

DRAFT Report
June 2021

Brunswick Area Transportation Study
connect bay street
CORRIDOR PLAN

Bay Street Corridor Study

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Section 1: Introduction

Introduction

Glynn County was designated an urbanized area by the Federal government following the 1990 census, which led to the establishment of the Brunswick Area Transportation Study (BATS) Metropolitan Planning Organization (MPO). According to Federal law, the transportation planning process must be carried out by MPOs for designated urbanized areas that exceed a population of 50,000, as well as the area expected to become urbanized within the next 20 years. The Lead Planning Agency, responsible for the BATS planning process, is the Glynn County Planning Department. In addition, the Georgia Department of Transportation (GDOT) provides technical support to, and coordinates with, the MPO throughout the transportation planning process.

As the designated MPO for Glynn County, the BATS is responsible for overseeing long range transportation planning within the MPO planning area to ensure continued accessibility, connectivity, efficiency, mobility, and safety for the movement of people and goods. The BATS works collaboratively with partner agencies in order to address transportation needs by leading planning efforts and directing the flow of federal transportation funds.

What is Connect Bay Street?

Connect Bay Street is a single corridor planning process that identified short- and long-term recommendations for the Bay Street corridor in Glynn County and The City of Brunswick, Georgia. While there has been past effort to look at segments of the Bay Street corridor, there has not been a singular document that has looked at the entirety of the corridor. Until now. While this corridor faces many unique challenges, its foundation is similar to many other corridors in the community such as being a commuter route, an employment hub, access to neighborhoods and parks, and a gateway to downtown. Most notably, the corridor has specific assets and future opportunities that will benefit the entire community.

Connect Bay Street focuses on issues and opportunities within and outside the right-of-way. The process considered conditions related to transportation, mobility, land use, and economic development. A community-focused process, rooted in the active involvement of staff, elected officials, and corridor stakeholders, helped identify the main challenges affecting each corridor and coordinated opportunities to improve how the corridors will look, function, and contribute to broader community initiatives in the decades to come.

Planning Process

Connect Bay Street engaged the community in an intentional way while evaluating transportation, land use, and design strategies without losing sight of market and economic dynamics that the corridor and community offer to the region as well as its statewide impact

During the 10-month process, the project team worked with residents, business owners, and other stakeholders throughout public events and online engagement, reviewed and assessed existing and projected conditions, and considered best practices in how to blend the interests of transportation, land use, and economics.



Why now?

Glynn County and the City of Brunswick are a diverse and dynamic community due to its people, economy, and places. As growth continues, their greatest assets need to be protected and leveraged. And, looming challenges need to be documented and overcome. The urgency for Connect Bay Street extend well beyond the corridor itself, as detailed in the Envision Glynn County and the Brunswick Area Transportation Study (BATS) Long Range Transportation Plan (LRTP) process. The conditions and trends affecting the County and the City puts added pressure on repositioning these vital corridors.

The Connect Bay Street plan is the blueprint for transportation alternative improvements and the foundation upon which future transportation decisions will be based. The plan responds to existing challenges, anticipated future needs, and prepares the community to accommodate future growth. The plan will guide the City and County and their partner agencies BATS and the Georgia Department of Transportation (GDOT) to accommodate future enhancements to the corridor. This plan should guide future city project, comprehensive plans, LRTP's, and capital investments from BATS, the City, County and adjacent property owners along the corridor.

At its core this study evaluates the mobility needs for the Bay Street Corridor and determines feasible improvements for the short and long term to improve mobility in the network. As with any study, Connect Bay Street should be revisited as the future unfolds as projects are implemented and new information becomes available.



Relationship to Other Plans

Developing a transformative strategy for the Bay Street Corridor required us to consider transportation performance as well as how moving people and goods safely and efficiently can positively influence prosperity and quality of life. Below are a few of the representative studies that informed the development of the Bay Street Corridor Study.

Envision Glynn

Envision Glynn serves as a blueprint for physical growth and development in Glynn County over a twenty-year time span. Outlined are measures that will ensure the maintenance of the county's current high quality of life, efficiency and competitiveness that fuels economic growth and development. The study broadly groups future development areas while providing detailed information on the current and proposed future activity centers and major corridors for various areas within each group. Numerous recommendations were made regarding future development patterns and appropriate land uses

2045 MTP

This plan was prepared by CDM Smith for the Brunswick Area Transportation Study (BATS) Metropolitan Planning Organization (MPO). The MTP document provides an extensive overview of the importance of a long-range transportation plan, its vision, goals, objectives, as well as strategies that will aid in the implementation of these goals through the horizon year of 2040. The 2040 MTP highlights what future population and employment growth looks like for the county given its existing land use conditions and transportation system performance. The BATS 2040 MTP is fiscally constrained, based on projections of federal, state, and local funding for transportation, and includes 24 roadway improvement projects funded within the 2040 horizon.

Bike and Multipurpose Trail Study

The Bike and Multipurpose Trail Study was designed to identify gaps in Glynn County's existing bicycle and pedestrian network and establish a comprehensive list of recommended projects and initiatives. These recommended projects were intended to support alternative modes of transportation, as well as improved and additional recreational opportunities, to residents and visitors of Glynn County, City of Brunswick, and St. Simons Island. Findings from the study indicated that most individuals would consider walking or biking more if improved facilities were available.

Recommendations included the implementation of various facility types, as well as major and minor trail networks alongside development corridors.

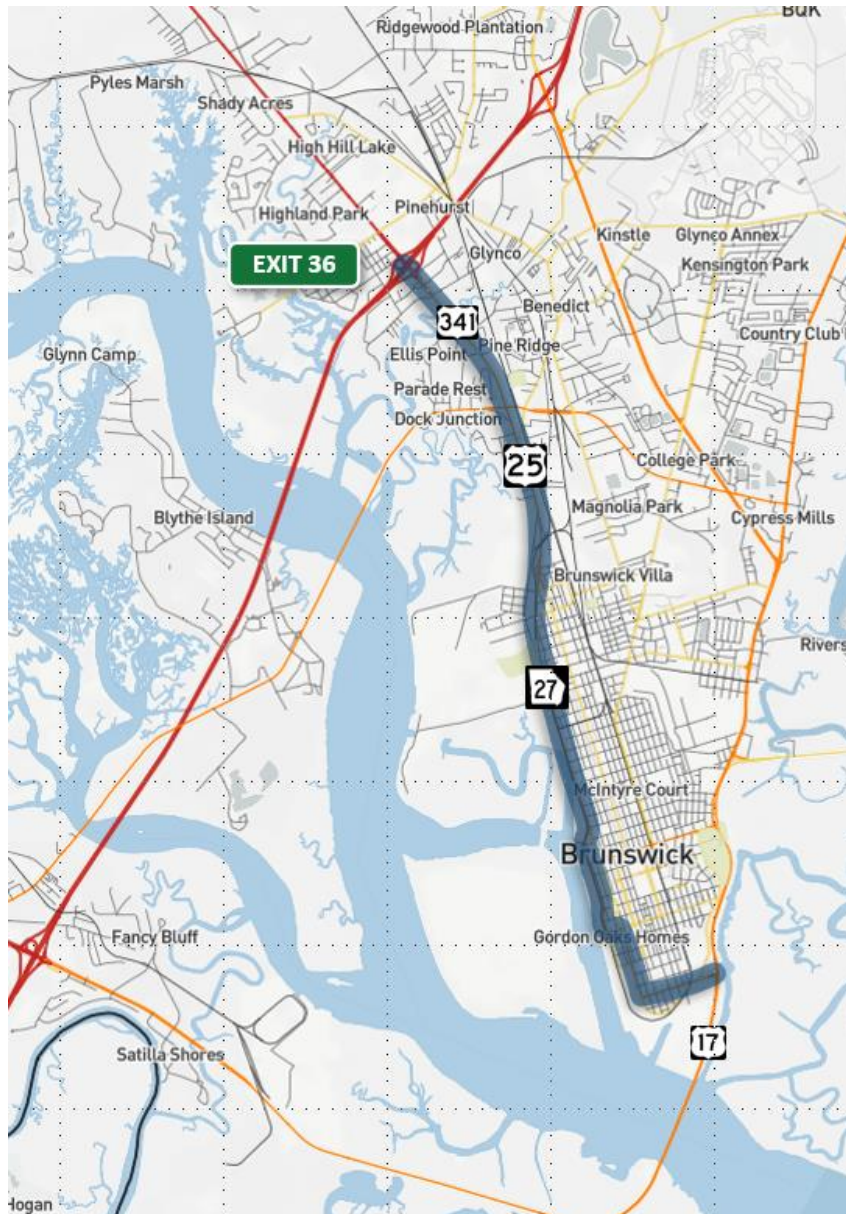
Georgia Ports Authority, State of Brunswick Port

Georgia Ports Authority's 2017 fact sheet report on the Port of Brunswick gives a very concise overview of the type and quality of service provided by Colonel's Island, Mayor's Point and East River terminals. It discusses the need for more infrastructure, interstate access, rail services, and expansion. The Port of Brunswick serves more than 60 auto and heavy equipment manufacturers and is ranked number one for new import vehicles in the United States\

Meet the Corridor

Connect Bay Street focuses on the SR 27/US 25/341 corridor within Glynn County, Georgia. Glynn County is roughly 422 miles located along the southern coast of Georgia and encompasses the City of Brunswick, Jekyll Island, Saint Simmons Island, Little Saint Simmons Island, and Sea Island. The City of Brunswick is the county seat and serves as the gateway to the adjacent communities, an interface with I-95 and interstate commerce, and an employment hub for the region. The City of Brunswick also serves as one of two ports operated by the Georgia Port Authority (GPA) in the state. The County is part of the Coastal Plain the largest and least populated geographic region in the State. Overall, the County and City are recognized for its natural features, access to the coast, quality of life, commerce, and climate.

The corridor serves as major north-south connector for residents, commuters, and visitors to the City of Brunswick and surrounding areas as well as a gateway to downtown Brunswick.



Bay Street by the Numbers

- 7.3 miles in length
- 3 traffic signals
- 1 interchange
- 5 road name changes
- 11 major intersections
- 4 distinct context areas
- 1 railroad overpass
- Railroad parallels corridor for 3.7 miles
- Several major employers – industrial, processing, distribution

SR 27/US 25/341 (Bay Street)

The Bay Street study area begins at the intersection with I-95 and extends south through the City of Bay Street to its intersection with US 17 (Glynn Avenue), a distance of roughly 7.3 miles. This corridor is a major freight and employment corridor for the County, with large-scale commercial development along segments of the corridor. The corridor also serves as a gateway from I-95 to the City of Brunswick and the associated GPA facilities. Established residential neighborhoods surround the corridor to the east, with development taking on an urban character. Bay Street serves as direct commuter connection to Downtown Brunswick.

- » **7.3 miles | I-95 (Exit 36) to US 17 (Glynn Avenue)**
- » **Connects points north and to the City of Brunswick**
- » **One of the region's largest economic corridors**
- » **Major freight corridor**
- » **Daily traffic and zoning encourage economic investment**

Foundations | Key Takeaways

It was critical to establish a basis of understanding early in the planning process. The Foundations Report organized challenges and opportunities for Atlanta Highway around three overlapping themes: Land Use and Community Design, Economics, and Mobility.

Land Use and Community Design

- » The sequencing of growth has occurred sporadically along the corridor over the last 50 years.
- » The diversity of land uses increases as you move away from the corridor. Still, the planning area is predominantly commercial with room for growth.
- » The corridor lacks cohesion and a unique identity that would suggest it has a sense of place.

Economics

- » The corridor is a major economic engine for the region and state supporting connections to GPA's Mayor Point Terminal, Brunswick Cellulose, Downtown Brunswick, manufacturing and processing facilities, and connectivity to the islands and beaches.
- » The corridor is a major freight corridor in the states GRIP program that connects the Golden Isles to the Atlanta Metropolitan area.

Mobility

- » The corridor struggles to balance regional through trips and local destination trips, resulting in ongoing traffic and safety issues particularly near major intersections.
- » The corridor lacks continuity of facilities and connectivity to destinations that would make it more accessible by foot or on bike.
- » Uncontrolled access and poor signage control undermine the corridor's role as a gateway from the North.

The SR 27/US 25/341 corridor is also a major freight corridor connecting the Port of Brunswick to I-95 and the Atlanta Region. The corridor is a part of the GRIP or Governors Road Improvement Program which was initiated in 1989 with a purpose to:

- **Connectivity** – provide 95% of the Cities in Georgia of 2,500 people access to an Interstate and ensure the 98% of all areas in the state are within 20 miles of a four-lane road
- **Growth** – Support economic development through safe and efficient mobility throughout the state
- **Efficient** and Effective Mobility
- **Safety** – Reduce crashes along 2-lane corridor through multilane widenings

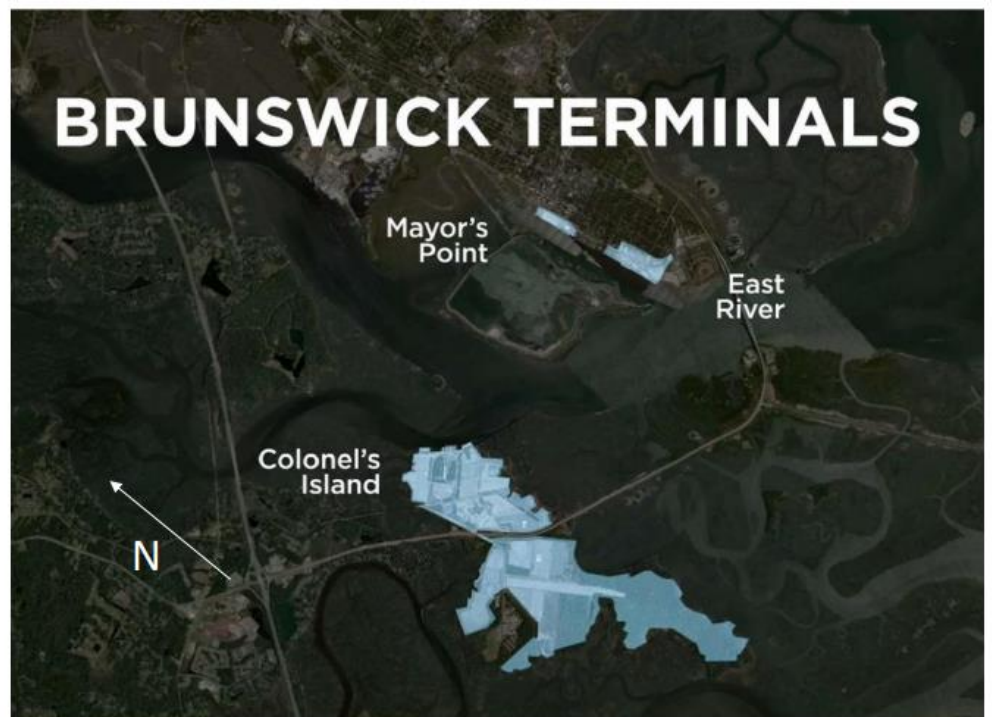
The Bay Street corridor also known as the Golden Isles Parkway through the GRIP program runs along the US 341 corridor from I-75, just south of Atlanta, to its terminus at the Mayor's Point terminal in the City of Brunswick (Bay Street).

The Bay Street corridor serves as a vital connection for the State of Georgia and the Georgia Ports Authority (GPA). Centered around the Mayor's Point Terminal and the Colonel Island Terminal, GPA estimates a \$128m impact to the state's GDP (Gross Domestic Product) through these two terminals in Brunswick.

The Mayor's Point Terminal is a 22-acre break-bulk cargo, such as wood pulp, liner board, plywood, and paper facility. It is currently served by the SR 27/US 25/341 5-lane corridor adjacent to the facility as well as a joint CSXT and Norfolk Southern railroad track. The facility is approximately 355,000 sf in size.

Adjacent and joining these facilities is the East River and Lanier docks. This area comprises approximately 72 acres in size and primarily services cargo that is liquid in nature and dry bulk commodities.

The Colonels Island terminal is located across the East River and serves singularly as an automotive distribution and receiving facility for the east coast.



What the Community Said

Engaging stakeholders and the public in meaningful ways as part of a larger effort to understand the dynamics of a critical corridor was important. Over the course of the planning process, the project team sought ways to reach beyond typical voices and engage the broader interests for the corridor with an eye toward the future. The intent was to allow public processes to be at the heart of how we developed recommendations regarding transportation, safety, and design.

Engagement at a Glance

Brunswick and the associated Glynn County areas of the corridor is an energized community with strong neighborhood advocates; diverse interests; and a middle-aged, well-educated population. Given a choice, the community will engage with a planning process if their interests are demonstrated. The corridor study needed a conversation that was informative, transparent, inclusive, and connected. Like many things COVID-19 influenced the approach to engagement with stakeholders through the process. However, even with the impact, engagement with stakeholders throughout the community and leadership occurred. This provided better comprehension of the issues facing the users of the corridor and their interface with it.

Stakeholders

To ensure the planning process captured the issues important to the broader community, stakeholders included leaders representing Glynn County Government, City of Brunswick, Georgia Department of Transportation, real estate, small business, Brunswick Area Transportation Study Policy Committee, BATS Technical Committee, BATS Citizen Advisory Group, Georgia Port Authority and the faith community, residents, and advocacy groups. Their input was key to provide guidance on:

- **Provide ongoing direction**
- **Develop key messages about the process**
- **Provide an initial step in inclusive engagement**
- **Offer the perspective of the larger community and be a liaison to those they represent**
- **Evaluate findings, help develop recommendations, and offer input on priorities**

KEY TAKEAWAYS

Function & Safety:

- Identify and investigate known problem areas or intersections
- Improve the connectivity between Selden Park at 4th Street & from Downtown to Mary Ross Park
- Enhance pedestrian mobility along Bay Street
- Connectivity to East Coast Greenway
- Wayfinding improved to increase both driver and pedestrian safety
- Speeds along US 341 are high south of Blythe Island Highway

Aesthetics & Amenities:

- Landscaping, trees, buffering, overall beautification
- Develop a brand, design standards, and overall cohesiveness to give identity to the corridor
- Wayfinding and signs should be included
- Preserving greenspace, adding more trees and parks
- Enhancing access to Parks
- Utilize space in Bay Street for more parking

Business & Economics:

- Further Development of the waterfront along the Marina
- Mayor's Point Terminal is currently active for GPA (Regional and State impact)
- Tourism is a key economic generator for area (Beaches & Downtown)
- Desire for improved connectivity between the waterfront and downtown
- Improve sidewalks and lighting
- Add greenspace
- Create a cohesive identify.

Mobility:

- Improve bicycle and pedestrian mobility
- Address congestion and safety issues at key intersections
- Support long-term development efforts through transportation improvements.

Project Goals and Objectives

Working with the project stakeholders' and utilizing collected and analyzed data, project goals and objectives for the Bay Street Corridor Study were developed. Input was received on the goals and objectives before formally adopting them through BATS Citizens Advisory Committee, the Technical Committee, and the Policy Committee.

Goals	Objectives
Identify mobility issues along the Bay Street Corridor	Prepare an operational assessment of the corridor including capacity and crash analysis
	Understand the existing and future corridor operational purposes and needs.
	Identify key connections between land uses/features and the conflicts between them for all roadway users
Maintain and enhance the efficiency and safety of the corridors' segments and key intersections and between key land uses.	Develop solutions that enhance mobility for all road users of the corridor
	Build upon past improvements and efforts where appropriate
	Reduce the number of potential conflict points for all modes
	Establish a safe speed within the corridor
Support intergovernmental cooperation between all local jurisdictions in the project area as well as local, regional and state agencies	Encourage adoption and support of the Corridor Plan by all stakeholders
	Develop implementable solutions for the corridor segments and key intersections
	Explore ways to fund enhancement to the corridor outside of traditional sources
Enhance the appeal of the corridor for all users	Explore opportunities for enhancement and beautification of the corridor
	Balance connectivity between both sides of the corridor
Enhance the current and emerging economic drivers in the community	Provide safe and efficient access to the port
	Explore ways to support emerging community economic drivers.

Plan Framework

Results don't happen by accident. Rather, they're garnered through thoughtful planning, diligent work, and unwavering focus by those empowered during the planning process. Connect Bay Street coupled data-driven planning (*What does the analysis indicate the corridor needs?*) with the tradeoffs inherent to the decision-making process (*What steps will be necessary to make scenarios work for all users?*) and an acknowledgment that outcomes must be realistic (*How can we establish a blueprint to achieve corridor safety and balance the needs of a freight corridor?*).

The process was dynamic and responded incrementally as information was collected from previous plans, stakeholders, and new analysis. The plan rests on four pillars:

- 1. Leverage the work of earlier plans**
- 2. Create a holistic understanding of the corridor dynamics**
- 3. Provide a framework to offer realistic and measurable strategies for mobility, design, and transportation**
- 4. Communicate the process and a plan of action**

The Connect Bay Street report has been designed to be a readable, functional document to understand the relationship between freight, vehicular and multimodal transportation needs, and to recommend potential solutions to identified conflicts. The following narrative on the Bay Street corridor is divided into **three components**:

Corridor Characteristics

The Corridor Characteristics sets the stage for the actions and strategies to come. The vision was built with significant input from residents, stakeholders, and staff.

Transportation Strategy

The Transportation Strategy presents key findings and organizes recommendations within the context of travel mode and corridor aesthetics.

Implementation Plan

The Implementation Plan adds the final layer of detail to the corridor plans. It helps explain specific strategies within the context of cost, partnerships, and likely impact.

Section 2: Corridor Characteristics

Introduction

The SR 27/US 25/341 (Bay Street) corridor is a critical thoroughfare in Glynn County, the City of Brunswick, and the State of Georgia. Due to this, the demands on the corridor are unique and varied. In 2019, the corridor studied carried between 23,200 vehicles per day (vpd) and 2,620 vpd (source: GDOT). For decades, this corridor has served as a commercial corridor for the surrounding region providing access to the port, the City of Brunswick, and other large industrial uses along the East River and parallel to the corridor. The Bay Street corridor also provides connectivity to residential neighborhoods east of the corridor as well as two community parks – Selden Park and Mary Ross Park. County zoning helped reinforce the area as a variety of uses along the corridor and a relatively homogenous development pattern.

- » **The Bay Street Corridor provides regional mobility with local access to the employment centers, Mayor’s Point Terminal, Downtown Brunswick, shops, restaurants, and other uses that line the corridor. Meanwhile, the auto-oriented corridor has limited bicycle and pedestrian amenities.**
- » **The corridor has very little greenspace to break up the pavement and asphalt.**
- » **The long sections of uninterrupted traffic flow along the corridor have allowed speeds to exceed the posted speed limits.**
- » **The higher speeds and long crossing distances coupled with the railroad act as a barrier between the two parks along the corridor creating a heightened level of caution which limits pedestrian and bike access to these facilities.**
- » **The corridor has four distinct context zones each with their own unique role, issues, and opportunities. However, they each share an underlying role which is to support mobility and connectivity for the variety of uses along the corridor.**

These concerns help frame the opportunities to improve the mobility and adaptability of the corridor long-term for all roadway users.

The SR 27/US 25/341 (Bay Street) corridor area comprised of both the unincorporated areas of Glynn County and the City of Brunswick has been at the center of mobility and the economy for the region since the settling of the area in the early 1700's. The continued growth of the communities surrounding the corridor has shifted the dynamics over the centuries, but the primary purpose of the corridor – supporting commerce – has remained consistent. The conflict between modes of mobility and land uses have raised concerns associated with land use access, urban design, natural resource protection, and the function of the corridor in the area's transportation network. This chapter describes the existing context of the study area. The data, observations, and feedback received from stakeholders throughout the process helped shape the recommendations contained in the Bay Street Corridor Study.

Existing Conditions – Chapter Overview

This Chapter provides a set of facts and figures related to growth, development, constraints, traffic and safety. The chapter concludes with a collection of maps that reflect the environmental and transportation land uses of the study area. The following topics are covered in this chapter:

Built & Natural Conditions

Transportation Characteristics

Safety

Future Conditions



Bay Street throughout the corridor and context areas



Natural Resources

Both Glynn County and the City of Brunswick have long stressed the importance of protecting and enhancing the natural systems that give identity to its quality of life. Within the study area there are an abundance of natural resources present. The proximity of the East River and the abundant coastal marshlands along the corridor demonstrate the delicate balance needed between the natural and built environment. Coastal marshlands provide essential ecological services including buffering upland areas from the impacts of storm surge and flooding, providing a nursery for commercial fisheries, providing habitat for protected species, and functions as an important destination for ecotourism.



Considering the varying context areas of the corridor within the study area, the natural resources is intertwined with each. The image of the right depicts the present water bodies, wetlands, critical habitat for threatened and endangered species, and their proximity to the corridor.

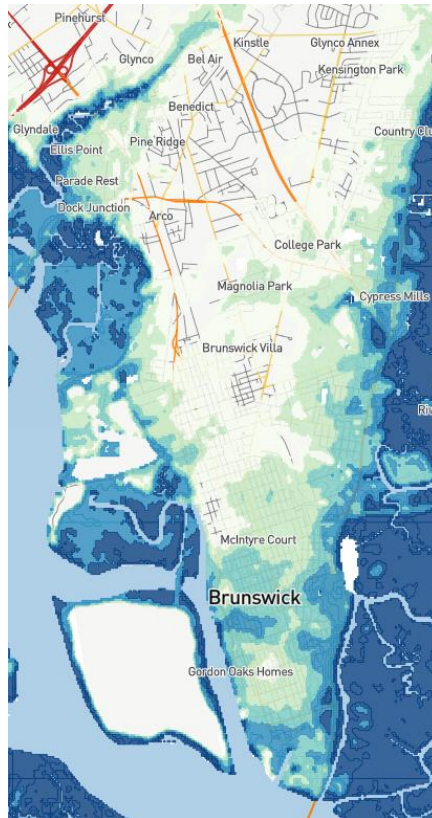


Vulnerability

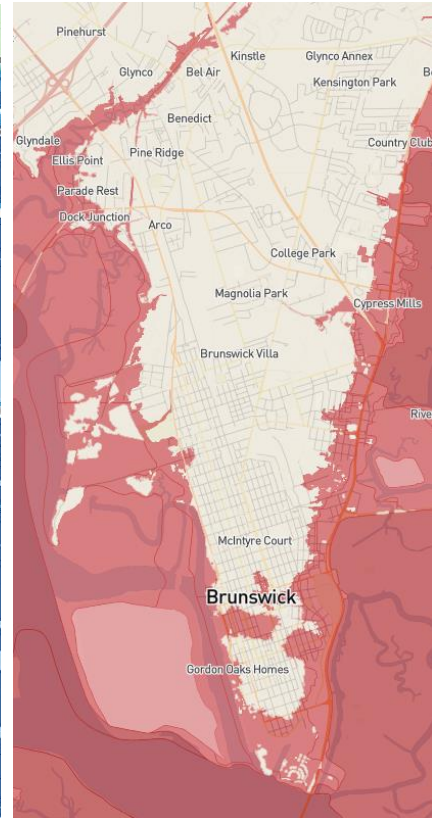
The SR 27/US 25/341 Corridor and the adjacent railroad were located in close proximity to the East River and the Oglethorpe Bay to have access to and to facilitate the distribution and receiving of goods. The proximity provides for quick and easy access to the river and bay for commerce but like any facility located along the coast is susceptible to hazards. Hazards including storm surge, sea level rise and inundation from storm events both large and small scale have the potential to impact the corridor. And by such its ability to function with its intended purpose and for any mode of transportation. The images below depict the vulnerability of the Bay Street corridor through a variety of threats. Like any community along the coast, protection of critical infrastructure must be at the forefront of investments to provide long term resilience. Bay Street is a critical corridor for Glynn County, the City of Brunswick, and the State of Georgia.



Existing Mean Hazard High Water



Category 2 Storm Inundation



FEMA Flood Hazard areas

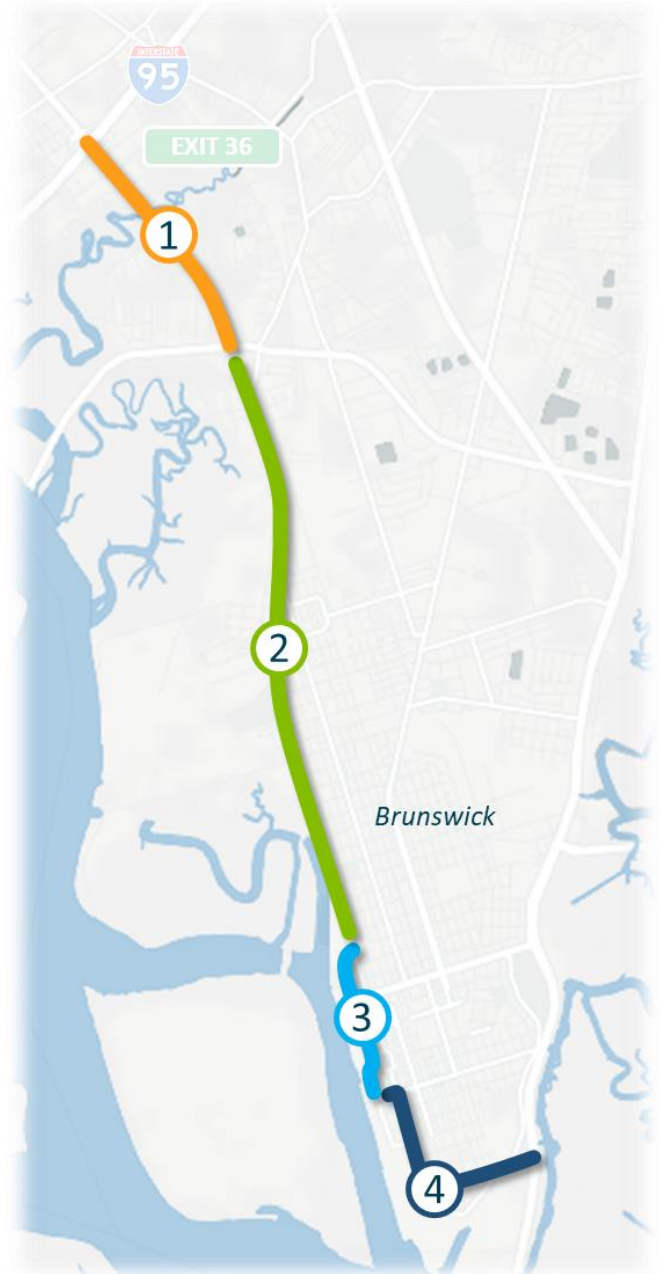
Corridor Characteristics

Much like the natural resources of community that increase the quality of life to a community, the transportation network services as the backbone of the community connecting land uses, resources, assets and promoting commerce and mobility for the community. As such, understanding the roadway and active transportation (bike and pedestrian) facilities serving a community is critical in the development of a mobility strategy for the SR 27/US 25/341 corridor.

Corridor Profile & Context Zones

The Bay Street corridor within the study area has four distinct context zones. Each of these zones has a unique context and operational impact on the corridor. The uses in these context zones is unique and, in some areas, diverse. Like the land uses, the transportation needs and demands on the corridor are also unique within each of the context zones.

- 1 COMMERCIAL** – this section of the corridor is primarily focused on mobility and access to goods and services. The area immediately connected to Exit 36 focuses on access to highway commercial with short trips to and from I-95. Towards Blythe Island Highway the corridor continues to facilitate access to commercial and employment land uses.
- 2 TRANSITIONAL** – this section of the corridor introduces a greater percentage of residential as well as Selden Park. Employment lane uses like Brunswick Celulose and other supporting industries are present. The railroad is primarily adjacent to Bay Street through this section.
- 3 WATERFRONT** – this section of the corridor runs adjacent to the Oglethorpe Bay and along downtown Brunswick. Access to Mayors Point Terminal and Mary Ross Park also occur from Bay Street. The posted speed limit along this section of the corridor are lower.
- 4 COMMUNITY** – the smallest segment of the corridor which primarily runs through the established neighborhoods within the historic Brunswick. This section is also a designated truck route to connect over to US 17 (Glynn Avenue) on the east side.



Traffic Volume, Corridor Growth, Speed, and Crashes

Corridor Growth

-01% SR 27/US 25/341 operates as a gateway corridor to downtown Brunswick and the Mayor's Point Terminal for travelers coming from Exit 36 with I-95. It is classified as a principal arterial with a variable posted speed limit between (45 mph and 25 mph). The corridor is also a designated freight route, a GRIP corridor, and a hurricane evacuations route. The corridor runs north/south through the study area and has the following recorded 2019 Average Annual Daily Traffic Volumes (AADT) within the study area as shown on the graphic to the right.

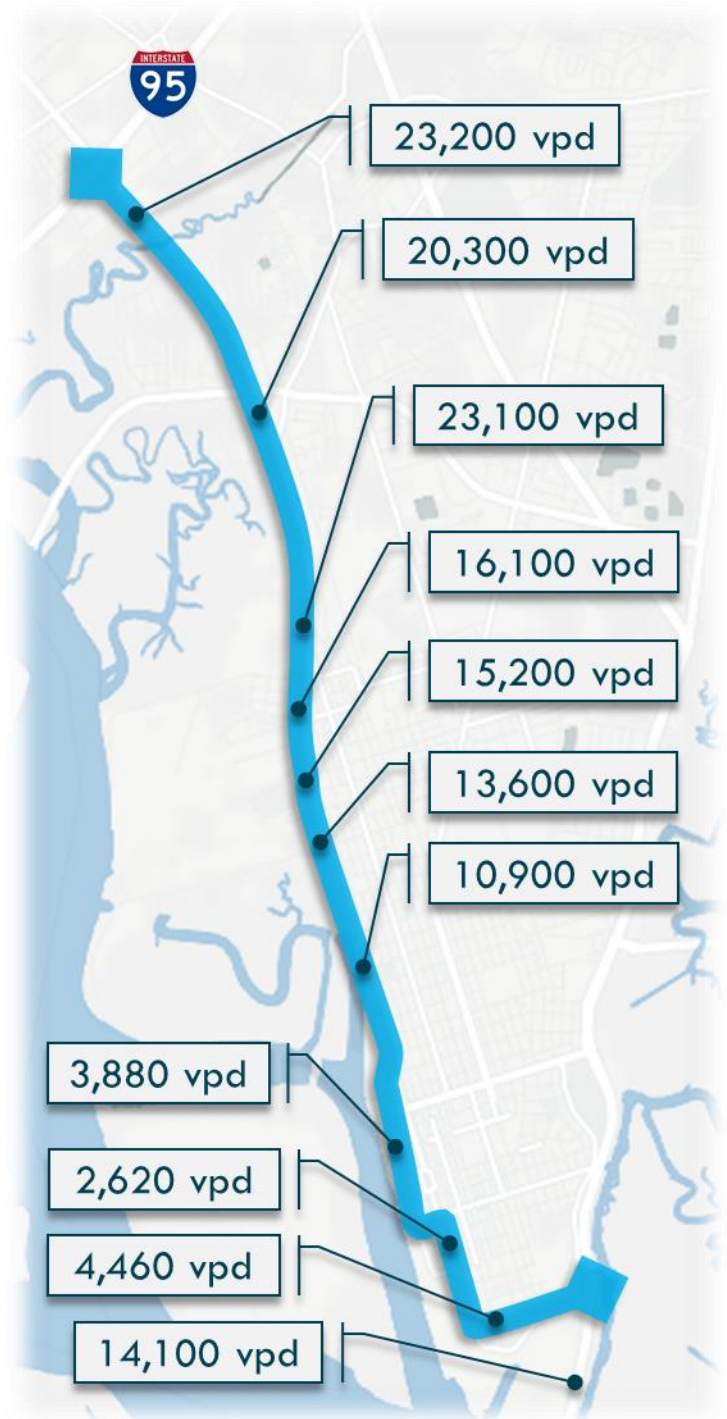
A review of historical volumes provided by GDOT indicate that the Bay Street corridor has grown between 2.4% between I-95 (Exit 36) and GA 303 Blythe Island Highway between 2010 and 2019. This growth is associated with the increase in volumes along I-95 and users utilizing Exit 36 for highway commercial trips (gas and food).

Between GA 303 and 9th Street through the transitional zone of the corridor, historical growth in traffic volumes over a 10-year period indicates 0.3% in growth. This section has remained relatively stable in land use and expansion or creation of new land uses.

Within the waterfront zone of the corridor a growth rate of -0.1% is realized over a 10-year period. This section of the corridor is between H Street and Newcastle Street along Bay Street.

The community section of the corridor has experienced a growth rate of 0.8% between 2010 and 2019. This section of the corridor is primarily residential in nature and facilitates the designated truck route to US 17 from the westside of downtown.

The table on the following page highlights the growth rates along the corridor based on GDOT historical traffic volumes.



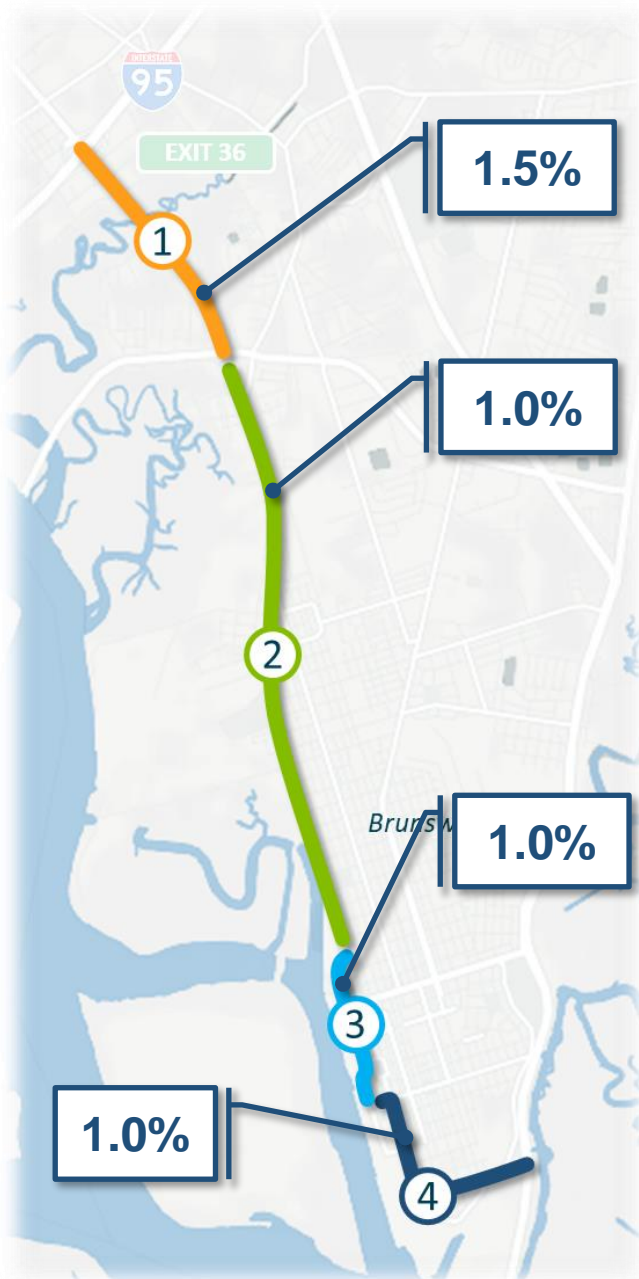
Segment ID	Context Area	Segment Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10-Year Growth (%)
1	1 - Commercial	Between I-95 and GA 303	18,300	23,900	23,600	21,000	21,000	22,000	22,600	21,500	21,300	23,200	2.4%
AVG	1 - Commercial	-	-	-	-	-	-	-	-	-	-	-	2.4%
2	2 - Transitional	Between GA 303 and Old Jesup Highway	17,600	17,300	15,800	15,700	17,000	17,600	18,100	17,400	16,400	16,500	-0.6%
3	2 - Transitional	Between GA 303 and Old Jesup Highway	21,300	18,700	18,400	18,400	18,400	19,300	19,900	20,000	19,800	20,300	-0.5%
4	2 - Transitional	Between Old Jesup Rd and 9th St	23,800	23,500	21,800	21,700	21,700	22,400	23,100	23,300	22,900	23,100	-0.3%
5	2 - Transitional	Between Old Jesup Rd and 9th St	13,400	15,200	15,000	14,000	14,000	14,700	15,100	15,200	15,100	16,100	1.9%
6	2 - Transitional	Between 9th Street and H St	14,600	14,400	14,200	14,200	15,100	15,600	16,100	16,100	15,100	15,200	0.4%
7	2 - Transitional	Between 9th Street and H St	12,200	13,400	13,200	12,300	12,300	13,600	14,000	14,100	14,000	13,700	1.2%
8	2 - Transitional	Between 9th Street and H St	14,000	13,800	12,500	12,500	13,200	13,600	14,000	14,100	13,200	13,300	-0.5%
9	2 - Transitional	Between 9th Street and H St	11,600	12,400	12,200	12,200	12,200	12,800	13,200	13,300	13,200	13,600	1.6%
10	2 - Transitional	Between 9th Street and H St	11,100	10,900	9,900	9,870	10,900	11,300	11,600	11,700	10,800	10,900	-0.2%
AVG	2 - Transitional	-	-	-	-	-	-	-	-	-	-	-	0.3%
11	3 - Waterfront	Between H St and Gloucester St	6,070	5,500	5,430	5,410	5,410	5,710	5,880	5,920	5,870	6,040	0.0%
12	3 - Waterfront	Between Gloucester St and Prince St/Newcastle St	4,950	4,880	4,110	4,100	4,530	4,680	4,570	4,600	4,680	4,720	-0.5%
13	3 - Waterfront	Between Gloucester St and Prince St/Newcastle St	3,800	3,500	3,450	3,100	3,100	3,900	4,060	4,190	4,210	3,880	0.2%
AVG	3 - Waterfront	-	-	-	-	-	-	-	-	-	-	-	-0.1%
14	4 - Community	Between Prince St and 4th Ave	1,370	1,350	1,100	1,100	1,030	1,060	1,290	1,300	1,210	1,220	-1.2%
15	4 - Community	Between Prince St and 4th Ave	1,370	1,180	1,160	1,170	1,170	1,320	1,360	1,460	1,450	1,410	0.3%
16	4 - Community	Between Prince St and 4th Ave	2,040	2,010	2,080	2,070	2,360	2,440	2,510	2,330	2,600	2,620	2.5%
17	4 - Community	Between Prince St and 4th Ave	2,200	2,050	2,020	1,850	1,850	1,940	2,000	2,190	2,170	2,450	1.1%
18	4 - Community	Between 4th Ave and US 17	2,210	2,180	1,720	1,710	1,730	1,790	1,840	1,850	1,960	1,980	-1.1%
19	4 - Community	Between 4th Ave and US 17	2,830	2,860	2,820	2,390	2,390	2,420	2,490	2,510	2,490	2,970	0.5%
20	4 - Community	Between 4th Ave and US 17	3,940	3,880	3,680	3,670	3,860	3,990	4,110	4,470	4,420	4,460	1.2%
AVG	4 - Community	-	-	-	-	-	-	-	-	-	-	-	0.8%

In addition to the historical growth rate calculations along the corridor, we utilized the BATS Regional Travel Demand Model to review growth along the corridor. The summary table on the following page highlights the observed model growth from the corridor between 2015 and 2045. Like the historical ADT data, the table is segment to match the context zones.

Segment ID	Segment Description	Context Area	2015 BATS Model AADT	2045 BATS Model AADT	BATS Model Growth (%)
1	Between I-95 and Glyndale Drive	1 - Commercial	27,150	32,228	0.6%
2	Between I-95 and Glyndale Drive	1 - Commercial	26,339	30,733	0.5%
3	Between Glyndale Drive and GA 303	1 - Commercial	25,653	28,541	0.4%
4	Between Glyndale Drive and GA 303	1 - Commercial	24,773	27,513	0.4%
5	Between Glyndale Drive and GA 303	1 - Commercial	24,774	27,527	0.4%
AVG	Between I-95 and GA 303	1 - Commercial	-	-	0.4%
6	Between GA 303 and Old Jesup Rd	2 - Transitional	18,205	20,880	0.5%
7	Between Old Jesup Rd and 9th St	2 - Transitional	22,311	25,720	0.5%
8	Between Old Jesup Rd and 9th St	2 - Transitional	22,150	25,527	0.5%
9	Between Old Jesup Rd and 9th St	2 - Transitional	22,140	25,431	0.5%
10	Between Old Jesup Rd and 9th St	2 - Transitional	20,261	17,008	-0.6%
11	Between 9th Street and H St	2 - Transitional	21,720	17,297	-0.8%
12	Between 9th Street and H St	2 - Transitional	21,510	17,267	-0.7%
13	Between 9th Street and H St	2 - Transitional	21,284	18,033	-0.6%
14	Between 9th Street and H St	2 - Transitional	19,500	18,815	-0.1%
15	Between 9th Street and H St	2 - Transitional	19,237	18,595	-0.1%
16	Between 9th Street and H St	2 - Transitional	18,168	18,571	0.1%
17	Between 9th Street and H St	2 - Transitional	17,981	18,439	0.1%
18	Between 9th Street and H St	2 - Transitional	17,949	18,409	0.1%
19	Between 9th Street and H St	2 - Transitional	17,786	18,227	0.1%
20	Between 9th Street and H St	2 - Transitional	17,881	18,011	0.0%
21	Between 9th Street and H St	2 - Transitional	17,656	17,737	0.0%
22	Between 9th Street and H St	2 - Transitional	13,358	14,881	0.4%
23	Between 9th Street and H St	2 - Transitional	13,234	14,770	0.4%
24	Between 9th Street and H St	2 - Transitional	13,203	14,474	0.3%
25	Between 9th Street and H St	2 - Transitional	13,022	14,434	0.3%
26	Between 9th Street and H St	2 - Transitional	12,677	13,810	0.3%
27	Between 9th Street and H St	2 - Transitional	12,393	14,075	0.4%
AVG	Between I-95 and GA 303	2 - Transitional	-	-	0.1%
28	Between H St and Gloucester St	3 - Waterfront	8,032	7,012	-0.5%
29	Between H St and Gloucester St	3 - Waterfront	8,015	7,000	-0.5%
30	Between H St and Gloucester St	3 - Waterfront	7,530	6,821	-0.3%
31	Between H St and Gloucester St	3 - Waterfront	7,517	6,770	-0.3%
32	Between H St and Gloucester St	3 - Waterfront	7,521	6,783	-0.3%
33	Between H St and Gloucester St	3 - Waterfront	7,384	6,579	-0.4%
34	Between H St and Gloucester St	3 - Waterfront	6,552	6,383	-0.1%
AVG	Between I-95 and GA 303	3 - Waterfront	-	-	-0.3%
35	Between Gloucester St and Prince St/Newcastle St	4 - Community	2,752	2,558	-0.2%
36	Between Gloucester St and Prince St/Newcastle St	4 - Community	2,228	2,054	-0.3%
37	Between Gloucester St and Prince St/Newcastle St	4 - Community	1,019	1,373	1.0%
38	Between Gloucester St and Prince St/Newcastle St	4 - Community	1,160	1,446	0.7%
39	Between Gloucester St and Prince St/Newcastle St	4 - Community	946	1,231	0.9%
40	Between Gloucester St and Prince St/Newcastle St	4 - Community	944	1,228	0.9%
41	Between Prince St and 4th Ave	4 - Community	3,924	4,214	0.2%
42	Between Prince St and 4th Ave	4 - Community	3,883	4,149	0.2%
43	Between Prince St and 4th Ave	4 - Community	3,354	3,850	0.5%
44	Between 4th Ave and US 17	4 - Community	1,769	2,467	1.1%
45	Between 4th Ave and US 17	4 - Community	2,129	2,799	0.9%
46	Between 4th Ave and US 17	4 - Community	2,619	3,405	0.9%
47	Between 4th Ave and US 17	4 - Community	3,243	4,220	0.9%
48	Between 4th Ave and US 17	4 - Community	6,325	8,132	0.8%
49	Between 4th Ave and US 17	4 - Community	6,828	8,665	0.8%
AVG	Between I-95 and GA 303	4 - Community	-	-	0.6%

The table below summarizes the growth rates for each of the corridor context zones and by each method studied. In addition, the recommended growth rate for each corridor context zone is also indicated. These growth rates are also shown on the graphic below by context zone. The growth rate will be utilized to grow the collected and calibrated traffic volumes to the horizon years studied in this corridor study. 2025 and 2035 were chosen as the interim and future year horizons for the study. These were based on discussions with GDOT, BATS and community stakeholders.

Context Area	GDOT Historic Growth (%)	BATS Model Growth (%)	Chosen Growth Rate (%)
1 - Commercial	2.4%	0.4%	1.5%
2 - Transition	0.3%	0.1%	1.0%
3 - Waterfront	-0.1%	-0.3%	1.0%
4 - Community	0.8%	0.6%	1.0%



While the growth rate for the Commercial zone is lower than what the historical traffic volume growth indicated. It is important to understand that the 2025 and 2035 horizon years will have a compounded growth of 1.5% per year. The 2.4% is based on an average of 10 years. The compound each year approach utilized results in a higher growth rate over the same 10-year period.

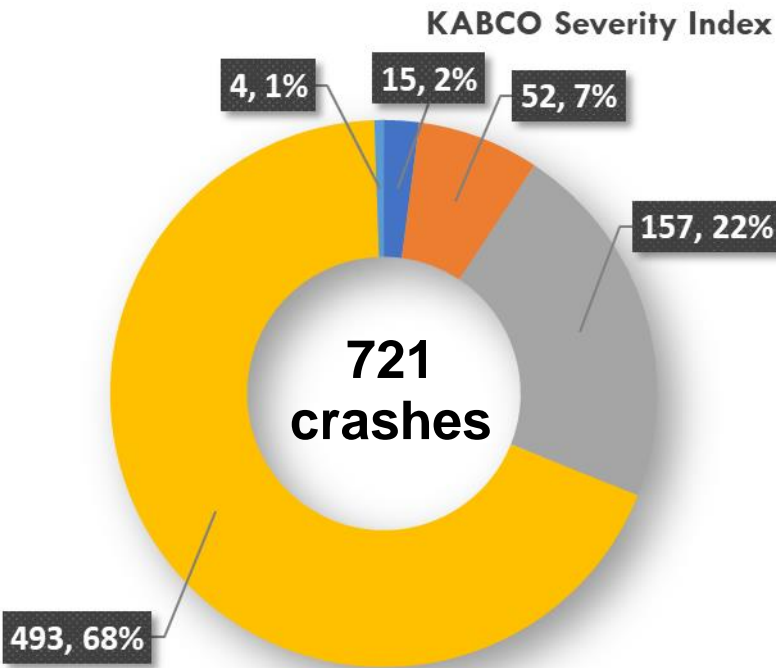
It was also determined to utilize a higher growth rate for the other three (3) context zones to account for increased commercial growth in the corridor associated with the port, development of the marina, and activity in downtown Brunswick.

As such, this approach should be considered conservative in nature.

Traffic Safety

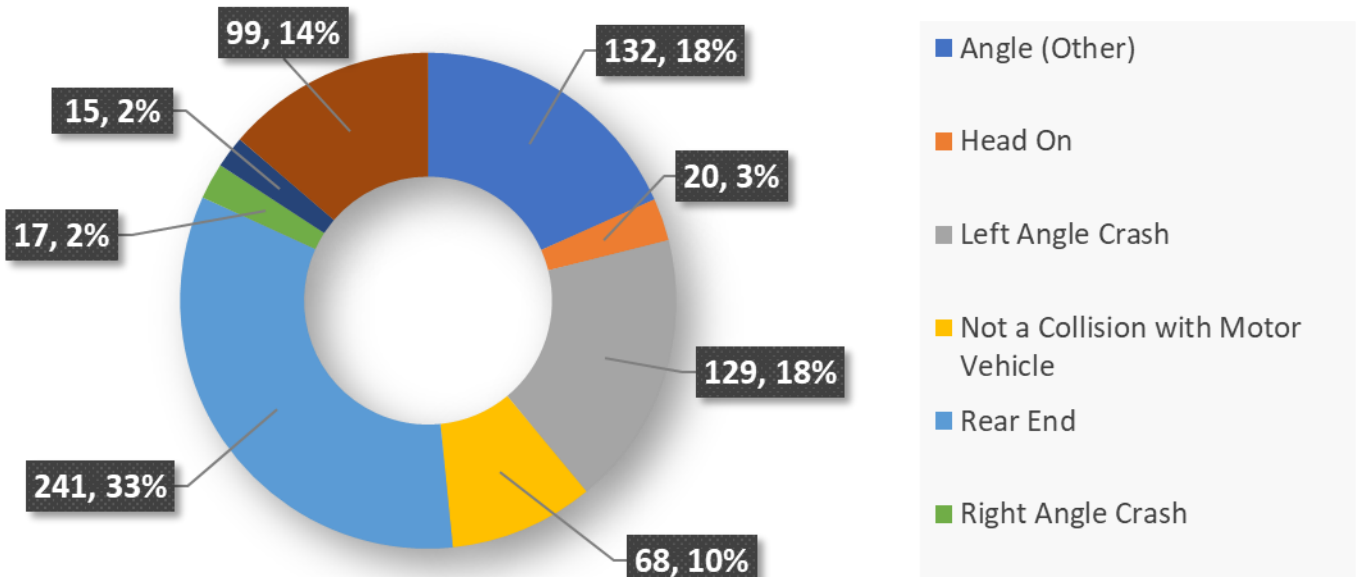
The Georgia Department of Transportation keeps records of crashes that occur on state-maintained roadways, with every crash being classified by the worst injury occurring as a result of the incident type. GDOT uses the “KABCO” injury scale developed by the National Safety Council (NSC). The KABCO elements include the following classifying injuries as indicated in the table below.

Type	Description
Fatality (K)	Death occurring within twelve months of the crash
Disabling Injury (A)	Visible injury: driver or passengers incapacitated or severely injured.
Non-incapacitating injury (B)	Visible injury, but those involved in the crash complain of pain or momentary unconsciousness
Possible Injury (C)	No visible injury, no complaints of pain or unconsciousness.
No Injury (0)	No injury; property damage only



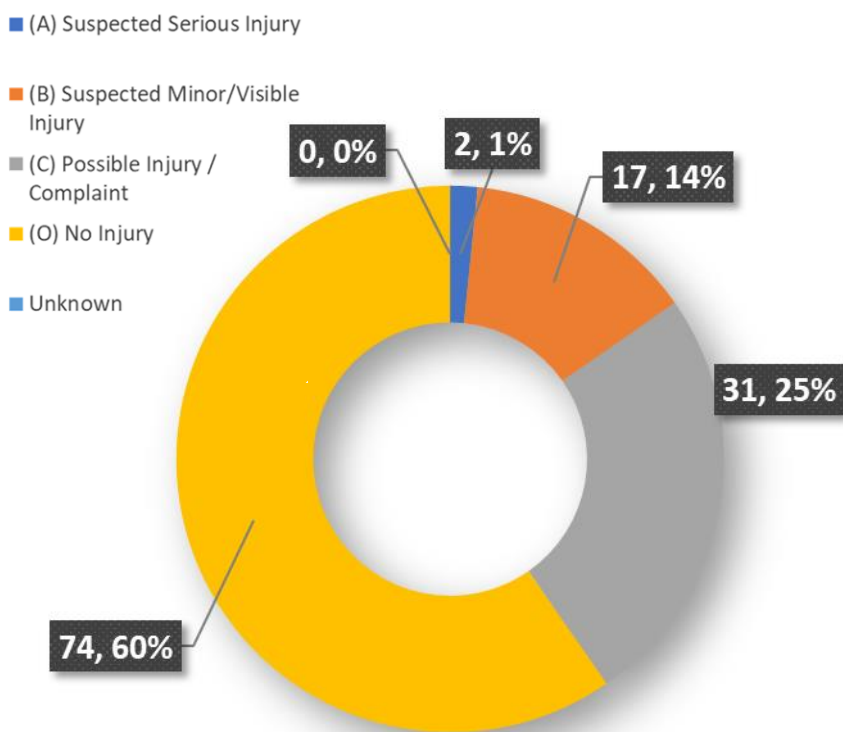
The frequency of each incident type was plotted to determine the crash types that are present throughout the entirety of the corridor. The crash types observed, and their frequencies are displayed in the graphic below.

Manner of Collision



The crashes along the corridor depict the corridor in its entirety. However, there is a need to examine critical intersections within the corridor to determine intersection specific improvements or mitigation factors associated with the prevailing crash types present. Key intersections within the corridor are summarized on the following pages.

SR 27/US 25/341 (New Jessup Highway) at Glyndale Circle



Summary

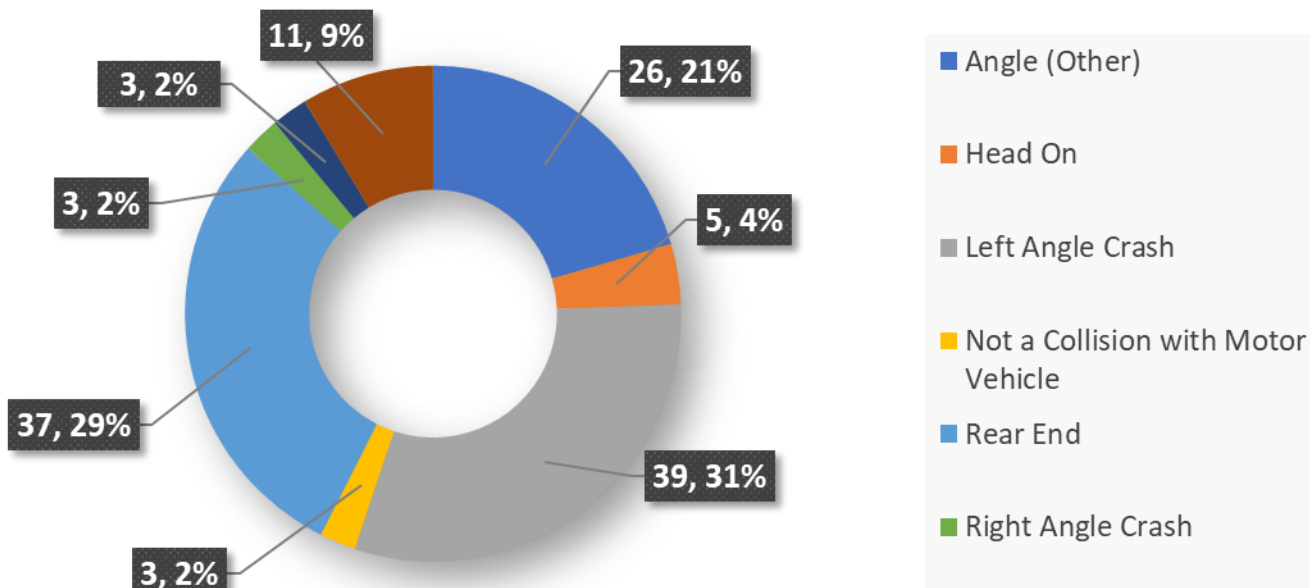
124 Total crashes

- majority on SR 27

Predominant crash types

1. Left Angle
2. Rear End
3. Angle

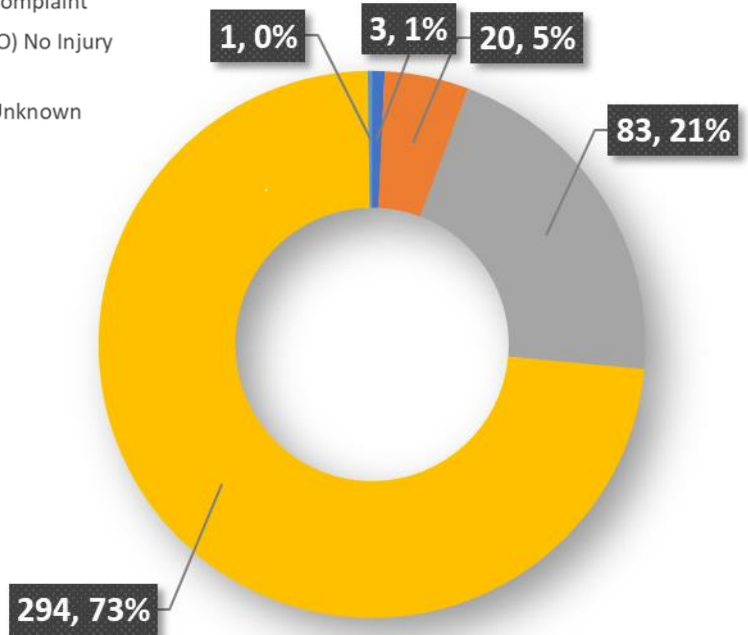
Manner of Collision



SR 27/US 25/341 (New Jessup Highway) at GA 303 (Blythe Island Road)/Community Road



- (A) Suspected Serious Injury
- (B) Suspected Minor/Visible Injury
- (C) Possible Injury / Complaint
- (O) No Injury
- Unknown



Summary

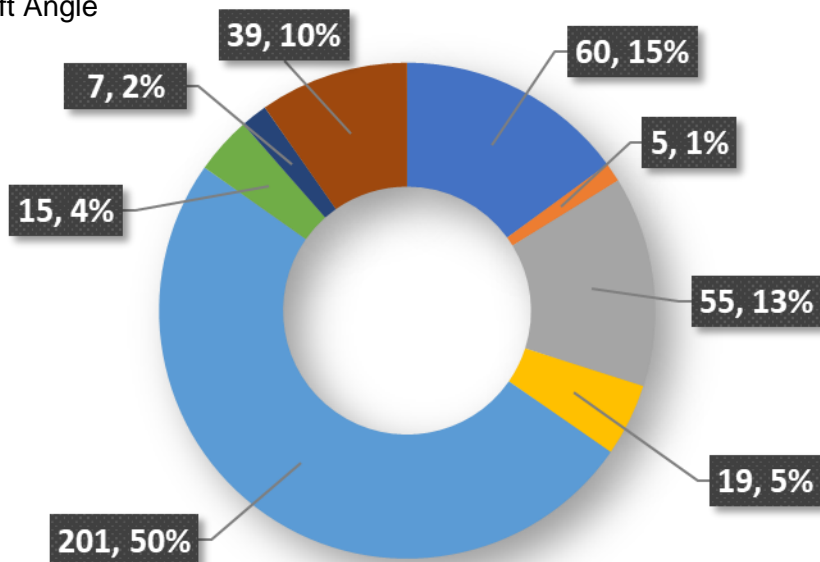
401 Total crashes

- 55% of corridor crashes occur at this intersection
- 152 crashes at intersection
- 99 crashes on Blythe Island at Railroad and Old Jessup Road
- 54 crashes on the NB approach to signal

Predominant crash types

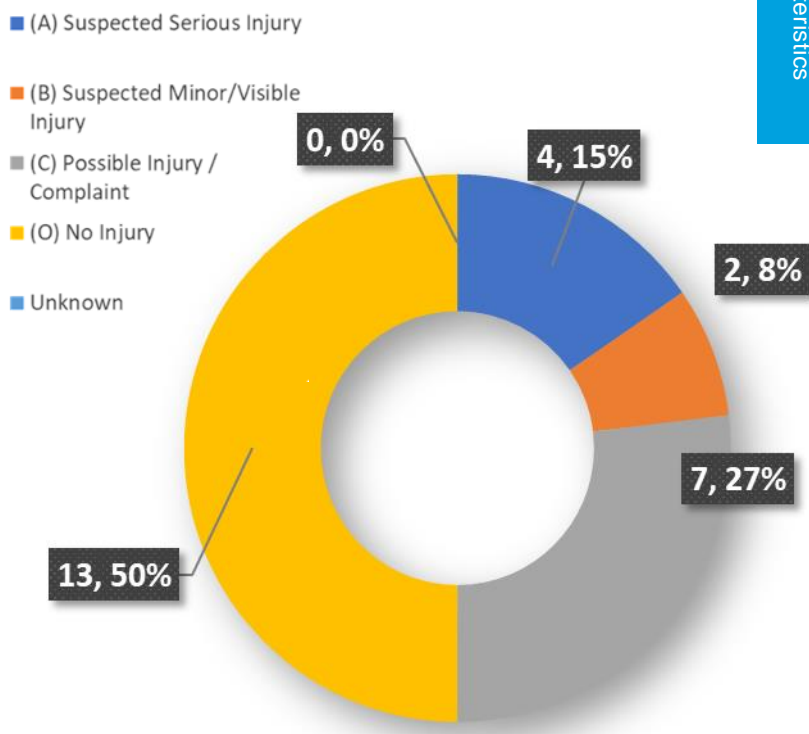
1. Rear End
2. Angle
3. Left Angle

Manner of Collision



- Angle (Other)
- Head On
- Left Angle Crash
- Not a Collision with Motor Vehicle
- Rear End
- Right Angle Crash

SR 27/US 25/341 (Newcastle Street) at 4th Street



Summary

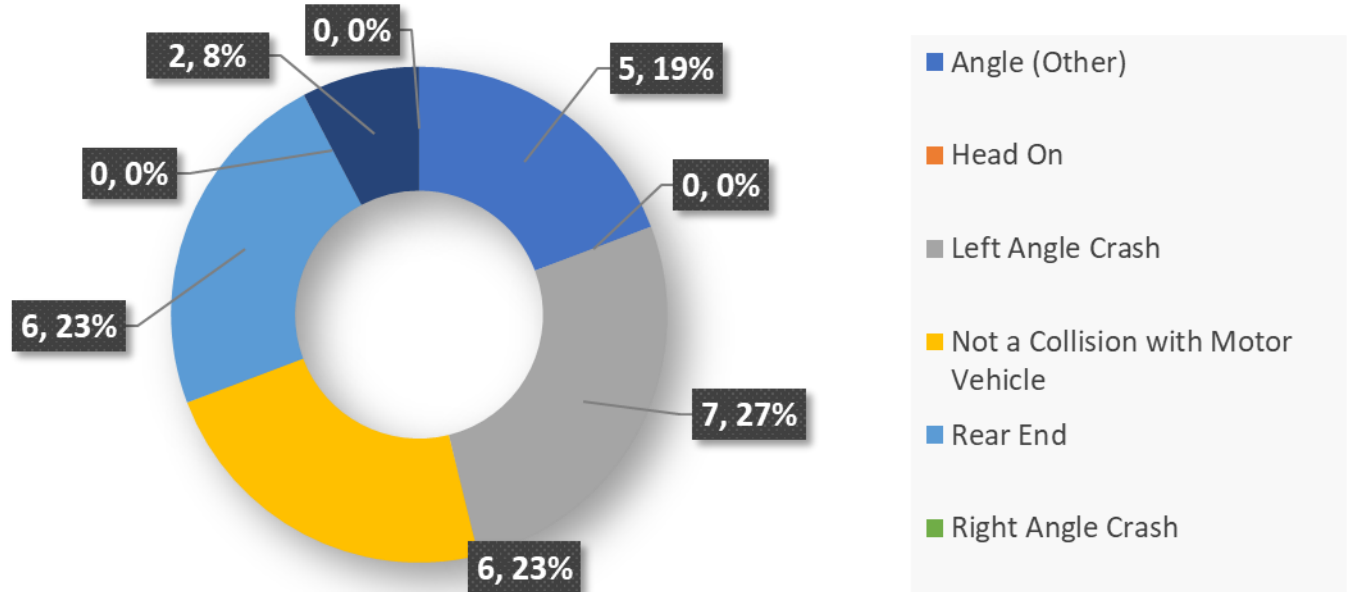
24 Total crashes

- Entrance to Selden Park
- Unsignalized intersection
- Adjacent to railroad

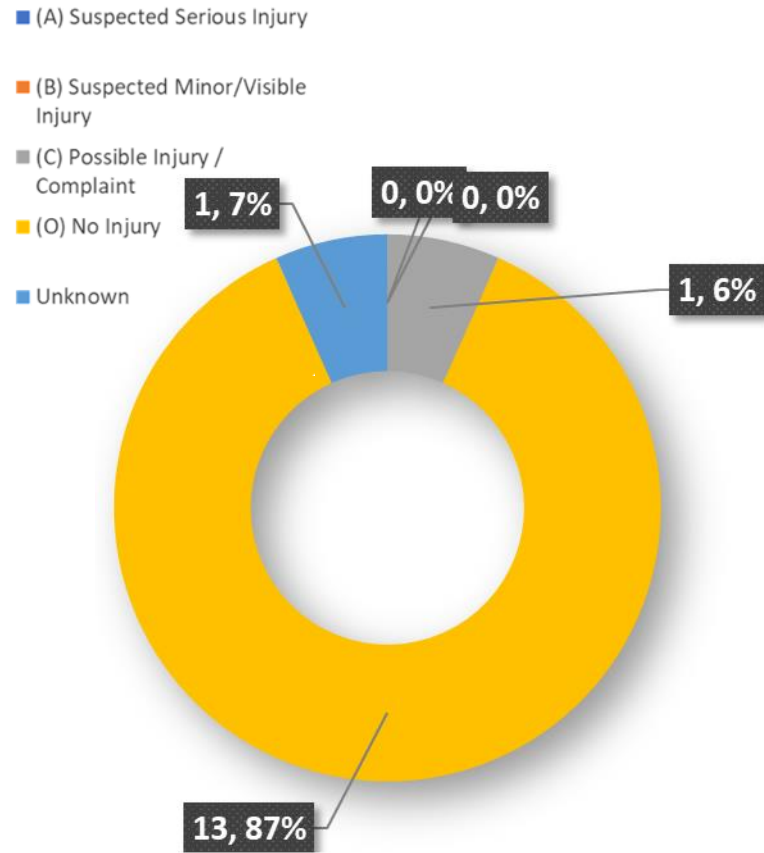
Predominant crash types

1. Left Angle
2. Rear End
3. Other

Manner of Collision



SR 27/US 25/341 (Newcastle Street) at SR 17/US 25/341 (Bay Street)



Summary

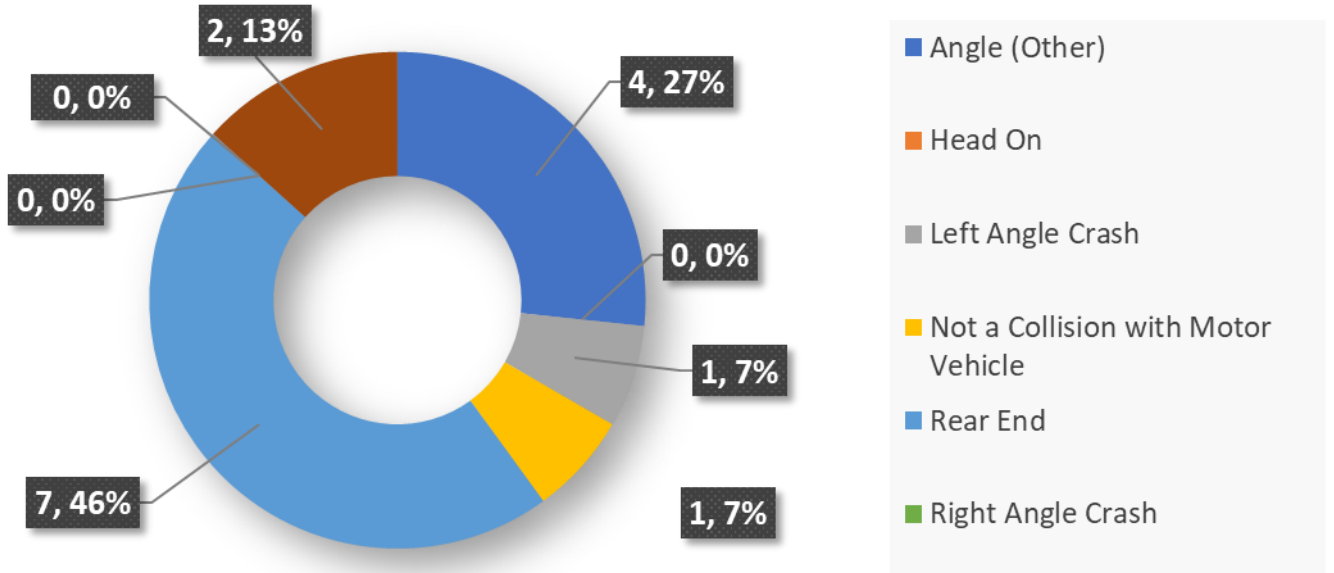
15 Total crashes

- 4 crashes at intersection
- Unsignalized intersection
- Transition point into downtown

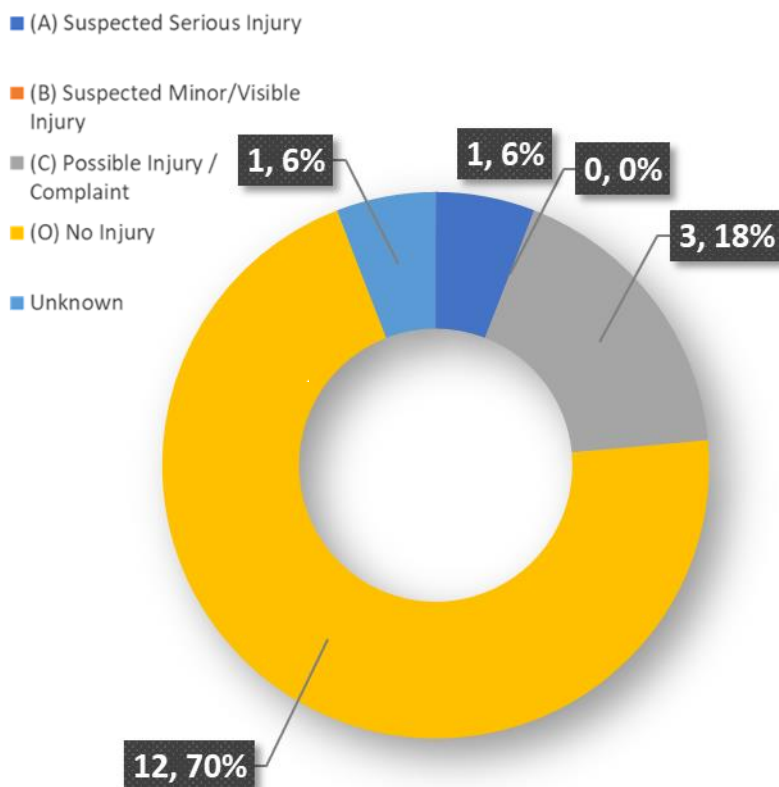
Predominant crash types

1. Rear End
2. Angle

Manner of Collision



SR 27/US 25/341 (Bay Street) through to Gloucester Street



Summary

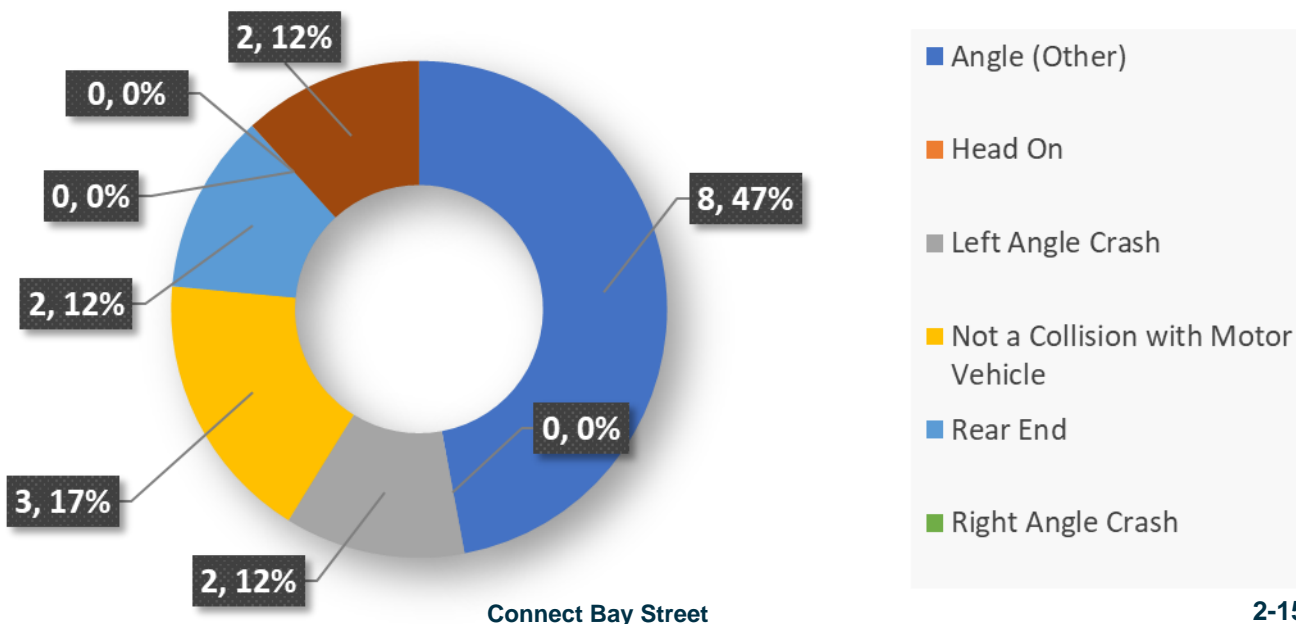
17 Total crashes

- 9 crashes at Gloucester
- Unsignalized intersection
- Transition point into downtown

Predominant crash types

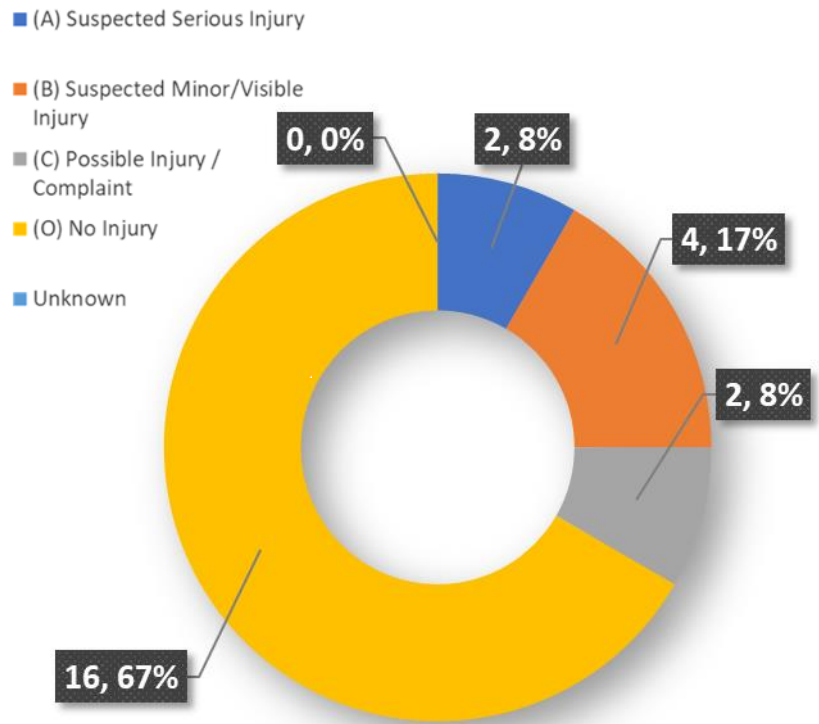
1. Angle
2. Other Collision

Manner of Collision



Connect Bay Street

US 17 (Glynn Avenue) at 4th Avenue



Summary

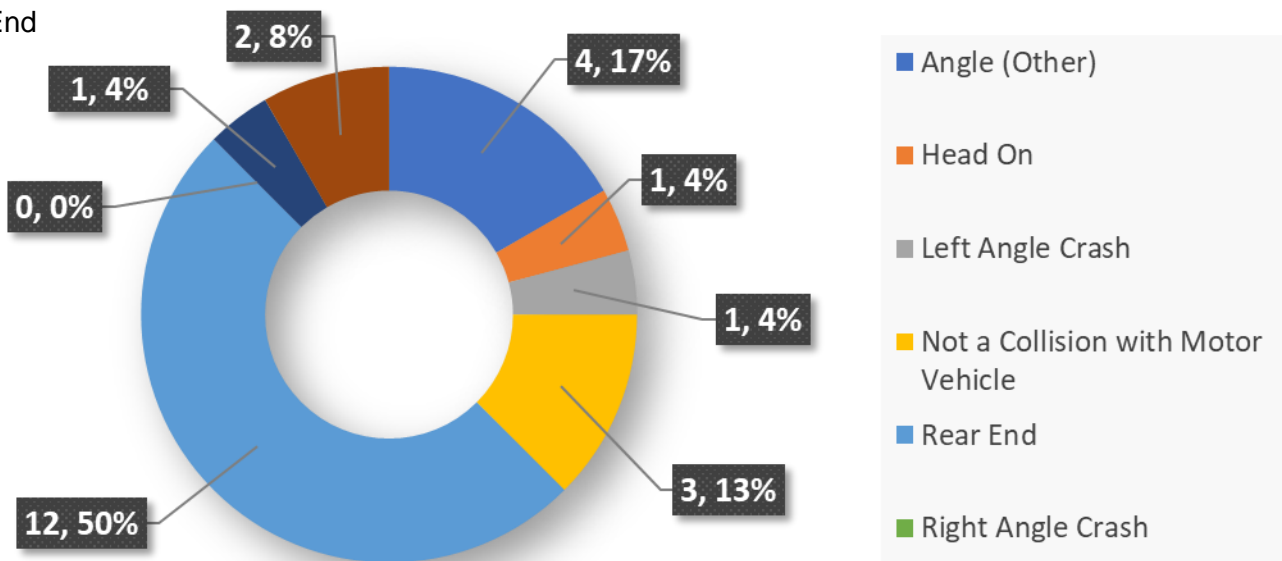
24 Total crashes

- 5 crashes on EB approach
- 6 crashes at EB left and NB thru merge

Predominant crash types

1. Rear End
2. Angle

Manner of Collision



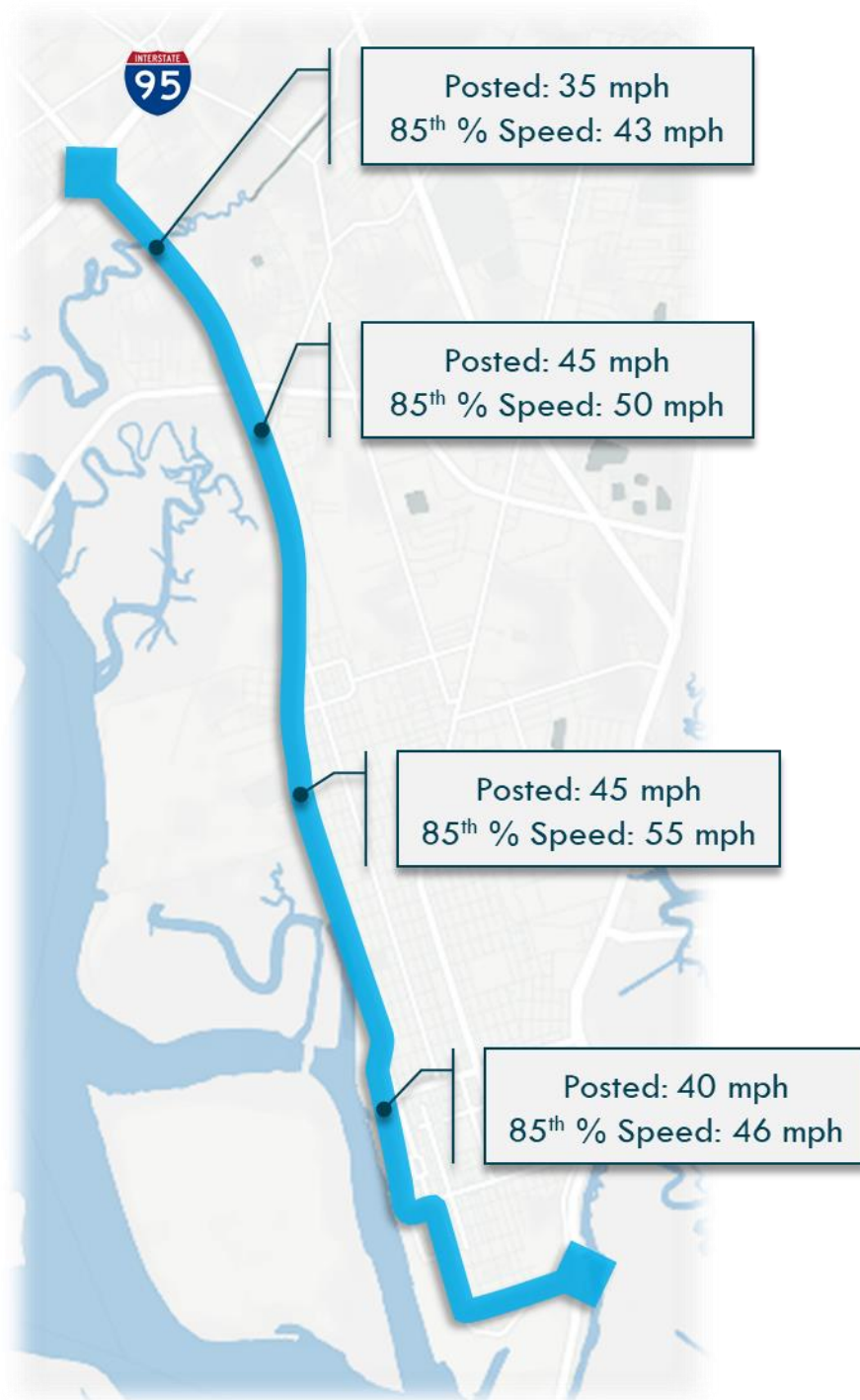
Corridor Speeds

The Bay Street corridor is 7.3 miles in length. From the north at Exit 36 through downtown to US 17, there are only three signals along the corridor. The highest concentration of signals is adjacent to Exit 36. The southern most traffic signal occurs at the intersection of SR 27/US 25/341 at GA 303 (Blythe Island Road). South of the signal at Blythe Island Road it is approximately 3.6 miles before a change in the roadway geometry occurs significant enough that it causes a change in speeds. This point is at the intersection of Bay Street and Newcastle Street.

The graphic to the right depicts the posted speeds and the observed speeds along the corridor.

South of the Blythe Island signal, the corridor traverse through the transitional zone between the Commercial zone and the Waterfront zone. Through this section there are major land uses including Brunswick Cellulose and Selden Park. Because of this long section of uninterrupted flow, speeds along through this section trend higher than the posted speed limits. 85th percentile speeds through this section are 10 mph over the posted speed limit.

The increase in speed can increase the severity of crashes that occur as well as intimidate other more vulnerable road users or those try to cross over SR 27/US 25/341. As in the case of pedestrians and bicycles at 4th Street to Selden Park.



Truck Volumes

As discussed previously, the Bay Street corridor is a GRIP corridor and designated freight route. The corridors connectivity to land uses that are frequented by freight vehicles (Brunswick Cellulose, Rich’s Products, King & Prince Seafood, Mayor’s Point terminal), leads to a higher than normal heavy vehicle presence in the corridor. This increase in heavy traffic on the corridor has several impacts on the operations and needs for the corridor.

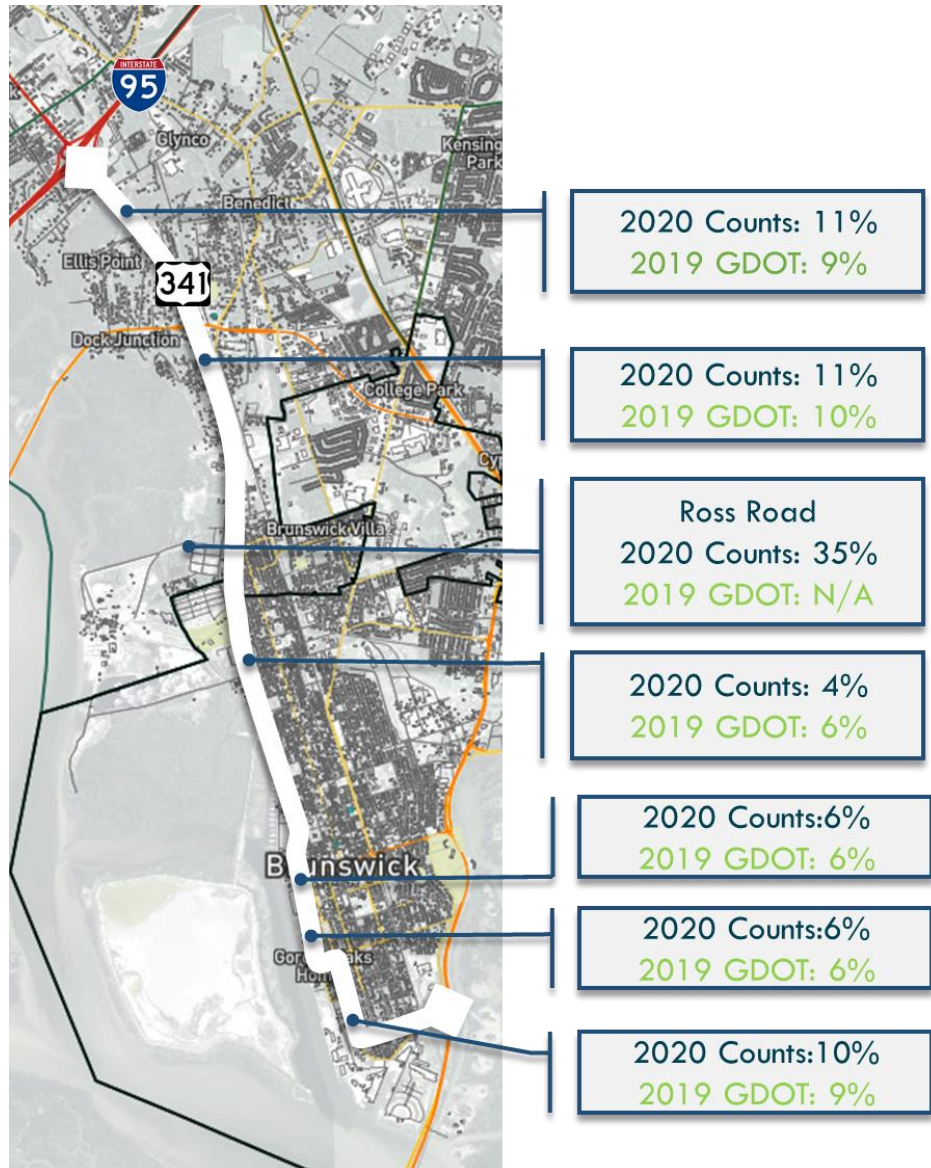
Like all street design efforts, designing for truck movements is completed on a case-by-case basis. In general, providing for truck movements through the City’s various industrial, commercial, and residential districts follows certain principles for different urban environments. For example, because freight corridors like SR 27/US 25/341 accommodate a high volume of trucks, it is important that the corridor provide lane widths, turning radii, and other street features that can accommodate trucks without impeding their access and ability to maneuver.

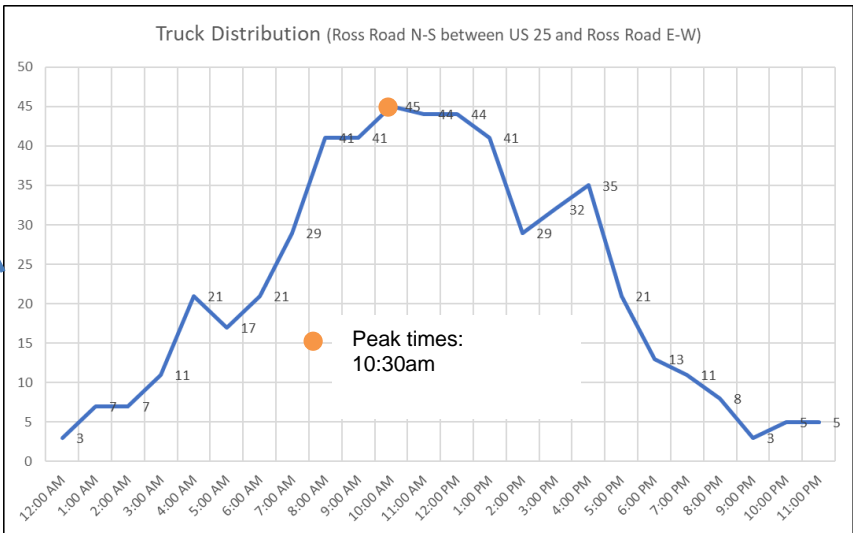
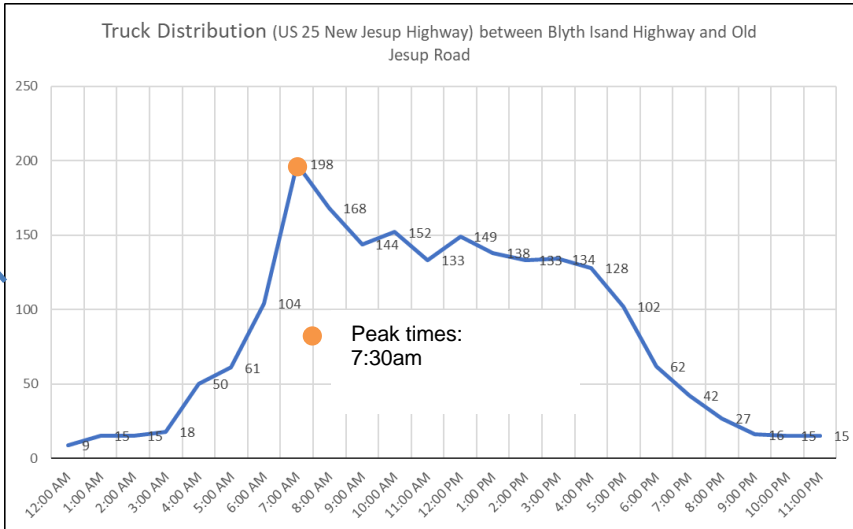
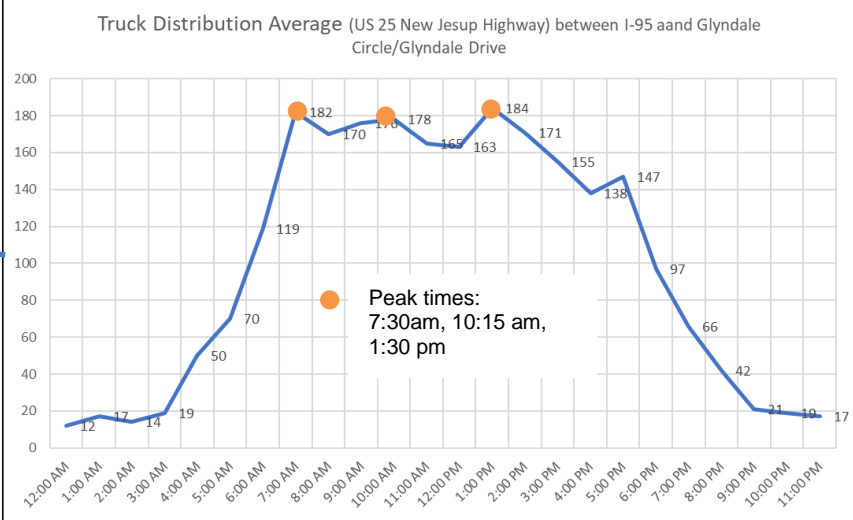
Freight is the physical manifestation of the economy. The effective and efficient movement of goods supports a vast network of commercial and industrial activities that help create vibrant communities and millions of jobs. Freight delivers food and many of life's other necessities. The United States Department of Transportation (USDOT) estimates that the transportation system moves over 54 million tons of goods — worth nearly \$48 billion — each day, or almost 63 tons of freight per person per year. Freight tonnage is forecasted to increase 45 percent by 2040.¹ Many economic activities rely on "just in time" supply chain management; thus any disruptions in freight systems can have an immediate ripple effect through the economy.

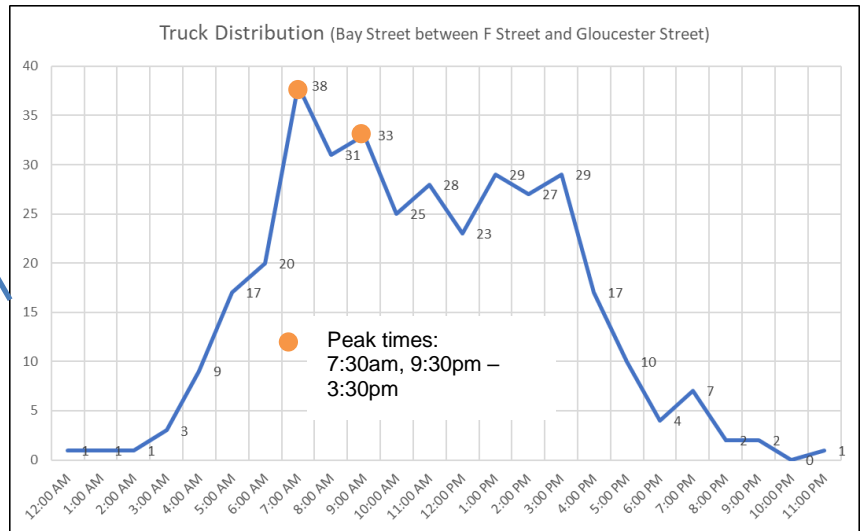
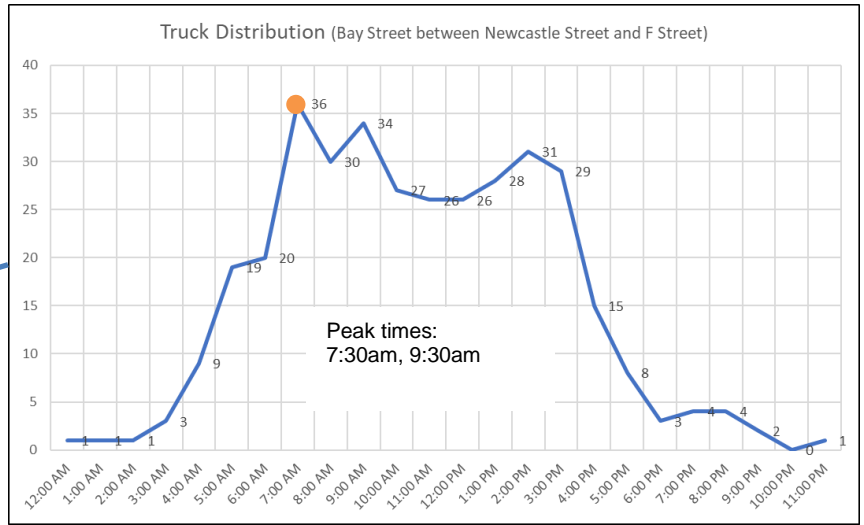
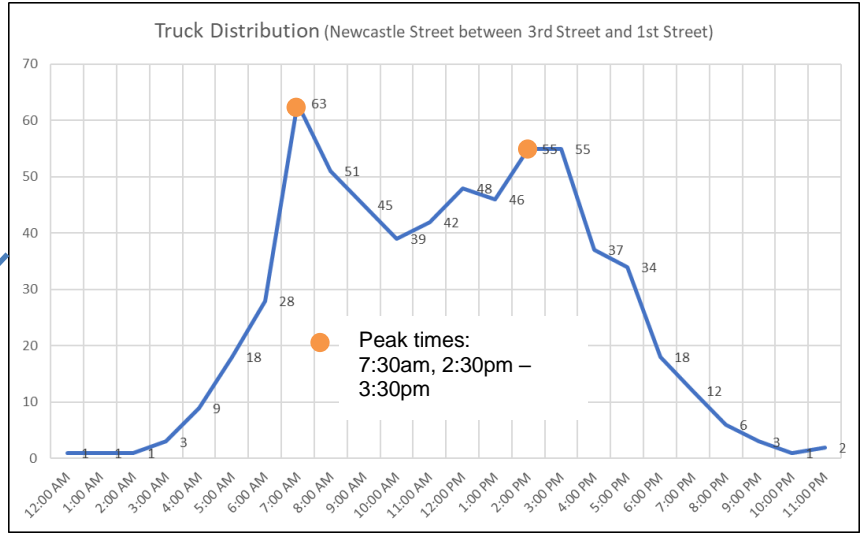
While freight growth is an indicator of a strong economy, care must be taken to mitigate negative externalities that can impact our communities. Current methods of freight movement impact the sustainability of communities that have freight intensive uses or facilities. Freight movement contributes to noise, congestion and air pollution. Communities must support freight movement, while taking steps to support policies and design forms which attempt to harmonize the movement of freight within the natural and built environment.

The following pages provide an overview of freight movements along the Bay Street corridor including heavy vehicle percentages along the corridor and hourly distributions of heavy vehicles. This information is instrumental in understanding the complexity of the corridor as well as future enhancements to the corridor.

The graphic to the right depicts the observed 2020 heavy vehicle percentages along the corridor as compared to the 2019 GDOT observed heavy vehicle percentages. As shown, the heavy vehicle percentages increased or stayed the same along the corridor for much of the corridor.







Turning Movement Volumes

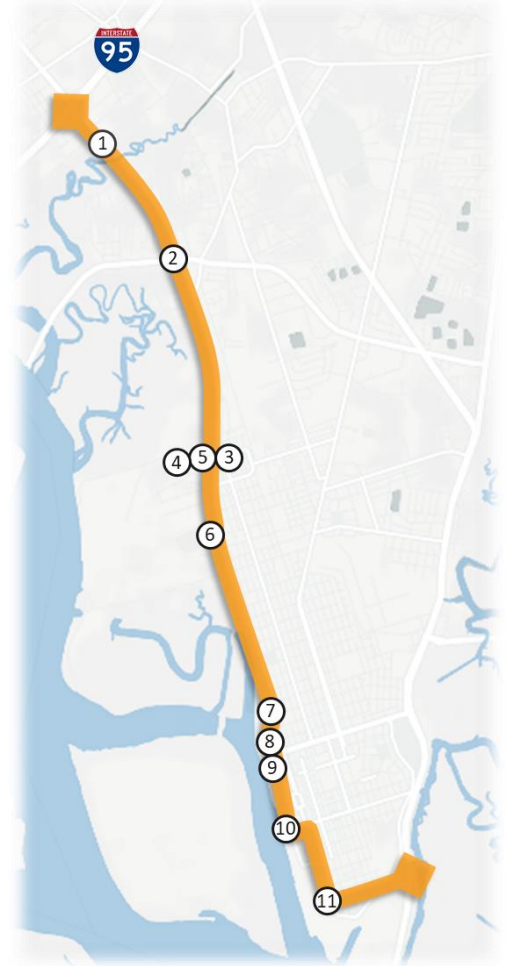
The base data utilized to analyze the performance of both signalized and unsignalized intersections are turning movement counts. These counts depict where traffic travels once it enters an intersection. For example, does traffic traveling south on SR 27/US 25/341 continue through the intersection of Blythe Island Highway or turn left or turn right? Turning movement counts provide insight into the movements which in turn can be utilized to understand the overall intersection operations, approach and individual movement operations, and the resulting queuing at that intersection.

Eleven (11) key intersections were analyzed as a part of the Bay Street Corridor Study. These intersections represent the strategic intersections within the corridor and the basis for future recommendations. The study area for the Bay Street corridor is shown to the right.

Key intersections include the following:

1. New Jessup Highway at Glyndale Circle/Glyndale Drive
2. New Jessup Highway at Blythe Island Highway/Community Road
3. Newcastle Street at 9th Street
4. Ross Road at 9th Street
5. Norwich Street at 9th Street
6. Newcastle Street at 4th Street
7. Newcastle Street at Bay Street
8. Bay Street at F Street
9. Bay Street at Gloucester Street
10. Bay Street at Prince Street
11. Newcastle at 4th Avenue

The following pages depict the operations performance for the key intersections



Capacity Analysis

Capacity analyses were performed for the AM and PM peak hours using the Synchro Version 10 software to determine the operating characteristics at the signalized and stop-controlled intersections of the adjacent street network and to evaluate the impacts of the proposed development. Capacity is defined as the maximum number of vehicles that can pass over a particular road segment, or through a particular intersection, within a specified period of time under prevailing operational, geometric and controlling conditions within a set time duration.

The *Highway Capacity Manual* (HCM) defines level of service (LOS) as a “quantitative stratification of a performance measure or measures representing quality of service” and is used to “translate complex numerical performance results into a simple A-F system representative of travelers’ perceptions of the quality of service provided by a facility or service”. The HCM defines six levels of service, LOS A through LOS F, with A having the best operating conditions from the traveler’s perspective and F having the worst. However, it must be understood that “the LOS letter result hides much of the complexity of facility performance”, and that “the appropriate LOS for a given system element in the community is a decision for local policy makers”. According to the HCM, “for cost, environmental impact, and other reasons, roadways are typically designed not to provide LOS A conditions during peak periods but instead to provide some lower LOS that balances individual travelers’ desires against society’s desires and financial resources. Nevertheless, during low-volume periods of the day, a system element may operate at LOS A.”

LOS for a two-way stop-controlled (TWSC) intersection is determined by the control delay at the side-street approaches, typically during the highest volume periods of the day, the AM and PM peak periods. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. With respect to field measurements, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time the vehicle departs from the stop line. It is typical for stop sign-controlled side streets and driveways intersecting major streets to experience long delays during peak hours, particularly for left-turn movements. The majority of the traffic moving through the intersection on the major street experiences little or no delay.

LOS for signalized intersections is reported for the intersection as a whole, also typically during the highest volume periods of the day, the AM and PM peak periods. One or more movements at an intersection may experience a low level-of-service, while the intersection as a whole may operate acceptably.

LOS for roundabout intersections is also reported for the intersection as a whole but uses the same control delay thresholds as the unsignalized intersections. However, if the volume-to-capacity ratio on an approach of the intersection is greater than 1.0, that approach or intersection is reported as LOS F regardless of the reported control delay.

Table 6.0-A and **6.0-B** list the LOS control delay thresholds published in the HCM for unsignalized and signalized intersections, respectively, as well as the unsignalized operational descriptions assumed herein.

Table 6.0-A Level-of-Service Control Delay Thresholds for Unsignalized Intersections			Table 6.0-B Level-of-Service Control Delay Thresholds for Signalized Intersections	
Level-of-Service	Average Control Delay per Vehicle [sec/veh]		Level-of-Service	Control Delay per Vehicle [sec/veh]
A	≤ 10		A	≤ 10
B	> 10 – 15		B	> 10 – 20
C	> 15 – 25		C	> 20 – 35
D	> 25 – 35		D	> 35 – 55
E	> 35 – 50		E	> 55 – 80
F	> 50		F	> 80
		Short Delays		
		Moderate Delays		
		Long Delays		

2020 Existing Conditions													
New Jesup Highway at Glyndale Circle													
AM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
2020 Existing	LOS (Delay)	D (52.1)			E (56.2)			B (15.3)			B (18.3)		C (22.6)
	Synchro 95th Q	82'	27'	102'	30'	0'	18'	132'	0'	67'	333'	0'	
PM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
2020 Existing	LOS (Delay)	D (45.7)			D (52.8)			C (22.2)			B (19.6)		C (26.2)
	Synchro 95th Q	44'	38'	131'	55'	68'	32'	295'	0'	96'	182'	0'	
New Jesup Highway at Blythe Island Highway/Community Road													
AM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBTR	SBL		SBTR	Intersection	
2020 Existing	LOS (Delay)	E (72.8)			D (49.3)			D (41.2)		D (51.1)			D (52.8)
	Synchro 95th Q	91'	#553	#145	167'	34'	52'	201'	#372	#595'	N/A		
PM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBTR	SBL		SBTR	Intersection	
2020 Existing	LOS (Delay)	E (55.7)			E (67.4)			E (64.9)		D (53.0)			E (61.1)
	Synchro 95th Q	#171	312'	82'	#584	170'	124'	394'	#348	310'	N/A		
Newcastle Street at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2020 Existing	LOS (Delay)	-		F (1356.4)			A (0.6)		A (0.7)				
	Synchro 95th Q	-		373'			5'	0'	3'				
PM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2020 Existing	LOS (Delay)	F (188)		F (432.9)			A (0.1)		A (1.6)				
	Synchro 95th Q	120'		258'			0'	0'	8'				
Ross Road at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBLTR		SBLTR				
2020 Existing	LOS (Delay)	B (10.8)		B (10.3)			A (1.3)		A (0.4)				
	Synchro 95th Q	3'		5'			0'		0'				
PM Peak Hour		EBLTR		WBLTR			NBLTR		SBLTR				
2020 Existing	LOS (Delay)	B (10.7)		B (11.0)			A (0.3)		A (0.6)				
	Synchro 95th Q	5'		5'			0'		0'				
Norwich Street at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2020 Existing	LOS (Delay)	B (12.7)		B (13.4)			A (1.3)		A (1.1)				
	Synchro 95th Q	13'		15'			3'	0'	3'				
PM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2020 Existing	LOS (Delay)	B (13.0)		C (18.2)			A (0.6)		A (2.3)				
	Synchro 95th Q	15'		33'			3'	0'	5'				
Newcastle Street at 4th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBT	NBR	SBL	SBTR		
2020 Existing	LOS (Delay)	F (148.3)		F (120.5)			A (0.3)			A (0.9)			
	Synchro 95th Q	73'		103'			3'	0'	0'	13'	0'		
PM Peak Hour		EBLTR		WBLTR			NBL	NBT	NBR	SBL	SBTR		
2020 Existing	LOS (Delay)	E (47.2)		F (155.8)			A (0.2)			A (0.9)			
	Synchro 95th Q	33'		180'			3'	0'	0'	5'	0'		

Newcastle Street at Bay Street									
AM Peak Hour		EBL	EBR	WBLTR		NBL	NBT	SBT	SBR
2020 Existing	LOS (Delay)	B (14.8)		-		A (0.0)		A (0.0)	
	Synchro 95th Q	48'	3'	-		0'	0'	0'	0'
PM Peak Hour		EBL	EBR	WBLTR		NBL	NBT	SBT	SBR
2020 Existing	LOS (Delay)	C (17.6)		-		A (0.0)		A (0.0)	
	Synchro 95th Q	90'	0'	-		0'	0'	0'	0'
Bay Street at F Street									
AM Peak Hour		EBLTR		WBLTR		NBL	NBTR	SBL	SBTR
2020 Existing	LOS (Delay)	B (14.8)		B (13.3)		A (0.7)		A (0.2)	
	Synchro 95th Q	5'		3'		3'	0'	0'	0'
PM Peak Hour		EBLTR		WBLTR		NBL	NBTR	SBL	SBTR
2020 Existing	LOS (Delay)	B (13.9)		B (13.5)		A (0.4)		A (0.1)	
	Synchro 95th Q	15'		5'		3'	0'	0'	0'
Bay Street at Gloucester Street									
AM Peak Hour		EBL	EBTR	WBLTR		NBL	NBTR	SBL	SBTR
2020 Existing	LOS (Delay)	C (15.0)		B (13.4)		A (0.2)		A (1.3)	
	Synchro 95th Q	3'	3'	18'		0'	0'	5'	0'
PM Peak Hour		EBL	EBTR	WBLTR		NBL	NBTR	SBL	SBTR
2020 Existing	LOS (Delay)	B (13.6)		B (14.7)		A (0.3)		A (1.8)	
	Synchro 95th Q	8'	5'	23'		0'	0'	5'	0'
Bay Street at Prince Street									
AM Peak Hour		EBLTR		WBLTR		NBL	NBTR	SBL	SBTR
2020 Existing	LOS (Delay)	A (0.0)		A (9.8)		A (0.0)		A (3.1)	
	Synchro 95th Q	0'		10'		0'	0'	10'	0'
PM Peak Hour		EBLTR		WBLTR		NBL	NBTR	SBL	SBTR
2020 Existing	LOS (Delay)	B (14.1)		A (9.9)		A (0.1)		A (2.6)	
	Synchro 95th Q	3'		15'		0'	0'	5'	0'
Newcastle Street at 4th Avenue									
AM Peak Hour		EBLTR		WBLT	WBR	NBLT	NBR	SBL	SBTR
2020 Existing	LOS (Delay)	B (12.9)		B (14.5)		A (3.2)		A (5.1)	
	Synchro 95th Q	8'		20'	0'	0'	0'	8'	0'
PM Peak Hour		EBLTR		WBLT	WBR	NBLT	NBR	SBL	SBTR
2020 Existing	LOS (Delay)	B (12.3)		B (12.3)		A (0.0)		A (5.6)	
	Synchro 95th Q	8'		0'		0'	0'	5'	0'

The results of the existing conditions analysis indicate that the majority to intersections within the study area operate at an acceptable level of service in the AM and PM peak hours for the 2020 horizon year. The intersections that show a significant drop in LOS are briefly discussed below.

The intersection of New Jessup Highway at Glyndale Circle currently operates at LOS C in the AM and PM peak hours. The WB approach is the only current approach that operates at LOS E in the AM peak hour. No significant queuing is present in the AM or PM peak hours.

The intersection of New Jessup Highway at Blythe Island Highway/Community Road currently operates at LOS D in the AM peak hour and LOS E in the PM peak hours. The EB through/Right movement has an AM queue of over 550 feet and a PM peak hour queue of 312 ft. The EB approach is currently operating at LOS E in the AM and PM peak hours. In the PM peak hour, the WB and NB approaches are also at LOS E.

Newcastle at 9th Street is an unsignalized intersection that is operating with an WB and EB approaches at LOS F in the AM and PM peaks hours for the 2020 horizon year. The WB approach in the AM peak hour experience significant peak hour delays of 1,356 seconds. In the PM peak hour, the WB approach has delays approximately 430 seconds in length.

The intersection of Newcastle Street at 4th Street is currently operating with side street delay in the AM and PM peak hours. The EB approach delay is 148 seconds in the AM and 48 seconds in the PM peak hour. The WB approach is 120 seconds in the AM peak hour and 155 seconds in the PM peak hour.

In addition to the intersection analysis, corridor capacity analysis was performed for the four context zones described previously. This capacity analysis is based on the industry standards and available public data. The foundation of the model analysis is based upon an evaluation of current average daily traffic volumes collected as a part of this corridor study and those provided by GDOT.

The analysis utilizes factors along the segments including but not limited to the presence of traffic signals, turn lanes, number of lanes, speed limits, presence of medians and the projected capacity of the corridor. This information is used along with the desired LOS for the corridor, for this analysis LOS D was utilized, to calculate the % capacity used and remaining capacity. This along with the intersection LOS provides a sound overview of the corridor's operations.

2020 Existing Segment Capacity Summary										
Context Area	Segment	Posted Speed Limit	Number of Lanes	Median Configuration	AADT Estimate	Level of Service Standard	Base Capacity (vehicles per day)	Adjusted Capacity (vehicles per day)	% Capacity Used	% Capacity Remaining
1 - Commercial	Between I-95 and Glyndale Drive	35	6	D	23,200	D	50,000	52,500	44%	56%
	Between Glyndale Drive and GA 303	45	4	U	23,200	D	39,800	37,800	61%	39%
2 - Transitional	Between GA 303 and 9th Street	45	4	U	23,100	D	39,800	37,800	61%	39%
	Between 9th Street and H Street	45	4	U	15,200	D	39,800	37,800	40%	60%
3 - Waterfront	Between H Street and Gloucester Street	40	4	D	6,040	D	32,400	32,400	19%	81%
	Between Gloucester Street and Prince Street	40	4	D	3,880	D	32,400	32,400	12%	88%
4 - Commercial	Between Prince Street and 4th Avenue	35	2	U	2,620	D	14,800	11,800	22%	78%
	Between 4th Avenue and US 17	35	4	U	4,460	D	32,400	24,300	18%	82%

As shown above for the individual context zones, the Commercial and the initial segment of the transitional segment are at approximately 60% capacity. The other remaining segments are well below 40% capacity utilized.

The capacity analysis for the 2025 Horizon Year is shown on the following pages.

2025 Horizon Year Conditions													
New Jesup Highway at Glyndale Circle													
AM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
2025 Horizon Year	LOS (Delay)	D (51.8)			E (56.5)			B (15.8)			B (19.3)		C (23.3)
	Synchro 95th Q	84'	28'	105'	31'	0'	18'	141'	0'	70'	359'	0'	
PM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
2025 Horizon Year	LOS (Delay)	D (44.9)			D (52.6)			C (23.8)			C (20.8)		C (27.3)
	Synchro 95th Q	46'	40'	137'	58'	69'	34'	320'	0'	117'	195'	0'	
New Jesup Highway at Blythe Island Highway/Community Road													
AM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBTR	SBL		SBTR		Intersection
2025 Horizon Year	LOS (Delay)	E (67.4)			E (74.5)			D (41.2)		E (55.7)			E (59.2)
	Synchro 95th Q	96'	#564'	#202'	177'	35'	#60'	208'	#372'	#636'	N/A		
PM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBTR	SBL		SBTR		Intersection
2025 Horizon Year	LOS (Delay)	E (71.5)			E (70.5)			F (101.8)		D (48.7)			E (75.3)
	Synchro 95th Q	#195'	329'	85'	#617'	209'	#132'	#462'	#336'	320'	N/A		
Newcastle Street at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2025 Horizon Year	LOS (Delay)	-		F (1963.5)			A (0.8)		A (0.8)				
	Synchro 95th Q	-		418'			3'		3'				
PM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2025 Horizon Year	LOS (Delay)	F (366.2)		F (432.9)			A (0.1)		A (1.7)				
	Synchro 95th Q	158'		300'			0'		8'				
Ross Road at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBLTR	SBLTR					
2025 Horizon Year	LOS (Delay)	B (10.8)		B (10.3)			A (1.3)		A (0.4)				
	Synchro 95th Q	3'		5'			0'		0'				
PM Peak Hour		EBLTR		WBLTR			NBLTR	SBLTR					
2025 Horizon Year	LOS (Delay)	B (10.7)		B (11.0)			A (0.3)		A (0.6)				
	Synchro 95th Q	5'		5'			0'		0'				
Norwich Street at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2025 Horizon Year	LOS (Delay)	B (13.1)		B (13.8)			A (1.3)		A(1.1)				
	Synchro 95th Q	15'		15'			3'	0'	3'				
PM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2025 Horizon Year	LOS (Delay)	B (13.4)		C (19.5)			A (0.6)		A (2.3)				
	Synchro 95th Q	15'		38'			3'	0'	5'				
Newcastle Street at 4th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBT	NBR	SBL	SBTR		
2025 Horizon Year	LOS (Delay)	F (199.5)		F (189.8)			A (0.3)			A (0.9)			
	Synchro 95th Q	83'		133'			3'	0'	0'	13'	0'		
PM Peak Hour		EBLTR		WBLTR			NBL	NBT	NBR	SBL	SBTR		
2025 Horizon Year	LOS (Delay)	F (56.7)		F (237.1)			A (0.2)			A (0.9)			
	Synchro 95th Q	38'		223'			3'	0'	0'	5'	0'		

Newcastle Street at Bay Street											
AM Peak Hour		EBL	EBR	WB	NBL	NBT	SBT	SBR			
2025 Horizon Year	LOS (Delay)	C (15.5)		-	A (0.0)		A (0.0)				
	Synchro 95th Q	58'	3'	-	0'	0'	0'	0'			
PM Peak Hour		EBL	EBR	WB	NBL	NBT	SBT	SBR			
2025 Horizon Year	LOS (Delay)	C (18.9)		-	A (0.0)		A (0.0)				
	Synchro 95th Q	103'	0'	-	0'	0'	0'	0'			
Bay Street at F Street											
AM Peak Hour		EBLTR		WBLTR	NBL	NBTR	SBL	SBTR			
2025 Horizon Year	LOS (Delay)	C (15.3)		B (13.7)	A (0.7)		A (0.2)				
	Synchro 95th Q	5'		3'	3'	0'	0'	0'			
PM Peak Hour		EBLTR		WBLTR	NBL	NBTR	SBL	SBTR			
2025 Horizon Year	LOS (Delay)	B (14.4)		B (13.9)	A (0.3)		A (0.1)				
	Synchro 95th Q	18'		5'	3'	0'	0'	0'			
Bay Street at Gloucester Street											
AM Peak Hour		EBL	EBTR	WBLTR	NBL	NBTR	SBL	SBTR			
2025 Horizon Year	LOS (Delay)	C (15.5)		C (13.9)	A (0.2)		A (1.4)				
	Synchro 95th Q	3'	3'	20'	0'	0'	5'	0'			
PM Peak Hour		EBL	EBTR	WBLTR	NBL	NBTR	SBL	SBTR			
2025 Horizon Year	LOS (Delay)	B (14.1)		C (15.4)	A (0.3)		A (1.9)				
	Synchro 95th Q	8'	5'	25'	0'	0'	5'	0'			
Bay Street at Prince Street											
AM Peak Hour		EBLTR		WBLTR	NBL	NBTR	SBL	SBTR			
2025 Horizon Year	LOS (Delay)	A (0.0)		A (9.9)	A (0.0)		A (3.1)				
	Synchro 95th Q	0'		10'	0'	0'	10'	0'			
PM Peak Hour		EBLTR		WBLTR	NBL	NBTR	SBL	SBTR			
2025 Horizon Year	LOS (Delay)	B (14.1)		B (10.0)	A (0.1)		A (2.6)				
	Synchro 95th Q	3'		18'	0'	0'	5'	0'			
Newcastle Street at 4th Avenue											
AM Peak Hour		EBLTR		WBLT	WBR	NBLT	NBR	SBL	SBTR		
2025 Horizon Year	LOS (Delay)	B (13.3)		C (15.0)		A (3.1)		A (5.1)			
	Synchro 95th Q	8'		20'		0'	0'	8'	0'		
PM Peak Hour		EBLTR		WBLT	WBR	NBLT	NBR	SBL	SBTR		
2025 Horizon Year	LOS (Delay)	B (12.5)		B (12.5)		A (0.0)		A (5.7)			
	Synchro 95th Q	8'		3'		0'	0'	5'	0'		

The results of the 2025 Horizon Year analysis indicate that the majority to intersections within the study area operate at an acceptable level of service in the AM and PM peak hours for the 2025 horizon year. The intersections that show a significant drop in LOS are briefly discussed below.

The intersection of New Jessup Highway at Glyndale Circle currently operates at LOS C in the AM and PM peak hours. The WB approach is the only current approach that operates at LOS E in the AM peak hour. No significant queuing is present in the AM or PM peak hours.

The intersection of New Jessup Highway at Blythe Island Highway/Community Road currently operates at LOS E in the AM and PM peak hours. The EB through/right movement has an AM queue of over 550 feet and a PM peak hour queue of 329 ft. The EB approach is currently operating at LOS E in the AM and PM peak hours. In the PM peak hour, the WB approach is also at LOS E. The NB PM peak hour approach is at LOS F with 101.8 seconds of delay.

Newcastle at 9th Street is an unsignalized intersection that is operating with an WB and EB approaches at LOS F in the AM and PM peaks hours for the 2025 horizon year. The WB approach in the AM peak hour experience significant peak hour delays of 1,963 seconds. In the PM peak hour, the WB approach has delays approximately 430 seconds in length.

The intersection of Newcastle Street at 4th Street is currently operating with side street delay in the AM and PM peak hours. The EB approach delay is 199 seconds in the AM and 57 seconds in the PM peak hour. The WB approach is 189 seconds in the AM peak hour and 238 seconds in the PM peak hour.

In addition to the intersection analysis, corridor capacity analysis was performed for the four context zones described previously. This capacity analysis is based on the industry standards and available public data. The foundation of the model analysis is based upon an evaluation of current average daily traffic volumes collected as a part of this corridor study and those provided by GDOT.

2025 Interim Year Segment Capacity Summary										
Context Area	Segment	Posted Speed Limit	Number of Lanes	Median Configuration	AADT Estimate	Level of Service Standard	Base Capacity (vehicles per day)	Adjusted Capacity (vehicles per day)	% Capacity Used	% Capacity Remaining
1 - Commercial	Between I-95 and Glyndale Drive	35	6	D	25,400	D	50,000	52,500	48%	52%
	Between Glyndale Drive and GA 303	45	4	U	25,400	D	39,800	37,800	67%	33%
2 - Transitional	Between GA 303 and 9th Street	45	4	U	24,500	D	39,800	37,800	65%	35%
	Between 9th Street and H Street	45	4	U	16,100	D	39,800	37,800	43%	57%
3 - Waterfront	Between H Street and Gloucester Street	40	4	D	6,400	D	32,400	32,400	20%	80%
	Between Gloucester Street and Prince Street	40	4	D	4,100	D	32,400	32,400	13%	87%
4 - Commercial	Between Prince Street and 4th Avenue	35	2	U	2,800	D	14,800	11,800	24%	76%
	Between 4th Avenue and US 17	35	4	U	4,700	D	32,400	24,300	19%	81%

As shown above for the individual context zones, the Commercial and the initial segment of the transitional segment are at approximately 70% capacity. The other remaining segments are well below 40% capacity utilized.

The capacity analysis for the 2035 Horizon Year is shown on the following pages.

2035 Horizon Year Conditions													
New Jesup Highway at Glyndale Circle													
AM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
2035 Horizon Year	LOS (Delay)	D (50.7)			E (57.3)			B (16.8)			C (22.0)		C (25.3)
	Synchro 95th Q	92'	28'	115'	33'	0'	20'	164'	0'	78'	419'	0'	
PM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
2035 Horizon Year	LOS (Delay)	D (43.5)			D (52.3)			C (27.3)			C (24.8)		C (30.3)
	Synchro 95th Q	50'	44'	148'	61'	72'	37'	375'	0'	171'	223'	0'	
New Jesup Highway at Blythe Island Highway/Community Road													
AM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBTR	SBL		SBTR		Intersection
2035 Horizon Year	LOS (Delay)	F (80.7)			F (99.3)			D (52.0)			F (87.3)		F (83.3)
	Synchro 95th Q	104'	#639'	#238'	195'	34'	#74'	246'	#511'	#765'	N/A		
PM Peak Hour		EBL	EBTR	WBL	WBT	WBR	NBL	NBTR	SBL		SBTR		Intersection
2035 Horizon Year	LOS (Delay)	E (70.7)			F (87.0)			F (168.3)			E (68.4)		F (107.3)
	Synchro 95th Q	#214'	363'	91'	#699'	210'	#226'	#573'	#392'	389'	N/A		
Newcastle Street at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2035 Horizon Year	LOS (Delay)	-		F (3951.5)			A (0.7)		A (1.4)				
	Synchro 95th Q	-		488'			3'		3'				
PM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2035 Horizon Year	LOS (Delay)	-		F (1465.4)			A (0.1)		A (2.2)				
	Synchro 95th Q	-		400'			0'		8'				
Ross Road at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBLTR		SBLTR				
2035 Horizon Year	LOS (Delay)	B (10.8)		B (10.3)			A (1.3)		A (0.4)				
	Synchro 95th Q	3'		5'			0'		0'				
PM Peak Hour		EBLTR		WBLTR			NBLTR		SBLTR				
2035 Horizon Year	LOS (Delay)	B (10.7)		B (11.0)			A (0.3)		A (0.6)				
	Synchro 95th Q	5'		5'			0'		0'				
Norwich Street at 9th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2035 Horizon Year	LOS (Delay)	B (14.0)		C (15.1)			A (1.3)		A (1.1)				
	Synchro 95th Q	18'		20'			3'	0'	3'				
PM Peak Hour		EBLTR		WBLTR			NBL	NBTR	SBLTR				
2035 Horizon Year	LOS (Delay)	B (14.9)		C (23.8)			A (0.6)		A (2.3)				
	Synchro 95th Q	20'		53'			3'	0'	5'				
Newcastle Street at 4th Street													
AM Peak Hour		EBLTR		WBLTR			NBL	NBT	NBR	SBL	SBTR		
2035 Horizon Year	LOS (Delay)	F (554.9)		F (929.9)			A (0.3)			A (0.9)			
	Synchro 95th Q	83'		133'			3'	0'	0'	13'	0'		
PM Peak Hour		EBLTR		WBLTR			NBL	NBT	NBR	SBL	SBTR		
2035 Horizon Year	LOS (Delay)	F (130.7)		F (561.5)			A (0.2)			A (0.9)			
	Synchro 95th Q	75'		330'			3'	0'	0'	5'	0'		

Newcastle Street at Bay Street								
AM Peak Hour		EBL	EBR	WB	NBL	NBT	SBT	SBR
2035 Horizon Year	LOS (Delay)	C (15.5)		-	A (0.0)		A (0.0)	
	Synchro 95th Q	58'	3'	-	0'	0'	0'	0'
PM Peak Hour		EBL	EBR	WB	NBL	NBT	SBT	SBR
2035 Horizon Year	LOS (Delay)	C (23.3)		-	A(0.0)		A (0.0)	
	Synchro 95th Q	140'	0'	-	0'	0'	0'	0'
Bay Street at F Street								
AM Peak Hour		EBLTR	WBLTR	NBL	NBTR	SBL	SBTR	
2035 Horizon Year	LOS (Delay)	C (16.8)	B (14.6)	A (0.7)		A (0.2)		
	Synchro 95th Q	5'	3'	3'	0'	0'	0'	
PM Peak Hour		EBLTR	WBLTR	NBL	NBTR	SBL	SBTR	
2035 Horizon Year	LOS (Delay)	B (15.7)	B (14.7)	A (0.3)		A (0.1)		
	Synchro 95th Q	18'	5'	3'	0'	0'	0'	
Bay Street at Gloucester Street								
AM Peak Hour		EBL	EBTR	WBLTR	NBL	NBTR	SBL	SBTR
2035 Horizon Year	LOS (Delay)	C (17.0)		C (15.4)	A (0.2)		A (1.4)	
	Synchro 95th Q	3'	3'	28'	0'	0'	5'	0'
PM Peak Hour		EBL	EBTR	WBLTR	NBL	NBTR	SBL	SBTR
2035 Horizon Year	LOS (Delay)	C (15.3)		C (15.4)	A (0.3)		A (1.9)	
	Synchro 95th Q	8'	5'	25'	0'	0'	5'	0'
Bay Street at Prince Street								
AM Peak Hour		EBLTR	WBLTR	NBL	NBTR	SBL	SBTR	
2035 Horizon Year	LOS (Delay)	A (0.0)	B (10.0)	A (0.0)		A (3.1)		
	Synchro 95th Q	0'	13'	0'	0'	10'	0'	
PM Peak Hour		EBLTR	WBLTR	NBL	NBTR	SBL	SBTR	
2035 Horizon Year	LOS (Delay)	C (15.7)	B (10.2)	A (0.1)		A (2.6)		
	Synchro 95th Q	3'	20'	0'	0'	5'	0'	
Newcastle Street at 4th Avenue								
AM Peak Hour		EBLTR	WBLT	WBR	NBLT	NBR	SBL	SBTR
2035 Horizon Year	LOS (Delay)	B (13.9)	C (16.4)		A (3.1)		A (5.1)	
	Synchro 95th Q	8'	28'		0'	0'	8'	0'
PM Peak Hour		EBLTR	WBLT	WBR	NBLT	NBR	SBL	SBTR
2035 Horizon Year	LOS (Delay)	B (13.1)	B (12.9)		A (0.0)		A (5.7)	
	Synchro 95th Q	10'	3'		0'	0'	5'	0'

The results of the 2035 Horizon Year analysis indicate that the majority to intersections within the study area operate at an acceptable level of service in the AM and PM peak hours for the 2035 horizon year. The intersections that show a significant drop in LOS are briefly discussed below.

The intersection of New Jessup Highway at Glyndale Circle currently operates at LOS C in the AM and PM peak hours. The WB approach is the only current approach that operates at LOS E in the AM peak hour. No significant queuing is present in the AM or PM peak hours.

The intersection of New Jessup Highway at Blythe Island Highway/Community Road overall intersection operations degrade to LOS F in the AM and PM peak hours. The EB through/right movement has an AM queue of over 639 feet and a PM peak hour queue of 363 ft. The EB approach operates at LOS F in the AM peak hour and LOS E in the PM peak hour. In the AM and PM peak hours, the WB approach is also at LOS F. The NB PM peak hour approach is at LOS F with 168 seconds of delay.

Newcastle at 9th Street is an unsignalized intersection that is operating with an WB and EB approaches at LOS F in the AM and PM peaks hours for the 2025 horizon year. The WB approach in the AM and PM peak hour experience significant peak hour delays.

The intersection of Newcastle Street at 4th Street is currently operating with side street delay in the AM and PM peak hours.

In addition to the intersection analysis, corridor capacity analysis was performed for the four context zones described previously. This capacity analysis is based on the industry standards and available public data. The foundation of the model analysis is based upon an evaluation of current average daily traffic volumes collected as a part of this corridor study and those provided by GDOT.

2035 Horizon Year Segment Capacity Summary										
Context Area	Segment	Posted Speed Limit	Number of Lanes	Median Configuration	AADT Estimate	Level of Service Standard	Base Capacity (vehicles per day)	Adjusted Capacity (vehicles per day)	% Capacity Used	% Capacity Remaining
1 - Commercial	Between I-95 and Glyndale Drive	35	6	D	29,400	D	50,000	52,500	56%	44%
	Between Glyndale Drive and GA 303	45	4	U	29,400	D	39,800	37,800	78%	22%
2 - Transition	Between GA 303 and 9th Street	45	4	U	27,100	D	39,800	37,800	72%	28%
	Between 9th Street and H Street	45	4	U	17,800	D	39,800	37,800	47%	53%
3 - Waterfront	Between H Street and Gloucester Street	40	4	D	7,100	D	32,400	32,400	22%	78%
	Between Gloucester Street and Prince Street	40	4	D	4,500	D	32,400	32,400	14%	86%
4 - Commercial	Between Prince Street and 4th Avenue	35	2	U	3,100	D	14,800	11,800	26%	74%
	Between 4th Avenue and US 17	35	4	U	5,200	D	32,400	24,300	21%	79%

As shown above for the individual context zones, the Commercial and the initial segment of the transitional segment are at approximately 80% capacity. The other remaining segments are well below 40% capacity utilized.

Section 3: Transportation Strategy

Introduction

For many residents, business, and commuters in Brunswick and Glynn County, the congestion the communities have experienced over the last 10-20 years is most evident on the communities' roadway network. The challenges facing the community are not limited to vehicles on the road.

Throughout the planning process, the communities noted the need for improved bicycle and pedestrian amenities at key intersections. The transportation strategy for the study area represents a balanced approach serving all travel modes and roadway users.

This strategy is a partnership by the City of Brunswick, Glynn County, the Brunswick Area Transportation Study (BATS) and the Georgia Department of Transportation (GDOT).

The recommendations for the Bay Street Corridor Study are the result of stakeholder engagement, staff engagement with GDOT, analysis and comprehensive planning and transportation engineering.

Specifically, this chapter communicates a plan to improve safety and mobility of the study area intersections and the Bay Street corridor between Exit 36 and US 17. Specific recommendations have been made including: intersection treatments, pedestrian enhancements, corridor operational and technology improvements.

Stakeholders including business owners, technical staff at the City, County, BATS and GDOT, and community members played a key and integral part in the development of the recommendations for the corridor. Their local knowledge offered a collective insight that if overlooked, could have potentially minimized the success of this study. Using this insight, alternatives were developed that addressed the issues identified both technically through the analysis and based on stakeholder input.

Transportation Strategy – Chapter Overview

The transportation strategy for the *Bay Street Corridor Plan* responds to existing and projected traffic while respecting the integrity of existing places. The strategy builds on a foundation of community mobility through the addition of roadway capacity along the Bay Street corridors while maintaining mobility for the existing freight users along the corridor. Efforts were made to improve the quality and safety of walking and bicycling environments at key intersections. Enhancements to the corridor beyond those for mobility were also considered at key intersections.

The approach to this corridor study and the included recommendations focus on strategies that offer a balanced approach to transportation in response to the operational analysis, stakeholder and agency guidance, freight mobility, and community needs.

The approach to the recommendations in the Bay Street Corridor Study is one that develops an access strategy for the study area collectively rather than focusing on an individual interchange or intersection. The strategy looks to build upon improved access and mobility working as a system rather than individual intersections. This allows the intersections to be retooled to work in better harmony with the surrounding community. As the recommendations shown on the following pages are implemented, staff should reassess the impacts and whether additional improvements are needed.

Design Considerations

The goals and objectives for the Bay Street corridor study were translated into specific design considerations. These design considerations were developed to aid in evaluating the scenarios developed for the key intersections where improvements are recommended. The design criteria, as described below, were placed in a matrix and ranked based on the scenario considered ability to meet the criteria. This objective ranking was used to help determine if a recommendation was recommended for further evaluation.

Three criteria were utilized in this evaluation. As shown to the right, the criteria included:

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

Each of the design considerations are described below along with the matrix to the right.

- **Beautification** – enhances the visual appeal/look of the corridor or intersection
- **Multimodal Intersection Design** – accommodates or enhances all modes of transportation with its geometric design features
- **Freight Vehicle Design Accommodation** – accommodates freight vehicles through the corridor or intersection with its geometric design features
- **Enhanced Pedestrian Accommodations** – enhances the pedestrian accommodations through design features including geometrics, signage and guidance, and safety enhancement.
- **Traffic Operations** – sufficient intersection capacity to handle projected traffic with acceptable levels of service.
- **Parking** – provides opportunities for additional parking supply
- **Safety Enhancement** – improves the overall or movement safety for all modes at the intersection or segment of the corridor.
- **Driver Expectation** – offers predictable designs that reduce driver confusion
- **Contextually Appropriate** – alternatives fit within the context of the corridor.
- **Impacts to Natural Features** – avoids encroachment on sensitive lands and environmental features.
- **Supportive of Economic Development** – design alternative does not restrict future land development opportunities
- **Railroad Impacts** – design alternative does not intentionally or overtly impact the operations along the current active railroad line

Design Considerations	
Beautification	
Design for Freight Vehicles	
Multimodal Intersection Design	
Traffic Operations	
Parking	
Enhanced Pedestrian Accommodations	
Supportive of Economic Development	
Railroad impacts/complications	
Natural Features Impacts	
Driver Expectations	
Safety Enhancement	
Contextually Appropriate	

Exit 36 at I-95

Guidance for recommendations:

Explore operational improvements at Exit 36 and Interstate 95.

Key Considerations & Issues

- Peak hour congestion
- Driver familiarity
- Close and frequent driveway spacing.
- Close intersection spacing
- Signalized intersections
- Wide typical section

Exit 36 is for many the first they see of Glynn County or the City of Brunswick. Located along I-95, the exit provides travelers with access to food, beverages, gas and other services. As such drivers may or may not be familiar with the intersections and roadway configurations.

The recommendations offered for this area include those intended to provide for long-term mobility as well as address driver unfamiliarity with the area.

The area currently has auxiliary turn lanes in at key intersections and driveways. Multiple through lanes exist on SR 27/US 25/341 currently. By closing closely and redundantly spaced intersections along the corridor and encouraging interconnectivity, the corridor can retain capacity long-term. In addition, directional guidance shields for I-95 on the pavement in advance of the interchange will help drivers positioning themselves for access to I-95. This will reduce last minute lane changes and weaving along SR 27, thus preserving capacity, and reducing angle and rear end collisions. Both were frequent crash types at this location.



US 341 at Blythe Island Highway

Guidance for Recommendations: Explore operational improvements at US 341 and Blythe Island Highway

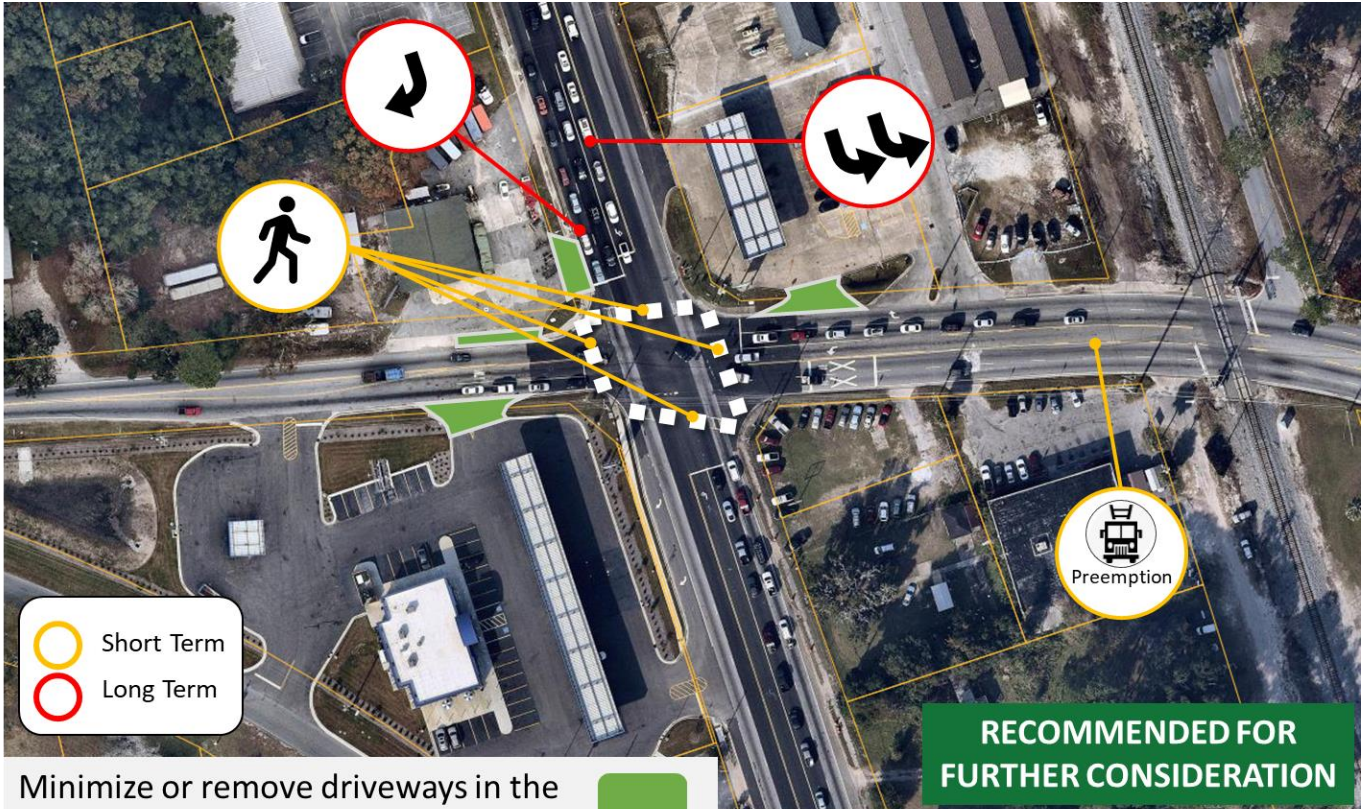
Key Considerations & Issues

- Peak hour congestion
- Close and frequent driveway spacing.
- Close intersection spacing
- Signalized intersections
- Auto-oriented land uses
- Emergency services proximity
- Railroad proximity

341 at Blythe Island is a key intersection in the overall roadway network along the Bay Street corridor. It is the first intersection from Exit 36 that cuts east across the peninsula. For this reason, there are heavy left-turning movements in the AM and PM peak hours for the SB left movement. In comparison of the overall corridor, 55% or 401 crashes occurred at this intersection or within proximity. Immediately adjacent to the east is the Norfolk Southern railroad and Old Jesup Highway intersection. Lastly Glynn County Fire Station 1 sits in between both.

Peak hour congestion in the 2025 and 2035 horizon year shows the need for an additional SB left and right turn lanes. In addition, consolidation of closely spaced driveways within the influence area of the intersection will improve overall capacity beyond 2035.

Technology improvement including adaptive signal timing and emergency preemption will help the corridor and intersection function between after emergency calls for fire station 1.



US 341 at Blythe Island Highway

Design Considerations	
Beautification	<input type="radio"/>
Design for Freight Vehicles	<input type="radio"/>
Multimodal Intersection Design	<input checked="" type="radio"/>
Traffic Operations	<input type="radio"/>
Parking	n/a
Enhanced Pedestrian Accommodations	<input type="radio"/>
Supportive of Economic Development	<input checked="" type="radio"/>
Railroad impacts/complications	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>
Driver Expectations	<input type="radio"/>
Safety Enhancement	<input type="radio"/>
Contextually Appropriate	<input type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

Recommendation:

- Prioritize intersection improvements for future funding opportunities (*MPO, GDOT, local*)

Newcastle Street at Fourth Street and Selden Park

Guidance for

Recommendations: Explore means to improve pedestrian connectivity with Selden Park and the neighborhoods across Bay Street.

Key Considerations & Issues

- High speeds along the corridor
- Railroad proximity
- Five-lane Bay Street crossing
- Long stretch of the corridor with limited vehicle interruption
- Limited to no pedestrian infrastructure at Fourth Street
- Freight Corridor

Fourth Street is a key intersection in the roadway network for the peninsula. It serves as the entrance to Selden Park on the west side and the residential neighborhoods on the right. Newcastle Street acts as a barrier between the two.

Due the length of the crossing, the speeds of vehicles along this section and the vehicle mix, pedestrians are intimidated to try and cross. As a result, park use from the neighborhood is limited and those who do use Selden Park drive rather than drive.

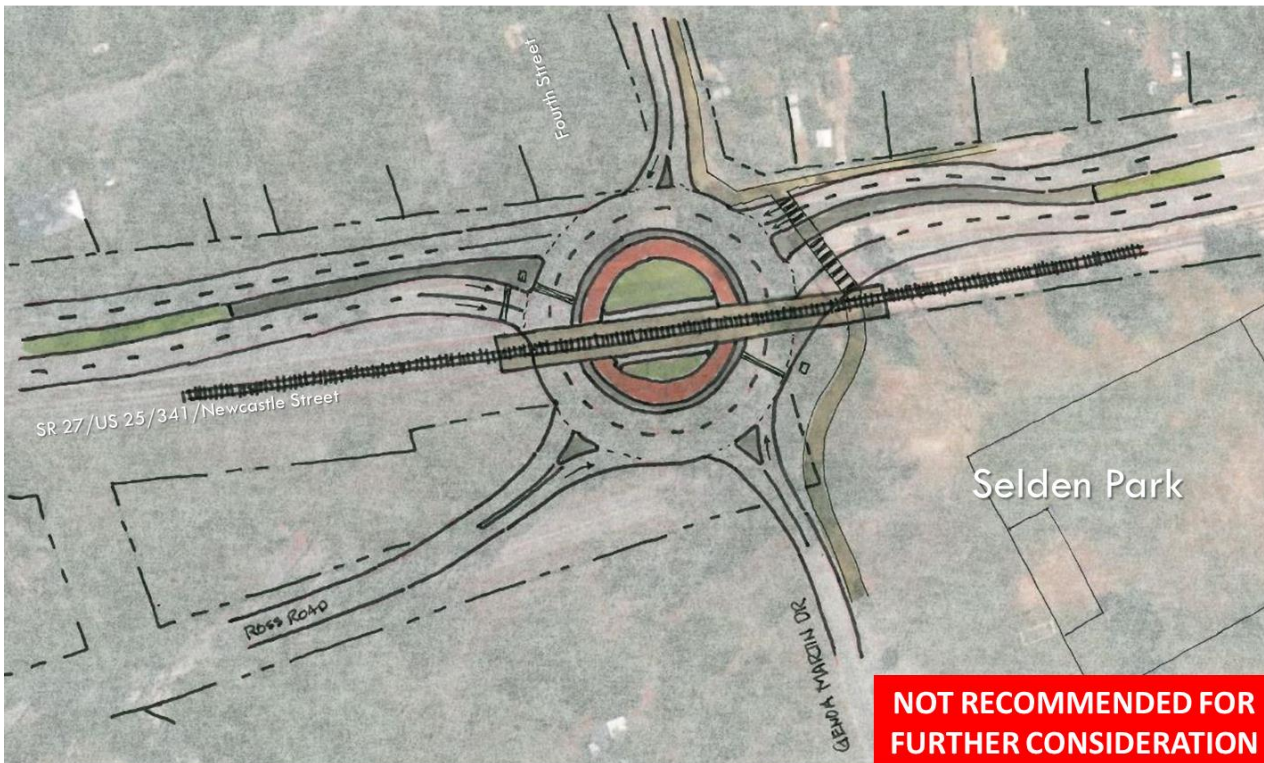
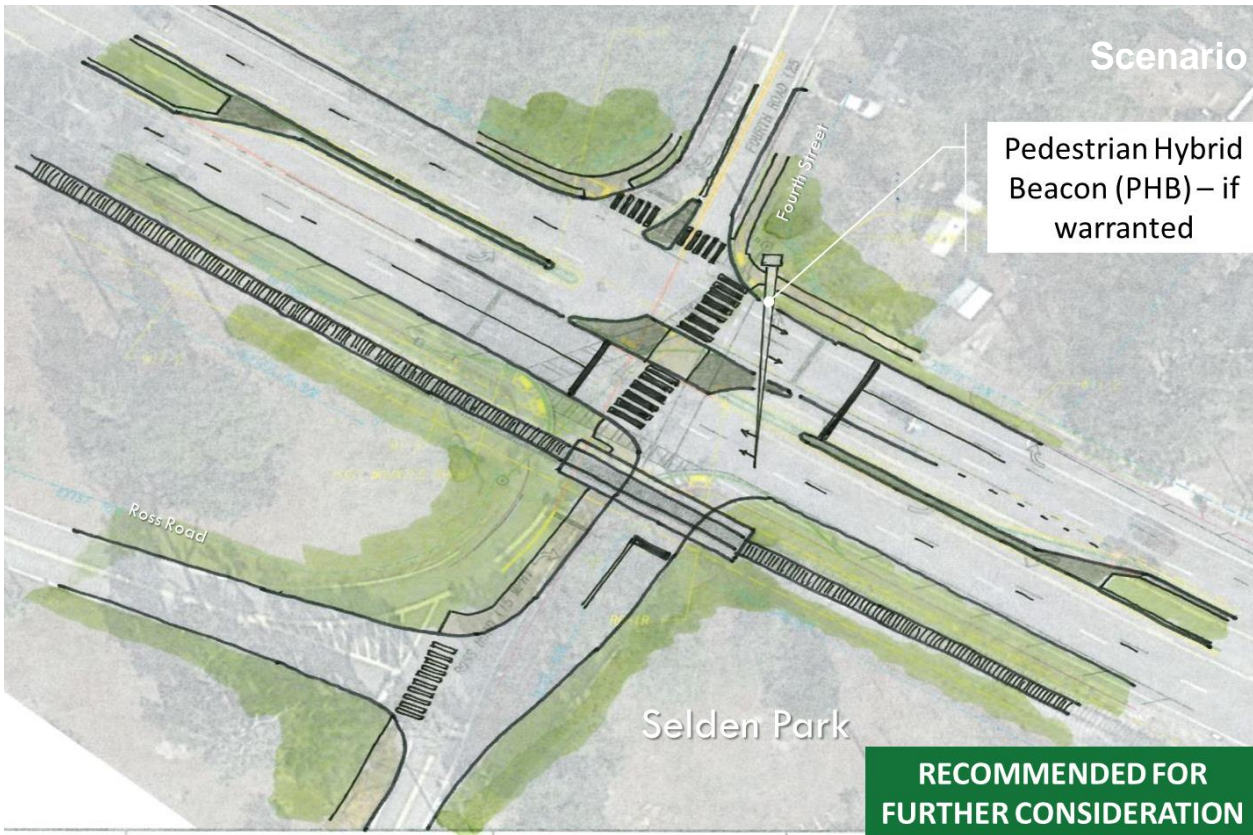
Providing a safe, controlled crossing at Fourth Street is needed to improve the safety for pedestrians accessing the Park. Community desire for improvement at this intersection is high. Improvements at this location are supported by Glynn County, the City of Brunswick, and the Georgia Department of Transportation.

Several improvements have been considered for this intersection as a part of this study and by others including the Georgia Department of Transportation. Consideration and evaluation for a traffic signal, a directional crossover with a pedestrian hybrid beacon, and a roundabout have been considered for implementation. While each facilitates a crossing of the street, they each do not provide the same level of safety for the pedestrian crossing, meet the criteria for installation, and each have a different impact to adjacent traffic along Newcastle Street.

The following pages describe and depict the improvements considered at the intersection of Fourth Street and Newcastle Street.

Considerations for each and a determination for additional study is also provided.

Newcastle Street at Fourth Street and Selden Park



Newcastle Street at Fourth Street and Selden Park



Traffic Signal Warrants

The Manual on Uniform Traffic Control Devices (MUTCD) provides guidance on the evaluation and installation of traffic signals between two intersecting streets. The investigation and need for a traffic control signal shall include and analysis of factors relating to the existing operation and safety at the location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:

- Warrant 1, Eight-Hour Vehicular Volumes
- Warrant 2, Four-Hour Vehicular Volumes
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network
- Warrant 9, Intersection near a railroad grade crossing

A review of the signal warrants at this location indicate that the crossing does not meet Warrants 1, 2, 2, 4, 5, 6, 7, and 8 based on collected data for this study. Warrant 9 is intended to be utilized when the warranting of a signal is primarily needed based on the crossing. In this case Warrant 9 does not apply.

Newcastle Street at Fourth Street and Selden Park

Design Considerations	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Beautification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Design for Freight Vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multimodal Intersection Design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traffic Operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parking	n/a	n/a	n/a	n/a	n/a
Enhanced Pedestrian Accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supportive of Economic Development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Minimizes Railroad impacts/complications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driver Expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety Enhancement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contextually Appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

Recommendation:

- Coordinate with GDOT on implementation of Scenario 3 as a safety project

Considerations

- Scenario 4 requires a significant local investment for implementation
- Scenario 4 as compared to Scenarios 1-3 is less accommodating to pedestrians but more than current conditions
- Significant railroad engagement and permission will be needed for implementation of Scenario 4.
- Scenario 4 could prove difficult to fund without local prioritization and sole sourcing
- Scenario 5 is not warranted
- Scenarios 1-3 could be funded through GDOT

Newcastle Street at Bay Street

Guidance for
Recommendations: Explore alternatives to improve operations and safety at Bay Street and Newcastle Streets.

Key Considerations & Issues

- Transition point in the corridor
- Railroad proximity
- Freight Corridor
- Unique intersection geometry
- Gateway Intersection to Downtown Brunswick

The intersection of Bay Street and Newcastle Street is a transitional intersection within the overall network for the community. Within the study area Newcastle Street serves as a freight corridor up to the intersection with Bay Street, where it becomes the entry in downtown Brunswick and Bay Street becomes a freight corridor.

This dual purpose of the intersection where it must balance mobility to and from the port facilities as well as act as a gateway and transition point into Brunswick. These functions required of the intersection are unique and diverse and require an intersection configuration that accommodates the asks of the intersection.

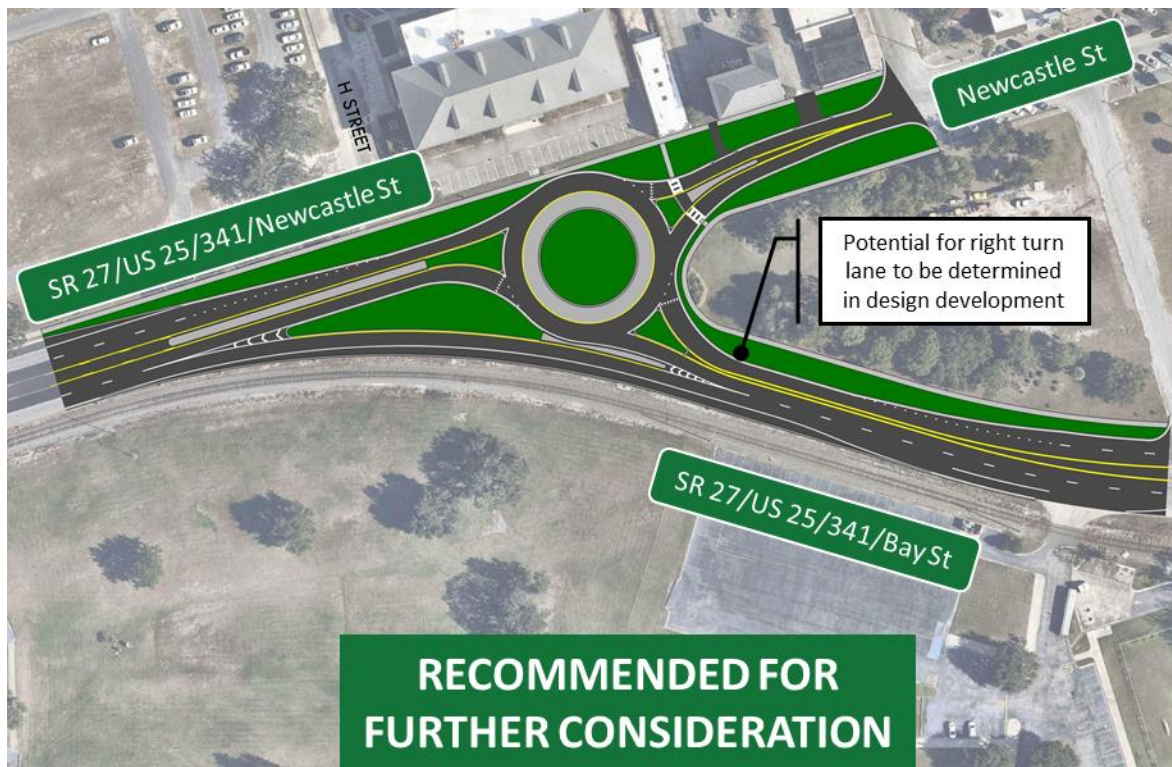
The unique configuration of the intersection with its approximate 70-degree skew lends itself to simplify certain approach movements (SB Newcastle Street to Bay Street) and complicates others (NB Newcastle to Bay Street). Furthermore, the proximity to the port and need to facilitate truck movements is critical.

The intersection's proximity to Downtown Brunswick provides the opportunity to create a gateway. In addition, it provides an opportunity to slow traffic coming into downtown from Newcastle Street.

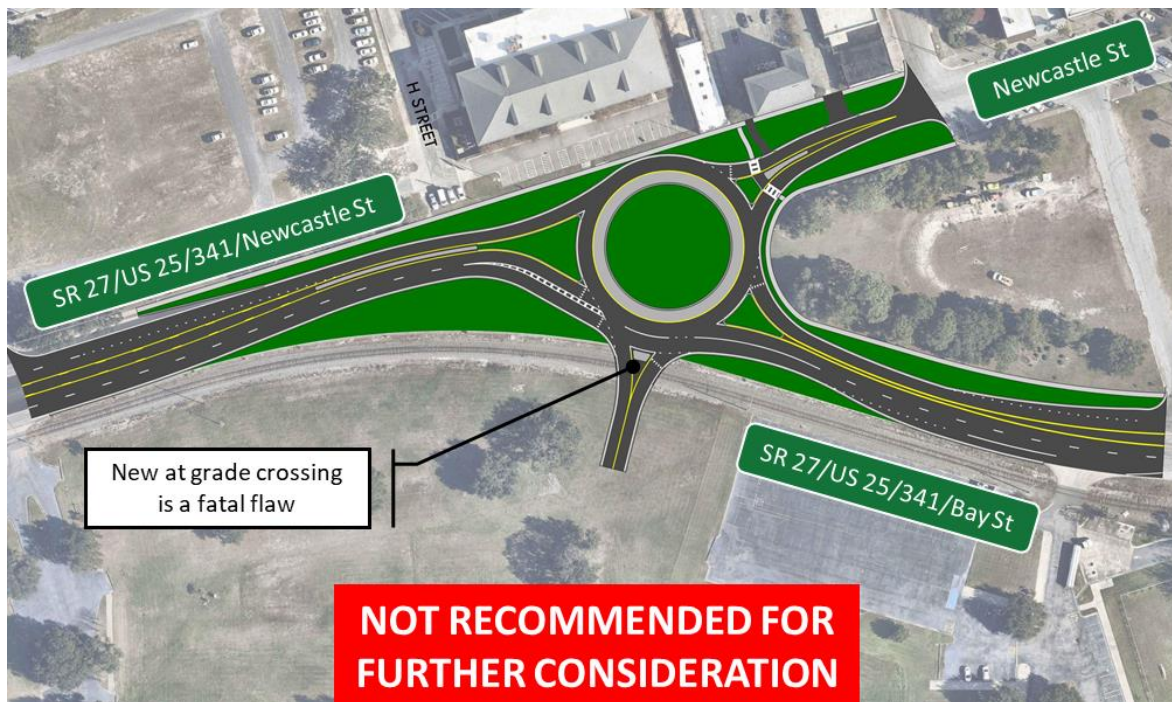
The following page depicts the scenario considered at the intersection of Newcastle Street and Bay Street.

Newcastle Street at Bay Street

Scenario 1



Scenario 2



Newcastle Street at Bay Street

The following actions respond directly to these findings.

Design Considerations	Scenario 1	Scenario 2
Beautification	<input type="radio"/>	<input type="radio"/>
Design for Freight Vehicles	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Multimodal Intersection Design	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Traffic Operations	<input type="radio"/>	<input type="radio"/>
Parking	<input type="radio"/>	<input type="radio"/>
Enhanced Pedestrian Accommodations	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Supportive of Economic Development	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Minimizes Railroad impacts/complications	<input type="radio"/>	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>	<input type="radio"/>
Driver Expectations	<input type="radio"/>	<input type="radio"/>
Safety Enhancement	<input type="radio"/>	<input type="radio"/>
Contextually Appropriate	<input type="radio"/>	<input type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

Considerations

- Scenario 2 requires additional right-of-way for construction
- Scenario 2 implementation would likely require the closing of the existing crossings at I Street and along Bay Street opposite G Street at a minimum
- Operational benefits shown in the table to left, depict significant operational gains from the roundabout over the unsignalized intersection
- The roundabout would create a gateway into downtown Brunswick
- The roundabout would also slow traffic down coming into Brunswick along Newcastle Street
- The roundabout accommodates freight vehicles well and would reduce their travel time from the port to I-95

Newcastle Street at Bay Street							
Condition	Measure	EB		NB		SB	
		EBL	EBR	NBL	NBT	SBT	SBR
AM Peak Hour							
2035 Design Year	LOS (Delay)	C (15.5)		A (0.0)		A (0.0)	
	Synchro 95th Q	58'	3'	0'	0'	0'	0'
2035 Design Year Single	LOS (Delay)	A (7.1)		A (6.1)		A (1.8)	
	Sidra 95th Q	39'		33'		29'	
PM Peak Hour							
2035 Design Year	LOS (Delay)	C (23.3)		A (0.0)		A (0.0)	
	Synchro 95th Q	140'	0'	0'	0'	0'	0'
2035 Design Year Single	LOS (Delay)	A (7.5)		B (12.9)		A (3.1)	
	Sidra 95th Q	59'		141'		18'	

Recommendation:

Prioritize intersection improvements for future funding opportunities (MPO, GDOT, local) as represented in Scenario 1

Bay Street

Guidance for

Recommendations: Explore means to improve pedestrian connectivity to Mary Ross Park and Downtown and ways to enhance the visual appeal of the Bay Street corridor

Key Considerations & Issues

- Freight Corridor
- Railroad proximity
- Five-lane Bay Street crossing
- Pedestrian crossing infrastructure at Gloucester Street and G Street
- Bay Street buffers Mark Ross Park from downtown

Bay Street is a key street within the fabric of Brunswick for many reasons. It is a historical feature, it is an economic driver, it provides access to the waterfront, and it is a key spine road throughout the peninsula. It exists as five-lane section through the corridor with two-lanes in each direction, a center turn lane and sidewalks on the east side.

Connecting both sides of the street – downtown to Mary Ross Park - is important to the City of Brunswick. Maintaining the corridor as a freight corridor and access to the port is also important to the City and their partners. Finding a way to balance these two elements is critical for any alternative scenario that is considered.

A variety of improvements have been considered for the section of Bay street between Newcastle Street and Gloucester Street. While all of the scenarios accomplish the goal of improving pedestrian connectivity to Mary Ross Park and Downtown, some do it at the expense of mobility to the port. For others the cost of implementation does not return a benefit based on the investment.

The scenarios discussed on the following pages highlight the scenario considered along with their alignment with

The following pages depict the scenarios and improvements considered along the Bay Street corridor.

Bay Street

Scenario 1 – Pedestrian Bridge



NOT RECOMMENDED FOR FURTHER CONSIDERATION

A pedestrian bridge was suggested to connect downtown to Mary Ross Park. The connection would separate pedestrian traffic from vehicular traffic on Bay Street.

To make the structure compliant with ADA guidelines, it would need to extend from Newcastle Street to the waterfront with a series of switchbacks. The switchbacks are necessary to achieve a minimum clearance of 18 feet over the highest point on Bay Street and 21 feet over the railroad.

Pedestrian bridges work best when there is a significant barrier that prohibits crossing such that it becomes the quicker path. The traffic along Bay Street is not at a level that pedestrian would choose to divert their trip to utilize the pedestrian bridges. In addition, their overall cost can be prohibitive for implementation.

Design Considerations	
Beautification	<input type="radio"/>
Design for Freight Vehicles	<input type="radio"/>
Multimodal Intersection Design	n/a
Traffic Operations	n/a <input type="radio"/>
Parking	n/a
Enhanced Pedestrian Accommodations	<input type="radio"/>
Supportive of Economic Development	<input type="radio"/>
Railroad impacts/complications	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>
Driver Expectations	n/a
Safety Enhancement	<input type="radio"/>
Contextually Appropriate	<input type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

Factors to Consider:

- Expensive to implement
- Low benefit cost on investment
- Prohibitive to enforce use when easier to cross at street level
- Difficult to fund without local prioritization and sole sourcing
- Separates the pedestrian activity between the street level creating a loss in engagement

Bay Street

Scenario 2 – 2 Lane Bay Street

Creating a two-lane Bay Street has been discussed for several decades within the community to connect the downtown to the waterfront and improve the crossing for pedestrians. While a two-lane crossing would decrease the time at risk and crossing district, it would also directly impact the freight corridor serving Mayor’s Point Terminal. This would also be counter to the investments made already through the GRIP program.

While there are some attributes that align well with the design consideration including enhanced pedestrian accommodations and enhancing safety for pedestrians. Conversely, the approach also has several negative impacts on other users of the corridor. Two lane facilities are not as conducive to safe freight mobility – hence GRIP program investments in the past. In addition, it would inhibit traffic operations along the corridor. For these reasons it is not recommended that the 2-Lane Bay Street be considered further.



NOT RECOMMENDED FOR FURTHER CONSIDERATION

Design Considerations	
Beautification	<input type="radio"/>
Design for Freight Vehicles	<input type="radio"/>
Multimodal Intersection Design	<input type="radio"/>
Traffic Operations	<input type="radio"/>
Parking	<input type="radio"/>
Enhanced Pedestrian Accommodations	<input type="radio"/>
Supportive of Economic Development	<input type="radio"/>
Railroad impacts/complications	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>
Driver Expectations	<input type="radio"/>
Safety Enhancement	<input type="radio"/>
Contextually Appropriate	<input checked="" type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

Factors to Consider:

- Implementation process
- Imbalance of individual corridor land uses laneage needs along this section – *freight (multi lanes), community (single lanes)*
- Roadway ownership consideration
- Past investments
- All user's perspective is critical for implementation of any project
- Counter to investment made through GRIP

Bay Street

Scenario 3 – Enhancement Plantings

Enhancing the visual look of a corridor can create additional value beyond just beautifying the corridor. Strategic enhancements can provide a calming of traffic, stormwater management, and access management.

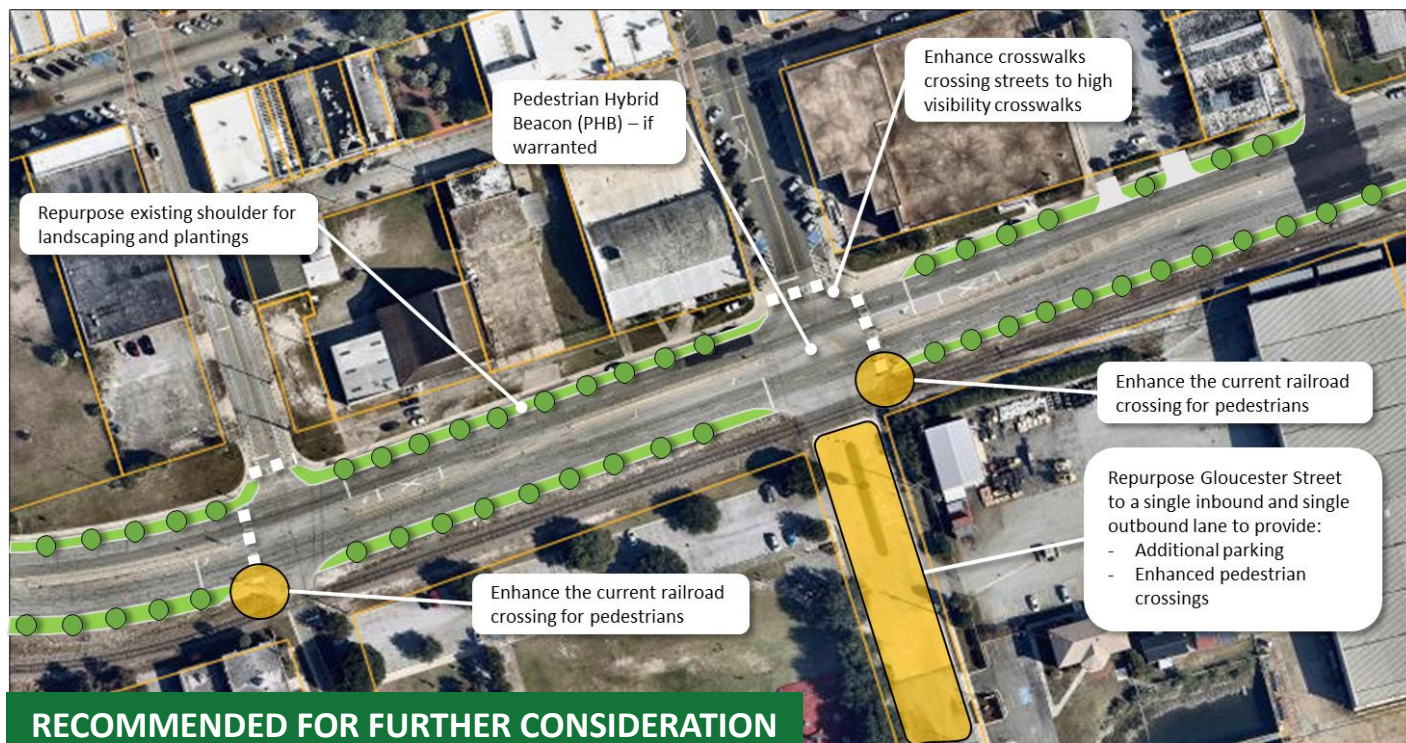
The Bay Street corridor currently is a five-lane facility with two lanes in each direction, a center turn lane, and 12 ft shoulders to the outside. The opportunity would be to convert the existing shoulders into landscaped areas. The areas could be utilized just as planted areas or as a bio-swale to help with water quality.

The planted areas would help to narrow the feel of the street without impacting the lanes and mobility of the corridor for freight. It begins to balance the mobility of the corridor without constricting any of the roadway users.

Plantings are recommended to be low and tolerant to heat. Maintaining clear sight lines for all users – vehicles, pedestrians, and bikes – is critical. GDOT provides guidance on appropriate plantings in the right-of-way.

Design Considerations	
Beautification	<input type="radio"/>
Design for Freight Vehicles	<input type="radio"/>
Multimodal Intersection Design	<input type="radio"/>
Traffic Operations	<input type="radio"/>
Parking	<input type="radio"/>
Enhanced Pedestrian Accommodations	<input type="radio"/>
Supportive of Economic Development	<input type="radio"/>
Railroad impacts/complications	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>
Driver Expectations	<input type="radio"/>
Safety Enhancement	<input type="radio"/>
Contextually Appropriate	<input type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria



Bay Street

Scenario 4 – Improved Crosswalk at Gloucester Street

Balancing the need to an enhanced crossing while maintaining mobility for freight vehicles is critical along Bay Street. Improving the time at risk for pedestrians while not constraining or impacting freight mobility is paramount for a successful project along Bay Street.

The GDOT has invested in the Bay Street corridor through the GRIP program as well as enhancing the existing crossing with rapid flashing beacons and additional signage. While this does improve the safety of the crossing, there are other items that could be implemented to enhance the crossing further. The crossing currently terminates on the west side adjacent to the railroad leaving a pedestrian exposed with limited guidance to continue to the sidewalk on Gloucester Street. The images to the right highlight the crossing from east to west. The railroad complicates the crossing and limits the extension of the sidewalk to the curb ramp.

The current left-turn movement from bay Street into Mary Ross Park is minimally used – less than 10 vehicles per hour. By removing the dedicated turn lane (left turns could still be made from the through lane) and installing a center island, a pedestrian refuge could be created. This would reduce the crossing distance for pedestrians and allow them to stage there crossing by approach. The center island would allow for pedestrians to stage their crossing or cross the full distance.

Gloucester Street, west of Bay Street is a City Street. It exists as a four-lane street the terminates at the waterfront. Through reallocation of the existing space with the street, Gloucester Street can be reconfigured to create an enhanced crossing, provide additional parking, and connect the waterfront to downtown.

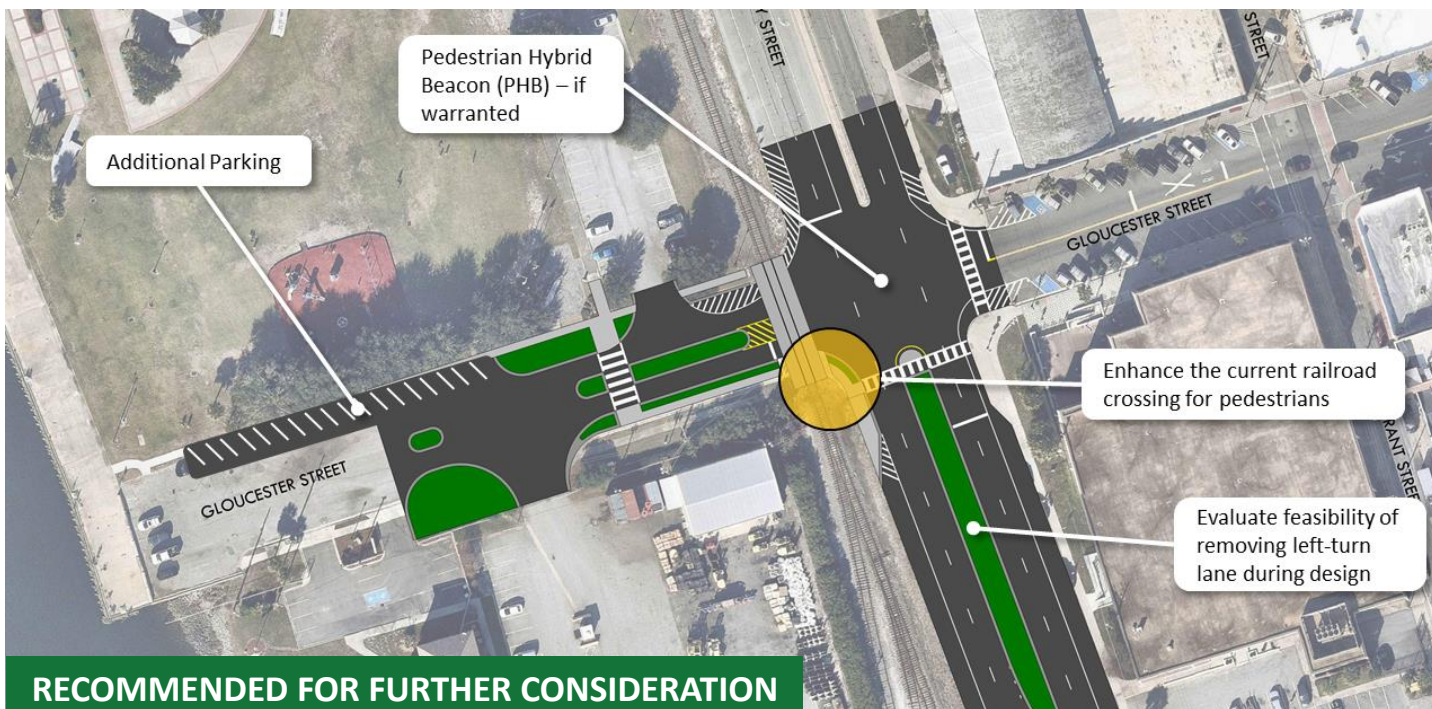
Once warranted, a pedestrian hybrid beacon could be installed to control the pedestrian crossing further by stopping traffic while pedestrians are crossing the street.

The graphic on the following page depicts the proposed improvements at Gloucester Street and Bay Street.



Bay Street

Scenario 4 – Improved Crosswalk at Gloucester Street



Design Considerations	
Beautification	<input type="radio"/>
Design for Freight Vehicles	<input type="radio"/>
Multimodal Intersection Design	<input type="radio"/>
Traffic Operations	<input type="radio"/>
Parking	<input type="radio"/>
Enhanced Pedestrian Accommodations	<input type="radio"/>
Supportive of Economic Development	<input type="radio"/>
Railroad impacts/complications	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>
Driver Expectations	<input type="radio"/>
Safety Enhancement	<input type="radio"/>
Contextually Appropriate	<input type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

The proposed recommendations at the subject intersection capitalize on previous investments by enhancing them and providing a relatively short path to implementation. With the ownership of west Gloucester Street being the City enhances the timeframe to implementation. Furthermore, the relative cost to implementation is small especially when considering the impact to pedestrian crossing safety and enhancement to the corridor.

The recommendation balances the needs of the corridor by enhancing the pedestrian crossing while maintaining mobility to and from the port for freight vehicles.

Factors to Consider:

- Enhances previous investment
- Maintains corridor mobility
- Enhances pedestrian safety
- Reduces crossing distance for pedestrians
- Speed of implementation
- Roadway ownership
- In line with investment made through GRIP

US 17 at 4th Avenue

Guidance for Recommendations: Explore operational improvements at US 17 and 4th Avenue

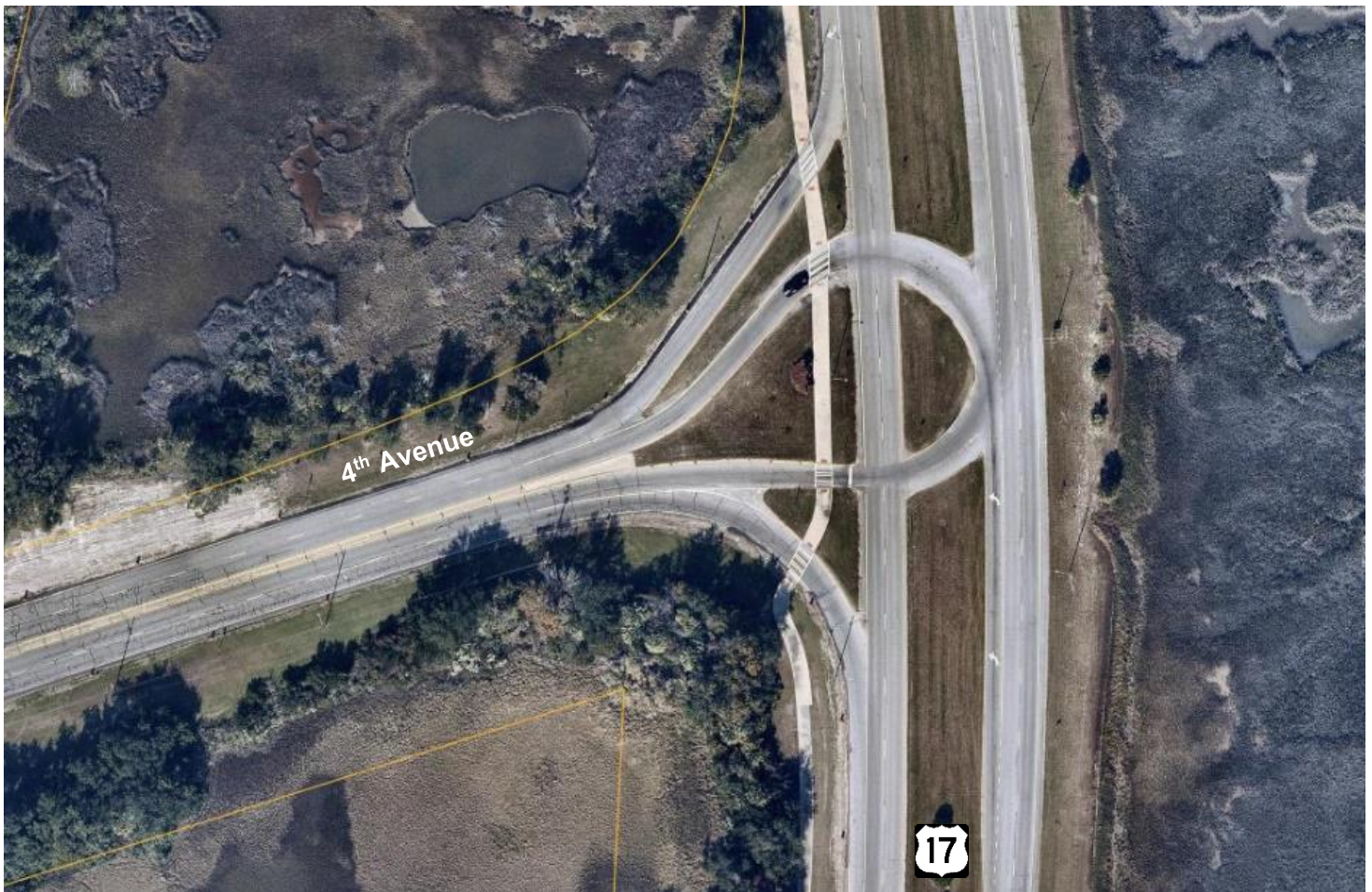
Key Considerations & Issues

- Eastern Gateway to Downtown Brunswick
- US Route
- Southern connector to Islands
- Multi-lane divided corridor

US 17 is the eastern throughfare on the peninsula and parallels Bay Street within the street network. The intersection with 4th Street is unsignalized and offers a unique geometric configuration with offset left-turning movements from US 17.

Recommendations at the intersection of US 17 and 4th Avenue are offered based on a geometric review of the intersection and not primarily based on capacity needs. The intersection currently has capacity through the 2035 horizon year. However, considering the likelihood of unfamiliar drivers utilizing the intersection, the undivided typical section, and the unique intersection geometry, recommendations have been made to the intersection.

The image below depicts the intersections current configuration. Recommendations for the intersection are shown on the following page.



US 17 at 4th Avenue



Design Considerations	
Beautification	<input type="radio"/>
Design for Freight Vehicles	<input type="radio"/>
Multimodal Intersection Design	<input type="radio"/>
Traffic Operations	<input type="radio"/>
Parking	<input type="radio"/>
Enhanced Pedestrian Accommodations	<input type="radio"/>
Supportive of Economic Development	<input checked="" type="radio"/>
Railroad impacts/complications	<input type="radio"/>
Natural Features Impacts	<input type="radio"/>
Driver Expectations	<input type="radio"/>
Safety Enhancement	<input type="radio"/>
Contextually Appropriate	<input checked="" type="radio"/>

- Most Satisfies the objective criteria
- Moderately satisfies the objective criteria
- Least satisfies the objective criteria

The recommendation for a roundabout at the intersection is in response to the geometric conditions and long term need to provide capacity improvements at the intersection. The roundabout provides operational gains at the intersection, but more importantly removes the conflict between the overlapping NB left and EB left movements that currently exists. The current footprint aligns closely with the proposed footprint such that additional right of way would likely not be needed for implementation.

The roundabout provides an opportunity to create a gateway into downtown Brunswick from the eastside of the peninsula.

Factors to Consider:

- Improvement is not needed from a capacity perspective through the horizon year of the analyses
- Implementation would require a localized funding source in the near term as compared to traditional prioritization process
- Could provide a southern gateway opportunity for Brunswick and the Isles

Strategic Opportunity | *Bicycle & Pedestrian*

How do we enhance bicycle and pedestrian opportunities along and across the Bay Street Corridor to encourage the use of active transportation by those of all ages and abilities?

Taking trips by bike or on foot has many benefits to the individual and their community. Cycling and walking improves the environment, promotes good health, saves money, eases the burden on roadways, and enhances the livability of a community. Many people choose to bike or walk for one or more of these reasons. For children, persons with disabilities, many elderly, and those who cannot afford an automobile, transit, bicycling, and walking may be their only option for many daily trips. Others may choose to take off on foot or by bicycle for recreation, to travel to work, or to run errands. Improving the bicycle and pedestrian network along corridors such as Bay Street is a stated goal in numerous planning efforts and is a critical component for a more livable corridor.

Findings

Bicycle facilities are limited. Pedestrian conditions and walkability are present for the Bay Street corridor, but connectivity is limited. Existing sidewalks are discontinuous and exist on the east side of the corridor for a portion and the west side for a portion. They are placed to serve the uses along the corridor. The auto-oriented corridor does not serve as a pedestrian connector and in many ways is hostile to those taking to the corridor on foot. Many of the major intersections have pedestrian crossings, but do not connect pedestrians to other facilities along the corridor.

One of the stated goals for the BATS MPO is to improve and enhance mobility for all modes of transportation. Glynn County has a well-established bicycle and pedestrian throughout and within the City of Brunswick. Sidewalks exist along the entirety of the Bay Street corridor. Bicycle infrastructure within the study area is limited. Efforts to enhance bike connectivity parallel to the Bay Street corridor is underway. Along Martin Luther King Jr Boulevard, bicycle and pedestrian improvements are being developed to enhance non-motorized travel.

Bicycle & Pedestrian | Major Challenges and Opportunities

- The benefits of biking and walking are well documented, and those benefits apply to individuals and the community as a whole.
- The demographics of Glynn County and the City of Brunswick support active use of bicycle and pedestrian facilities.
- Numerous destinations and amenities along Atlanta Highway would benefit from enhanced connectivity for active transportation modes.
- High traffic volumes and travel speeds create a barrier for bicyclists and pedestrians.
- The corridor currently lacks designated bicycle facilities and significant sidewalk gaps impede the corridor's walkability.
- Several bicycle projects are identified in the region's 2045 metropolitan transportation plan.

Strategic Opportunity / Corridor Aesthetics

How do we create a cohesive corridor identity and improve the look and feel of the Bay Street corridor?

The character of Glynn County, City of Brunswick, its neighborhoods, and places of interest are largely determined by the look and feel of its streets. This is particularly true along gateways and major commuter routes. To protect the quality of existing places and help shape the character as redevelopment occurs, Glynn County and the City of Brunswick should consider guidelines and standards that inform changes to public spaces and key activity nodes along the Bay Street Corridor. Actions in the opportunity area will provide a consistent aesthetic to the corridor. Collectively, these actions will enhance the user experience—whether in a car, on a bicycle, or on foot—and better position the corridor to receive investment.

Many factors influence the design of the Bay Street corridor. The look and feel of the Bay Street corridor is affected by conditions within the public right-of-way and in the hands of private owners. The design is characterized by changing cross sections, wide travel lanes, overhead utilities, and signs of all shapes, sizes, and designs. Issues that undermine corridor aesthetics can also contribute to poor operations. Hundreds of driveways and numerous intersections create conflict points along the Bay Street corridor. Meanwhile, greenspace is intermittent, and sidewalks are sporadic. These characteristics strip the corridor of its identity and suppress street life and activity.

The corridor lacks a sense of place or announcement of arrival. A recurring theme during the Connect Bay Street processes is that the Bay Street corridor lacks a clear and unique identity.

As a major corridor, the aesthetics and quality of places could be enhanced by increasing the tree canopy cover and landscaping. The corridor can better leverage its assets by improving active connections between them and beautifying the corridor throughout. GDOT's policy for landscaping and enhancements on right of way states that shrubs exceeding 30 inches in height cannot be planted within the horizontal clearance zone in medians. Trees must meet minimum requirements stated in the "Horizontal Clearances for Trees and Shrubs" in the policy guideline, and trees planted in medians must be limbed up to a minimum of 7 feet from the ground. The larger the posted speed or design speed used determines the horizontal clearance criteria.

Corridor Aesthetics | Major Challenges and Opportunities

- The look and feel of a street significantly affects community interest and investment in a place.
- A lack of consistent wayfinding or branding leaves the corridor without a unique identity.
- Both public and private shortcomings have undermined the corridor, and both public and private participation will be required for improvement to be realized.
- Properly executed, the corridor design could create a sense of place for the community and announce one's arrival into the city as a whole.
- Branding opportunities and gateway monumentation provide opportunities to create a unique corridor identity.
- Improvements to the aesthetics of the corridor also would improve safety, operations, and the multimodal experience. And vice versa.



Section 4: Call to Action

Action Plan

The Connect Bay Street process reflected a concerted effort to develop a plan that can be implemented. As well-thought-out course of action provides a framework in which public and private investments can lead to change. The implementation plan needs to enable decision makers to track progress and make future year adjustments. It also needs to clearly define way BATS and its partners can leverage public and private investments that foster quality design, economic stability, and environmental stewardship through coordinated transportation decisions.

Working through partnerships between BATS, GDOT, Glynn County, and the City of Brunswick a refocusing on the corridor will allow for investments of public infrastructure along the Bay Street corridor. By design the recommendations are not required collectively. Rather they are design to implemented independently, offering a flexible approach for local officials to partner with others to implement the recommendations through several phases as other projects are developed and funding becomes available. The plan also protects previous and planned infrastructure investment with careful consideration of how initial phases interact with long-term phases as well as past investments in the corridor.

The timing of the action plan is subject to factors such as:

- **The availability of time and money to implement improvements.**
- **The degree to which BATS, GDOT, and local agencies can proactively work to enhance the quality of improvements to the corridor, in both use and design.**
- **The interdependence of implementation, or the degree to which implementing one action is dependent on the successful completion of another task.**

The action plan that follows identifies each of the improvements, its relative cost and timeframe for implementation of the improvement.

Location	Recommendation	Timeframe	Cost
Downtown	Parking Study	Short Term	\$30k - \$50k
Exit 36 at I-95	I-95 Approach Shield Pavement Markings	Short Term	\$5k - \$10k
	Consolidation of Driveways	Long Term	\$1.5m - \$5m
US 341 at Blythe Island Highway	Pedestrian Improvements (<i>Crosswalks, Ramps, Timings</i>)	Short Term	\$300k - \$425k
	SB Dual Left Turn Lanes	Mid Term	\$1.2m - \$1.6m
	SB Right Turn Lanes	Long Term	\$125k - \$200k
	Consolidation of Driveway	Long Term	\$1.5m - \$3.2m
Newcastle Street at Fourth Street	Directional Crossover and Pedestrian Enhancements	Short Term	\$350k - \$1.5m
Newcastle Street at Bay Street	Roundabout	Mid Term	\$450k - \$1m
Bay Street	Shoulder Plantings & Beautification	Mid Term	\$650k - \$1.4m
	Improved Crosswalk and West Gloucester Street Enhancement	Short Term	\$950k - \$2.1m

Call to Action

The corridor plan recommendations contained herein represent the efforts of community leadership, stakeholders, and citizens. The completion of the Plan will bring about community interest in advancing the identified priority actions as quickly as possible. However, the pace with which change occurs will be dependent on several things, including consistent support for the Plan (during incremental decision-making and through partner agencies), continued strength in the real estate market, and the degree with which efforts are made to promote the plan externally. As the Plan informs future decisions, it's important to consider the following:



The Bay Street corridor is a community asset. The corridor is more than the sum of their respective parts and features. They're not simply transportation conduits nor are they exclusively places that accommodate development. While individual perspectives will influence how these corridors are perceived, one thing is clear: they are of significant value to Glynn County, the City of Brunswick, and the members of the community. It has the capacity to make positive contributions to a variety of interests, including housing, quality of life, economic opportunity, mobility, equity, and environment. The cultivation of this asset through incremental decisions and investments to generate enhanced opportunities for the individual and community, should be a principle of universal appeal. However, the recommendations contained within the Plan are designed to safeguard against actions that may limit the productivity and effectiveness of the corridors to advance community priorities.

Connecting people with community assets can benefit a variety of interests. While the planning process focused on the physical planning and design of the corridor, this project really is about connecting people with places in a positive way. How our residents experience our community is largely influenced by the physical form of commerce, the travel experience and opportunity, and the places we live, work, and play. This philosophy couldn't be more important than in the areas surrounding the Bay Street corridor.

Enhancing the connection between people and places through quality design can change the perceptions and the experience. Downtown, the Mayor's Point Terminal, our parks are all positive features that when connected to the study corridor will help to unlock unrealized potential and create competitive advantages not experienced elsewhere. However, these connections should be intentional,

frequent, and inclusive. As incremental decisions are made, efforts to enhance the connection between our community assets will result in increased vibrancy and the equity with which the benefits of vibrancy are enjoyed.





Success can be non-linear and incremental. Glynn County and the City of Brunswick should focus on opportunities where direct influence is most prevalent while simultaneously advocating and promoting the Plan with external agencies and private sector entities. This will create an environment where positive change can begin to occur, now with continued enhancements occurring over time through the actions and investments of public and private entities.