverging Diamond Interchange



Alternative A: Conventional Intersections with Turn Lane Improvements



SR 25/US 17 at SR 204/Abercorn Street Interchange Alternative Comparisons (LOS, Delay, V/C Ratio, and Travel Time)

Conceptual Alternative	Measure of Effectiveness	SR 25/US 17 at SR 204/Abercorn Street Interchange Weighted Average Measures of Effectiveness*					SR 25/US 17 Average Travel Time** (mm:ss)	
		EB	WB	NB	SB	Overall		
AM Peak Hour								
2050 No-Build Existing Geometry	LOS (Delay, sec/veh)	C (33.4)	D (37.5)	C (33.3)	D (49.8)	**D (41.3)**	Northbound	05:53
							Southbound	12:56
2050 Build Alternative A	LOS (Delay, sec/veh)	B (16.0)	C (24.4)	B (16.8)	C (21.2)	**C (20.2)**	Northbound	05:00
							Southbound	11:39
2050 Build Alternative B	LOS (Delay, sec/veh)	B (15.9)	C (25.6)	B (10.3)	B (15.3)	**B (16.0)**	Northbound	05:01
							Southbound	05:31
PM Peak Hour								
2050 No-Build Existing Geometry	LOS (Delay, sec/veh)	D (46.9)	E (69.3)	C (28.1)	E (76.8)	**E (60.1)**	Northbound	09:03
							Southbound	09:26
2050 Build Alternative A	LOS (Delay, sec/veh)	B (18.3)	C (24.3)	B (11.8)	B (16.9)	**B (17.9)**	Northbound	04:58
							Southbound	06:03
2050 Build Alternative B	LOS (Delay, sec/veh)	B (17.3)	C (29.0)	B (14.3)	B (15.1)	**B (18.9)**	Northbound	04:52
							Southbound	04:39

*Weighted average delay calculated for equivalent comparison with conventional intersection configuration
**Travel time was measured between Bamboo Lane and Bridgewater Drive (~2.3-mile travel distance)

SR 25/US 17 Corridor Study – Alternatives Development & Analysis

Figure 63 – Conceptual Alternative Comparisons – SR 25/US 17 at SR 204/Abercorn Street – Long Term

SR 25/US 17 CORRIDOR STUDY

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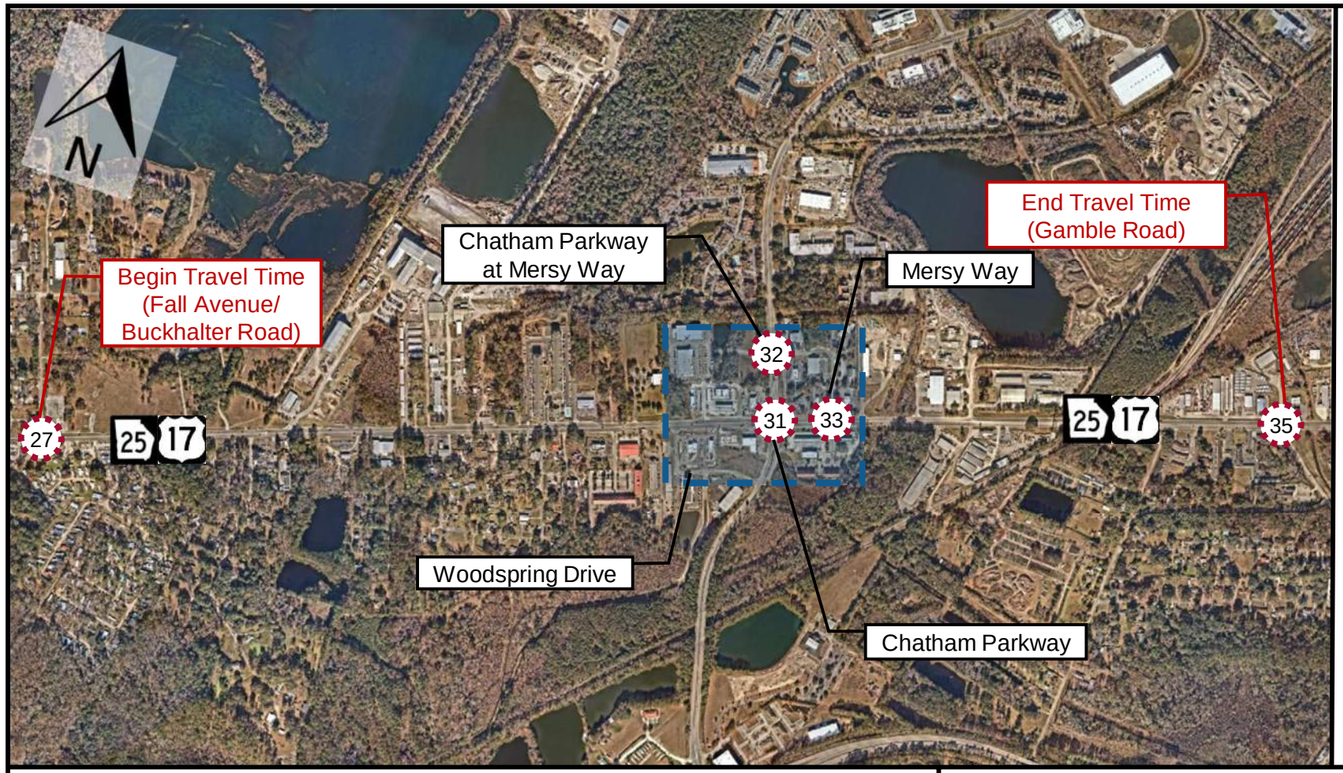
Chatham Parkway

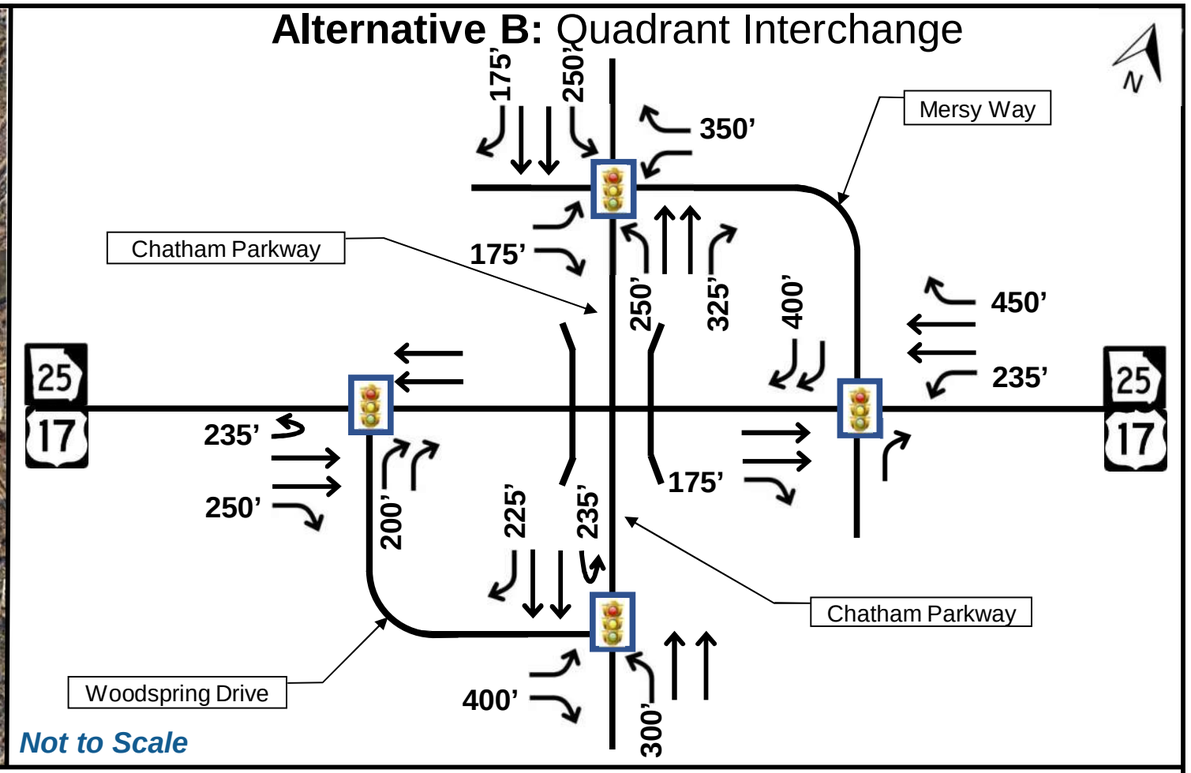
The intersection of SR 25/US 17 and Chatham Parkway currently operates under over-capacity conditions with long delays. It is anticipated that a grade-separated alternative will be needed in the long-term horizon as growth along SR 25/US 17 and along Chatham Parkway continues. However, to alleviate immediate congestion, it is recommended to construct eastbound, westbound, and southbound right-turn lanes in the short-term. Additionally, the following long-term Alternatives were considered:

- Conventional Intersection with Auxiliary Turn Lane Improvements (Alternative A)
- Quadrant Interchange (Alternative B)

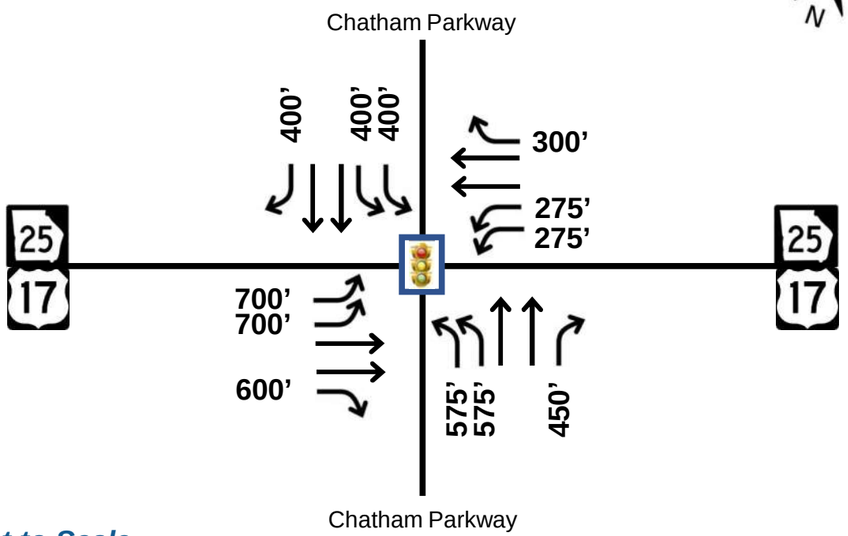
Traffic operations were analyzed in Synchro and SimTraffic software under the two Alternatives listed for the long-term horizon. Initial simulation runs were conducted under No-Build conditions (i.e., existing geometry for the subject intersection and adjacent intersections) to establish a baseline understanding of traffic operations along and adjacent to the corridor without improvements. Subsequent simulations for the Alternatives included adjacent proposed access management strategies, signal upgrades, and minor intersection improvements recommended along the corridor so that the independent utility of each Alternative could be evaluated. Travel time was measured between Fall Avenue/Buckhalter Road and Gamble Road based on maximum queue lengths at the Chatham Parkway intersection under 2050 No-Build conditions. The result of the analysis is summarized in **Figure 64**.

As shown in **Figure 64**, Alternative A is not expected to yield acceptable operations at the Chatham Parkway intersection or at adjacent intersections under 2050 Build conditions, and other at-grade alternatives such as a displaced left-turn (DLT) intersection were screened but deemed infeasible due to available right-of-way and adjacent developments. Therefore, grade-separated alternatives were explored, and planning-level screening tools were used to estimate the V/C ratios for potential alternatives and determine which are likely to operate best. Several grade-separated alternatives such as a traditional diamond and a single-point urban interchange (SPUI) are expected to yield acceptable operations under 2050 Build conditions but were ultimately deemed infeasible due to cost, right-of-way constraints, and access to existing adjacent developments. Therefore, a quadrant interchange with Mersy Way and Woodspring Drive in the northwest and southeast quadrants, respectively, is recommended for the long-term horizon. The quadrant interchange is expected to reduce overall delay by as much as 84% during the AM peak hour and 79% during the PM peak hour when compared to Alternative A.





Alternative A: Conventional Intersection with Auxiliary Turn Lane Improvements



Not to Scale

SR 25/US 17 at Chatham Parkway Alternative Comparisons (LOS, Delay, V/C Ratio, and Travel Time)

Conceptual Alternative	Measure of Effectiveness	SR 25/US 17 at Chatham Parkway Weighted Average Measures of Effectiveness*					SR 25/US 17 Average Travel Time** (mm:ss)	
		EB	WB	NB	SB	Overall		
AM Peak Hour								
2050 No-Build Existing Geometry	LOS (Delay, sec/veh)	F (107.1)	F (102.3)	E (65.6)	E (70.1)	**E (79.0)**	Northbound	11:57
							Southbound	04:30
2050 Build Alternative A	LOS (Delay, sec/veh)	F (83.5)	F (92.8)	D (51.7)	C (33.6)	**E (62.0)**	Northbound	07:05
							Southbound	03:47
2050 Build Alternative B	LOS (Delay, sec/veh)	A (7.7)	B (12.1)	B (10.3)	A (6.2)	**A (9.7)**	Northbound	06:00
							Southbound	03:12
PM Peak Hour								
2050 No-Build Existing Geometry	LOS (Delay, sec/veh)	F (210.5)	F (106.5)	D (51.5)	F (124.8)	**F (116.4)**	Northbound	07:50
							Southbound	09:17
2050 Build Alternative A	LOS (Delay, sec/veh)	E (72.4)	E (74.7)	C (31.5)	D (50.5)	**D (54.3)**	Northbound	03:59
							Southbound	04:52
2050 Build Alternative B	LOS (Delay, sec/veh)	B (12.6)	B (14.2)	B (11.7)	A (8.3)	**B (11.3)**	Northbound	04:06
							Southbound	04:10

*Weighted average delay calculated for equivalent comparison with conventional intersection configuration
**Travel time was measured between Fall Avenue/Buckhalter Road and Gamble Road (~2.3-mile travel distance)

SR 25/US 17 Corridor Study – Alternatives Development & Analysis

Figure 64 – Conceptual Alternative Comparisons – SR 25/US 17 at Chatham Parkway – Long Term

SR 25/US 17 CORRIDOR STUDY

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4.4.2 Horizon Year Build Traffic Volume Development

The traffic volumes depicted in **Figure 54** through **Figure 59** were applied to the 2030 Build and 2050 Build scenarios. Next, numerous minor street movements were diverted to adjacent intersections as U-turn movements due to access management strategies such as reduced conflict intersections (RCIs) and proposed raised medians. The 2030 and 2050 Build peak hour traffic volumes are presented in **Figure 65** through **Figure 70**.

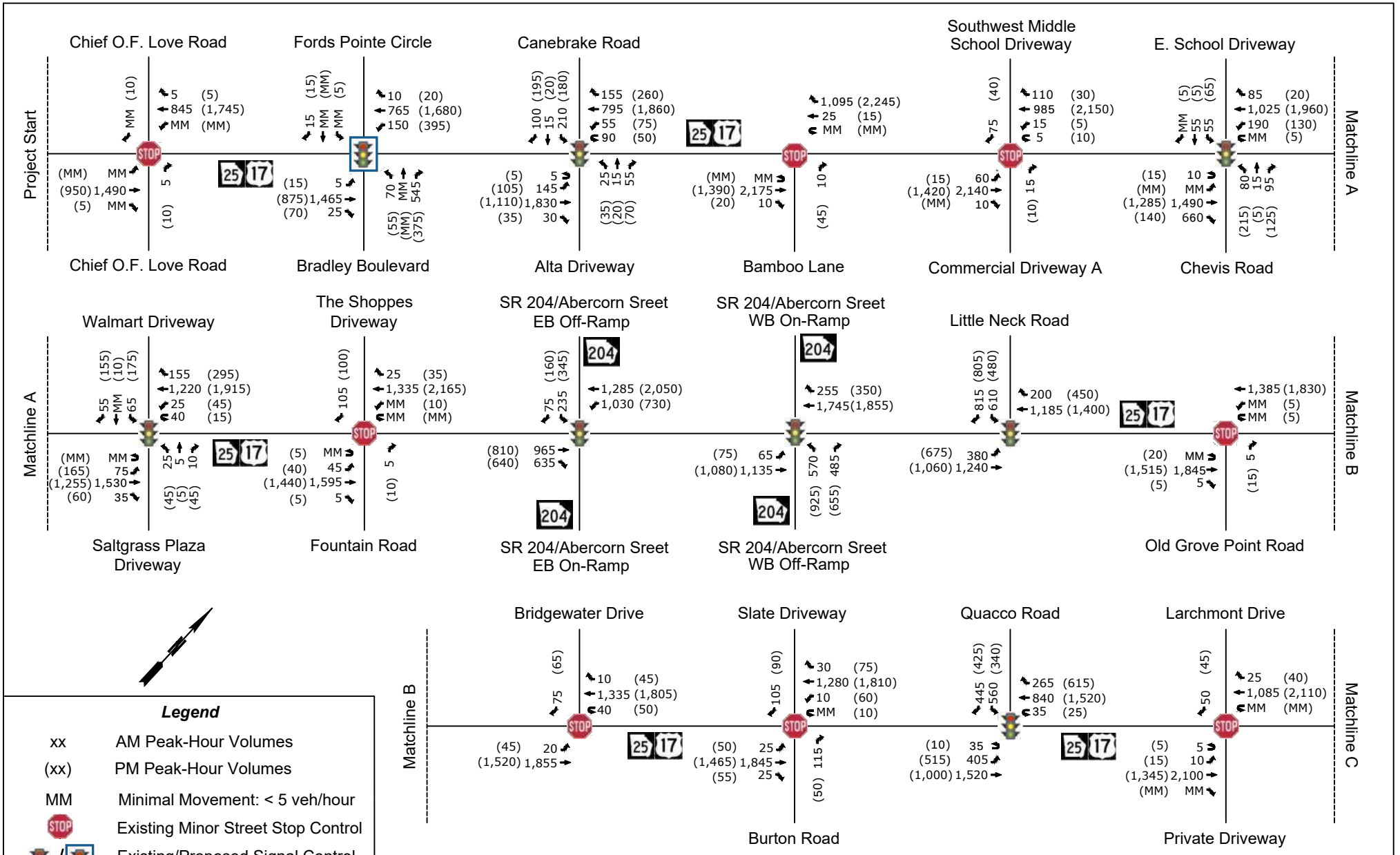

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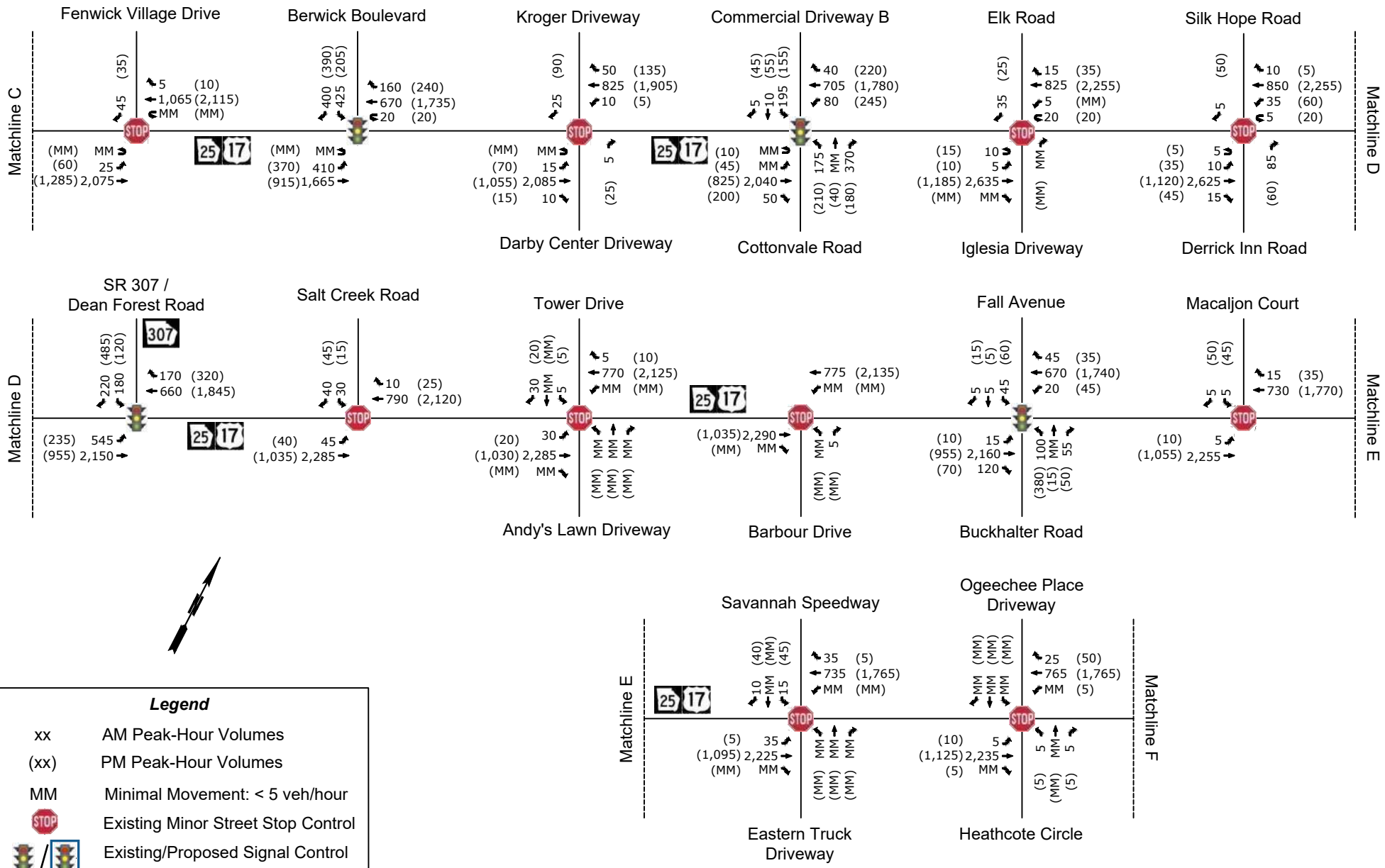
Figure 65 – 2030 Build Peak Hour Volumes
Intersections 1-16



Legend

xx	AM Peak-Hour Volumes
(xx)	PM Peak-Hour Volumes
MM	Minimal Movement: < 5 veh/hour
STOP	Existing Minor Street Stop Control
/	Existing/Proposed Signal Control

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Figure 66 – 2030 Build Peak Hour Volumes
Intersections 17-30

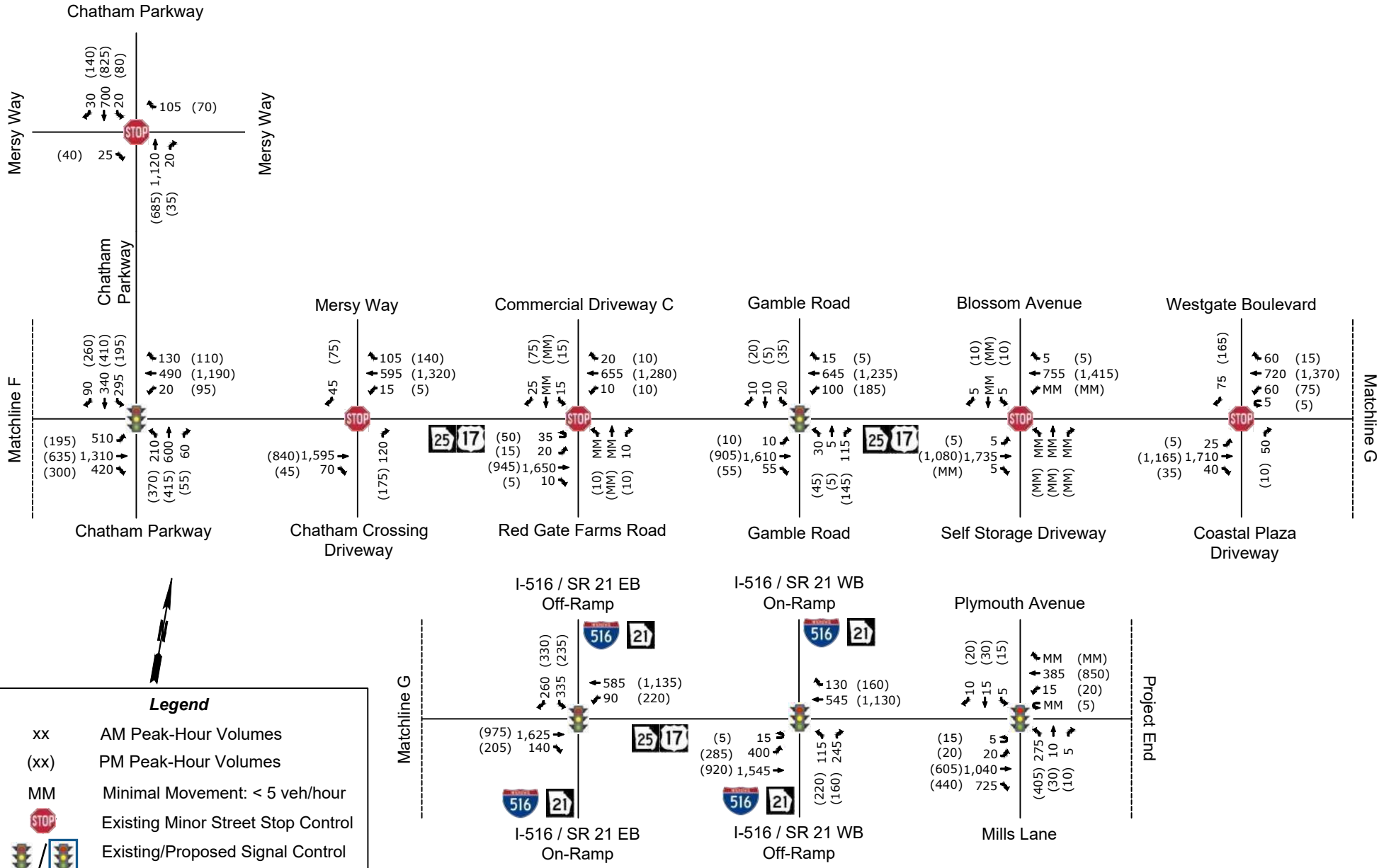

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Figure 67 – 2030 Build Peak Hour Volumes
Intersections 31-40

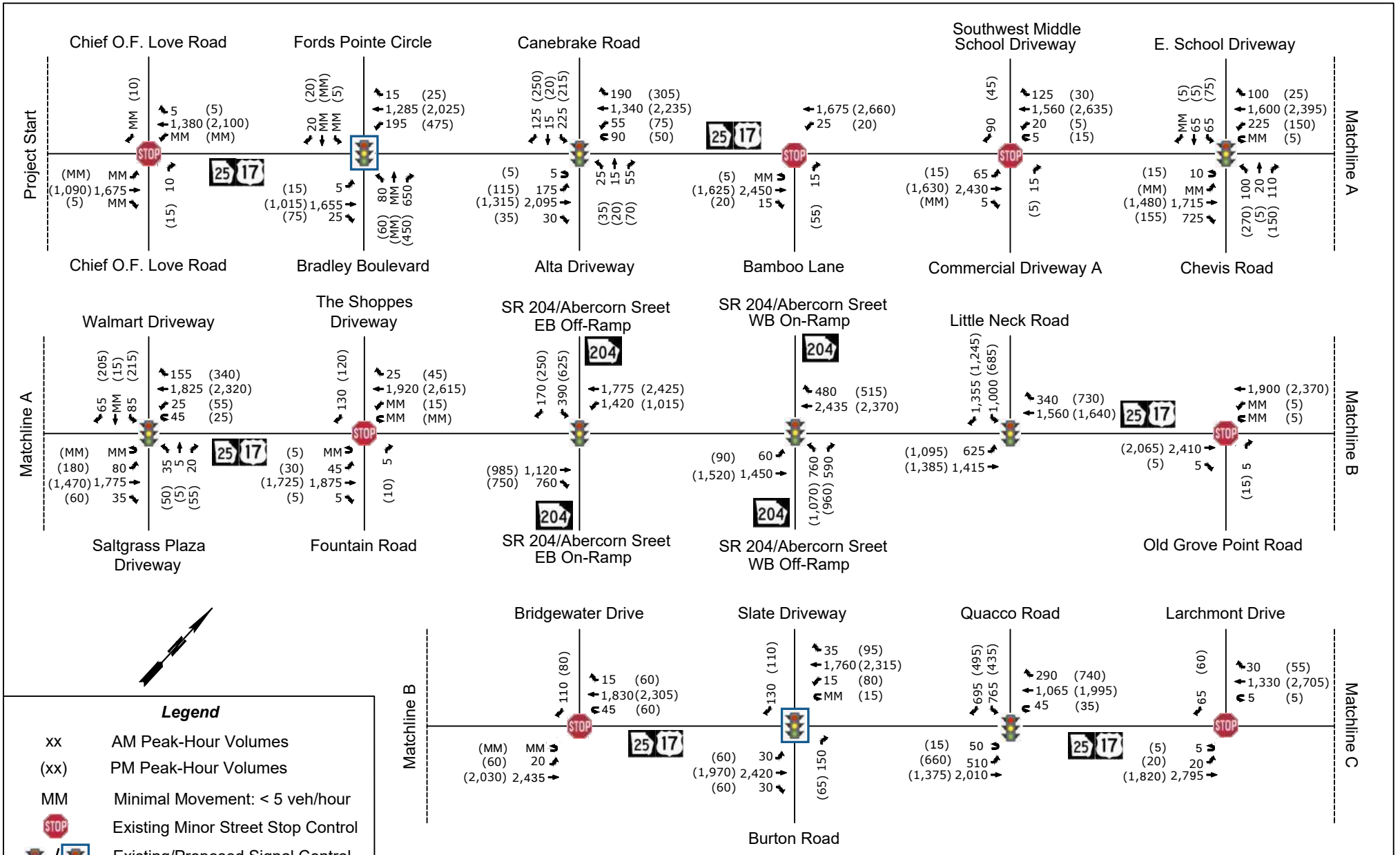

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Figure 68 – 2050 Build Peak Hour Volumes
Intersections 1-16

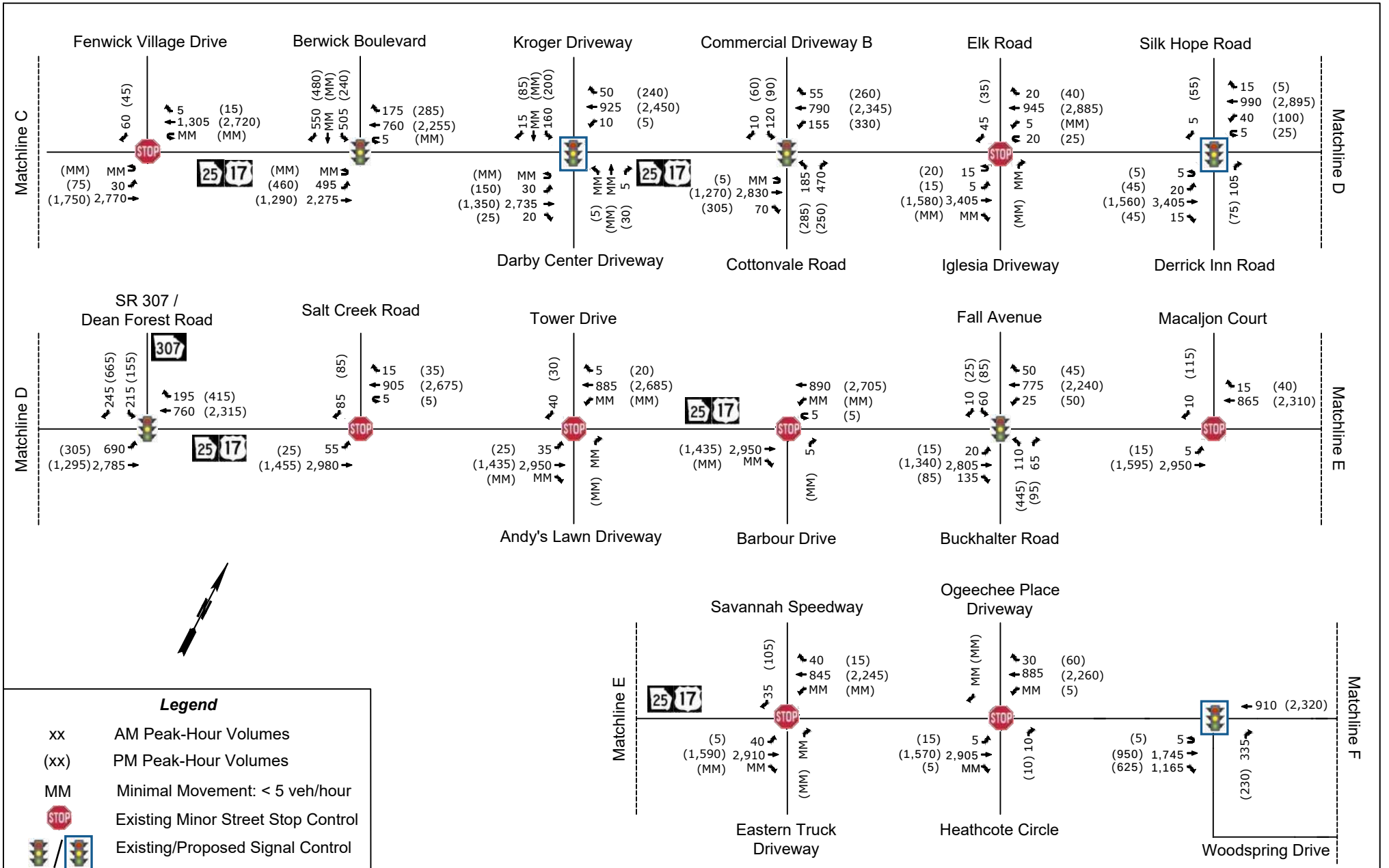

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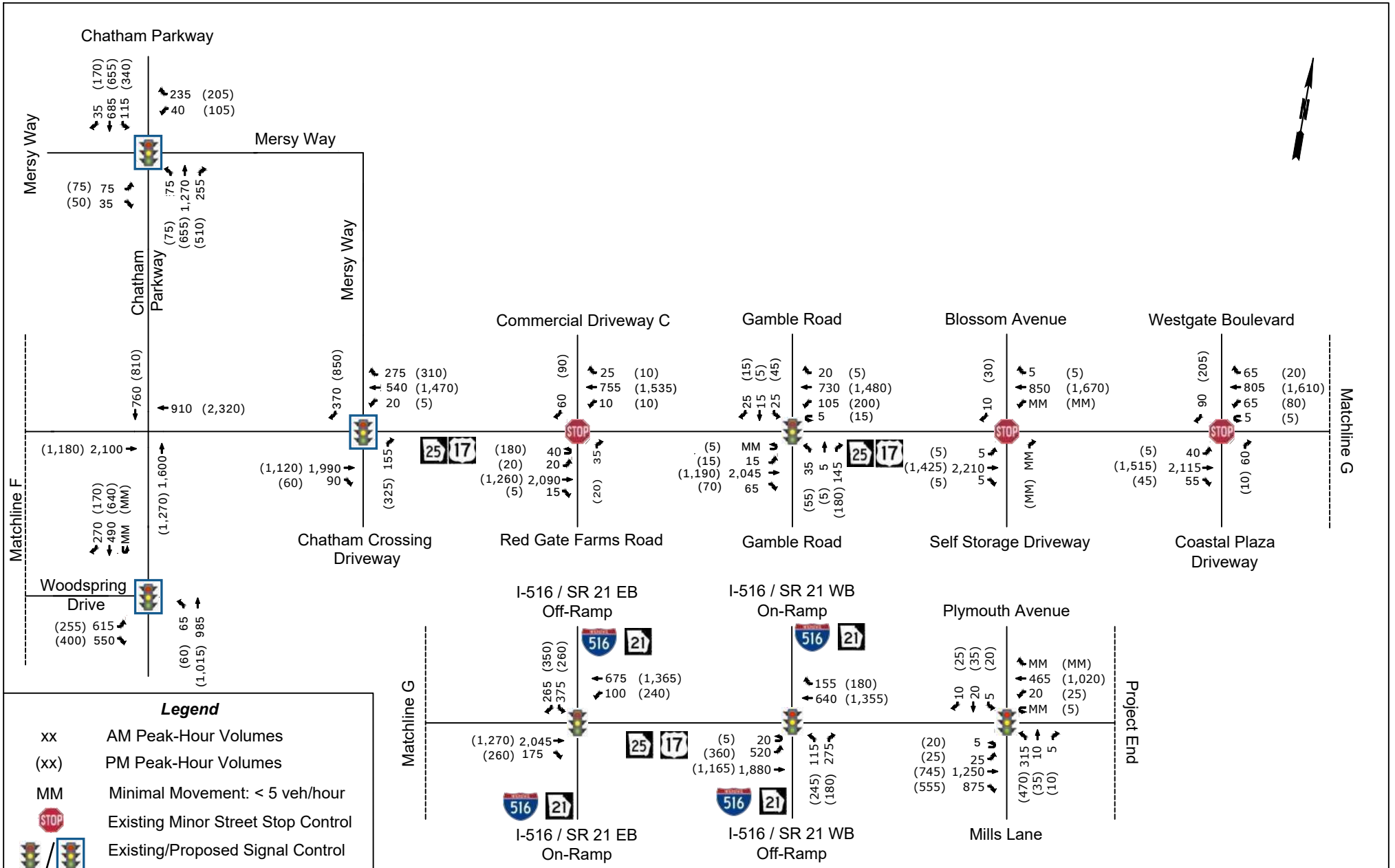
Figure 69 – 2050 Build Peak Hour Volumes
Intersections 17-30



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SR 25/US 17 CORRIDOR STUDY

Figure 70 – 2050 Build Peak Hour Volumes
Intersections 31-40

4.4.3 Intersection Analysis Results

Capacity analysis results for each of the study intersections are summarized by contextual segment in **Table 24** (2030 Build) and **Table 25** (2050 Build). Key findings are discussed below, with a focus on trends in operations between the 2030 and 2050 horizon years for intersections exhibiting the greatest control delay. The improvements modeled in Synchro correspond with those presented in **Table 22** and **Table 23** (refer to **Section 4.3.5**) and are detailed further in **Section 4.4.4** and **Section 6**. For reporting purposes, SR 25/US 17 is designated with a north-south orientation throughout the study limits.

2030 (Short-Term) Build

Critical improvements considered under the 2030 horizon year include:

- Auxiliary turn lane improvements at the SR 25/US 17 and SR 204/Abercorn Street interchange
- Intersection improvements at Chevis Road, Little Neck Road, Berwick Boulevard, Cottonvale Road, and Fall Avenue/Buckhalter Road
- Signalization at the intersection of SR 25/US 17 with Fords Pointe Circle/Bradley Boulevard when warranted
- Access management via the construction of RCUT intersections
- Access management via the construction of a raised median along SR 25/US 17 from Woodspring Drive to Mersy Way and auxiliary turn lane improvements at the Chatham Parkway intersection
- Corridor signal retiming along the entire SR 25/US 17 corridor

With these short-term improvements in place, operations in the 2030 Build scenario are expected to significantly improve relative to 2030 No-Build conditions. For example, operations for both ramp termini at the SR 204/Abercorn Street interchange are expected to improve from LOS C to LOS B during the AM peak hour (i.e., the worse of the two peak hours) and remove over-capacity conditions during both peak hours. Though not captured in node-level capacity analysis results, queues at the interchange are expected to decrease substantially under 2030 Build conditions. Specifically, the queues for the southbound left-turn movements onto the SR 204/Abercorn Street eastbound on-ramp are expected to no longer extend through upstream intersections, including Little Neck Road. Extending the southbound left-turn lane for the SR 204/Abercorn Street eastbound ramps through the intersection with Little Neck Road will better accommodate the high left-turn demand, prevent queues from extending into the SR 25/US 17 southbound through lanes, and improve southbound throughput in this section.

The intersection with Chatham Parkway is still expected to operate with long delays under 2030 Build conditions; however, the recommended at-grade improvements are expected to improve operations until the recommended quadrant interchange can be implemented. Finally, auxiliary turn lane improvements at the intersections with Berwick Boulevard and Cottonvale Road are expected to improve intersection operations as well as corridor-level operations between the two intersections. Although numeric changes in delay at each intersection are modest under 2030 Build conditions as shown in **Table 24**, greater benefit is anticipated at the corridor level, particularly as traffic volumes continue to increase beyond the 2030 horizon year.

Table 24: 2030 Build Intersection Capacity Analysis Results

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 1 — Southern Gateway												
1	SR 25/US 17 at Chief O.F. Love Road	Stop	B (11.4)	C (15.8)	A (9.7)	B (13.6)	-	C (18.3)	B (12.0)	C (15.7)	B (10.1)	-
2	SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard	Signal	D (51.5)	D (44.7)	C (22.3)	A (5.6)	C (22.1)	D (52.3)	C (29.6)	C (25.0)	A (2.0)	-
3	SR 25/US 17 at Canebrake Road	Signal	D (50.4)	C (24.7)	B (18.3)	B (12.9)	B (19.8)	D (37.2)	C (27.3)	B (10.6)	A (9.3)	B (13.0)
4	SR 25/US 17 at Bamboo Lane	Stop	-	D (32.8)	C (18.9)	C (23.7)	-	-	C (16.0)	F (142.8)	B (14.6)	-
5	SR 25/US 17 at Southwest Middle School Driveway	Stop	B (13.8)	D (25.2)	B (11.1)	E (45.3)	-	D (29.5)	C (15.2)	C (21.5)	C (23.9)	-
6	SR 25/US 17 at Chevis Road	Signal	E (68.8)	C (27.7)	A (8.7)	B (12.3)	B (12.7)	E (76.1)	E (75.2)	B (10.3)	A (8.6)	B (16.3)
Segment 2 — Commercial South												
7	SR 25/US 17 at Walmart Driveway	Signal	C (34.1)	D (43.9)	A (6.1)	A (5.4)	A (7.3)	D (47.1)	C (30.3)	A (8.1)	B (18.8)	B (17.6)
8	SR 25/US 17 at Fountain Road	Stop	C (19.6)	C (16.9)	C (15.7)	B (14.6)	-	E (45.7)	C (15.7)	F (64.5)	B (13.5)	-
9	SR 25/US 17 at SR 204/Abercorn Street Eastbound Ramps	Signal	E (56.5)	-	A (9.6)	B (15.1)	B (15.3)	D (52.9)	-	D (41.9)	A (9.1)	C (22.7)
10	SR 25/US 17 at SR 204/Abercorn Street Westbound Ramps	Signal	-	D (45.2)	A (0.8)	A (1.1)	B (12.6)	-	D (55.4)	B (14.8)	C (23.6)	C (32.4)
11	SR 25/US 17 at Little Neck Road	Signal	D (46.4)	-	B (10.8)	B (17.1)	C (24.6)	C (31.3)	-	A (8.5)	C (31.7)	C (22.4)
12	SR 25/US 17 at Old Grove Point Road	Stop	-	C (19.6)	E (36.4)	C (17.3)	-	-	C (17.0)	F (58.2)	C (23.4)	-
Segment 3 — Berwick												
13	SR 25/US 17 at Bridgewater Drive	Stop	C (17.5)	-	B (12.9)	F (99.5)	-	C (22.8)	-	C (18.0)	E (44.3)	-
14	SR 25/US 17 at Burton Road	Stop	C (17.8)	D (34.4)	B (12.4)	C (17.4)	-	D (25.3)	C (17.3)	C (17.8)	C (18.3)	-
15	SR 25/US 17 at Quacco Road	Signal	D (41.3)	-	B (19.3)	B (14.2)	C (23.3)	D (37.2)	-	C (23.9)	B (15.7)	C (22.2)
16	SR 25/US 17 at Larchmont Drive	Stop	B (13.9)	-	B (14.9)	F (82.1)	-	D (27.2)	-	E (40.8)	C (24.0)	-
17	SR 25/US 17 at Olympus Fenwick Driveway	Stop	B (13.3)	-	B (10.9)	F (70.6)	-	D (25.7)	-	C (25.0)	C (23.0)	-
18	SR 25/US 17 at Berwick Boulevard	Signal	D (37.1)	-	B (17.6)	A (8.3)	B (19.8)	E (61.8)	-	B (15.9)	B (12.7)	C (21.3)
19	SR 25/US 17 at Kroger Driveway	Stop	B (11.5)	C (22.2)	A (9.6)	C (24.4)	-	D (28.1)	B (12.9)	C (21.2)	B (10.6)	-
20	SR 25/US 17 at Cottonvale Road	Signal	F (96.8)	D (38.0)	D (41.7)	A (7.1)	D (36.5)	D (50.9)	D (44.6)	B (10.4)	A (8.3)	B (15.5)
21	SR 25/US 17 at Elk Road	Stop	B (11.6)	-	B (13.2)	F ($)	-	D (29.7)	-	F (119.6)	C (23.1)	-
22	SR 25/US 17 at Silk Hope Road/Derrick Inn Road	Stop	B (12.0)	F (71.3)	B (11.5)	F (299.9)	-	E (37.0)	B (14.6)	F (55.9)	C (17.0)	-
23	SR 25/US 17 at SR 307/Dean Forest Road	Signal	D (44.5)	-	B (11.8)	B (14.2)	B (15.7)	D (48.5)	-	B (10.5)	C (22.4)	C (22.9)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2030 Build Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 4 — Silk Hope												
24	SR 25/US 17 at Salt Creek Road	Stop	C (24.8)	-	A (9.8)	A (0.0)	-	F (84.4)	-	D (26.4)	A (0.0)	-
25	SR 25/US 17 at Tower Drive	Stop	D (27.3)	F (100.9)	A (9.5)	C (22.2)	-	F (67.2)	F (58.3)	C (23.7)	B (10.6)	-
26	SR 25/US 17 at Barbour Drive	Stop	-	F (57.3)	A (0.0)	C (22.7)	-	-	C (22.5)	A (0.0)	B (10.7)	-
27	SR 25/US 17 at Fall Avenue/Buckhalter Road	Signal	E (55.1)	D (47.8)	B (14.4)	A (6.4)	B (14.3)	E (55.6)	D (43.0)	B (15.3)	C (25.0)	C (24.7)
Segment 5 — Commercial North												
28	SR 25/US 17 at Macaljon Court	Stop	C (21.5)	-	A (9.9)	A (0.0)	-	F (60.8)	-	C (16.5)	A (0.0)	-
29	SR 25/US 17 at Savannah Speedway	Stop	D (29.2)	-	B (10.0)	A (0.0)	-	F (62.6)	-	C (15.9)	A (0.0)	-
30	SR 25/US 17 at Heathcote Circle	Stop	E (45.2)	F (92.5)	A (9.4)	C (22.2)	-	F (54.5)	E (49.7)	C (19.7)	B (11.0)	-
31	SR 25/US 17 at Chatham Parkway	Signal	E (55.5)	E (65.7)	C (24.6)	C (25.5)	D (37.7)	D (46.8)	D (54.5)	B (18.8)	C (24.5)	C (33.5)
32	Chatham Parkway at Mersy Way	Stop	B (12.2)	A (0.0)	B (11.7)	C (17.0)	-	A (9.4)	A (0.0)	B (11.7)	B (11.3)	-
Segment 6 — Northern Gateway												
33	SR 25/US 17 at Mersy Way	Stop	B (11.2)	D (28.0)	-	C (17.7)	-	C (16.5)	C (15.0)	-	A (9.6)	-
34	SR 25/US 17 at Red Gate Farms Road	Stop	E (45.2)	E (47.5)	B (12.9)	C (15.7)	-	E (39.1)	E (42.1)	E (36.2)	B (10.2)	-
35	SR 25/US 17 at Gamble Road	Signal	D (54.5)	D (53.9)	B (11.5)	A (3.8)	B (10.5)	E (55.4)	D (54.5)	A (7.6)	A (3.8)	A (7.5)
36	SR 25/US 17 at Blossom Drive	Stop	D (29.3)	E (45.2)	A (9.3)	C (15.6)	-	E (40.3)	D (31.9)	B (13.5)	B (11.1)	-
37	SR 25/US 17 at Westgate Boulevard	Stop	B (12.1)	C (24.2)	A (9.4)	E (38.8)	-	D (25.0)	C (15.7)	C (16.1)	C (22.1)	-
38	SR 25/US 17 at I-516 Eastbound Ramps	Signal	C (33.4)	-	A (4.9)	A (9.5)	B (11.5)	C (31.3)	-	A (4.0)	A (9.3)	B (11.3)
39	SR 25/US 17 at I-516 Westbound Ramps	Signal	-	C (31.3)	B (10.3)	B (11.1)	B (13.0)	-	C (30.4)	B (13.0)	B (11.0)	B (14.4)
40	SR 25/US 17 at Plymouth Avenue/Mills Lane	Signal	D (36.2)	D (51.6)	A (3.1)	B (11.3)	B (10.4)	D (39.1)	D (46.5)	A (4.5)	B (19.2)	B (18.2)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2030 Build Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

Table 25: 2050 Build Intersection Capacity Analysis Results

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 1 — Southern Gateway												
1	SR 25/US 17 at Chief O.F. Love Road	Stop	B (14.8)	C (17.7)	B (12.7)	C (15.2)	-	C (22.9)	B (12.9)	C (20.0)	B (10.8)	-
2	SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard	Signal	C (31.0)	C (30.9)	C (27.8)	A (3.6)	B (19.2)	C (28.5)	B (14.4)	C (23.9)	A (2.6)	A (9.9)
3	SR 25/US 17 at Canebrake Road	Signal	D (43.8)	C (30.5)	B (14.8)	B (13.5)	B (17.0)	C (25.0)	C (27.3)	A (7.9)	A (9.0)	B (11.8)
4	SR 25/US 17 at Bamboo Lane	Stop	-	F (50.4)	C (17.0)	F (98.7)	-	-	C (22.1)	F (51.2)	D (32.3)	-
5	SR 25/US 17 at Southwest Middle School Driveway	Stop	D (26.3)	E (36.3)	E (36.6)	F (87.5)	-	F (61.7)	C (18.9)	F (99.2)	C (19.4)	-
6	SR 25/US 17 at Chevis Road	Signal	E (56.2)	C (24.8)	B (16.4)	A (8.8)	B (14.8)	D (35.5)	D (43.9)	B (10.5)	A (3.7)	B (10.2)
Segment 2 — Commercial South												
7	SR 25/US 17 at Walmart Driveway	Signal	D (39.5)	D (51.8)	A (2.6)	A (3.5)	A (5.1)	D (36.1)	D (37.5)	A (7.4)	A (11.1)	B (12.6)
8	SR 25/US 17 at Fountain Road	Stop	F (62.5)	C (22.5)	F (79.1)	D (34.1)	-	F (204.9)	C (21.1)	F ($)	D (31.5)	-
9	SR 25/US 17 at SR 204/Abercorn Street Eastbound Ramps	Signal	C (22.2)	-	A (8.0)	B (15.3)	B (13.5)	C (25.2)	-	B (16.4)	B (15.1)	B (16.9)
10	SR 25/US 17 at SR 204/Abercorn Street Westbound Ramps	Signal	-	C (34.4)	B (13.1)	B (14.4)	B (11.5)	-	D (44.5)	B (12.1)	B (16.1)	B (16.8)
11	SR 25/US 17 at Little Neck Road	Signal	D (35.4)	-	C (31.0)	D (38.9)	D (35.0)	E (62.2)	-	B (19.7)	C (28.6)	C (34.9)
12	SR 25/US 17 at Old Grove Point Road	Stop	-	D (32.5)	A (0.0)	F (64.3)	-	-	D (27.9)	A (0.0)	D (33.1)	-
Segment 3 — Berwick												
13	SR 25/US 17 at Bridgewater Drive	Stop	E (31.8)	-	E (37.2)	E (44.1)	-	F (53.0)	-	F (135.8)	D (27.3)	-
14	SR 25/US 17 at Burton Road	Signal	D (36.1)	C (29.8)	A (10.0)	A (1.5)	A (8.0)	C (27.4)	A (4.8)	A (7.0)	A (2.1)	A (4.9)
15	SR 25/US 17 at Quacco Road	Signal	C (32.8)	-	B (16.5)	B (17.5)	C (21.2)	C (30.9)	-	B (13.6)	A (9.2)	B (14.3)
16	SR 25/US 17 at Larchmont Drive	Stop	C (19.1)	-	C (22.0)	E (44.7)	-	F (71.6)	-	F (125.4)	C (17.9)	-
17	SR 25/US 17 at Olympus Fenwick Driveway	Stop	C (17.9)	-	C (20.3)	E (40.0)	-	F (60.1)	-	F ($)	C (17.5)	-
18	SR 25/US 17 at Berwick Boulevard	Signal	C (29.7)	-	B (15.9)	B (18.3)	B (19.4)	D (43.5)	-	B (13.7)	A (3.1)	B (12.6)
19	SR 25/US 17 at Kroger Driveway	Signal	D (46.0)	D (52.0)	A (1.9)	B (15.6)	A (7.2)	D (52.5)	D (53.5)	A (1.5)	A (2.6)	A (5.1)
20	SR 25/US 17 at Cottonvale Road	Signal	E (77.9)	E (62.2)	C (27.5)	A (7.6)	C (29.6)	C (34.0)	D (35.5)	B (10.3)	B (13.9)	B (15.6)
21	SR 25/US 17 at Elk Road	Stop	B (13.8)	-	B (12.6)	F (95.8)	-	F (73.9)	-	F (213.1)	C (17.3)	-
22	SR 25/US 17 at Silk Hope Road/Derrick Inn Road	Signal	B (10.6)	E (62.9)	A (11.0)	A (0.4)	A (9.8)	F (109.2)	C (27.4)	A (8.4)	A (1.3)	A (5.4)
23	SR 25/US 17 at SR 307/Dean Forest Road	Signal	C (30.3)	-	A (6.8)	C (24.2)	B (12.4)	D (41.2)	-	A (9.2)	C (20.8)	C (20.4)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2050 Build Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

ID	Intersection Name	Intersection Control Type	Approach LOS (Delay, sec/veh)[1] AM Peak Hour				Intersection Delay (sec/veh)[2] AM Peak Hour	Approach LOS (Delay, sec/veh)[1] PM Peak Hour				Intersection Delay (sec/veh)[2] PM Peak Hour
			EB	WB	NB	SB		EB	WB	NB	SB	
Segment 4 — Silk Hope												
24	SR 25/US 17 at Salt Creek Road	Stop	B (13.0)	-	B (10.4)	F ($)	-	F (96.1)	-	E (41.5)	D (30.6)	-
25	SR 25/US 17 at Tower Drive	Stop	B (12.1)	E (38.7)	A (10.0)	E (37.5)	-	E (42.9)	C (15.3)	E (41.7)	B (13.2)	-
26	SR 25/US 17 at Barbour Drive	Stop	-	E (39.7)	B (14.6)	F ($)	-	-	C (15.6)	A (0.0)	C (22.1)	-
27	SR 25/US 17 at Fall Avenue/Buckhalter Road	Signal	E (63.6)	E (59.8)	D (47.0)	A (2.6)	D (38.5)	D (43.8)	E (56.6)	A (6.5)	A (9.4)	B (15.1)
Segment 5 — Commercial North												
28	SR 25/US 17 at Macaljon Court	Stop	B (13.3)	-	B (10.6)	A (0.0)	-	F (65.5)	-	D (25.3)	A (0.0)	-
29	SR 25/US 17 at Savannah Speedway	Stop	B (14.9)	-	B (10.7)	F ($)	-	F (51.3)	-	C (22.2)	A (0.0)	-
30	SR 25/US 17 at Heathcote Circle	Stop	B (11.6)	E (41.1)	A (9.8)	E (81.1)	-	D (28.1)	C (17.7)	D (29.7)	B (14.1)	-
31	SR 25/US 17 at Chatham Parkway	Interchange	See IDs 31-A, 31-B, 32, 33					See IDs 31-A, 31-B, 32, 33				
31-A	SR 25/US 17 at Woodspring Drive	Signal	-	D (49.8)	A (4.9)	A (0.0)	A (7.5)	-	B (11.9)	A (1.0)	A (0.0)	A (1.5)
31-B	Chatham Parkway at Woodspring Drive	Signal	B (10.4)	C (23.1)	C (20.6)	-	B (18.9)	A (6.1)	B (13.7)	B (19.0)	-	B (12.5)
32	Chatham Parkway at Mersy Way	Signal	A (6.9)	B (10.2)	D (49.3)	E (65.8)	B (16.2)	A (8.4)	B (11.3)	C (34.7)	C (33.0)	B (13.5)
Segment 6 — Northern Gateway												
33	SR 25/US 17 at Mersy Way	Signal	A (2.4)	E (63.0)	A (7.7)	A (3.7)	A (8.7)	D (49.6)	D (35.2)	B (16.6)	B (12.5)	C (23.1)
34	SR 25/US 17 at Red Gate Farms Road	Stop	C (15.0)	D (27.3)	C (15.3)	C (21.6)	-	C (21.2)	B (14.6)	F ($)	B (12.0)	-
35	SR 25/US 17 at Gamble Road	Signal	E (56.9)	D (48.5)	B (11.3)	A (9.1)	B (13.7)	E (55.4)	C (26.5)	B (13.9)	A (6.4)	B (11.8)
36	SR 25/US 17 at Blossom Drive	Stop	B (11.5)	C (24.1)	A (9.7)	C (21.7)	-	C (24.1)	C (15.8)	C (15.9)	B (13.6)	-
37	SR 25/US 17 at Westgate Boulevard	Stop	B (13.0)	E (39.0)	A (9.8)	F (102.6)	-	E (49.1)	C (19.6)	C (19.7)	E (40.2)	-
38	SR 25/US 17 at I-516 Eastbound Ramps	Signal	D (41.2)	-	A (5.8)	B (16.5)	B (14.3)	C (31.8)	-	A (6.0)	C (20.5)	B (16.4)
39	SR 25/US 17 at I-516 Westbound Ramps	Signal	-	D (47.2)	B (16.8)	B (17.2)	C (20.2)	-	D (36.9)	B (15.3)	B (16.2)	B (18.3)
40	SR 25/US 17 at Plymouth Avenue/Mills Lane	Signal	D (43.9)	D (54.5)	A (4.2)	A (9.9)	B (11.1)	D (43.4)	D (52.2)	A (8.1)	B (16.8)	B (19.7)

Synchro outputs were used for applicable intersections in lieu of those from HCM6 based on 2050 Build Conditions

[1] Approach delay reported for the left/U-turn movement only on the major street at unsignalized intersections

[2] HCM6 does not support overall intersection LOS for unsignalized intersections

[3] $ Approach delay exceeds five minutes

2050 (Long-Term) Build

Critical improvements considered under the 2050 horizon year include:

- All improvements considered under 2030 Build conditions
- Corridor widening to a six-lane divided facility between Fords Pointe Circle/Bradley Boulevard and SR 307/Dean Forest Road
- Reconfiguration of the SR 204/Abercorn Street interchange to a DDI
- Reconfiguration of the intersection with Chatham Parkway to a grade-separated quadrant interchange
- Signalization of the intersections of SR 25/US 17 with Burton Road, Kroger Driveway, Silk Hope Road/Derrick Inn Road, the four intersections created by the quadrant interchange at Chatham Parkway, and two U-turn locations at:
- Signalization of the U-turn locations at Ogeechee Road and approximately 1,000 feet south of Westgate Boulevard
- Intersection improvements at Little Neck Road, Quacco Road, Berwick Boulevard, Cottonvale Road, SR 307/Dean Forest Road, and Fall Avenue/Buckhalter Road
- Access management via the construction of raised median and associated minor intersection improvements from Segment 4 to Segment 6
- Corridor signal retiming along the entire SR 25/US 17 study corridor

With these long-term improvements in place, all existing and proposed signalized intersections on the corridor are expected to operate at LOS C or better except the intersections with Little Neck Road and Fall Avenue/Buckhalter Road which are expected to operate at LOS D during the PM peak hour. At the Little Neck Road intersection, long delays are expected on the minor street approach due to the Hopeton Landing and Keller Mixed-Use developments. At the intersection with Fall Avenue/ Buckhalter Road, the reported minor street delay may be overestimated as Buckhalter Road is frequently utilized as an alternative route to avoid peak hour congestion at or along Chatham Parkway. Additionally, the proposed Continuous Green-T (CGT) intersection at SR 307/Dean Forest Road is expected to decrease intersection delay, eliminate over-capacity conditions, and improve northbound travel time.

The stop-controlled approaches of most unsignalized intersections are expected to operate at LOS D or better. The unsignalized approaches that are projected to operate at LOS E or worse are typically spaced further from existing or proposed signals, which act as meters for through traffic and provide additional gaps. Generally, it is common for stop-controlled intersection approaches to experience extended delays and moderate queues during the peak hours of travel. Further, MUTCD warrants are not expected to be met for these unsignalized intersections, thereby limiting the alternative solutions.

Finally, operational improvements are expected at the major existing bottlenecks on the corridor upon completion of the long-term recommendations. For example, the SR 204/Abercorn Street ramp termini are expected to operate at LOS B or better under 2050 Build conditions, and queues are not expected to impact the SR 204/Abercorn Street mainline nor adjacent intersections along SR 25/US 17. Based on the proposed quadrant interchange at SR 25/US 17 and Chatham Parkway, the SR 25/US 17 corridor is anticipated to experience minimal delays and queues at the new interchange. Further, each of the four proposed signalized intersections created by the quadrant roadways are expected to operate at LOS C or better under 2050 Build conditions.

4.4.4 Segment Analysis Results

Intersection capacity analysis results indicate that the recommended long-term alternatives will demonstrate acceptable operations across the SR 25/US 17 study corridor under 2050 Build conditions. As noted in **Section 3.4.4** and **Section 4.3.3**, intersection capacity analysis results consider each node in isolation and do not provide a holistic view of corridor operations. Accordingly, these intersection-level results were supplemented with corridor-level results from simulation runs conducted in SimTraffic Version 12. Corridor travel time outputs and associated LOS from SimTraffic are summarized in **Table 26** and **Table 27**.

Table 26: Build Corridor Travel Time and LOS Comparisons – AM Peak Hour

Measure	2030 No-Build	2030 Build	2050 No-Build	2050 Build
Northbound SR 25/US 17				
Minimum Travel Time (mm:ss)	21:51	19:46	26:51	21:47
Maximum Travel Time (mm:ss)	27:02	22:04	33:36	24:37
Average Travel Speed (mph)	26.8	30.8	22.2	27.9
Overall Corridor LOS	C	C	D	C
Segment 1 LOS	C	C	B	C
Segment 2 LOS	C	B	C	C
Segment 3 LOS	D	C	F	C
Segment 4 LOS	B	B	B	C
Segment 5 LOS	C	C	D	C
Segment 6 LOS	B	B	C	C
Southbound SR 25/US 17				
Minimum Travel Time (mm:ss)	18:58	18:25	25:22	18:36
Maximum Travel Time (mm:ss)	24:07	21:43	40:48	19:43
Average Travel Speed (mph)	31.3	33.4	21.6	33.6
Overall Corridor LOS	B	B	D	B
Segment 1 LOS	A	A	A	A
Segment 2 LOS	D	C	F	C
Segment 3 LOS	B	B	D	B
Segment 4 LOS	A	B	C	A
Segment 5 LOS	A	B	A	A
Segment 6 LOS	B	B	C	B

Table 27: Build Corridor Travel Time and LOS Comparisons – PM Peak Hour

Measure	2030 No-Build	2030 Build	2050 No-Build	2050 Build
Northbound SR 25/US 17				
Minimum Travel Time (mm:ss)	18:31	18:16	20:43	18:59
Maximum Travel Time (mm:ss)	21:41	18:56	25:01	19:52
Average Travel Speed (mph)	33.4	34.6	28.3	33.1
Overall Corridor LOS	B	B	C	B
Segment 1 LOS	B	B	B	B
Segment 2 LOS	C	B	E	C
Segment 3 LOS	B	B	B	B
Segment 4 LOS	B	A	B	A
Segment 5 LOS	C	B	E	B
Segment 6 LOS	B	B	B	B
Southbound SR 25/US 17				
Minimum Travel Time (mm:ss)	21:58	20:34	22:44	22:13
Maximum Travel Time (mm:ss)	26:01	22:03	27:13	24:02
Average Travel Speed (mph)	26.7	30.3	26.1	27.8
Overall Corridor LOS	C	C	C	C
Segment 1 LOS	B	B	B	B
Segment 2 LOS	E	C	D	C
Segment 3 LOS	C	B	C	C
Segment 4 LOS	B	B	B	B
Segment 5 LOS	C	B	C	B
Segment 6 LOS	C	C	E	C

2030 (Short-Term) Build

As shown in **Table 26** and **Table 27**, corridor travel times are expected to decrease by up to five minutes under the 2030 Build scenario relative to the 2030 No-Build scenario. Operation gains associated with short-term improvements such as signal upgrades and installations, corridor retiming, and minor intersection geometry modifications are expected to be modest. However, the SR 204/Abercorn Street interchange improvements are expected to have an immediate positive impact on travel time relative to 2030 No-Build conditions. During both the AM and PM peak hours, the LOS in Segment 2 is expected to improve by one letter grade. Notably, the southbound direction during the PM peak hour is expected to improve from LOS E to LOS C.

2050 (Long-Term) Build

Upon completion of the proposed long-term improvements detailed in **Table 22** and **Table 23**, travel times under 2050 Build conditions are expected to be similar to that observed under 2030 Build conditions despite nearly 16% higher traffic volumes in 2050. Additionally, the range of travel times is expected to be less than three minutes during the peak period in the peak direction of travel which indicates that traffic conditions are likely to be stable and less susceptible to fluctuations in volume that occur from day-to-day. Under 2050 Build conditions, overall corridor travel times decrease relative to 2050 No-Build conditions up to six minutes and 21 minutes during the AM and PM peak periods, respectively.

4.4.5 Capacity Analysis Summary

The implementation of the short-term recommendations listed in **Table 22** and **Table 23** are likely to result in corridor-wide operational improvements along SR 25/US 17, but projected traffic growth over the long-term horizon will necessitate additional and more extensive improvements. Due to the congestion originating at the SR 204/Abercorn Street interchange and the Chatham Parkway intersection, these locations were prioritized for developing short- and long-term improvements. **Figure 71** illustrates the locations of the recommended short- and long-term projects described in **Table 29** and **Table 30**, respectively. Additionally, **Figure 71** summarizes intersections and segment LOS under 2050 Build conditions. As shown in the figure, all intersections and segments are expected to operate at LOS C or better, with a few exceptions, upon implementation of the improvements recommended herein.

Legend

- Intersection LOS A-C
- Intersection LOS D-E
- Intersection LOS F
- AM LOS (Left)/PM LOS (Right)
- Minor Street Stop Controlled Intersection (HCM6 does not support overall intersection LOS for unsignalized intersections)
- # Short-Term Project ID
- Short-Term Corridor Improvement
- # Long-Term Project ID
- Long-Term Corridor Improvement

N

Begin Study

End Study

Corridor Level of Service	Northbound SR 25/US 17 AM (PM)	Southbound SR 25/US 17 AM (PM)
Segment 1 *Chatham County/ Bryan County Line to Chevis Road*	C (B)	A (B)
Segment 2 *Chevis Road to Little Ogeechee River*	C (C)	C (C)
Segment 3 *Little Ogeechee River to SR 307/ Dean Forest Road*	C (B)	B (C)
Segment 4 *SR 307/ Dean Forest Road to Fall Avenue/ Buckhalter Road*	C (A)	A (B)
Segment 5 *Fall Avenue/ Buckhalter Road to Chatham Parkway*	C (B)	A (B)
Segment 6 *Chatham Parkway to Plymouth Avenue/ Mills Lane*	C (B)	B (C)
Overall Corridor	C (B)	B (C)

SR 25/US 17 Corridor Study – Alternatives Development & Analysis

Figure 71 – 2050 Build Corridor Operations Summary & Project Listing

SR 25/US 17 CORRIDOR STUDY

Kimley»Horn

5 Public Outreach

5.1 Stakeholder Outreach Strategy

5.1.1 Public Participation Goals and Process

The SR 25/US 17 Corridor Study will adhere to the requirements and recommendations outlined in the CORE MPO's Public Participation Plan. The goals of public participation for the study are to:

- Raise the level of awareness of how stakeholders can become involved in the study
- Ensure that those interested in the study have adequate, appropriate, and meaningful opportunities to participate
- Utilize the Stakeholder Advisory Team to reach interested parties in the community and within the planning area

5.1.2 Stakeholder Advisory Team (SAT)

Early in the process, a Stakeholder Advisory Team (SAT) was established to provide input and feedback regarding the development of the study. This group was also asked to act as ambassadors for the study by sharing information with their constituent groups and encouraging members of the community to participate in the planning process. The SAT consisted of key stakeholders, including agencies, local government partners, business owners, and relevant community organizations. A list of the SAT members is shown in **Table 28**.

Table 28: SAT Members and Organizations

Organization	Name(s)
Chatham County	Allen Blake
	Tina Bockhold
	Deana Brooks
MPC/CORE MPO	Wkyoda Wang
	Genesis Harrod
	Asia Hernton
	Anna McQuarrie
	Edward Morrow
City of Garden City	Rhonda Ferrell
	Leon Davenport
City of Savannah	Michele Strickland
GDOT Planning	Ned Green
	Ted Hicks
	Kaniz Sathi

Organization	Name(s)
GDOT District 5	Troy Pittman
	Joseph Capello
	Jonathan Martinez
	Katie Proctor
FHWA	Joseph Longo
	Olivia Lewis
CAT	Mary Moskowitz
SCCPSS	Tammy Perkins
SEDA	Jesse Dillon
Bike Walk Savannah	Caila Brown
East Coast Greenway (Georgia)	Jim Hemphill
Fords Pointe	James Velez
	Shelly Lyden
Bradley Point South	Virginia Cooper
	Rachel Heimerdinger
Canebrake	Diane Hudson
	Angela Thomas
The Slate Apartments	Jennifer Damasceno
Mosswood Plantation	Heather Moody
Southbridge	Janet Stevenson
	Tom Harris
Berwick	Mark Schreiber
Cottonvale at Berwick	Chase Racenick
Salt Creek Landing	Chantel Parker
Grand Oaks at Ogeechee Apartments	Alexa Beverley
West Chatham Community Watch	Kerrie Bieber

5.1.3 Community Engagement

Neighborhood Meeting

A neighborhood meeting for the SR 25/US 17 Corridor Study was hosted virtually via Zoom on 28-AUG-2024 at 4 p.m. This meeting was intended primarily for the leaders of neighborhood associations along the corridor, although anyone interested in the study was welcomed to attend. Neighborhood or community leaders who attended the meeting represented Southbridge, Fords Pointe Apartments & Townhomes, Bradley Point South, Berwick Plantation, and East Coast Greenway. The meeting included a presentation by the project team to detail the Existing Conditions Assessment and introduce potential improvements. Meeting attendees were encouraged to participate via chat during the meeting and to complete the online survey as described in greater detail below. A summary of questions and answers from the meeting along with online survey results are provided in **Appendix F**.

Public Information Open House

A Public Information Open House (PIOH) was hosted on 27-MAR-2025 from 4:00 – 7:00 PM at the Coastal Georgia Botanical Gardens. The PIOH was open to all members of the public, including those who live and work in the communities served by SR 25/US 17, to seek feedback on the draft recommendations and concept layouts. As documented in the PIOH Summary Memorandum included in **Appendix F**, twenty-eight (28) people attended the PIOH.

Online Engagement

The project team assisted Chatham County with a project-specific website that was hosted on the CORE MPO's website. This website served as a hub for all information, project documentation, findings, and schedules for the study. The website was regularly updated with information to keep the public informed of the study's progress. Additionally, the project team prepared two online surveys to capture targeted feedback from the overall community. The first was opened to the public following the 28-AUG-2024 Neighborhood and Community Meeting described above. The comment period began on 28-AUG-2024 and ended on 30-SEP-2024. The results of the survey generally focused on the following:

- The signalization for the intersection of SR 25/US 17 at Fords Pointe Circle/Bradley Boulevard and concern regarding safety at the existing intersection
- Improving capacity and reducing congestion along the corridor, especially at key intersections such as the SR 204/Abercorn Street ramps, Berwick Boulevard, and Chatham Parkway
- Concern with the safety or lack of non-motorized transportation facilities along SR 25/US 17 including sidewalks, bicycle facilities, and transit accommodations
- Concern regarding future industrial, residential, and commercial growth along the corridor and subsequent increase in traffic
- Desire to beautify the corridor and improve roadway and pedestrian lighting

The second survey coincided with the PIOH to obtain feedback on the recommendations along the SR 25/US 17 corridor. The comment period began on 27-MAR-2025 and ended on 30-APR-2025. The results of the survey generally focused on the following:

- Concern regarding raised medians and recommended access management strategies as it pertains to safety, emergency provisions, and business access, including at Chief O.F. Love Road and Elk Road

- Concern of increased delay and congestion from the proposed traffic signals throughout the SR 25/ US 17 corridor, including the proposed signalized RCUT north of Fall Avenue/Buckhalter Road at Ogeechee Road
- Desire for roundabouts along the SR 25/US 17 corridor, such as at Berwick Boulevard and along Chatham Parkway, to help calm traffic and to reduce travel speeds
- Concern with the safety and operations of the Diverging Diamond Interchange (DDI) recommendation at the interchange of SR 25/US 17 and SR 204/Abercorn Street, including the proximity to the traffic signal at Little Neck Road
- Concern with the recommendation to remove the existing dual left-turn lanes at the intersection of SR 25/US 17 and SR 307/Dean Forest Road, and general confusion with operations of the signalized Green-T recommendation
- Concern with the justification for a grade-separated solution at the intersection of SR 25/US 17 and Chatham Parkway
- Concern regarding the safety and recommendation of shared-use paths on both sides of the SR 25/US 17 corridor
- Concern regarding the safety and effectiveness of public transit bus service along the SR 25/US 17 corridor

The results and summaries for both surveys are included in **Appendix F**. Feedback collected during the PIOH and from the online surveys were considered during final project prioritization.

5.1.4 CORE MPO/MPC Engagement

Informational presentations were provided to the CORE MPO Technical Coordinating Committee (TCC) and Policy Board. The first meeting provided an overview of the study findings and alternatives while the second meeting focused on the Draft Report and Final Recommendations.

- Topic: Status Update/Study Findings and Existing Conditions Assessment
    - MPO TCC: 20-JUN-2024
    - MPO Policy Board: 26-JUN-2024
- Topic: Presentation of the Draft Report and Recommendations
    - MPO TCC – 17-APR-2025
    - MPO Policy Board – 23-APR-2025

During the MPO TCC and Policy Board presentations on 20-JUN-2024 and 26-JUN-2024, several questions were raised by members of the TCC and Board. Chatham Area Transit (CAT) staff noted that CAT is nearing completion of its Microtransit Study and that the study identified SR 25/US 17 as an “unsafe zone” for last-mile microtransit connectivity due in part to a lack of dedicated pull-off areas at the existing fixed-route transit stops. CAT staff asked that recommendations for improvements consider ways to improve accessibility to the existing fixed routes (i.e., Routes 6, 17, and 25) along the corridor and enhance microtransit safety. The team understands from previous work in the area that there is a latent demand for transit, and the study team has incorporated recommendations related to CAT’s transportation network, including microtransit services.

Additional questions were raised during the MPO TCC presentation on 17-APR-2025. Bike Walk Savannah asked about the proximity of non-motorized crossings near the Continuous Green-T

recommendation at the SR 307/Dean Forest Road intersection. Kimley-Horn staff responded that there is a proposed HAWK signal crossing just to the south of this intersection near Derrick Inn Road as recommended by the *SR 25/US 17 at Silk Hope Road/Derrick Inn Road Traffic Engineering Study* (Atkins, 2022). Additionally, CAT asked a question regarding bus pull-off locations along the corridor, and Kimley-Horn staff responded that the recommended U-turn locations proposed throughout the corridor could serve as bus pull-off areas for safer loading and unloading of passengers.

The final MPO Policy Board presentation was held on 23-APR-2025. Chatham County Commissioner Tanya Milton asked about the thru-cut recommendation at Cottonvale Road and which movements would be restricted in the proposed condition. Kimley-Horn staff explained that the side-street through movements would be removed from the thru-cut configuration, and this would greatly benefit traffic operations. Kimley-Horn staff also explained how the adjacent signal recommendation at the Kroger Driveway and the proposed adjacent U-turn locations would minimize inconvenience for vehicles that want to travel straight across SR 25/US 17 on Cottonvale Road. Further, Savannah Alderwoman Dr. Estella Edwards Shabazz asked about the timeline for implementing the recommended signal at Bradley Boulevard. Kimley-Horn staff responded that the intersection must meet traffic signal warrants for a signal to be installed, and it is expected warrants will be met by 2030. Based on public feedback through the course of the study, signalization for the Bradley Boulevard intersection was a frequent request from the public, and this feedback was considered when determining priority rankings for the various improvements.

Additionally, Kimley-Horn staff completed a pre-forecasting meeting with MPC Development Services on 08-MAY-2024. During this meeting, Kimley-Horn staff explained how Planned Urban Developments (PUDs) would be factored into forecasted volumes as well as short- and long-term growth rates.

5.1.5 Stakeholder Advisory Team (SAT) Meetings

The initial virtual SAT meeting was held on 29-JULY-2024 during the data gathering and needs assessment phase. Stakeholders were invited to share their perspectives on existing challenges along the corridor as well as their vision for its future. A second virtual SAT meeting was held on 13-MAY-2025 during the alternatives analysis phase, and stakeholders had the opportunity to offer feedback and ask questions regarding the improvement recommendations along the SR 25/US 17 corridor. Summaries for both SAT meetings are included in **Appendix F**.

Draft concept layouts of the improvement recommendations were completed on 15-JAN-2025, and long-term (i.e., 2050) recommendations were presented to GDOT on 21-JAN-2025. Based on comments from GDOT, the following subsequent actions were taken:

- A four-lane DDI alternative for the existing interchange of SR 25/US 17 and SR 204/ Abercorn Street was analyzed as a long-term alternative and deemed to operate unacceptably, confirming the expectation that a six-lane DDI will be needed in the long-term
- At the intersection of SR 25/US 17 and Berwick Boulevard, the crosswalk design was revised to provide marked crossings at all intersection approaches, and the southbound right-turn lane storage length was confirmed
- The proposed RCUT for the northbound left-turn movement south of Chatham Parkway was removed
- Two PHB signals were added to the concept and recommendations between Gamble Road and Westgate Boulevard

5.1.6 GDOT PI No. 0019010/SR 204 Access Management Study Coordination

The SR 25/US 17 Corridor Study and PI No. 0019010/SR 204 Access Management Study were completed in parallel and included overlapping study areas at the SR 25/US 17 interchange with SR 204. Kimley-Horn staff attended a PIOH for PI No. 0019010 on 29-OCT-2024 as well as a presentation to the CORE MPO TCC made by the SR 204 study team on 01-AUG-2024. Further, two coordination meetings between the study teams were conducted to promote data sharing, ensure compatibility between short- and long-term recommendations, and provide consistent messaging with stakeholders and the public. These meetings were attended by Chatham County and project team staff from both studies.

The first of these coordination meetings was held on 14-AUG-2024 during the Existing Conditions Assessment stage of the SR 25/US 17 Corridor Study. At this meeting, the SR 25/US 17 Corridor Study project team presented findings from the Existing Conditions Assessment and detailed traffic forecasting assumptions to be utilized in the forthcoming traffic forecasting memorandum and preliminary alternatives analysis. The SR 204 project team shared progress on the study's alternatives analysis and development, including traffic forecasting assumptions and the likely provision for free-flowing U-turn movements at the SR 25/US 17 interchange with SR 204 to accommodate restricted movements at existing intersections along SR 204. Data sharing from this meeting informed the development of recommended short- and long-term alternatives for the SR 25/US 17 interchange with SR 204 in both studies.

A second coordination meeting was held on 13-FEB-2025 to review the detailed short- and long-term recommendations and conceptual layouts for the SR 25/US 17 interchange with SR 204 as well as corresponding traffic forecasts detailed in the *SR 25/US 17 Corridor Study – Traffic Forecasting Technical Memorandum.* During the meeting, conceptual design differences at the SR 204 ramps were discussed, including recommended short-term auxiliary turn lanes at the westbound off-ramp. Further, the long-term DDI recommendation excludes a free-flowing U-turn lane due to geometric constraints (i.e., merging an additional lane on the eastbound SR 204 on-ramp); however, the analysis results determined that the DDI could accommodate the diverted traffic resulting from median closures along SR 204 with negligible increases in delay for U-turning vehicles. In light of these differences, a plan was developed for communicating the SR 25/US 17 recommendations presented herein to the public at the 27-MAR-2025 PIOH, to ensure consistent short-term messaging, and to solicit feedback on the long-term DDI configuration.

6 Recommendations

Consistent with the goals highlighted in the CORE MPO's *Mobility 2045 MTP* and future *Moving Forward Together 2050 MTP*, the purpose of the SR 25/US 17 Corridor Study is to identify and prioritize short-term (0-5 Years) and long-term (5+ Years) improvement projects needed for motorized, non-motorized, and transit users along the SR 25/US 17 corridor; facilitate planning and programming of projects in the CORE MPO's TIP and TMP. These objectives were accomplished through a comprehensive Existing Conditions Assessment (**Section 3**), Future Conditions Assessment (**Section 4**), and Public Outreach (**Section 5**).

Based on existing field observations and horizon year model runs in SimTraffic software, bottlenecks at the SR 204/Abercorn Street interchange and Chatham Parkway along with other capacity constraints along SR 25/US 17 are likely to contribute to significant delays for freight and commuter during the peak periods of the day. Existing crash history from 2018 to 2022 suggests that peak hour congestion contributes to a high frequency of rear-end collisions on SR 25/US 17 at both SR 204/Abercorn Street and Chatham Parkway. Additionally, the SR 25/US 17 study corridor exhibited a fatal crash rate nearly triple the statewide average. Further, 54% of the fatal collisions involved a pedestrian or cyclist, which may be attributable to the lack of pedestrian and bicycle facilities. The crash data explored as part of this study also indicates that a lack of access management and a high density of commercial driveways contributes to a high frequency of crashes compared to the statewide averages. The 10.7-mile-long study corridor includes approximately 244 unsignalized driveways, which is equivalent to an average spacing of 23 driveways per mile. Approximately 355 (43%) of all angle crashes occurred in Segment 5 and Segment 6, where driveway density is the highest along the study corridor.

The crash analysis and horizon year traffic forecasts informed the selection of the recommended short- and long-term motorized and non-motorized improvements summarized in **Table 29** and **Table 30**. For reporting purposes, SR 25/US 17 is designated with a north-south orientation from the Bryan County/ Chatham County line to Plymouth Avenue/Mills Lane. To assist future planning efforts and project programming, cost estimates were developed based on anticipated construction quantities and recent GDOT bid data. The estimated cost for each project includes construction, reimbursable utility, right-of-way, preliminary engineering, program cost, and inflation projected to anticipated project implementation years for both short- and long-term recommendations. Finally, the conceptual layouts illustrating the recommendations for individual intersections and the SR 25/US 17 corridor are included as **Appendix E**.

Table 29: Recommended Short-Term Improvements Summary

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

IN-01	5	SR 25/US 17 at
		Fords Pointe Circle/Bradley Boulevard Signalization
			Chatham County	• Install a fully actuated traffic signal when MUTCD signal warrants are met
				• Reconstruct the westbound approach to include the following:
				  ○ One shared through/left-turn lane with 125 feet of full-width storage
				  ○ Dual right-turn lanes with 300 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy
					$2,000,000

IN-02	8	SR 25/US 17 at Chevis Road
		Intersection Improvements
			Chatham County	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane with 175 feet of full-width storage
				  ○ One shared through/right-turn lane
				• In addition to the improvements proposed by PI 0017975, reconstruct the westbound approach to include the following:
				  ○ One left-turn lane with 325 feet of full-width storage
				  ○ One through lane
				  ○ One right-turn lane with 150 feet of full-width storage
					$2,100,000

IN-03	1	SR 25/US 17 at SR 204/Abercorn Street
		Interchange Improvements
			Chatham County	• Construct a free-flowing U-turn from the SR 204/Abercorn Street westbound off-ramp to the SR 204/ Abercorn Street eastbound on-ramp
				• Upgrade the existing traffic signals to accommodate other short-term improvements
				• In addition to the southbound left-turn lane extension proposed by PI 0020089, reconstruct the eastbound ramp terminal to include the following:
				  ○ Two northbound through lanes
				  ○ Dual northbound right-turn lanes with 350 feet of full-width storage
				  ○ Dual southbound left-turn lanes:
				  ▪ One with 200 feet of full-width storage
				  ▪ One as a drop lane that begins 350 feet north of Little Neck Road
				  ○ Two southbound through lanes
				  ○ Dual eastbound left-turn lanes with 375 feet of full-width storage
				  ○ One eastbound right-turn lane 325 feet of full-width storage
				• In addition to the westbound off-ramp left- and right-turn lane extensions proposed by PI 0020089, reconstruct the westbound ramp terminal to include the following:
				  ○ Three southbound through lanes
				  ○ One southbound right-turn lane with 550 feet of full-width storage
				  ○ Dual westbound left-turn lanes with 600 feet of full-width storage
				  ○ Dual westbound right-turn lanes with 750 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$9,500,000

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-04	4	SR 25/US 17 at Berwick Boulevard Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate other short-term and those constructed as part of C-03 • Construct dual northbound left-turn lanes with 350 feet of full-width storage • Reconstruct the channelized southbound right-turn free-flow movement to operate under yield control to accommodate two receiving lanes for the proposed dual northbound left-turn lanes • Convert the existing southbound left-turn lane into an exclusive U-turn lane with 275 feet of full-width storage • Extend the southbound U-turn lane to accommodate 275 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$2,600,000

IN-05	3	SR 25/US 17 at Cottonvale Road Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Reconstruct the westbound approach to include the following:
				  ○ One left-turn lane with 275 feet of full-width storage
				  ○ One through/right-turn lane
				  ○ One right-turn lane with 250 feet of full-width storage
				• Extend the northbound and southbound left-turn lanes to accommodate 235 feet of full-width storage
				• Extend the northbound and southbound right-turn lanes to accommodate 175 feet of full-width storage
				• Construct a U-turn location 500 feet north of Cottonvale Road and prohibit U-turns at the intersection in accordance with C-03
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$1,900,000

IN-06	12	SR 25/US 17 at SR 307/Dean Forest Road Intersection Improvements	Garden City	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Extend the northbound left-turn lane to accommodate 275 feet of full-width storage
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane
				  ○ Dual right-turn lanes with 350 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$1,200,000

IN-07	7	SR 25/US 17 at Fall Avenue/Buckhalter Road Intersection Improvements	Garden City	• Upgrade the existing traffic signal to accommodate other short-term improvements
				• Realign the westbound approach to a minimum intersection angle of 75 degrees
				• Construct northbound and southbound right-turn lanes along SR 25/US 17 with 175 feet of full-width storage
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane with 85 feet of full-width storage
				  ○ One through/right-turn lane
				• Reconstruct the westbound approach to include the following:
				  ○ One left-turn lane with 325 feet of full-width storage
				  ○ One through/right-turn lane
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$2,800,000

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-08	9	SR 25/US 17 at Westgate Boulevard Intersection Improvements	City of Savannah	• Reconstruct the intersection as RCUT configuration • Construct a U-turn location approximately 1,000 feet south of Westgate Boulevard	$2,700,000
IN-09	13	SR 25/US 17 at Plymouth Avenue/Mills Lane Intersection Improvements	City of Savannah	• In accordance with PI 521855, construct the following improvements: ○ Extend the southbound left-turn lane to accommodate 350 feet of full-width storage ○ Construct a southbound right-turn lane with 350 feet of full-width storage ○ Construct an eastbound left-turn lane with 125 feet of full-width storage ○ Construct an eastbound through lane ○ Construct an eastbound right-turn lane with 125 feet of full-width storage ○ Construct a westbound left-turn lane with 275 feet of full-width storage ○ Construct a westbound through lane ○ Construct a westbound right-turn lane with 275 feet of full-width storage • In addition to PI 521855, reconstruct the northbound approach to include the following: ○ One left-turn lane with 235 feet of full-width storage ○ Two through lanes ○ One right-turn lane with 225 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$1,500,000
C-01	14	SR 25/US 17 Corridor Improvements from Bryan County/Chatham County Line to Chevis Road	Chatham County	• Construct RCUT intersections and/or U-turn eyebrows at the following locations: Chief O.F. Love Road, the existing driveway approximately 2,300 feet north of Chief O.F. Love Road, Bamboo Lane, The Pointe Grande Multifamily Development Driveway approximately 700 feet north of Bamboo Lane, and Southwest Middle School Driveway • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only	$1,600,000
C-02	11	SR 25/US 17 Corridor Improvements from Chevis Road to Little Ogeechee River	Chatham County	• Construct RCUT intersections and/or U-turn eyebrows at the following locations: Fountain Road, the Parker's driveway approximately 650 feet north of Fountain Road, Old Grove Pointe Road, and approximately 600 feet south of the Little Ogeechee River (Truck accommodations) • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only • Remove the Keller Auto Sales Driveway from the signalized intersection with Little Neck Road to simplify and improve signal operations	$1,300,000
C-03	10	SR 25/US 17 Corridor Improvements from Little Ogeechee River to SR 307/Dean Forest Road	Chatham County	• Construct RCUT intersections and/or U-turn eyebrows at the following locations: Bridgewater Drive, Larchmont Drive, Fenwick Village Drive, Kroger Driveway, approximately 500 feet north of Cottonvale Road, Elk Road, and approximately 900 feet south of SR 307/Dean Forest Road • Reconstruct eastbound and westbound approaches for minor street stop-controlled intersections to allow for right-turns only • Remove the Lebanon Plantation Driveway from the signalized intersection with Berwick Boulevard to simplify and improve signal operations	$2,300,000

Short-Term (0-5 Years) Improvements					
ID	**Priority Ranking**	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

C-04	2	Chatham Parkway Improvements from Woodspring Drive to Mersy Way	City of Savannah	• Construct a 20-foot-wide raised median along SR 25/US 17 between Woodspring Drive and Mersy Way to preclude minor street left-turn movements, reduce conflicts, and improve operations at the signal with Chatham Parkway
				• Upgrade the existing traffic signal at the intersection with Chatham Parkway to accommodate other short-term improvements
				• Construct the following improvements at the intersection of SR 25/US 17 at Chatham Parkway:
				  ○ Construct a southbound right-turn lane with 175 feet of full-width storage
				  ○ Construct an eastbound right-turn lane with 175 feet of full-width storage
				  ○ Construct a westbound right-turn lane with 175 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
				• Convert SR 25/US 17 at the southernmost Enmarket Driveway to an unsignalized RCUT
				• Convert SR 25/US 17 at Mersy Way to an unsignalized RCUT configuration
				• Convert Chatham Parkway at Mersy Way to an unsignalized RCUT configuration
					$5,900,000

C-05	6	Corridor Signal Timing Optimization on SR 25/US 17 from the Bryan County/Chatham County line to Mills Lane/Plymouth Avenue	Chatham County City of Savannah Garden City	• Conduct a 10.7-mile-long corridor signal timing review to improve vehicular flow through time-of-day coordinated operations • Optimize signal cycle length, splits, and offsets in conjunction with other short-term improvements • Replace existing three-section permissive signal heads and five-section protected/permissive signal heads on SR 25/US 17 with four-section flashing yellow arrow signal heads	$270,000
C-06	15	SR 25/US 17 Corridor Auxiliary Turn Lane Improvements	Chatham County City of Savannah Garden City	• In addition to improvements constructed as part of the Alta Bradley development, extend the eastbound left-turn lane at the Canebrake Road intersection to accommodate 300 feet of full-width storage • Extend the westbound left-turn lane at the Walmart Driveway intersection to accommodate 100 feet of full-width storage • Construct a northbound right-turn lane with 350 feet of full-width storage at the intersection with Red Gate Farms Road • Construct a southbound right-turn lane with 175 feet of full-width storage at the intersection with Red Gate Farms Road • Construct a northbound and southbound right-turn lanes with 175 feet of full-width storage at the intersection with Gamble Road • Construct a southbound right-turn lane with 175 feet of full-width storage at the intersection with Blossom Drive	$2,700,000

TS-01	16	SR 25/US 17 at SR 25 Transit Expansion Study	Chatham County
			City of Savannah
			Garden City
				• Implement Microtransit services along the 10.7-mile-long SR 25/US 17 corridor in accordance with Chatham Area Transit's (CAT) *FY 2025 Operating Budget & Capital Plan* to:
				  ○ Expand transit coverage
				  ○ Expand service hours
				  ○ Provide effective rural mobility
				  ○ Supplement CAT Routes 6, 17, and 25
				• Use data and analytics collected from the Microtransit services to track ridership numbers, apply potential modifications to CAT Routes 6, 17, and 25, identify new route(s) and stop/shelter location(s)
				• Coordinate with local agencies, governing bodies, and other stakeholders to identify funding sources for construction and implementation of long-term improvements
					$130,000

				Total Cost of Short-Term Improvements	**$40,500,000**

Table 30: Recommended Long-Term Improvements Summary

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

IN-10	2	SR 25/US 17 at SR 204/Abercorn Street Interchange Improvements	Chatham County	• Convert the existing diamond interchange to a diverging diamond interchange (DDI)
				• Reconstruct the eastbound ramp terminal to include the following:
				  ○ Three northbound through lanes
				  ○ One northbound free-flow right-turn lane with 575 feet of full-width storage
				  ○ Dual southbound left-turn lanes:
				  ▪ Free-flow shared through/left
				  ▪ Free-flow drop lane
				  ○ Three southbound through lanes
				  ○ Dual eastbound left-turn lanes with 225 feet of full-width storage
				  ○ One eastbound right-turn lane 300 feet of full-width storage
				• Reconstruct the westbound ramp terminal to include the following:
				  ○ One free-flow northbound left-turn lane with 235 feet of full width storage
				  ○ Three northbound through lanes
				  ○ Four southbound through lanes
				  ○ One southbound right-turn lane 450 feet of full-width storage
				  ○ Dual westbound left-turn lanes with 600 feet of full-width storage
				  ○ Dual westbound right-turn lanes with 800 feet of full-width storage
				• Reconstruct the existing SR 204/Abercorn Street bridge to accommodate the proposed cross section along SR 25/US 17
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$44,500,000

IN-11	11	SR 25/US 17 at Little Neck Road Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-07
				• Reconstruct the northbound approach to include the following:
				  ○ Dual left-turn lanes with 425 feet of full-width storage
				  ○ Three through lanes
				• Reconstruct the southbound approach to include the following:
				  ○ Dual right-turn lanes with 450 feet of full-width storage
				  ○ Four through lanes with the inside through lane beginning 350 feet north of Little Neck Road
				• Reconstruct the eastbound approach to include the following:
				  ○ Dual left-turn lanes with 600 feet of full-width storage
				  ○ Dual right-turn lanes with 1,400 feet of full width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT policy
					$9,300,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-12	15	SR 25/US 17 at Burton Road Signalization	Chatham County	• Install a fully actuated traffic signal when MUTCD signal warrants are met, and accommodate RCUT improvements constructed as part of PI S015908 and C-07 improvements • Reconstruct the northbound approach to include the following: ○ One shared left/U-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One shared left/U-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 175 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$6,900,000
IN-13	14	SR 25/US 17 at Quacco Road Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-07 and C-08 • Reconstruct the northbound approach to include the following: ○ Dual left-turn lanes with 325 feet of full-width storage ○ Three through lanes • Reconstruct the southbound approach to include the following: ○ One U-turn lane with 475 feet of full width storage ○ Three through lanes ○ One right-turn lane with 400 feet of full width storage • Reconstruct the eastbound approach to include the following: ○ Dual left-turn lanes with 600 feet of full-width storage ○ Dual right-turn lanes with 600 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$13,400,000
IN-14	16	SR 25/US 17 at Berwick Boulevard Intersection Improvements	Chatham County	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-08 • Reconstruct the northbound approach to include the following: ○ Dual left-turn lanes with 425 feet of full-width storage ○ Three through lanes • Reconstruct the southbound approach to include the following: ○ One U-turn lane with 275 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 625 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ Dual left-turn lanes with 375 feet of full-width storage ○ Dual right-turn lanes with 375 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$10,100,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-15	6	SR 25/US 17 at Kroger Driveway Signalization	Chatham County	• Install a fully actuated traffic signal when MUTCD signal warrants are met, reconstruct the intersection to a full movement configuration, and accommodate improvements constructed as part C-08 • Reconstruct the northbound approach to include the following: ○ One left-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane 175 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One left-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane 175 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ One left-turn lane with full-width storage extending to the internal intersection ○ One right-turn lane with full-width storage extending to the internal intersection • Reconstruct the westbound approach to include the following: ○ One left-turn lane with full-width storage extending to the internal intersection ○ One shared through/right-turn lane with full-width storage extending to the internal intersection • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$7,300,000
IN-16	5	SR 25/US 17 at Cottonvale Road Intersection Improvements	Chatham County	• Reconstruct the intersection to operate as a thru-cut and upgrade the existing traffic signal to accommodate improvements constructed as part of C-08 • Reconstruct the northbound approach to include the following: ○ One U-turn lane with 235 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 300 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One left-turn lane with 275 feet of full-width storage ○ Three through lanes ○ One right-turn lane with 300 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ One left-turn lane with full-width storage extending to the internal intersection ○ One right-turn lane with full-width storage extending to the internal intersection • Reconstruct the westbound approach to include the following: ○ Dual left-turn lanes with 250 feet of full-width storage ○ Dual right-turn lanes with 300 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$7,500,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**

IN-17	13	SR 25/US 17 at Silk Hope Road/Derrick Inn Road Signalization	Chatham County	• Install a fully actuated traffic signal for the northbound through, southbound left/U-turn, and westbound right-turn movements when MUTCD signal warrants are met
				• Accommodate RCUT improvements as part of PI S016013 and project C-08
				• Reconstruct the northbound approach to include the following:
				  ○ One left/U-turn lane with 235 feet of full-width storage
				  ○ Three through lanes
				  ○ One right-turn lane with 175 feet of full-width storage
				• Reconstruct the southbound approach to include the following:
				  ○ One left/U-turn lane with 235 feet of full-width storage
				  ○ Three through lanes
				  ○ One right-turn lane with 175 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$5,700,000

IN-18	8	SR 25/US 17 at SR 307/Dean Forest Road Intersection improvements	Garden City	• Reconstruct the intersection as a Continuous Green-T (CGT) configuration with concrete medians and channelization as required
				• Accommodate improvements constructed as part of C-08 and C-09
				• Reconstruct the northbound approach to include the following:
				  ○ Two free-flowing through lanes
				  ○ Dual left-turn lanes:
				  ▪ One with 400 feet of full-width storage
				  ▪ One as a drop-lane
				• Reconstruct the southbound approach to include the following:
				  ○ Three through lanes with the inside through lane beginning 500 feet north of SR 307/ Dean Forest Road
				  ○ One right-turn lane 225 feet of full-width storage
				• Reconstruct the eastbound approach to include the following:
				  ○ One left-turn lane
				  ○ Dual right-turn lanes with 350 feet of full-width storage
				• Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy
					$19,700,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-19	7	SR 25/US 17 at Fall Avenue/Buckhalter Road Intersection Improvements	Garden City	• Reconstruct the intersection to operate as a thru-cut, upgrade the existing traffic signal, and accommodate improvements constructed as part of C-09 • Reconstruct the northbound approach to include following: ○ One left-turn lane with 235 feet of full-width storage ○ Two through lanes ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the southbound approach to include the following: ○ One left-turn lane with 235 feet of full-width ○ Two through lanes ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the eastbound approach to include the following: ○ One left-turn lane ○ One right-turn lane with 175 feet of full-width storage • Reconstruct the westbound approach to include the following: ○ Dual left-turn lanes with 275 feet of full-width storage ○ One right-turn lane with 175 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$9,600,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-20	4	SR 25/US 17 at Chatham Parkway Interchange	Chatham County City of Savannah	• Construct a grade-separated interchange with Chatham Parkway over SR 25/US 17 and accommodate improvements constructed as part of C-09 • Reconstruct the existing northwest and southeast quadrant roadways of Mersy Way and Woodspring Drive, respectively, to provide access between SR 25/US 17 and Chatham Parkway • Install fully actuated traffic signals, pedestrian signals, crosswalks, and ramps at the intersections of SR 25/US 17 at Woodspring Drive, SR 25/US 17 at Mersy Way, Chatham Parkway at Woodspring Drive, and Chatham Parkway at Mersy Way • Construct the intersection of SR 25/US 17 at Woodspring Drive as a partial RCUT configuration to include the following: ○ Construct the northbound approach to include two signal-controlled through lanes, one U-turn lane with 235 feet of full-width storage, and one free-flowing right-turn lane with 225 feet of full-width storage ○ Construct the southbound approach to include two free-flowing through lanes ○ Reconstruct the westbound approach to include dual signal-controlled right-turn lanes with 200 feet of full-width storage • Construct the intersection of SR 25/US 17 at Mersy Way as a partial RCUT configuration to include the following: ○ Construct the northbound approach to include two through lanes and one right-turn lane with 200 feet of full-width storage ○ Construct the southbound approach to include two signal-controlled through lanes, one signal-controlled left-turn lane with 235 feet of full-width storage, and one free-flow right-turn lane with 450 feet of full-width storage ○ Reconstruct the eastbound approach to include dual signal-controlled right-turn lanes with 400 feet of full-width storage ○ Reconstruct the westbound approach to include a signal-controlled right-turn lane • Construct the intersection of Chatham Parkway at Woodspring Drive to include the following: ○ Reconstruct the northbound approach to include one left-turn lane and one right-turn lane with 450 feet of full-width storage ○ Construct the eastbound approach to include two through lanes, one right-turn lane with 225 feet of full-width storage, and one U-turn lane with 235 feet of full-width storage ○ Construct the westbound approach to include two through lanes and one left-turn lane with 300 feet of full-width storage • Construct the intersection of Chatham Parkway at Mersy Way to include the following: ○ Reconstruct the intersection as a thru-cut ○ Reconstruct the northbound approach to include one left-turn lane and one right-turn lane with 200 feet of full-width storage ○ Reconstruct the southbound approach to include one left-turn lane and one right-turn lane with 350 feet of full-width storage ○ Construct the eastbound approach to include two through lanes, one left-turn lane with 250 feet of full-width storage, and one right-turn lane with 175 feet of full-width storage ○ Construct the westbound approach to include two through lanes, one left-turn lane with 250 feet of full-width storage, and one right-turn lane with 300 feet of full-width storage	$65,600,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
IN-21	18	SR 25/US 17 at Gamble Road Intersection Improvements	City of Savannah	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-09 • Realign the westbound in approach to minimum intersection angle of 75 degrees • Extend the southbound left-turn lane to accommodate 300 feet of full-width storage • Extend the westbound right-turn lane to accommodate 325 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$7,800,000
IN-22	12	I-516/SR 21 at SR 25/US 17 Interchange Improvements	City of Savannah	• Upgrade the existing traffic signals to accommodate improvements constructed as part of C-09 • Reconstruct the eastbound ramp terminal to include the following: ○ Extend the inside northbound through lane to accommodate 235 feet of full-width storage ○ Extend the eastbound dual left-turn lanes to accommodate 525 feet of full-width storage • Reconstruct the westbound ramp terminal to include the following: ○ Extend the inside southbound through lane to accommodate 350 feet of full-width storage ○ Extend the westbound dual left-turn lanes to accommodate 300 feet of full-width storage • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$4,900,000
IN-23	17	SR 25/US 17 at Plymouth Avenue/Mills Lane Intersection Improvements	City of Savannah	• Upgrade the existing traffic signal to accommodate improvements constructed as part of C-09 • Extend the northbound right-turn lane to accommodate 425 feet of full-width storage • Reconstruct the westbound approach to include the following: ○ Dual left-turn lanes with 325 feet of full-width storage ○ One shared through/right-turn lane • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy	$4,600,000
C-07	1	Widening and Pedestrian/Bicycle Accommodations from Bradley Boulevard to Quacco Road	Chatham County	• Construct a third northbound and southbound through lane on SR 25/US 17 from 600 feet south of Fords Pointe Circle/Bradley Boulevard to Quacco Road • Remove on-street bike lanes and construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 from approximately 725 feet south of Fords Pointe Circle/Bradley Boulevard to Quacco Road • Construct a 10-foot-wide shared-use path along the south side of Canebrake Road to connect with the existing shared-use path • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths • Connect to improvements constructed as part of IN-10 through IN-13	$93,300,000
C-08	3	Widening and Pedestrian/Bicycle Accommodations from Quacco Road to SR 307/Dean Forest Road	Chatham County	• Construct a third northbound and southbound through lane on SR 25/US 17 from Quacco Road to SR 307/Dean Forest Road • Remove on-street bike lanes and construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 from Quacco Road to SR 307/Dean Forest Road • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths • Install a Pedestrian Hybrid Beacon (PHB) approximately 375 feet north of Silk Hope Road/ Derrick Inn Road in accordance with PI S016014 • Connect to improvements constructed as part of C-09 and IN-13 through IN-18	$84,400,000

Long-Term (5+ Years) Improvements					
ID	**Priority Ranking***	**Name**	**Jurisdiction(s)**	**Description of Improvements**	**Cost Estimate**
C-09	10	Raised Median and Pedestrian/Bicycle Accommodations from SR 307/Dean Forest Road to Mills Lane/Plymouth Avenue	Garden City City of Savannah Chatham County	• Construct a 20-foot-wide raised median along SR 25/US 17 from SR 307/Dean Forest Road to Westgate Boulevard • Construct a 10-foot-wide shared-use path on both sides of SR 25/US 17 from SR 307/Dean Forest Road to Mill Lane/Plymouth Avenue • Extend the sidewalk constructed as part of PI 0017976 to connect with the proposed shared-use path • Construct a 10-foot-wide shared-use path on the south side of Gamble Road to connect to the shared-use path constructed as part of PI 0017976 • Construct RCUT intersections and/or U-turn eyebrows at the following locations: ○ Approximately 750 feet south of Salt Creek Road ○ Salt Creek Road ○ Tower Drive ○ Barbour Drive ○ Ogeechee Road (Signalized with truck accommodations) ○ Macaljon Court ○ Savannah Speedway ○ Heathcote Circle (Construct RCUT with accommodations for Emergency Service Vehicles) ○ Approximately 700 feet south of Red Gate Farms Road (Truck accommodations) ○ Red Gate Farms Road • Signalize the northbound through and southbound U-turn movements at the U-turn location approximately 1,000 feet south of Westgate Boulevard constructed as part of project IN-08 • Convert Blossom Drive to a RIRO configuration • Install pedestrian signals, crosswalks, and ramps in accordance with GDOT Policy at all intersections to accommodate new shared-use paths, including signal adjustments where necessary • Install pedestrian lighting adjacent to shared-use paths • Construct two PHBs between Blossom Drive and Westgate Boulevard in accordance with recommendations set forth in the *US 17/SR 25 from Railroad Bridge to I-516 WB Ramps, Chatham County Traffic Engineering Study* (Atkins, 2024) • Connect to improvements constructed with projects C-04, C-08, and IN-19 through IN-23	$173,200,000
C-10	9	Corridor Signal Timing Optimization on SR 25/US 17 from Bryan County/Chatham County Line to Mills Lane/Plymouth Avenue	Chatham County City of Savannah Garden City	• Conduct a 10.7-mile-long corridor signal timing review to improve vehicular flow through time-of-day coordinated operations • Optimize signal cycle length, splits, and offsets in conjunction with other long-term improvements	$600,000
TS-02	19	SR 25/US 17 Corridor Transit Expansion	Chatham County City of Savannah Garden City	• Construct improvements recommended by CAT's recent studies, including Microtransit-focused data from project TS-01 • Coordinate with CAT to install stop/shelter locations, pull-off areas, and route signage not already constructed by other long-term projects	$3,000,000
				Total Cost of Long-Term Improvements	**$571,400,000**

Appendices

A – SR 25/US 17 Corridor Study Traffic Forecasting Technical Memorandum

B – Capacity Analysis Reports

C – Crash Data (2018 – 2022)

D – GDOT ICE Worksheets

E – Conceptual Layouts

F – Public Outreach