Planning Commission Agenda

Monday, January 6, 2025 at 6:00 PM
Council Chambers
County Administration Building, 100 Ribaut Road, Beaufort, SC

ALL OF OUR MEETINGS ARE AVAILABLE FOR VIEWING ONLINE AT WWW.BEAUFORTCOUNTYSC.GOV AND CAN ALSO BE VIEWED ON HARGRAY CHANNELS 9 AND 113, COMCAST CHANNEL 2, AND SPECTRUM CHANNEL 1304.

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. FOIA – PUBLIC NOTIFICATION OF THIS MEETING HAS BEEN PUBLISHED, POSTED, AND DISTRIBUTED IN COMPLIANCE WITH THE SOUTH CAROLINA FREEDOM OF INFORMATION ACT
4. APPROVAL OF MEETING MINUTES – December 2, 2024 Workshop and Regular
5. APPROVAL OF AGENDA
6. CITIZEN COMMENTS – NON-AGENDA ITEMS
   (*Comments are limited to 3 minutes.)*

ACTION ITEMS

7. **CONSIDERATION OF AN ORDINANCE AMENDING THE ZONING MAP** FOR 121.43 ACRES (R600 013 000 0008 0000, R600 013 000 0050 0000, R600 013 000 0105 0000, R600 013 000 0104 0000) LOCATED ON OKATIE HIGHWAY FROM T2 RURAL (T2R) TO T4 NEIGHBORHOOD CENTER (T4NC) AND T3 NEIGHBORHOOD- OPEN (T3N-O) USING A VILLAGE PLACE TYPE OVERLAY (PTO)

8. **CONSIDERATION OF AN ORDINANCE AMENDING THE ZONING MAP** FOR 3.28 ACRES LOCATED AT 64 JAMES O CT (R600 036 000 0022 0000) FROM T3 EDGE (T3E) TO MAY RIVER COMMUNITY PRESERVATION (MRCP)

DISCUSSION ITEMS

9. CHAIRMAN'S REPORT
10. ADJOURNMENT

County Council of Beaufort County Planning Commission Meeting

Chairman
ED PAPPAS
Vice Chair
CECILY MCMILLAN

Commission Members
PETE COOK
JON HENNEY
EUGENE MEYERS
GLENN MILLER
GAIL MURRAY
DANIEL RIEDEL
DENNIS ROSS

County Administrator
MICHAEL MOORE

Staff Support
ROBERT MERCHANT

Administration Building
Beaufort County Government
Robert Smalls Complex
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COUNTY COUNCIL OF BEAUFORT COUNTY
Beaufort County Planning and Zoning Department
Beaufort County Government Robert Smalls Complex
Physical: Administration Building, Room 115 100 Ribaut Road
Mailing: Post Office Drawer 1228, Beaufort, SC 29901-1228
Phone: 843-255-2140

The workshop meeting of the Beaufort County Planning Commission (hereinafter "Commission") was held in the Executive Conference Room on Monday, December 2, 2024 at 5:30 p.m.

MEMBERS PRESENT:
Mr. Ed Pappas, Chairman
Mr. Pete Cook
Mr. Jon Henney
Mr. Gene Meyers
Mr. Glenn Miller
Ms. Gail Murray
Mr. Dennis Ross

MEMBERS ABSENT:
Ms. Cecily McMillan, Vice Chair
Mr. Dan Riedel

STAFF PRESENT:
Mr. Rob Merchant, Planning and Zoning Director
Ms. Kristen Forbus, Long Range Planner

CALL TO ORDER: Chairman Ed Pappas called the meeting to order at 5:35 p.m.

DISCUSSION:
Members and staff discussed the need for the update to the 2040 Comprehensive Plan in 2025. There was discussion about schedules, workshops, working groups, and stakeholder meetings. Affordable housing was named a priority.

ADJOURNMENT: Chairman Pappas adjourned the meeting at 5:52 p.m.

SUBMITTED BY: Kristen Forbus
Long-Range Planner

_____
Ed Pappas
Beaufort County Planning Commission Chairman

Date: _____

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The regular meeting of the Beaufort County Planning Commission (hereinafter "Commission") was held in Council Chambers on Monday, December 2, 2024 at 6:00 p.m.

MEMBERS PRESENT:
Mr. Ed Pappas, Chairman
Ms. Cecily McMillan, Vice Chair
Mr. Pete Cook
Mr. Jon Henney
Mr. Gene Meyers
Mr. Glenn Miller
Ms. Gail Murray
Mr. Dennis Ross

MEMBERS ABSENT:
Mr. Dan Riedel

STAFF PRESENT:
Mr. Robert Merchant, Planning and Zoning Director
Ms. Kristen Forbus, Long Range Planner
Mr. Kevin Sullivan, Transportation Planner
Mr. Bryan Bauer, Engineering Director
Mr. Chuck Atkinson, Assistant County Administrator

CALL TO ORDER: Chairman Ed Pappas called the meeting to order at 6:00 p.m.

PLEDGE OF ALLEGIANCE: Chairman Pappas led those assembled in the pledge of allegiance.

REVIEW OF MEETING MINUTES: The October 7th, 2024 Planning Commission minutes were approved with no objections.

CITIZEN COMMENTS: Mr. Pappas asked if there were any non-agenda related citizen comments; there were none.

ACTION ITEMS:

CONSIDERATION OF AN ORDINANCE AMENDING THE ZONING MAP FOR 49.16 ACRES (R600 029 000 0005 0000, R600 029 000 0143 0000, R600 029 000 1194 0000, R600 029 000 0002 0000, R600 029 000 008A 0000, R600 029 000 008C 0000, R600 029 000 0006 0000, R600 029 000 0026 0000) LOCATED ON OKATIE HIGHWAY FROM T2 RURAL (T2R) TO NEIGHBORHOOD MIXED USE (C3)

Mr. Merchant presented the history of the request. Mr. Kevin Sullivan discussed the TIA and the proposal for three access points. He stated this will disperse traffic. There were no degradations of the intersections' Level of Service.

The applicant, Mr. Johnson, stated that the Town of Bluffton is not interested in annexation. He stated that Mosaic Development is not the owner but is under contract. He introduced John Boomer Stufflebeem.

Mr. Stufflebeem discussed the Low Country Veterans Housing Foundation that will be funding the affordable housing in the presented development. He then read aloud a letter of support from General McCaffrey. Chairman Pappas stated concerns about the number of affordable dwelling units being less than 10% of the overall proposed development. The filing process of the non-profit was discussed. The commission members had concern about the 501(c)3 status.

JR Brown with the Operations Patriots FOB spoke in support for the rezoning.

Michael Coery stated support and discussed fundraising opportunities.

General Fig Newton spoke in support for the rezoning.

Tony Bastardi of Mosaic Development discussed the filing process of 501(c)3 and background of the timeline of the rezoning application.

Phil Eubank of Urban Edge Studio stated that the designation of the parcels as Hamlet Place Type and T2 Rural are inappropriate designations. Mr. Henney stated concern of the proposed future TCP parcel not meeting acreage requirements.

Chairman Pappas opened the meeting up for public comment.
Marie D'Amico spoke against the proposed rezoning.
Sheery Blaidsdell spoke against the proposed rezoning.

Development Agreements were discussed between the Commission and Mr. Merchant. It was expressed that DAs cannot be used to intensify something like density.

Mr. Henney made a motion to recommended denial of CONSIDERATION OF AN ORDINANCE AMENDING THE ZONING MAP FOR 49.16 ACRES (R600 029 000 0005 0000, R600 029 000 0143 0000, R600 029 000 1194 0000, R600 029 000 0002 0000, R600 029 000 008A 0000, R600 029 000 008C 0000, R600 029 000 0006 0000, R600 029 000 0026 0000) LOCATED ON OKATIE HIGHWAY FROM T2 RURAL (T2R) TO NEIGHBORHOOD MIXED USE (C3) with the further recommendation that an area wide plan be considered. Mr. Ross seconded the motion. The motion passed 8-0.

CONSIDERATION OF A TEXT AMENDMENT TO THE COMMUNITY DEVELOPMENT CODE (CDC): APPENDIX C.4 (BUCKWALTER PARKWAY) TO UPDATE ACCESS MANAGEMENT STANDARDS

Mr. Sullivan presented the Access management plan.

The Commission stated their concern about the relocation of Bluffton Parkway.

Mr. Atkinson requested a deferral of the text amendment.

Mr. Meyers motioned to grant a deferral of CONSIDERATION OF A TEXT AMENDMENT TO THE COMMUNITY DEVELOPMENT CODE (CDC): APPENDIX C.4 (BUCKWALTER PARKWAY) TO UPDATE ACCESS MANAGEMENT STANDARDS. Ms. McMillan seconded the motion. The motion passed 8-0.

Chairman Pappas opened the meeting up for public comment.
Mike Hagen spoke against the text amendment as it contains intersection relocation.
Joy Coe spoke against the text amendment.
Tony Lamartine spoke against the text amendment.

ADOPTION OF THE 2025 PLANNING COMMISSION MEETING SCHEDULE

The schedule was adopted. Mr. Pappas requested that some meetings occur in the Bluffton area.

ADJOURNMENT: Chairman Pappas adjourned the meeting at 8:55 p.m.

SUBMITTED BY: Kristen Forbus
Long Range Planner

_____
Ed Pappas
Beaufort County Planning Commission Chairman

Date: _____

MEMORANDUM

TO: Beaufort County Planning Commission

FROM: Robert Merchant, AICP, Beaufort County Planning and Zoning Department

DATE: January 6, 2025

SUBJECT: CONSIDERATION OF AN ORDINANCE AMENDING THE ZONING MAP FOR 121.43 ACRES (R600 013 000 0008 0000, R600 013 000 0050 0000, R600 013 000 0105 0000, R600 013 000 0104 0000) LOCATED ON OKATIE HIGHWAY FROM T2 RURAL (T2R) TO T4 NEIGHBORHOOD CENTER (T4NC) AND T3 NEIGHBORHOOD- OPEN (T3N-O) USING A VILLAGE PLACE TYPE OVERLAY (PTO)

STAFF REPORT:

A. BACKGROUND:

Case No.	CDPA-000043-2024
Owner:	Beaufort County School District and Kengeter
Property Location:	Okatie Hwy and Cherry Point Rd
District/Map/Parcel:	R600 013 000 0008 0000, R600 013 000 0050 0000, R600 013 000 0105 0000, R600 013 000 0104 0000
Property Size:	121.43 Acres
Current Future Land Use Designation:	Rural, Place Type Overlay (Village Place Type)
Current Zoning District:	T2 Rural
Proposed Zoning District:	T4 Neighborhood Center and T3 Neighborhood-Open utilizing Place Type Overlay

B. SUMMARY OF REQUEST: The applicant is requesting to rezone four parcels into two zoning districts (T4 Neighborhood Center and T3 Neighborhood-Open) by using the Place Type Overlay (PTO) Village Place Type. Per the regulating plan, Parcel A would be comprised of dwellings and commercial space, Parcel B would yield a future school, Parcel C contains Okatie Elementary school, and Parcel D is to be used to provide better access to Okatie

Elementary and create space for appropriate future development. The proposed PTO will enhance the connection between the Malind Bluff and River Oaks communities by creating a sense of place that the area currently lacks. Integrating the existing Elementary school into a Village Place Type while also adjoining residential communities would accomplish the Comprehensive Plan's objective of providing walkable mixed-use nodes at intervals along the SC 170 corridor.

At their October 2024 meeting, the Planning Commission granted the applicant a deferral. During this meeting, the Planning Commission expressed concern that the TIA was not up to date reflecting the current development proposal and that the traffic calculations did not take a future school site into account. The commission also expressed concern that the makeup of the transects does not meet the spirit of the allocation mix of transect zones. There were further concerns about the lack of a representative from the School District at the meeting to discuss future plans for Parcel B. As for correspondence, the commission wanted more time to review comments provided by residents of Malind Bluff and the Cherry Point Neighborhood. In response to the Planning Commission and staff's comments, the applicant has since made the following changes:

- The applicant has updated their TIA to display multiple scenarios
- The applicant has changed the proposed T3 Neighborhood to T3 Neighborhood-Open
- A pedestrian shed was created in Parcel D
- Rear access thoroughfare types were removed from Parcel D
- Parcel D now has blocks
- Block A in Parcel A has been adjusted to no longer exceed 1600 feet
- Block F East has now been measured and labeled
- The 25 ft buffer and 10 ft trail easement have been consolidated into one 35 ft buffer
- Civic Open space requirements are now stated for Parcels A, B, and D

It is important to note that referendum to widen SC 170 into a 6-lane highway failed in November 2024.

C. EXISTING ZONING: The lots are currently zoned T2 Rural (T2R), which permits residential development at a density of one dwelling unit per three acres. T2 Rural also permits very limited non-residential uses.

D. PROPOSED ZONING: The CDC defines Village Place Type as "made up of clusters of residential neighborhoods of sufficient intensity to support a central, mixed-use environment. The mixed-use environment can be located at the intersection of multiple neighborhoods or along a corridor between multiple neighborhoods. Habersham is a good example of a place that is evolving into a village." It gives greater opportunity for a mixture of development types than a common subdivision because it is made up of a combination of transect zones. A PTO has requirements that create a format for a successful development

as it includes standards such as percentages of land assigned to a certain zoning district, size and intensity, an organized transition of transect zones, pedestrian sheds, thoroughfare networks, open and civic space, neighborhood centers/main streets, suitability for the site's specific topographical and environmental constraints, and compliance with architectural and design standards. In this instance, the applicant is requesting a Village Place Type which is to abide by the following:

Village Place Type

110 acres min., 500 acres max.
6 du./ac. max.

Village Place Type		
T3 Edge (T3E)	No min.	25% max.
T3 Hamlet Neighborhood (T3HN)	No min.	25% max.
T3 Neighborhood (T3N)	25% min.	70% max.
T4 Hamlet Center Open (T4HCO) and/or T4 Neighborhood Center (T4NC)	10% min.	50% max.

The applicant has proposed to use the following transect zones for the PTO development:

- T3 Neighborhood-Open district is a subzone of T3 Neighborhood. T3N is "intended to provide a walkable, predominantly single- family neighborhood that integrates compatible multi-family housing types, such as duplexes and cottage courts within walking distance to transit and commercial areas." As a subzone, T3N-O is intended to "provide a more diverse set of allowed uses within a residential form in areas where residential uses are transitioning into commercial uses."
- T4 Neighborhood Center district is "intended to integrate vibrant main-street commercial and retail environments into neighborhoods, providing access to day-to-day amenities within walking distance, creating potential for a transit stop, and serving as a focal point for the neighborhood."

E. TRAFFIC IMPACT ANALYSIS (TIA): According to Section 6.3.20.D of the CDC, *"An application for a rezoning shall include a TIA where the particular project or zoning district may result in a development that generates 50 trips during the peak hour or will change the level of service of the affected street."* An updated TIA memorandum has been provided and

reviewed by staff. The TIA has multiple scenarios that include Phase 1 (2029, Parcels A and D1 only) and Phase 2 (2035, Parcels A, D1, and B). There were several intersections studied, but the TIA performed supplemental analysis on the 3 Signalized Intersections nearest the development - Pritcher Road, Cherry Point, and Riverwalk. Takeaways will be focused on these 3. The main takeaways are below:

- In Scenario 1 (Year 2024 with Existing 4-Lanes Conditions) the TIA finds that the LOS at:
  - Riverwalk and Pritcher operate at unacceptable levels (Es & Fs).
  - Cherry Point operates at acceptable levels of LOS D in the AM and LOS B during SCHOOL and PM.
- In Scenario 2 (Year 2029 Build Phase 1 with Existing 4 Lane Conditions plus R/Cut Assumption but no Widening) the TIA finds that the LOS at:
  - All 3 intersections operate at acceptable levels (B, C, and Ds).
- In Scenario 3 (Year 2035 Build Phase 2 with Existing 4 Lane Conditions plus R/Cut Assumption but no Widening) the TIA finds that the LOS at:
  - Riverwalk and Cherry Point Road operate at unacceptable levels (Es).
  - But Pritcher Point operates at acceptable levels LOS C in the AM, SCHOOL, PM.
- In Scenario 4 (Year 2035 Build Phase 2 with Widened 6 Lane Conditions plus R/Cut Assumption) the TIA finds that the LOS at:
  - All 3 intersections operate at acceptable levels during the AM, SCHOOL, and PM peaks (Ds or better); ratings are the same for 2029

F. ZONING MAP AMENDMENT REVIEW STANDARDS: In determining whether to adopt or deny a proposed Zone Map Amendment, the County Council shall weigh the relevance of and consider whether and the extent to which the proposed amendment:

1. **Is consistent with and furthers the goals, and policies of the Comprehensive Plan and the purposes of this Development Code;**
   Yes, it is consistent with the Comprehensive Plan. Although the Comprehensive Plan states the Future Land Use of these properties is to be Rural, it also expresses for the option to create a Village Place Type. The purpose of the Place Type Overlay (PTO) is to provide the opportunity for properties that are identified in the Comprehensive Plan as rural crossroad, hamlet, and village place types to seek a comprehensive zoning amendment to establish transect zones (Division 3.2) to implement the vision for these place types. The Place Type Overlay (PTO) Zone is intended to create and reinforce walkable, urban environments with a mix of housing, civic, retail, and service choices. The Beaufort County Comprehensive Plan specifically addresses development along the SC 170 corridor. It states under the SC 170 Corridor section: "Establishing Place Types that coincide with major intersections, consistent buffers of native vegetation, joint review of proposed plans along the corridor, and agreement on access management standards will lead to a corridor with walkable mixed-use nodes at intervals, natural buffers between the road and development, compatible

land uses across jurisdictions, and safer, better managed traffic." The Comprehensive Plan also has action BE 3.2 which states: "Initiate a prototype community- based Place Type implementation plan that involved property owners, and other stakeholders to serve as a vision for other areas of the county where walkable urbanism is appropriate." The usage of a Place Type Overlay is the only way to properly upzone property such as this.

2. **Is not in conflict with any provision of this Development Code, or the Code of Ordinances;**
   This rezoning application could technically be in conflict with Table 3.4.80.E as the application requests T3 Neighborhood-Open rather than its principal zoning district T3 Neighborhood. T3N-O has the same standards as T3N, but it provides more diverse allowed uses.

3. **Addresses a demonstrated community need;**
   Yes, it addresses a community need; this proposed Place Type Overlay will provide 30.73 acres for a future school site.

4. **Is required by changed conditions;**
   No, it is not required by changed conditions.

5. **Is compatible with existing and proposed uses surrounding the land subject to the application, and is the appropriate zone and uses for the land;**
   Yes, it is compatible with the surrounding land. The area surrounding the parcels in this application primarily consist of single-family homes. The proposed regulating plan aims to enhance this by expanding housing options and creating additional civic spaces, along with small-scale businesses toward SC 170. In addition, there is a significant need for another school in the area and situating it in a walkable and/or bikeable distance from where families already reside is an essential practice of planning.

6. **Would not adversely affect nearby lands;**
   No, it would adversely affect nearby lands. The Level of Service changes, caused by this development, for the intersections along SC 170 will heavily affect those travelling through SC 170 and those currently residing in nearby neighborhoods.

7. **Would result in a logical and orderly development pattern**;
   Yes, this rezoning would build off existing development patterns of Malind Bluff, River Oaks, and Okatie Elementary. The interconnected neighborhood of this development creates an orderly development pattern.

8. **Would not result in adverse impacts on the natural environment – including, but not limited to, water, air, noise, stormwater management, wildlife, vegetation, wetlands, and the natural functioning of the environment:**
   No, it would not result in adverse impacts of the natural environment. Any development on the site would be required to adhere to the natural resource protection, tree protection, wetland protection, and stormwater standards in the Community Development Code and the Stormwater BMP Manual.

9. **Would result in development that is adequately served by public facilities (e.g.. streets, potable water, sewerage, stormwater management, solid waste collection and disposal, schools, parks, police, and fire and emergency medical facilities:**
   Yes, the School District is in favor of this PTO rezoning application. It is attached. BJWSA has been notified. There is access to sewer service for development in this area. The developer will be responsible for covering any required enhancements or expansions to water and sewer capacities resulting from the proposed project. Although the applicant is willing to provide enhancements and expansions on SC 170, the Level of Service will still not be up to par with the County's preferred standards. The best Level of Services include the assumption that SC 170 will be widened to 6 lanes by 2029 (the completion of Phase 1- Parcel A and D1 only). It is important to note that the referendum to expand SC 170 failed in November 2024. The other 2029 scenarios in which a 6-lane widening is not implemented come to LOS grades of Ds, Es and Fs- these grades go up to Bs, Cs, and Ds with the implementation of an R/Cut, however. These delays worsen in 2035 (the completion of Phase 2- Parcel A, D1, and B) as some intersections drop to a Level of Service E.

G. STAFF RECOMMENDATION: This rezoning request does not meet all of the map amendment review standards in Section 7.3.40.C as it could be deemed to be in conflict with Table 3.4.80.E and may compound the condition of SC 170. However, it does meet some of these standards as it facilitates a land transfer that will provide a 30-acre set aside for a much-needed future public school site. The Comprehensive Plan supports the type of development that is being proposed by this Place Type. Even though the Comprehensive Plan designates the area as rural, it is designated as a Village Place Type which provides a vehicle for the parcels to upzone as an integrated mixed-use walkable community.

Although staff has determined that the applicant is willing to provide enhancements and expansions on SC 170, the Level of Service will still not be up to par with the County's preferred standards. The best Levels of Service include the assumption that SC 170 will be widened to 6 lanes or an R/Cut is implemented. It is important to note that the referendum to expand SC 170 failed in November 2024. Staff recommends that the Planning Commission take into account the provided scenarios and the Level of Service ratings along with the lack of designated funding source for the widening of SC 170.

If the rezoning is to be granted, staff suggests that a Development Agreement should be entered into between the developer and County Council to ensure that all the conditions of this recommendation are implemented concurrently with third and final reading of the zoning map amendment. It is necessary that the recommended mitigation measures and the timing of said mitigation measures be memorialized in a Development Agreement between the Developer and the entity funding the R/Cut Assumption at these three intersections (Pritcher Road, Cherry Point, and Riverwalk), since the Developer needs the installation of the R/Cut for this scenario to achieve acceptable LOS.

H. ATTACHMENTS

- Zoning Map (existing and proposed)
- Application and TIA
- School District Letter of Support

Existing Zoning

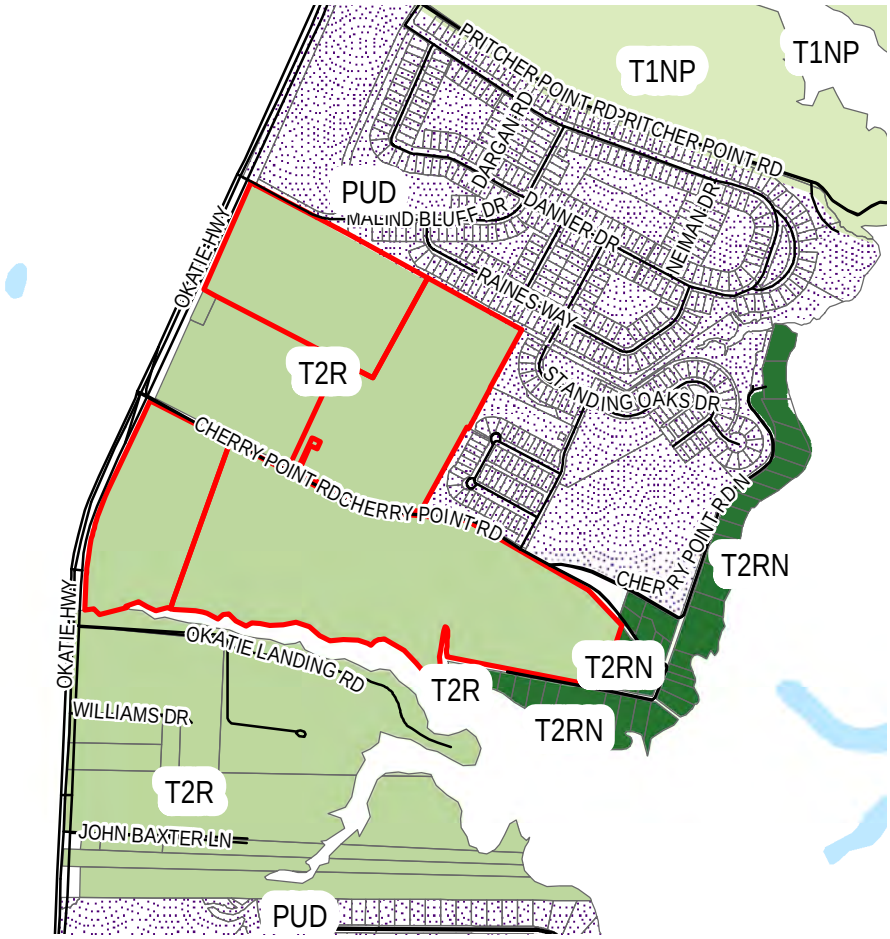
Legend

R600 13 8, 50, 104, 105

Zone Districts

FBCode

- Buckingham Landing Community Preservation[BLCP]
- C3 Neighborhood Mixed Use [C3NMU]
- C4 Community Center Mixed Use [C4CCMU]
- C5 Regional Center Mixed Use [C5RCMU]
- May River Community Preservation [MRCP]
- Existing Planned Unit Development [PUD]
- T1 Natural Preserve [T1NP]
- T2 Rural [T2R]
- T2 Rural Center [T2RC]
- T2 Rural Neighborhood [T2RN]
- T3 Edge [T3Edge]
- T3 Hamlet Neighborhood [T3HN]
- T3 Neighborhood [T3N]
- T4 Hamlet Center [T4HC]
- T4 Hamlet Center Open [T4HCO]
- T4 Neighborhood Center [T4NC]



R600 022 000 011A 0000

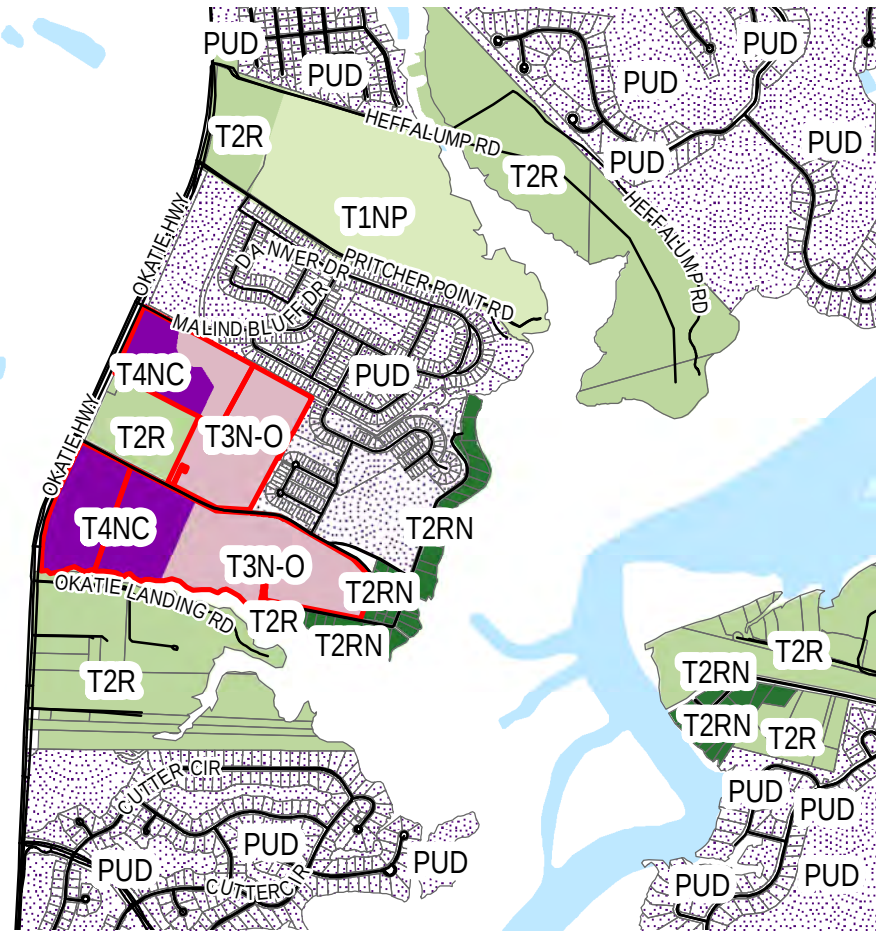
Proposed Zoning

Legend

R600 13 8, 50, 104, 105

FBCode

- Buckingham Landing Community Preservation[BLCP]
- C3 Neighborhood Mixed Use [C3NMU]
- C4 Community Center Mixed Use [C4CCMU]
- C5 Regional Center Mixed Use [C5RCMU]
- May River Community Preservation [MRCP]
- Existing Planned Unit Development [PUD]
- T1 Natural Preserve [T1NP]
- T2 Rural [T2R]
- T2 Rural Center [T2RC]
- T2 Rural Neighborhood [T2RN]
- T3 Edge [T3Edge]
- T3 Hamlet Neighborhood [T3HN]
- T3 Neighborhood [T3N-O]
- T4 Hamlet Center [T4HC]
- T4 Hamlet Center Open [T4HCO]
- T4 Neighborhood Center [T4NC]



ZONING MAP AMENDMENT

FOR:

OKATIE LANDING

Parcel ID:

R600 013 000 0008 0000 (20 ACRES)

R600 013 000 0050 0000 (51.54 ACRES)

AND

BEAUFORT COUNTY SCHOOL DISTRICT PARCELS:

R600 013 000 0105 0000 (22 ACRES)

R600 013 000 0104 0000 (27.89 ACRES)

OKATIE HIGHWAY

BEAUFORT COUNTY, SC

SOUTH CAROLINA

PREPARED FOR:

MR. RICHARD SCHWARTZ

DRAFT DECEMBER 19, 2024

Prepared By:

Witmer Jones Keefer, Ltd.

Table of Contents

EXHIBITS

II. Project Introduction and Overview

This application is for a Zoning Map Amendment for property located at 1691 Okatie Highway (Highway 170) including the following parcels:

R600 013 000 0008 0000 (20 ACRES)
R600 013 000 0050 0000 (51.54 ACRES)
BEAUFORT COUNTY SCHOOL DISTRICT PARCELS:
R600 013 000 0105 0000 (22 ACRES)
R600 013 000 0104 0000 (27.89 ACRES)
Total Acres: 121.43 ACRES

This application is submitted under ***7.3.50 - Place Type Overlay (PTO)*** of the Beaufort County Community Development Code. The comprehensive plan outlines the locations to utilize the PTO zone and states: ***'The PTO Zone is intended to create and reinforce walkable, urban environments with a mix of housing, civic, retail and service choices'***

The property is located within a Place Type Overlay (PTO) zone identified in the Comprehensive plan (SC 170 Corridor) as a Village Place Type. The Village place type is '***made up of clusters of residential neighborhoods of sufficient intensity to support a central, mixed-use environment. The mixed-use environment can be located at the intersection of multiple neighborhoods or along a corridor between neighborhoods.'*** Following illustration from the Comprehensive plan with Yellow circle indicating Village Place Type:

The applicant seeks to establish the PTO and transect zones to implement the following vision outlined in the comprehensive plan:

- Improve the built environment and human habitat.
- Promote development patterns that support safe, effective, and multi-modal transportation options, including auto, pedestrian, bicycle, and transit. This will minimize vehicle traffic by providing for a mix of land uses, walkability, and compact community form.
- Provide neighborhoods with a variety of housing types to serve a diverse population.
- Remove barriers and provide incentives for walkable urban projects.
- Promote the greater health benefits of a pedestrian-oriented environment.
- Reinforce the character and quality of local communities, including crossroads, neighborhoods, hamlets, and villages.
- Reduce sprawling, auto-dependent development.
- Protect and enhance real property values.
- Reinforce the unique identity of Beaufort County that builds upon the local context, climate, and history.

The Focal Area Plans that follow recognize the value of Place Types and promote their use across the County.

BEAUFORT COUNTY COMPREHENSIVE PLAN | 117

Page 123 of the comprehensive plan outlines the SC 170 Corridor Planning Standards and Guidelines:

III. Existing Conditions:

The +/- 121.43 acre Okatie Landing Property is currently zoned T2R and is located along the East side of Okatie Highway.

This application includes 4 parcels including the existing Okatie Elementary school site. (See Location Map - exhibit A).

Following are the adjacent Uses:

To the West: Riverwalk Business park and commercial uses along Highway 170

To the East : Single Family Residential

To the North: Single Family Residential consistent with T3 zoning

To the South: Marsh and Creek connecting to the Okatie River

The tree cover on the property south of Cherry Point Road includes planted pines and upland forest young. Natural resource delineation will be included in future land use planning. The property has a drainage ditch connecting from Highway 170 to the Okatie River creek. Topography on the site in generally around 15' elevation and falls towards the central drainage ditch and Okatie River Creek. The property at the Malind Bluff Drive intersection includes planted pines.

The Cherry Point property has access along Okatie Highway (SC highway 170) and Cherry Point Road. The northern properties have access off Okatie Highway and Malind Bluff Drive. There is currently a traffic signal at the intersection of Okatie Highway and Cherry Point Road. A traffic impact study is included as Exhibit 'D'. The traffic impact study provides guidance for the proposed street network and proposed off site improvements.

IV. Regulating plan and Village Place Type Overlay

The attached Place Type Overlay - Regulating Plan (Exhibit D) illustrates the Transect Zones to implement the vision of the Village Place Type Overlay. The transect zones within Okatie Bluff include T4 Neighborhood Center, and T3N-O Neighborhood. The transects are connected with streets and open spaces to form organized blocks. The existing Okatie Elementary School parcel and the future School site are proposed to be T3N-O Neighborhood. The areas included in the T3N-O zoning will be limited to uses allowed in T3N and School as special use. All other uses specifically allowed in T3N-O will not be allowed.

Following is an overview for each of the transect zones from the community development code:

T4 Neighborhood Center (T4NC) *Zone is intended to integrate vibrant main-street commercial and retail environments into neighborhoods, providing access to day-to-day amenities within walking distance, creating potential for a transit stop, and serving as a focal point for the neighborhood.*
The T4 Neighborhood Center Zone implements the Comprehensive Plan goals of creating areas of higher intensity residential and commercial uses in Beaufort County, the City of Beaufort and Town of Port Royal.

The Neighborhood (T3N) *Zone is intended to provide a walkable, predominantly single-family neighborhood that integrates compatible multi-family housing types, such as duplexes and cottage courts within walking distance to transit and commercial areas.*
The T3 Neighborhood Zone implements the Comprehensive Plan goals of preserving and building upon the walkable character of portions of Beaufort County, the City of Beaufort and Town of Port Royal.

'*The intent of the T3N-O is to provide a more diverse set of allowed uses within a residential form in areas where residential uses are transitioning into commercial uses.'*

The regulating plan outlines open space corridors to provide guidance for future detailed planning. The open spaces are positioned for environmental preservation; stormwater management and recreation.

V. Place Type Overlay Standards are met as follows on the Regulating Plan:

1. ***Transect Organization:*** *Transects shall be organized in a manner that responds appropriately to a site's context. More intense transect zones shall be organized around neighborhood centers and neighborhood main streets in visible and accessible locations suitable for greater intensities, typically at or near the center of a pedestrian shed. See Section 2.3.90 (Neighborhood Centers/Main Streets).*

   The Transects zones are organized to be most intense adjacent to Highway 170 to least intense along the Eastern boundary. The School sites provide transition to the adjacent residential properties.

2. ***Transition of Transect Zones:*** *When applying transect zones, transitions between transect zones containing the neighborhood designation (T4NC, T4HC, T3N, T3HN) are encouraged to occur within the block or across alleys, but may occur across a street.*

   Transition of transect zones occur along Green space corridors or within blocks.

3. *Place Types shall be structured with pedestrian sheds to determine the scale and center. See Section 2.3.50 (Pedestrian Sheds).*

   Pedestrian sheds are illustrated with a 5 minute walk to the T4 Neighborhood Center and proposed park space ; a secondary pedestrian shed is centrally location with the vision of a gathering hall and amenities. Both pedestrian sheds illustrate a 5 minute walk to Okatie Elementary and the future school site.

4. The thoroughfare network shall meet the standards in Section 2.3.70 (Thoroughfares).

   Thoroughfares are illustrated on the regulating plan per Section 2.3.70 and included in Exhibit C.

5. Open space, civic spaces and civic buildings shall be allocated according to the standards in Section 2.3.80 (Open Space, Civic Space and Civic Buildings).

   General Open spaces, Civic spaces and parks are allocated on the regulating plan. Future detailed master plans will follow the standards outlined in 2.3.80.

6. Place types shall have neighborhood centers/main streets to meet the standards in Section 2.3.90 (Neighborhood Centers/Main Streets).

   The neighborhood center is located within the T4N along the primary thoroughfare. The neighborhood center includes space for retail uses, civic use or neighborhood amenities.

7. Place types shall incorporate appropriate transitions to the scale and character of the surrounding walkable urbanism.

   The regulating plan includes buffers and setbacks to allow appropriate transition to the surrounding land. Pedestrian networks align existing neighborhoods and the adjacent Okatie Elementary school. There is also a proposed trail network along Cherry Point Road.

8. Place Types shall be calibrated to suit specific topographical, environmental, site layout, and design constraints unique to the site or its location within the County, yet each place type will be consistent in terms of structure and content based on the provisions of this Division.

   The Okatie Landing Regulating Plan includes connected green space corridors for environmental protection, stormwater treatment and connectivity between the transect zones. Street networks are positioned to align with adjacent uses for vehicular and pedestrian connectivity. Block networks allow flexibility for a range of housing types subject to community needs.

VI. Zone Map Amendment Review standards 7.3.40C

Following are the 9 items outlined in Community Development Code for consideration with the proposed amendment:

1. *Is consistent with and furthers the goals, and policies of the Comprehensive Plan and the purposes of this Development Code. In areas of new development, a finding of consistency with the Comprehensive Plan shall be considered to meet the standards below, unless compelling evidence demonstrates the proposed amendment would threaten the public health, safety, and welfare if the land subject to the amendment is classified to be consistent with the Comprehensive Plan;*

   The Village place type overlay and corresponding transect zones ensure consistency with the comprehensive plan . The proposed PTO and regulating plan support the vision of the

comprehensive plan to improve the built environment with complete streets, Promote safe effective transportation options with walkable neighborhoods; provides variety of housing types with multifamily, duplex, townhomes and single family homes; protects property values and enhances the unique identify of Beaufort County with architectural /landscape standards.

2. *Is not in conflict with any provision of this Development Code, or the Code of Ordinances;*

The zoning map amendment is consistent with the Place Type Overlay Zone outlined in 3.3.80 in the Development Code. The amendment is also consistent with the Comprehensive Plan.

3. *Addresses a demonstrated community need;*

As outlined in the comprehensive plan the SC 170 Corridor needs walkable mixed-use nodes. The Place type overlay provides guidance for housing closer to areas of employment and opportunities for diversify in housing types.

4. *Is required by changed conditions;*

The surrounding growth pattern including commercial; civic; medical and education uses along the highway 170 corridor have significantly changed the conditions. This growth has stimulated the need for local residential housing and mixed use retail. The current low density zoning represents sprawl type development versus concentrating density within growth areas.

5. *Is compatible with existing and proposed uses surrounding the land subject to the application, and is the appropriate zone and uses for the land;*

The Regulating plan outlines the transition from higher density residential to lower density residential complementing the adjacent use patterns and school site. Open space and preserved buffers ensure protection of the adjacent natural resources.

6. *Would not adversely impact nearby lands;*

The zoning amendment and transect zoning are compatible with the adjacent land uses. Any proposed development will adhere to the transect zones and comply with the buffers prescribed in the regulating plan.

7. *Would result in a logical and orderly development pattern;*

The proposed Village Place Type follows the guidance of the Comprehensive plan . Existing infrastructure and growth patterns allow for the Village Place Type overlay growth pattern. The proposed school site complements the adjacent properties.

8. *Would not result in adverse impacts on the natural environment—including, but not limited to, water, air, noise, storm water management, wildlife, vegetation, wetlands, and the natural functioning of the environment;*

The plan amendment will adhere to the transect zones and comply with the buffers prescribed in the regulating plan. This ensure protection of natural resources during the plan amendment process.

9. *Would result in development that is adequately served by public facilities (e.g., streets, potable water, sewerage, stormwater management, solid waste collection and disposal, schools, parks, police, and fire and emergency medical facilities).*

Public facilities exist adjacent to the property including access points from Okatie Highway and Cherry Point Road and Malind Bluff; the property is within walking distance to Okatie Elementary. Utilities, Fire, EMS, and medical facilities are in place along the SC 170 Corridor.

VII. Traffic study

The Traffic Impact Study (Exhibit G) provides a detailed analysis of the existing and proposed conditions. The study includes mitigation to support the Zoning amendment and future planning for Okatie Landing.

LOCATION MAP

and

ADJACENT PARCEL ZONING MAP

EXHIBIT A

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Scale 1 " = 100'

OKATIE LANDING ZONING AMENDMENT

- VILLAGE PLACE TYPE -

OKATIE LANDING

BEAUFORT COUNTY, SOUTH CAROLINA

LOCATIONS MAP

DATE: DECEMBER 2, 2024

Note: Plan is conceptual in nature and subject to change.
Plan uses, calculatioons, and boundaries are subject to change.

Proposed Zoning

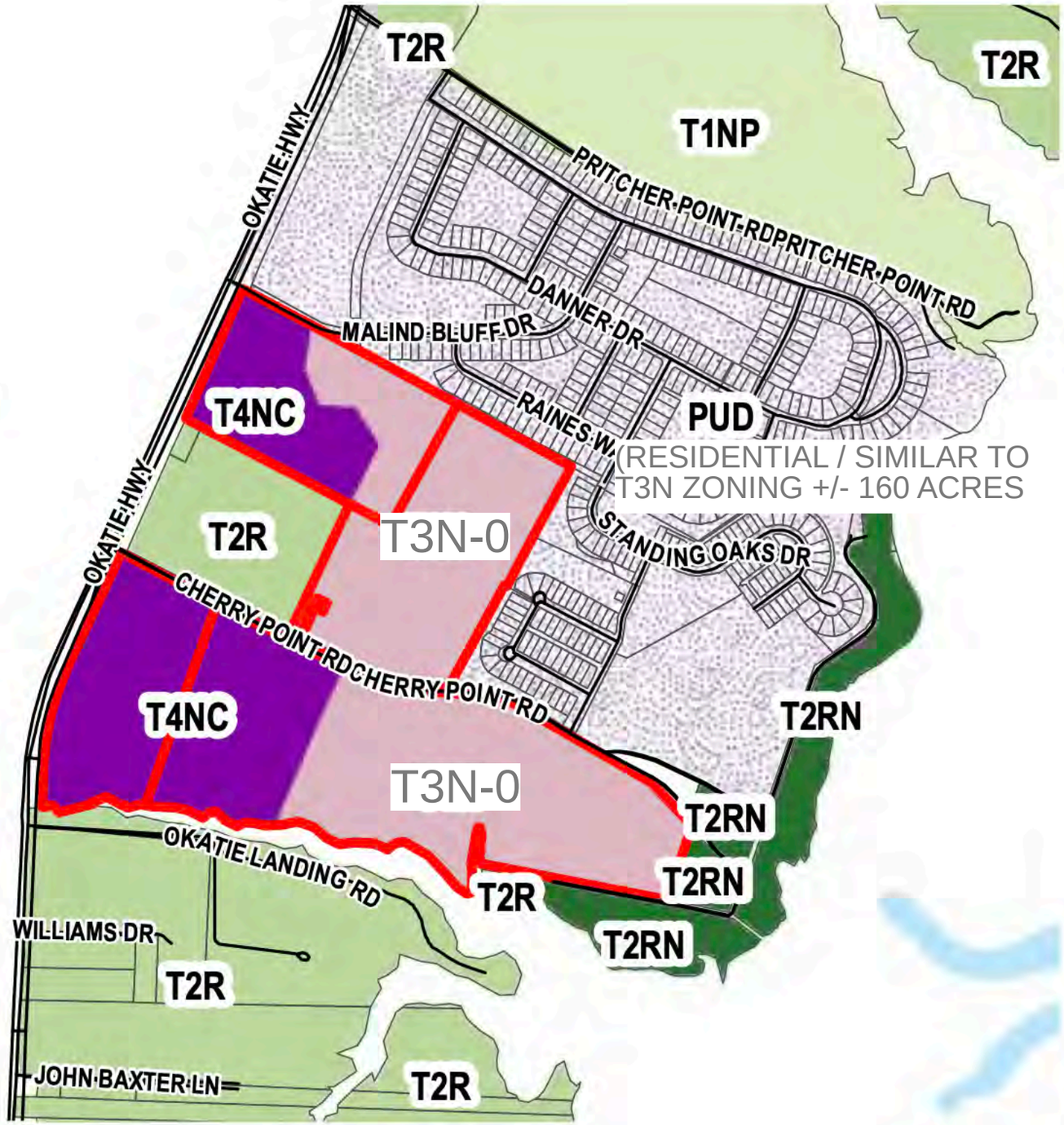
- OKATIE LANDING VILLAGE PLACE TYPE

Legend

- R600 13 8,50,104,105

FBCode

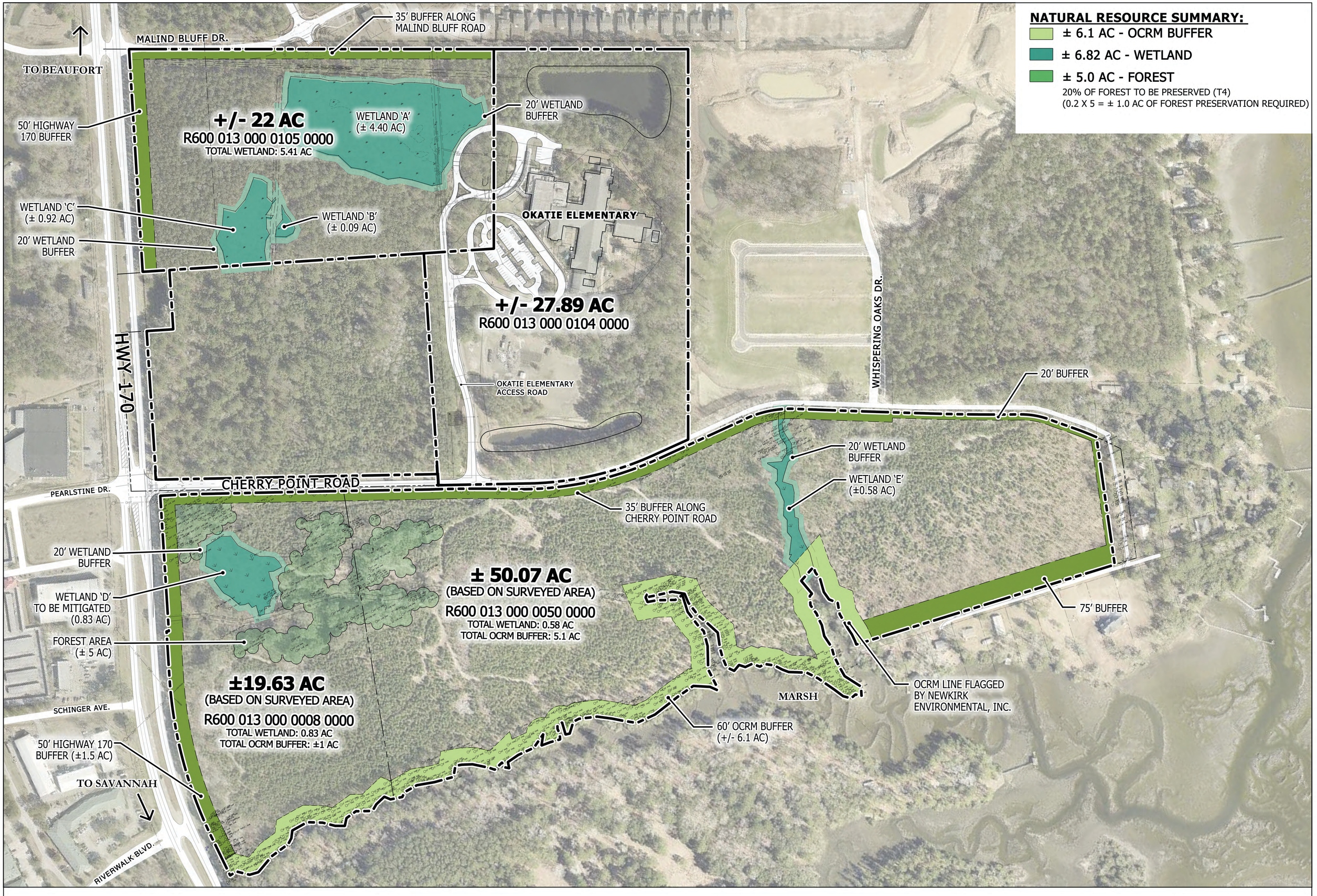
- Buckingham Landing Community Preservation[BLCP]
- C3 Neighborhood Mixed Use [C3NMU]
- C4 Community Center Mixed Use [C4CCMU]
- C5 Regional Center Mixed Use [C5RCMU]
- May River Community Preservation [MRCP]
- Existing Planned Unit Development [PUD]
- T1 Natural Preserve [T1NP]
- T2 Rural [T2R]
- T2 Rural Center [T2RC]
- T2 Rural Neighborhood [T2RN]
- T3 Edge [T3Edge]
- T3 Hamlet Neighborhood [T3HN]
- T3 Neighborhood [T3N]
- T4 Hamlet Center [T4HC]
- T4 Hamlet Center Open [T4HCO]
- T4 Neighborhood Center [T4NC]



(RESIDENTIAL / SIMILAR TO T3N ZONING +/- 160 ACRES

NATURAL RESOURCE PLAN

EXHIBIT B



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OKATIE LANDING ZONING AMENDMENT

- VILLAGE PLACE TYPE -
OKATIE LANDING
BEAUFORT COUNTY, SOUTH CAROLINA

NATURAL RESOURCES PLAN

DATE: DECEMBER 2, 2024

Note: Plan is conceptual in nature and subject to change.
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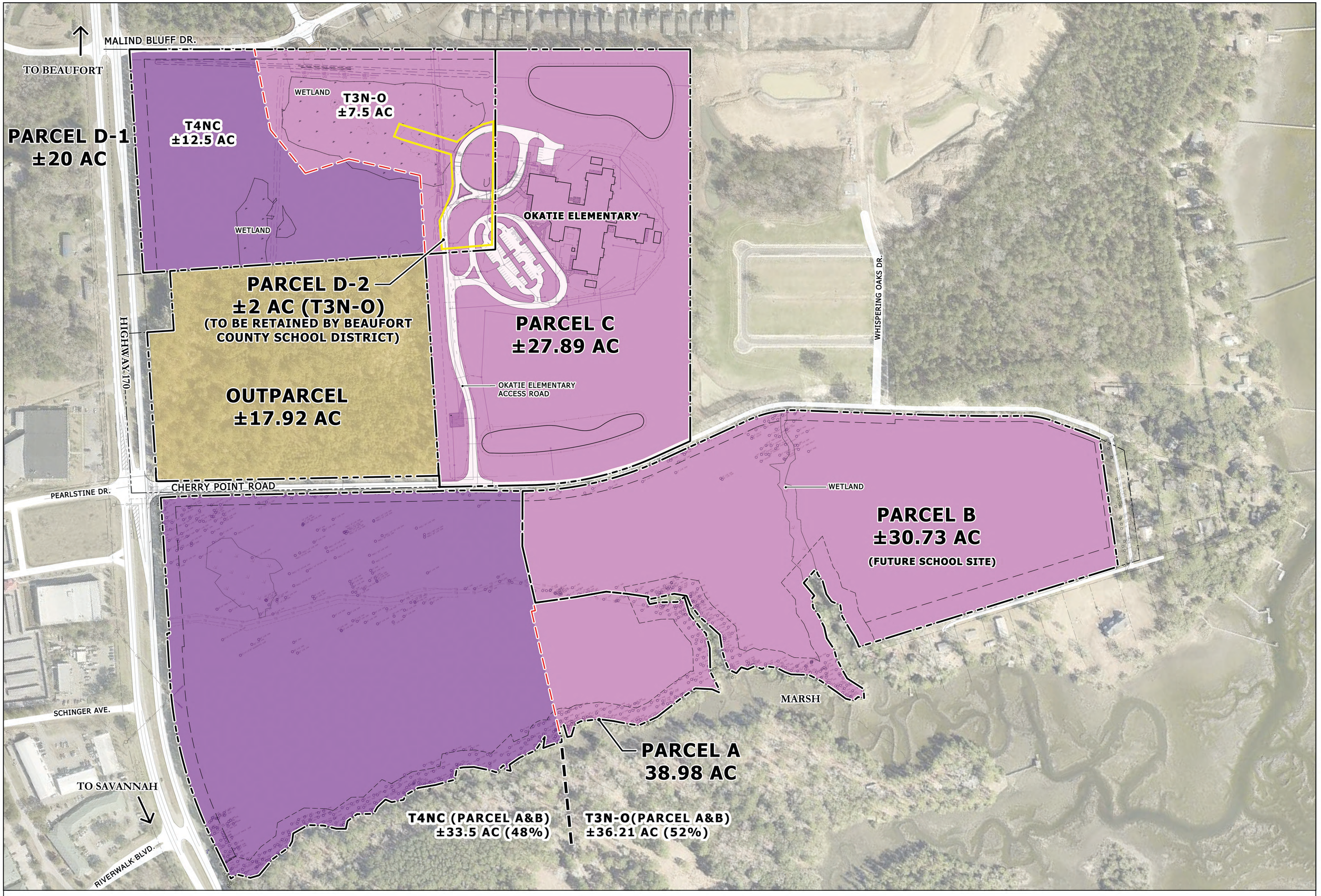
TRANSECT ZONING OVERLAY

EXHIBIT C



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OKATIE LANDING ZONING AMENDMENT

- VILLAGE PLACE TYPE -

OKATIE LANDING

BEAUFORT COUNTY, SOUTH CAROLINA

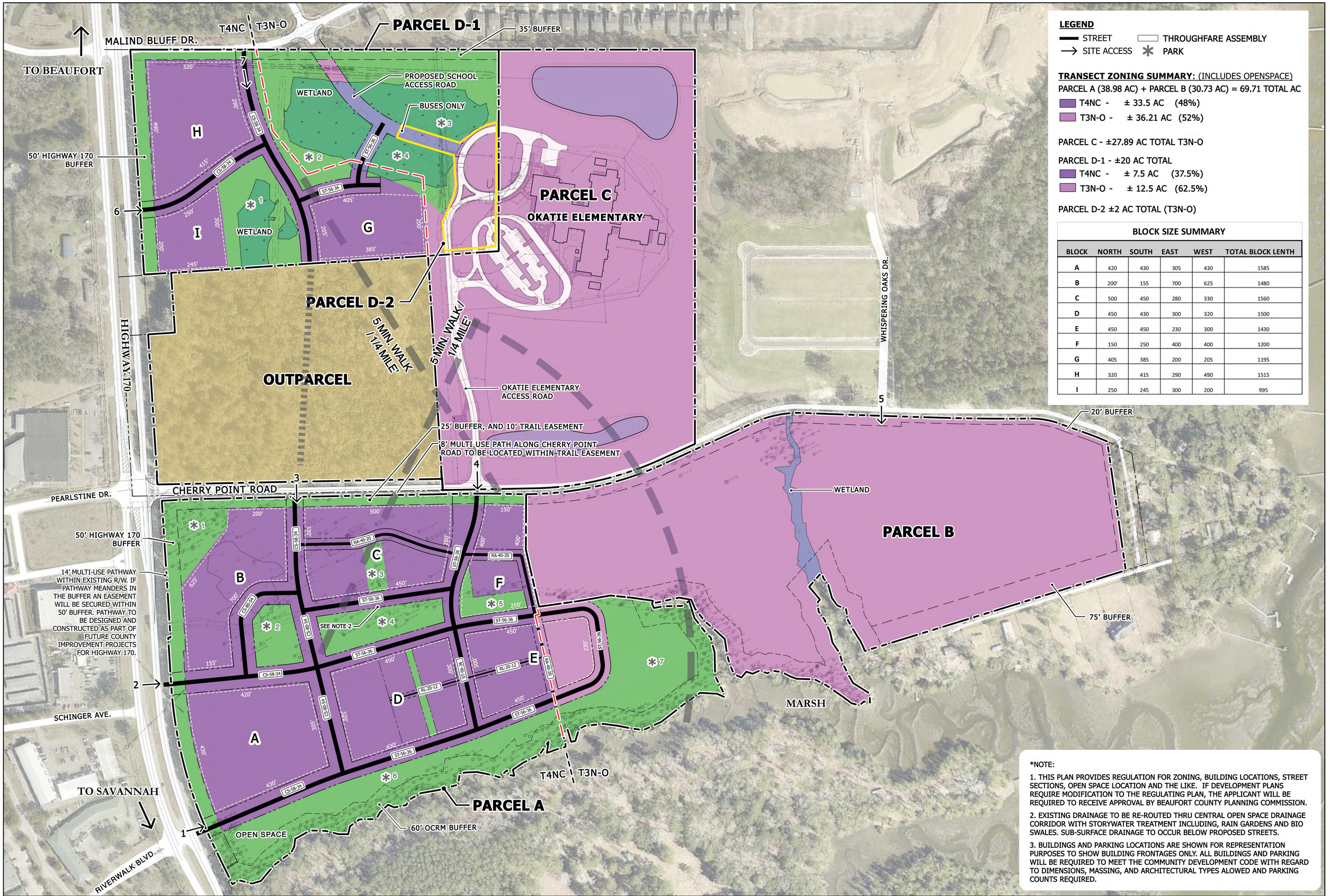
TRANSECT ZONING OVERLAY

DATE: DECEMBER 18, 2024

Note: Plan is conceptual in nature and subject to change.
Plan uses, calculatioons, and boundaries are subject to change.

REGULATING PLAN

EXHIBIT D



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OKATIE LANDING ZONING AMENDMENT

- VILLAGE PLACE TYPE -

OKATIE LANDING

BEAUFORT COUNTY, SOUTH CAROLINA

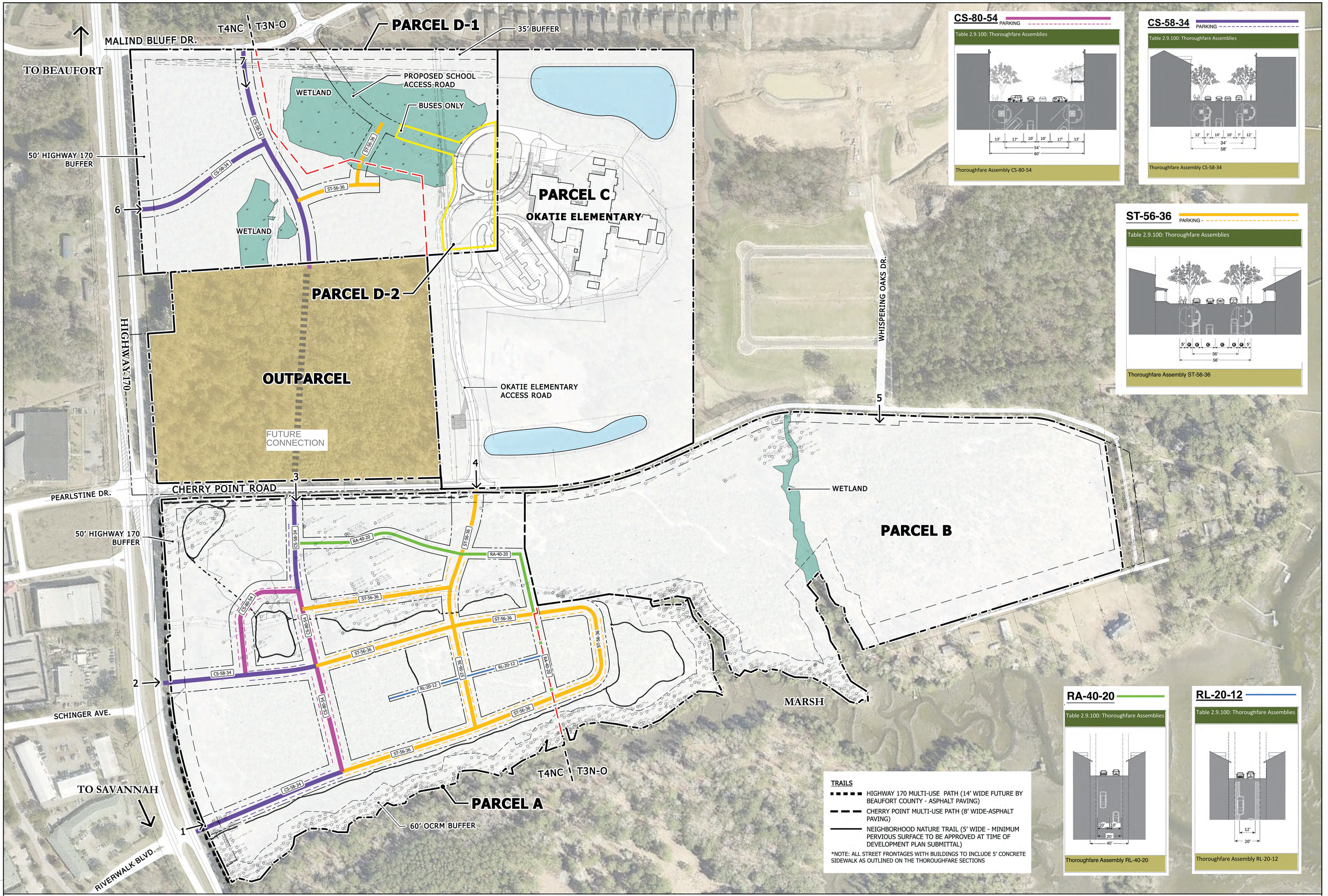
REGULATING PLAN

DATE: DECEMBER 18, 2024

Note: Plan is conceptual in nature and subject to change. Plan uses, calculatioons, and boundaries are subject to change.

THOROUGHFARE PLAN AND STREET SECTIONS

EXHIBIT E



CS-80-54 PARKING

Table 2.9.100: Thoroughfare Assemblies

Thoroughfare Assembly CS-80-54

CS-58-34 PARKING

Table 2.9.100: Thoroughfare Assemblies

Thoroughfare Assembly CS-58-34

ST-56-36 PARKING

Table 2.9.100: Thoroughfare Assemblies

Thoroughfare Assembly ST-56-36

TRAILS

- HIGHWAY 170 MULTI-USE PATH (14' WIDE FUTURE BY BEAUFORT COUNTY - ASPHALT PAVING)
- CHERRY POINT MULTI-USE PATH (8' WIDE-ASPHALT PAVING)
- NEIGHBORHOOD NATURE TRAIL (5' WIDE - MINIMUM PERVIOUS SURFACE TO BE APPROVED AT TIME OF DEVELOPMENT PLAN SUBMITTAL)

*NOTE: ALL STREET FRONTAGES WITH BUILDINGS TO INCLUDE 5' CONCRETE SIDEWALK AS OUTLINED ON THE THOROUGHFARE SECTIONS

RA-40-20

Table 2.9.100: Thoroughfare Assemblies

Thoroughfare Assembly RL-40-20

RL-20-12

Table 2.9.100: Thoroughfare Assemblies

Thoroughfare Assembly RL-20-12

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OKATIE LANDING ZONING AMENDMENT

- VILLAGE PLACE TYPE -

OKATIE LANDING

BEAUFORT COUNTY, SOUTH CAROLINA

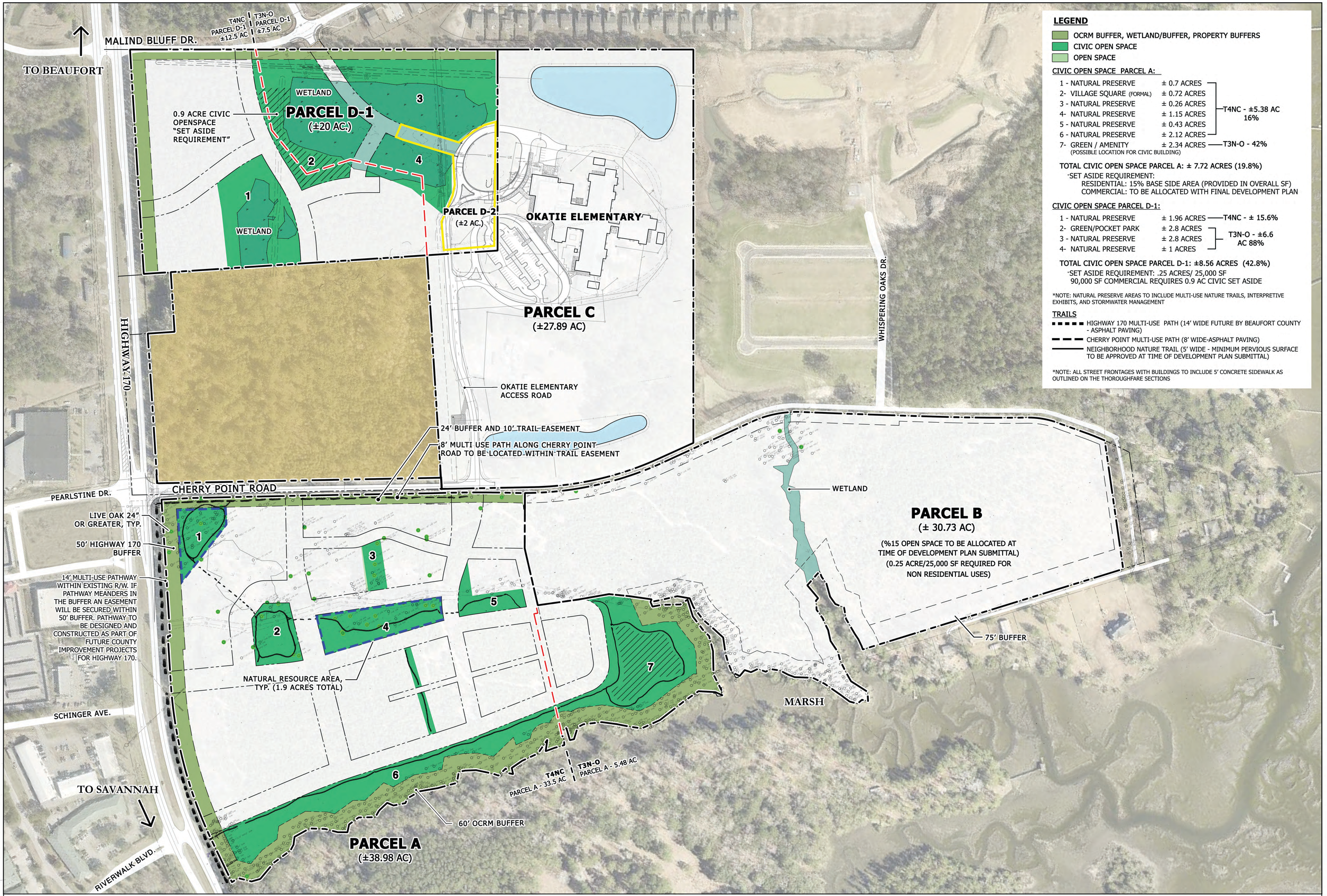
THOROUGHFARE PLAN

DATE: DECEMBER 18, 2024

Note: Plan is conceptual in nature and subject to change.
Plan uses, calculatioons, and boundaries are subject to change.

CIVIC, BUFFER AND OPEN SPACE PLAN

EXHIBIT F



LEGEND

- OCRM BUFFER, WETLAND/BUFFER, PROPERTY BUFFERS
- CIVIC OPEN SPACE
- OPEN SPACE

CIVIC OPEN SPACE PARCEL A:

1 - NATURAL PRESERVE	± 0.7 ACRES	T4NC - ±5.38 AC 16%
2- VILLAGE SQUARE (FORMAL)	± 0.72 ACRES	
3 - NATURAL PRESERVE	± 0.26 ACRES	
4- NATURAL PRESERVE	± 1.15 ACRES	
5 - NATURAL PRESERVE	± 0.43 ACRES	
6 - NATURAL PRESERVE	± 2.12 ACRES	
7- GREEN / AMENITY (POSSIBLE LOCATION FOR CIVIC BUILDING)	± 2.34 ACRES	T3N-O - 42%

TOTAL CIVIC OPEN SPACE PARCEL A: ± 7.72 ACRES (19.8%)

·SET ASIDE REQUIREMENT:
RESIDENTIAL: 15% BASE SIDE AREA (PROVIDED IN OVERALL SF)
COMMERCIAL: TO BE ALLOCATED WITH FINAL DEVELOPMENT PLAN

CIVIC OPEN SPACE PARCEL D-1:

1 - NATURAL PRESERVE	± 1.96 ACRES	T4NC - ± 15.6%
2- GREEN/POCKET PARK	± 2.8 ACRES	T3N-O - ±6.6 AC 88%
3 - NATURAL PRESERVE	± 2.8 ACRES	
4- NATURAL PRESERVE	± 1 ACRES	

TOTAL CIVIC OPEN SPACE PARCEL D-1: ±8.56 ACRES (42.8%)

·SET ASIDE REQUIREMENT: .25 ACRES/ 25,000 SF
90,000 SF COMMERCIAL REQUIRES 0.9 AC CIVIC SET ASIDE

*NOTE: NATURAL PRESERVE AREAS TO INCLUDE MULTI-USE NATURE TRAILS, INTERPRETIVE EXHIBITS, AND STORMWATER MANAGEMENT

TRAILS

- HIGHWAY 170 MULTI-USE PATH (14' WIDE FUTURE BY BEAUFORT COUNTY - ASPHALT PAVING)
- CHERRY POINT MULTI-USE PATH (8' WIDE-ASPHALT PAVING)
- NEIGHBORHOOD NATURE TRAIL (5' WIDE - MINIMUM PERVIOUS SURFACE TO BE APPROVED AT TIME OF DEVELOPMENT PLAN SUBMITTAL)

*NOTE: ALL STREET FRONTAGES WITH BUILDINGS TO INCLUDE 5' CONCRETE SIDEWALK AS OUTLINED ON THE THOROUGHFARE SECTIONS

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Scale 1 " = 100'

OKATIE LANDING ZONING AMENDMENT

- VILLAGE PLACE TYPE -

OKATIE LANDING

BEAUFORT COUNTY, SOUTH CAROLINA

CIVIC, BUFFER, & OPEN SPACE PLAN

DATE: DECEMBER 18, 2024

Note: Plan is conceptual in nature and subject to change.
Plan uses, calculatioons, and boundaries are subject to change.

TRAFFIC IMPACT STUDY

EXHIBIT G

Okatie Landing at Cherry Point Development

Traffic Impact Study

Beaufort County, South Carolina

Prepared for

Clearview Homes

Prepared by

Kimley»Horn

December 2024

Okatie Landing at Cherry Point Development

Traffic Impact Study

Beaufort County, South Carolina

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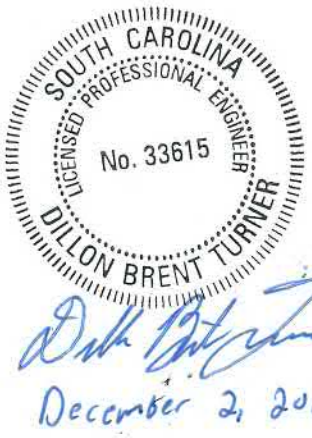

December 2024

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Charleston, South Carolina, 29492

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1 Executive Summary

The proposed Okatie Landing at Cherry Point Development is located SC 170 (Okatie Landing) and Malind Bluff Road in in Beaufort County, South Carolina. The proposed development is planned to be constructed in two phases. Phase 1 is planned to be built out by the end of 2029 and is proposed to consist of up to 350,000 square feet of retail space and 258 multifamily residential units. Phase 2 is planned to be constructed by the end of 2035 and is proposed to consist of a new development for the Beaufort County School District (BCSD). The exact use of the property by Beaufort County School District has not yet been determined. Per discussions with Beaufort County, it was assumed that the existing traffic into the Okatie Elementary School would match the future Beaufort County School District property as a conservate estimate for the trip generation in this Traffic Impact Study (TIS). An updated TIS will be required once the exact use of the BCSD site is known.

It is assumed that the project will access the roadway network via two driveways along SC 170 (Okatie Highway), three driveways along Cherry Point Road, and one driveway along Malind Bluff Drive.

Proposed Site Accesses:

- Site Access #1: Full access located along SC 170 (Okatie Highway) at Riverwalk Boulevard
- Site Access #2: Right-in/right-out only access along SC 170 (Okatie Highway) approximately located across from Schinger Avenue.
- Site Access #3: Right-in/right-out only located along Cherry Point Road between SC 170 (Okatie Highway) and Okatie Elementary School Access.
- Site Access #4: Full access located along Cherry Point Road that is proposed to be aligned with the Okatie Elementary School Access.
- Site Access #5: Full access located along Malind Fluff Drive east of SC 170 (Okatie Highway).
- Site Access #6: Right-in/right-out located along SC 170 (Okatie Highway) located south of Malind Bluff Drive.
- Site Access #7: Full access located along Cherry Point Road that is proposed to be aligned with Whispering Oak Road.
    - This site access is for the future BCSD site

It was assumed that phase 1 and phase 2 of development will be built and fully occupied by 2029 and 2035, respectively. This study summarizes the results of the traffic analyses at the following study intersections.

1. SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road
2. SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive
3. SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road
4. SC 170 (Okatie Highway) & Schinger Avenue/Site Access #2
5. SC 170 (Okatie Highway)& Riverwalk Boulevard/Site Access #1
6. SC 170 (Okatie Highway) & Tidewatch Drive
7. Cherry Point & Okatie Elementary School/Site Access #4
8. Cherry Point Road & Whispering Oaks Road/Future BCSD Access
9. Malind Bluff Drive & Site Access #5
10. SC 170 (Okatie Highway) & Site Access #6
11. Cherry Point Road & Site Access #3

In the vicinity of the study area there are several background developments that have committed improvements to the existing geometry. ***The committed improvements as follows***:

SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road

- Place intersection under signalized control
- Construct eastbound right-turn lane and shared through-left lane along Short Cut Road
- Construct westbound left-turn lane along Pritcher Point Road

SC 170 (Okatie Highway) & Red Oak Lane/Malind Bluff Drive

- Construct an eastbound right-turn lane and shared through-left lane along Red Oak Lane
- Modify geometry to only allow westbound right-turn movement along Malind Bluff Drive

SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road

- Construct an eastbound left-turn lane along Pearlstine Drive
- Construct westbound dual left-turn lanes and a shared through-right movement lane along Cherry Point Road

The results of the traffic analyses indicate the following improvements are recommended to mitigate the impact of the proposed development:

SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road

2029 Build Phase 1

- Modify the existing westbound laneage to provide an exclusive left-turn lane, shared through-left lane, and exclusive right-turn lane.
- The future traffic signal should operate with minor street split phasing.
- The northbound right-turn movement should operate with an overlap phase with the westbound traffic signal phase.
- The eastbound right-turn movement should operate with an overlap phase with the northbound protected left-turn phase.
- Traffic signal should operate in coordination with the adjacent signalized intersections along SC 170 (Okatie Highway).

2035 Build Phase 2

- Retime signal to account for volume growth and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

SC 170 (Okatie Highway) & Malind Bluff Drive/Red Oaks Lane

2029 Build Phase 1

- Extend the existing southbound left-turn lane along SC 170 (Okatie Highway) to consist of 400 feet of full-width storage length and an appropriate taper length.
- Channelize the existing northbound right-turn movement and place under yield control.

2035 Build Phase 2

- No additional improvements recommended.

SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road

2029 Build Phase 1

- Extend the existing southbound left-turn lane along SC 170 (Okatie Highway) to consist of 450 feet of full-width storage length and an appropriate taper length.
- Construct an additional southbound left-turn lane along SC 170 (Okatie Highway) with 450 feet of full-width storage length and an appropriate taper length.
- Widen Cherry Point Road to receive the dual southbound left-turn lanes from SC 470 (Okatie Highway)
- Remove the existing channelized northbound right-turn movement and place under traffic signal control to operate with overlap phasing with the westbound protected left-turn phase.
- Construct a dedicated westbound right-turn lane with 250 feet of full-width storage and an appropriate taper length.

2035 Build Phase 2

- Retime signal to account for volume growth and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

SC 170 (Okatie Highway) & Schinger Avenue/Site Access #2

2029 Build Phase 1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 150 feet of full-width storage length and an appropriate taper length.
- Construct Site Access #2 with one ingress lane and one egress lane.
- Site Access #2 should be restricted to right-in and right-out movements only and operate under minor street stop sign control.

2035 Build Phase 2

- No additional improvements recommended.

SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1

2029 Build Phase 1

- Place the intersection under traffic signal control when MUTCD signal warrants are met
    - The Okatie Landing Development should conduct 13-hour turning movement counts at this intersection once the development is operational at an agreed upon date(s) with SCDOT and/or Beaufort County to determine when the signal is warranted.
        - It is recommended to count the intersection at least twice per year while school is in session.
- A traffic signal at Riverwalk Boulevard/Site Access #1Site Access #1 does not meet SCDOT signal spacing requirements for major arterials (2,640') from Cherry Point Road along SC 170 (Okatie Highway); therefore, a variance would be needed from SCDOT.
    - The intersection spacing from Cherry Point Road to Riverwalk Boulevard/Site Access #1Site Access #1 is approximately 1,240', which is less than ½ the distance required by SCDOT.
    - Due to the limited spacing between Cherry Point Road and Riverwalk Boulevard, it is recommended to relocate Riverwalk Boulevard/Site Access #1Site Access #1 further to the south along SC 170 (Okatie Highway).
    - Please note, there is a significant wetland located approximately 260' to the south of Riverwalk Boulevard along SC 170 (Okatie Highway) that may limit how far Riverwalk Boulevard can be relocated.
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 200 feet of full-width storage and an appropriate taper length.
- Reconfigure the eastbound approach along Riverwalk Boulevard to consists of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane.
- Construct Site Access #1 to consist of one ingress lane and three egress lanes.
    - Site Access #1 egress lanes should consist of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane.
- The westbound left-turn movement should operate under protected/permissive left-turn phasing.
- The northbound right-turn movement should operate with overlap phasing with eh westbound protected left-turn phase.
- The eastbound right-turn movement should operate with overlap phasing with the

northbound protected left-turn phase.

2035 Build Phase 2

- Retime the signal to account for volume growth in the area and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

SC 170 (Okatie Highway) & Tidewatch Drive

2029 Build Phase 1

- Retime signal to operate in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

2035 Build Phase 2

- Retime signal to account for volume growth and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

Cherry Point Road & Okatie Elementary School Access/Site Access #4

2029 Build Phase 1

- Construct an eastbound dedicated left-turn lane along Cherry Point Road with continuous storage to SC 170 (Okatie Highway).
- Construct a channelized southbound right-turn lane along Okatie Elementary School Access that operates as a free movement.
- Utilizing the transition taper from the eastbound left-turn lane, a westbound left-turn lane should be striped.
- Construct Site Access #4 to consist of one ingress lane and one egress lane.
- Site Access #4 should operate as full-movement under minor street stop sign control.

2035 Build Phase 2

- No additional improvements recommended.

Cherry Point Road & Whispering Oaks/ Future BCSD Access

2029 Build Phase 1

- No improvements recommended.

2035 Build Phase 2

- Construct an eastbound channelized right-turn lane along Cherry Point Road with 150 feet of full-width storage and an appropriate taper length.
- The channelized eastbound right-turn movement should operate as a free movement.
- Construct the BCSD Access with two ingress lanes and one egress lane.
- The BCSD a=Access should operate as full-movement under minor street stop sign control.

Malind Bluff Drive & Site Access #5

2029 Build Phase 1

- Construct Site Access #5 with one ingress lane and one egress lane.
- Site Access #5 should operate as full-movement under minor street stop sign control.

- Construct an eastbound right-turn lane along Malind Bluff Drive with 100 feet of full-width storage and an appropriate taper length.

2035 Build Phase 2

- No additional improvements recommended.

SC 170 (Okatie Highway) & Site Access #6

2029 Build Phase 1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 150 feet of full-width storage length and an appropriate taper length.
- Construct Site Access #6 with one ingress lane and one egress lane.
- Site Access #6 should be restricted to right-in and right-out movements only and operate under minor street stop sign control.
- Please note, the current proposed location of Site Access #6 is at a proposed future bulb-out location show in the SC 170 Corridor Study by AECOM. To accommodate the future potential bulb-out it is recommended to move this access to be at the midpoint between Mailind Bluff and the bulb-out location. The exact location of this access should be coordinated with SCDOT and Beaufort County.

2035 Build Phase 2

- No additional improvements recommended.

Cherry Point Road & Site Access #3

2029 Build Phase 1

- Construct an eastbound right-turn lane along Cherry Point Road with 100 feet of full-width storage length and an appropriate taper length.
- Construct Site Access #3 with one ingress lane and one egress lane.
- Site Access #3 should be restricted to right-in and right-out movements only and operate under minor street stop sign control.

2035 Build Phase 2

- No additional improvements recommended.

The recommended improvements are shown in **Figure 21**.

1 Introduction

The proposed Okatie Landing at Cherry Point Development is located SC 170 (Okatie Landing) and Malind Bluff Road in in Beaufort County, South Carolina. The proposed development is planned to be constructed in two phases. Phase 1 is planned to be built out by the end of 2029 and is proposed to consist of up to 350,000 square feet of retail space and 258 multifamily residential units. Phase 2 is planned to be constructed by the end of 2035 and is proposed to consist of a new development for the Beaufort County School District (BCSD). The exact use of the property by Beaufort County School District has not yet been determined. Per discussions with Beaufort County, it was assumed that the existing traffic into the Okatie Elementary School would match the future Beaufort County School District property as a conservate estimate for the trip generation in this Traffic Impact Study (TIS). An updated TIS will be required once the exact use of the BCSD site is known.

Proposed Site Accesses:

- Site Access #1: Full access located along SC 170 (Okatie Highway) at Riverwalk Boulevard
- Site Access #2: Right-in/right-out only access along SC 170 (Okatie Highway) approximately located across from Schinger Avenue.
- Site Access #3: Right-in/right-out only located along Cherry Point Road between SC 170 (Okatie Highway) and Okatie Elementary School Access.
- Site Access #4: Full access located along Cherry Point Road that is proposed to be aligned with the Okatie Elementary School Access.
- Site Access #5: Full access located along Malind Fluff Drive east of SC 170 (Okatie Highway).
- Site Access #6: Right-in/right-out located along SC 170 (Okatie Highway) located south of Malind Bluff Drive.
- Site Access #7: Full access located along Cherry Point Road that is proposed to be aligned with Whispering Oak Road.

This study summarizes the results of the traffic analyses for the AM, School, and PM peak hours under 2024 Existing, 2029 No-Build, 2029 Build Phase 1, 2035 No-Build, and 2035 Build Phase 2 conditions at the following study intersections.

1. SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road
2. SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive
3. SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road
4. SC 170 (Okatie Highway) & Schinger Avenue/Site Access #2
5. SC 170 (Okatie Highway)& Riverwalk Boulevard/Site Access #1
6. SC 170 (Okatie Highway) & Tidewatch Drive
7. Cherry Point & Okatie Elementary School/Site Access #4
8. Cherry Point Road & Whispering Oaks Road/BCSD Site Access

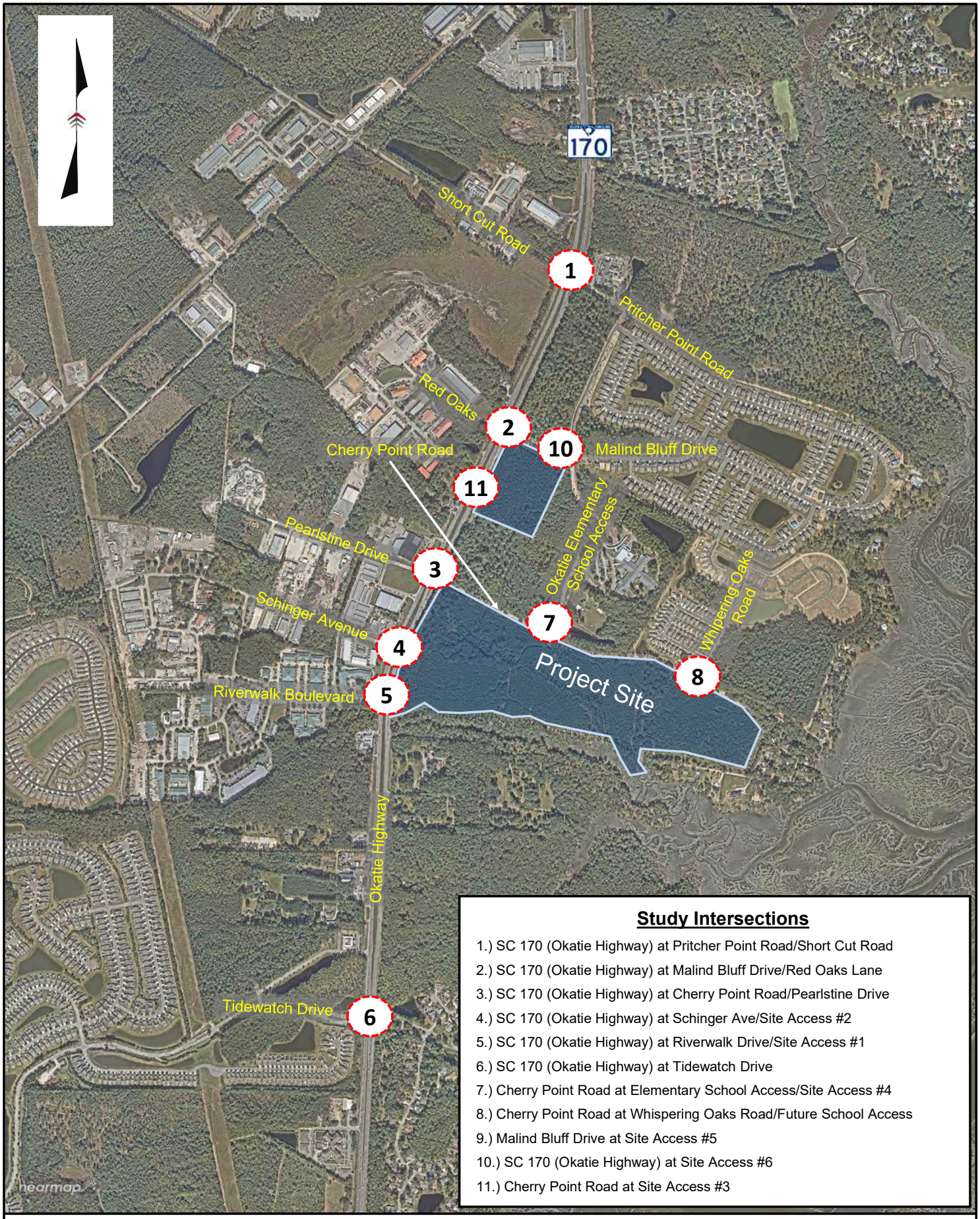
9. Malind Bluff Drive & Site Access #5
10. SC 170 (Okatie Highway) & Site Access #6
11. Cherry Point Road & Site Access #3

The study area and site location is shown in **Figure 1** and the conceptual site plan is provided in **Appendix A**.

1.1 Existing Conditions

SC 170 (Okatie Highway) is a four-lane, divided, rural principal arterial with a posted speed limit of 55 mph in the vicinity of the proposed development. Based upon SCDOT data, 39,200 vehicles per day traveled along SC 170 (Okatie Highway) in 2023 at a count station located between Riverwalk Boulevard and Tidewatch Drive.

Tidewatch Drive, Riverwalk Boulevard, Pearlstine Drive, Cherry Point Road, Red Oaks Lane, Malind Bluff Road, Short Cut Road, and Pritcher Point Road are rural local roads. No daily count data are available for these roads. The existing geometry and traffic control for the study area intersections is illustrated in **Figure 2**.



Study Intersections

1.) SC 170 (Okatie Highway) at Pritcher Point Road/Short Cut Road
2.) SC 170 (Okatie Highway) at Malind Bluff Drive/Red Oaks Lane
3.) SC 170 (Okatie Highway) at Cherry Point Road/Pearlstine Drive
4.) SC 170 (Okatie Highway) at Schinger Ave/Site Access #2
5.) SC 170 (Okatie Highway) at Riverwalk Drive/Site Access #1
6.) SC 170 (Okatie Highway) at Tidewatch Drive
7.) Cherry Point Road at Elementary School Access/Site Access #4
8.) Cherry Point Road at Whispering Oaks Road/Future School Access
9.) Malind Bluff Drive at Site Access #5
10.) SC 170 (Okatie Highway) at Site Access #6
11.) Cherry Point Road at Site Access #3

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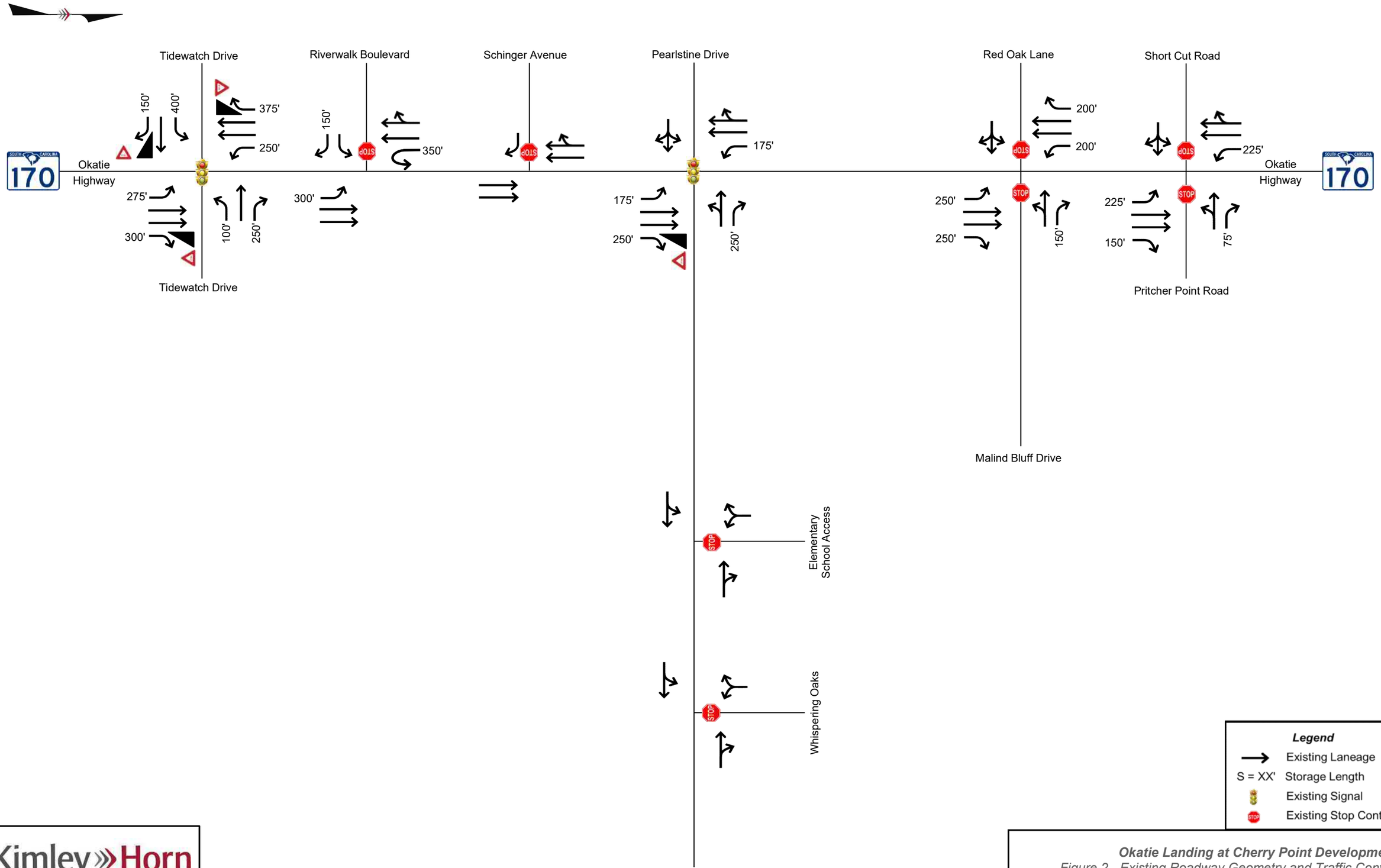
Okatie Landing at Cherry Point Development
Figure 1 - Site Location and Study Area Map



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Okatie Landing at Cherry Point Development

Figure 2 - Existing Roadway Geometry and Traffic Control

2 Project Traffic

2.1 Trip Generation

Phase 1

Phase 1 of the proposed development is planned to construct up to 350,000 square feet of retail space and 258 multifamily residential units. The trip generation rates and equations published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual; 11th Edition* were used to estimate the trip generation potential for Phase 1 of the development. The analysis was performed using the information provided for land use code (LUC) 820 – Shopping Center and LUC 220 – Multifamily Housing (Low-Rise).

Due to the development consisting of commercial and residential land uses, internal capture and pass-by trips reductions were applied to the estimated trip generation of the development. It should be noted that the pass-by trip reductions are not provided by ITE for the School peak hour part of this study. Therefore, it was assumed that the School peak hour pass-by trips would use the same reduction percentage as the PM peak hour. Project pass-by trips for the School and PM peak hours are illustrated in **Figure 3** and **Figure 4**, respectively.

The estimated trip generation for Phase 1 of Okatie Landing at Cherry Point Development is summarized in **Table 1**.

Table 1 – Phase 1 Trip Generation Summary

ITE LUC	Intensity	Units	Daily Trips	AM Peak Hour			School Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out	Total	In	Out
220 - Multifamily Housing (Low-Rise)	258	DU	1,729	103	25	78	131	48	42	131	83	48
820 - Shopping Center (>150K)	350	KSF	12,954	294	182	112	1,017	486	531	1,391	668	723
Subtotal			**14,683**	**397**	**207**	**190**	**1,148**	**534**	**573**	**1,522**	**751**	**771**
Internal Capture Trips			*786*	*4*	*2*	*2*	*76*	*38*	*38*	*112*	*56*	*56*
Pass-By Trips			*1,193*	*0*	*0*	*0*	*187*	*90*	*97*	*254*	*122*	*132*
Total Net New External Trips			**12,704**	**393**	**205**	**188**	**844**	**406**	**438**	**1,156**	**573**	**583**

Note: Trip generation was calculated using the following data:

Daily Traffic Generation

ITE 220 - Multifamily Housing (Low-Rise)	T = 6.41 * (X) + (75.31); (50 % In; 50 % Out)
ITE 820 - Shopping Center (>150k)	T = 37.01 (X); (50 % In; 50 % Out)

AM Peak-Hour Traffic Generation

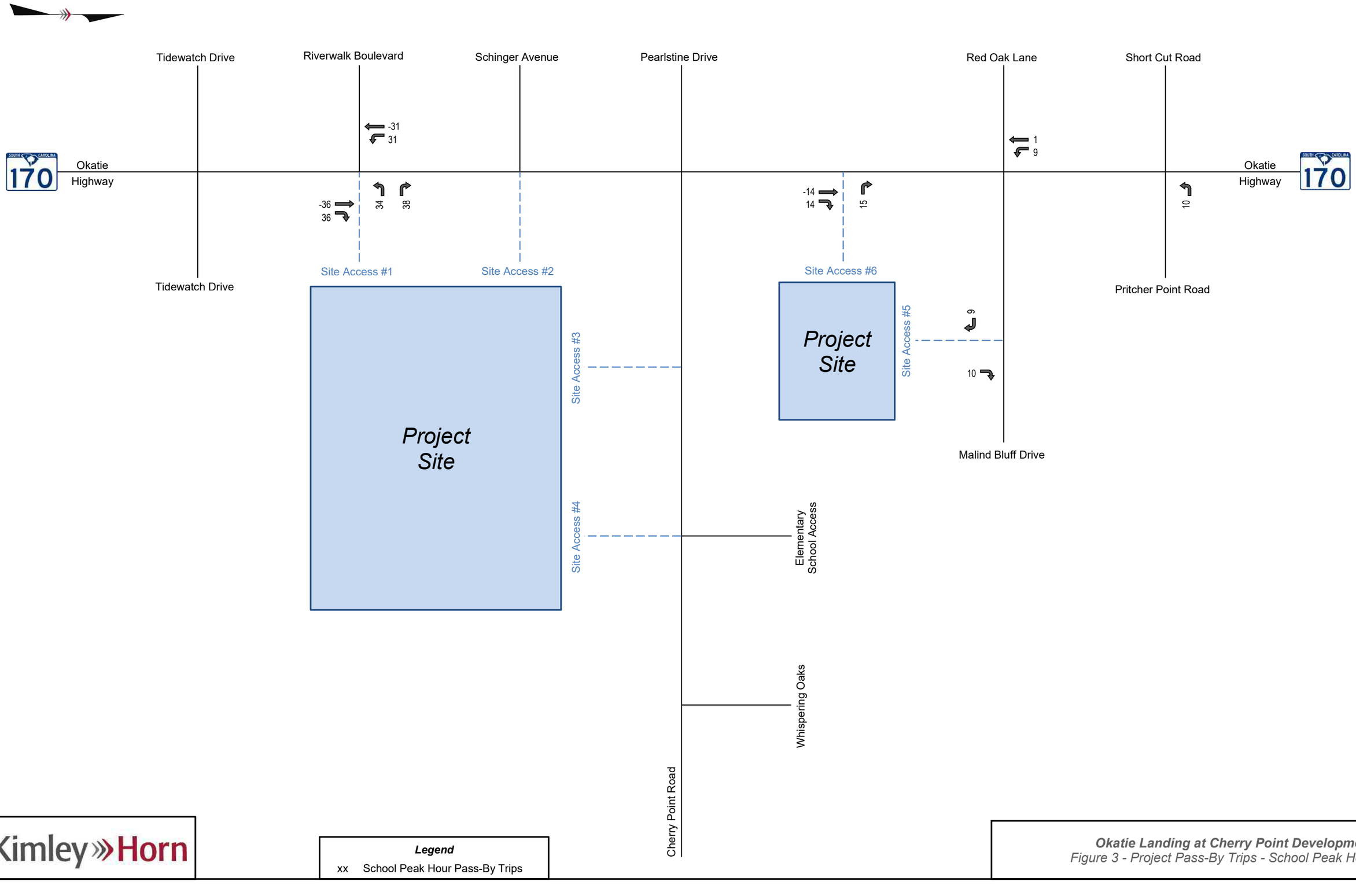
ITE 220 - Multifamily Housing (Low-Rise)	T = 0.31 * (X) + (22.85); (24 % In; 76 % Out)
ITE 820 - Shopping Center (>150k)	T = 0.84 (X); (62 % In; 38 % Out)

School Peak-Hour Traffic Generation

ITE 220 - Multifamily Housing (Low-Rise)	T = (DAILY TRIPS) * (0.0785); (48 % In; 52 % Out)
ITE 820 - Shopping Center (>150k)	T = (DAILY TRIPS) * (0.0521); (53 % In; 47 % Out)

PM Peak-Hour Traffic Generation

ITE 220 - Multifamily Housing (Low-Rise)	T = 0.43 * (X) + (20.55); (63 % In; 37 % Out)
ITE 820 - Shopping Center (>150k)	LN (T) = 0.72 * LN (X) + (3.02); (48 % In; 52 % Out)

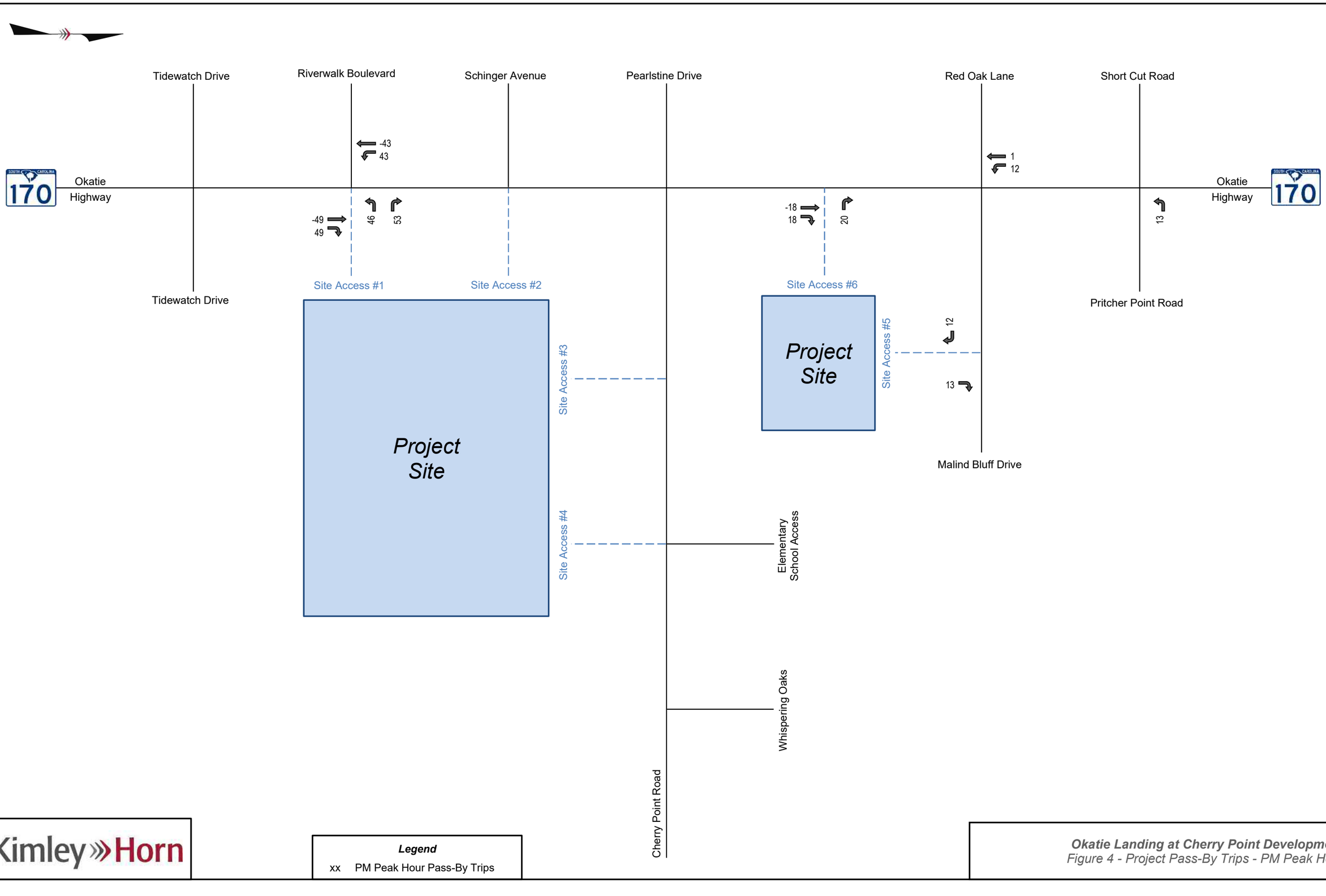


Legend

xx School Peak Hour Pass-By Trips

Okatie Landing at Cherry Point Development

Figure 3 - Project Pass-By Trips - School Peak Hour



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Legend

xx PM Peak Hour Pass-By Trips

Okatie Landing at Cherry Point Development

Figure 4 - Project Pass-By Trips - PM Peak Hour

Phase 2

Phase 2 of the proposed development is planned to construct a new facility for Beafort County Schools. The exact use of this land is unknown at this time, so for the purpose of this analysis, the existing traffic volumes entering and exiting the existing Okatie Elementary School Access along Cherry Point Road were utilized to develop the anticipated trip generation for Phase 2. The estimated trip generation for Phase 2 of Okatie Landing at Cherry Point Development is summarized in Table 2.

Table 2 – Phase 2 Trip Generation Summary

Land Use	AM Peak Hour			School Peak Hour			PM Peak Hour		
	Total	In	Out	Total	In	Out	Total	In	Out
Beaufort County Schools Facility	622	340	282	275	94	181	80	29	51
Total New External Trips	**622**	**340**	**282**	**275**	**94**	**181**	**80**	**29**	**51**

2.2 Trip Distribution & Assignment

Phase 1

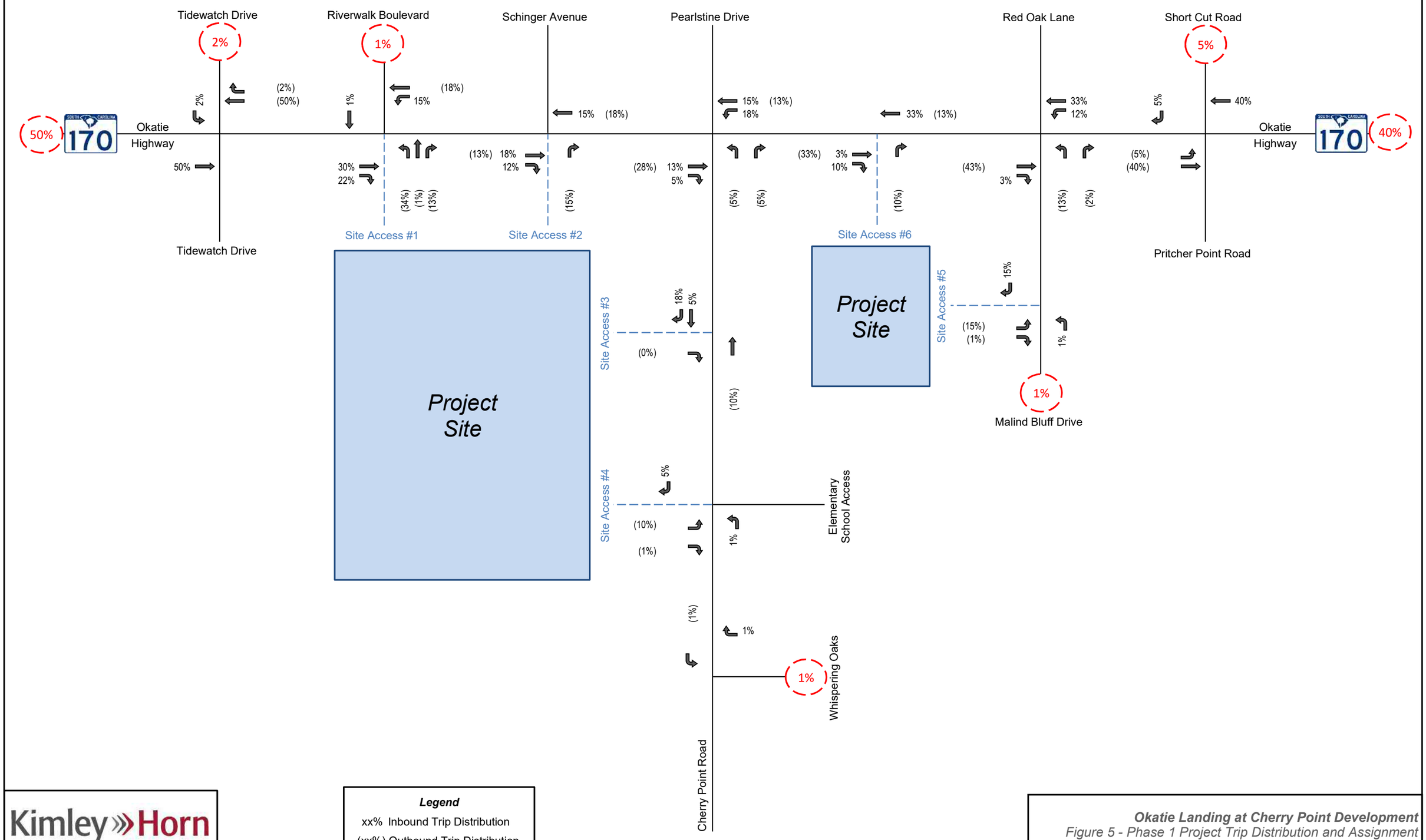
New external trips generated by Phase 1 of the proposed development were distributed and assigned to the surrounding roadway network based on existing travel patterns, surrounding land uses, and the proposed site layout. The trip distribution percentages used for Phase 1 in this analysis are as follows.

- 40% to/from the north via SC 170 (Okatie Highway)
- 50% to/from the south via SC 170 (Okatie Highway)
- 5% to/from the west via Short Cut Road
- 2% to/from the west via Riverwalk Drive
- 1% to/from the west via Tidewatch Drive
- 1% to/from the east via Malind Bluff Drive
- 1% to/from the east via Whispering Oaks Road

Figure 5 illustrates the site trip distribution and assignment for Phase 1 of the proposed development. Phase 1 project trips for the AM and PM peak hour are illustrated in **Figure 6**, and project trips for the School peak hour are illustrated in **Figure 7**.

Phase 2

New external trips generated by Phase 2 of the proposed development were distributed and assigned to the surrounding roadway network based on existing traffic volumes at the intersections of SC 170 (Okatie Highway) at Cherry Point Road and Cherry Point Road at Okatie Elementary School Access. Please note, these distributions are different than Phase 1 of the development and are also different between the peak hours analyzed in the analysis. Phase 2 project trips for the AM and PM peak hour are illustrated in **Figure 8**, and project trips for the School peak hour are illustrated in **Figure 9**.



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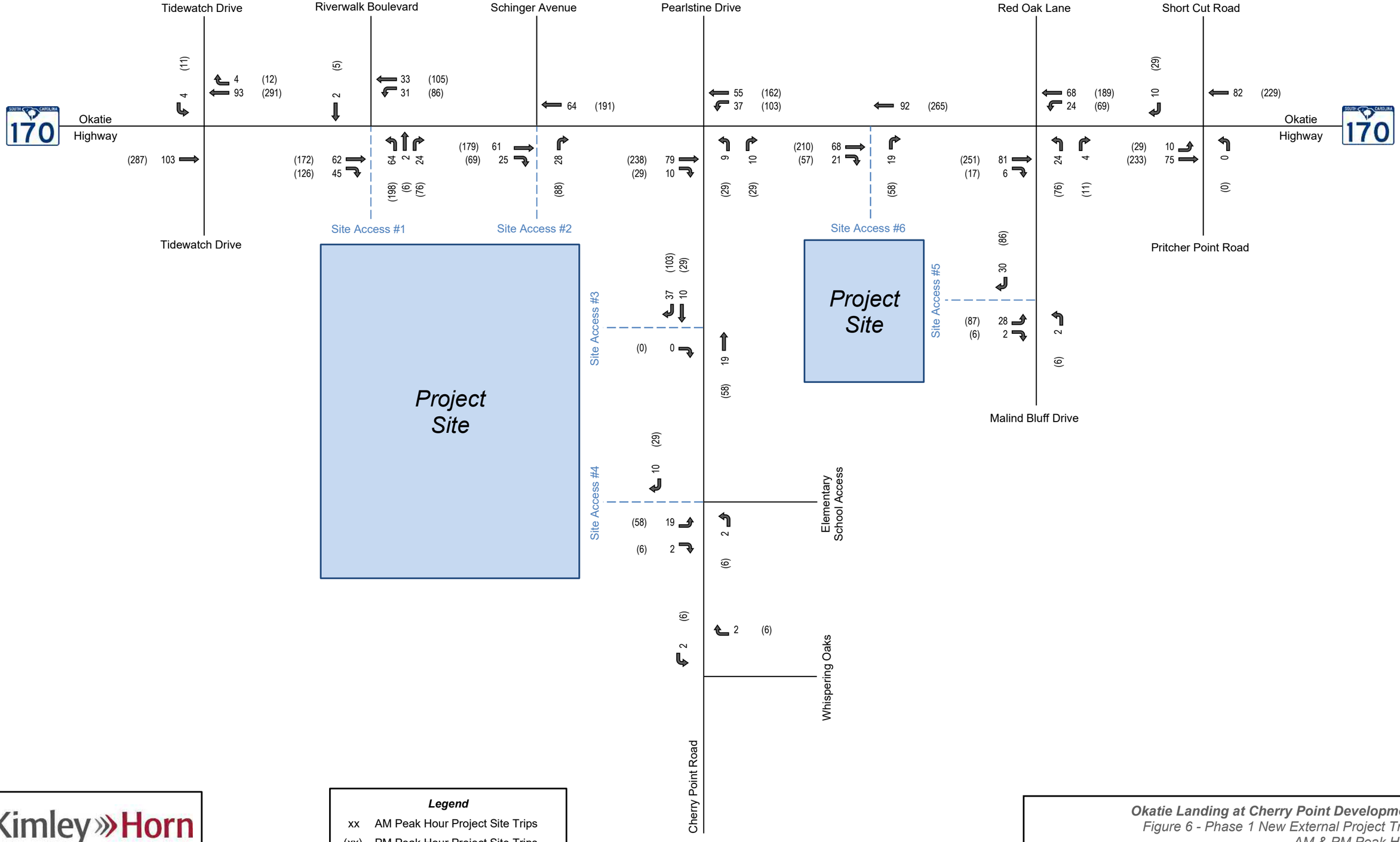
Legend

xx% Inbound Trip Distribution

(xx%) Outbound Trip Distribution

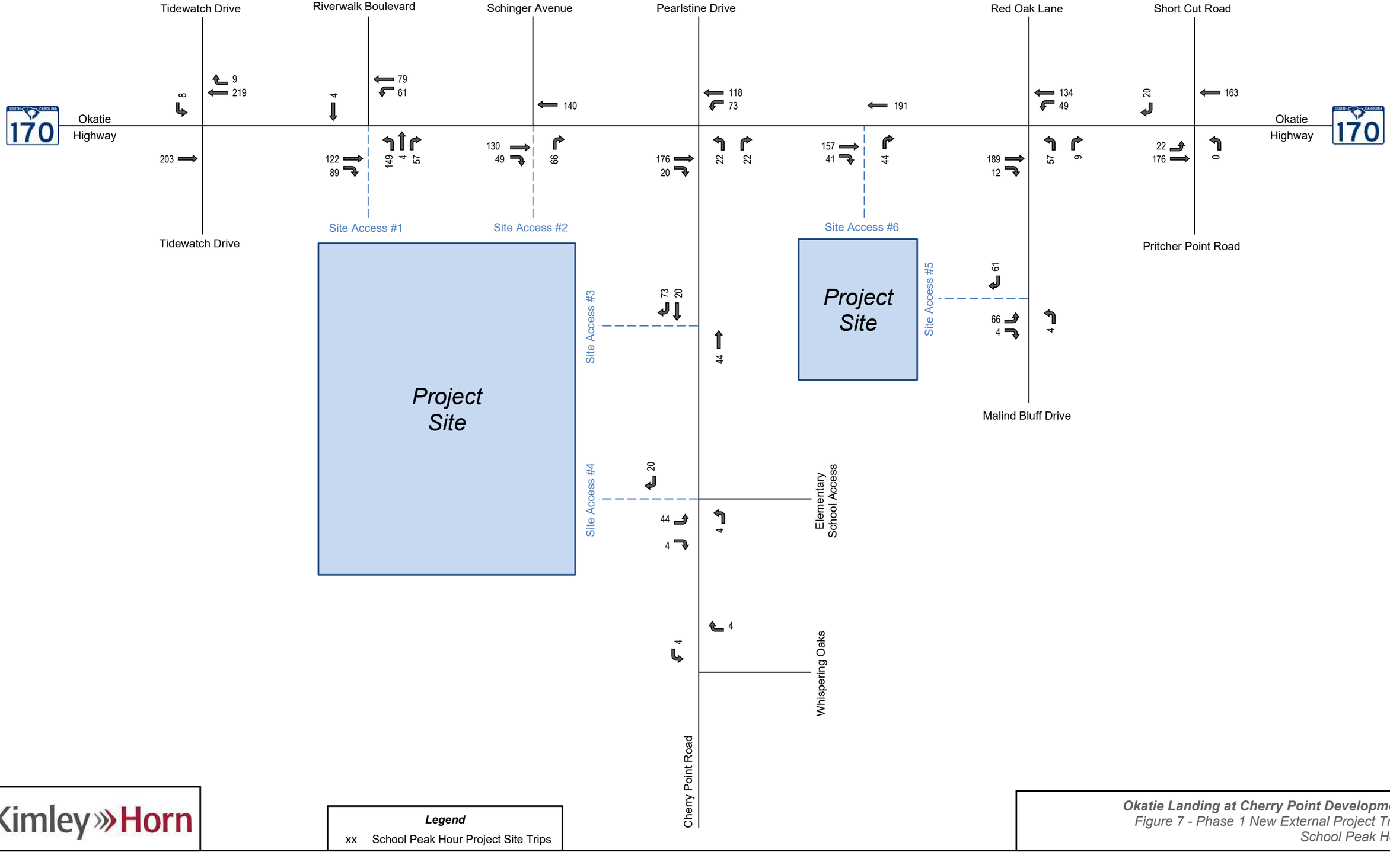
Okatie Landing at Cherry Point Development

Figure 5 - Phase 1 Project Trip Distribution and Assignment



Legend	
xx	AM Peak Hour Project Site Trips
(xx)	PM Peak Hour Project Site Trips

Okatie Landing at Cherry Point Development
Figure 6 - Phase 1 New External Project Trips
AM & PM Peak Hour

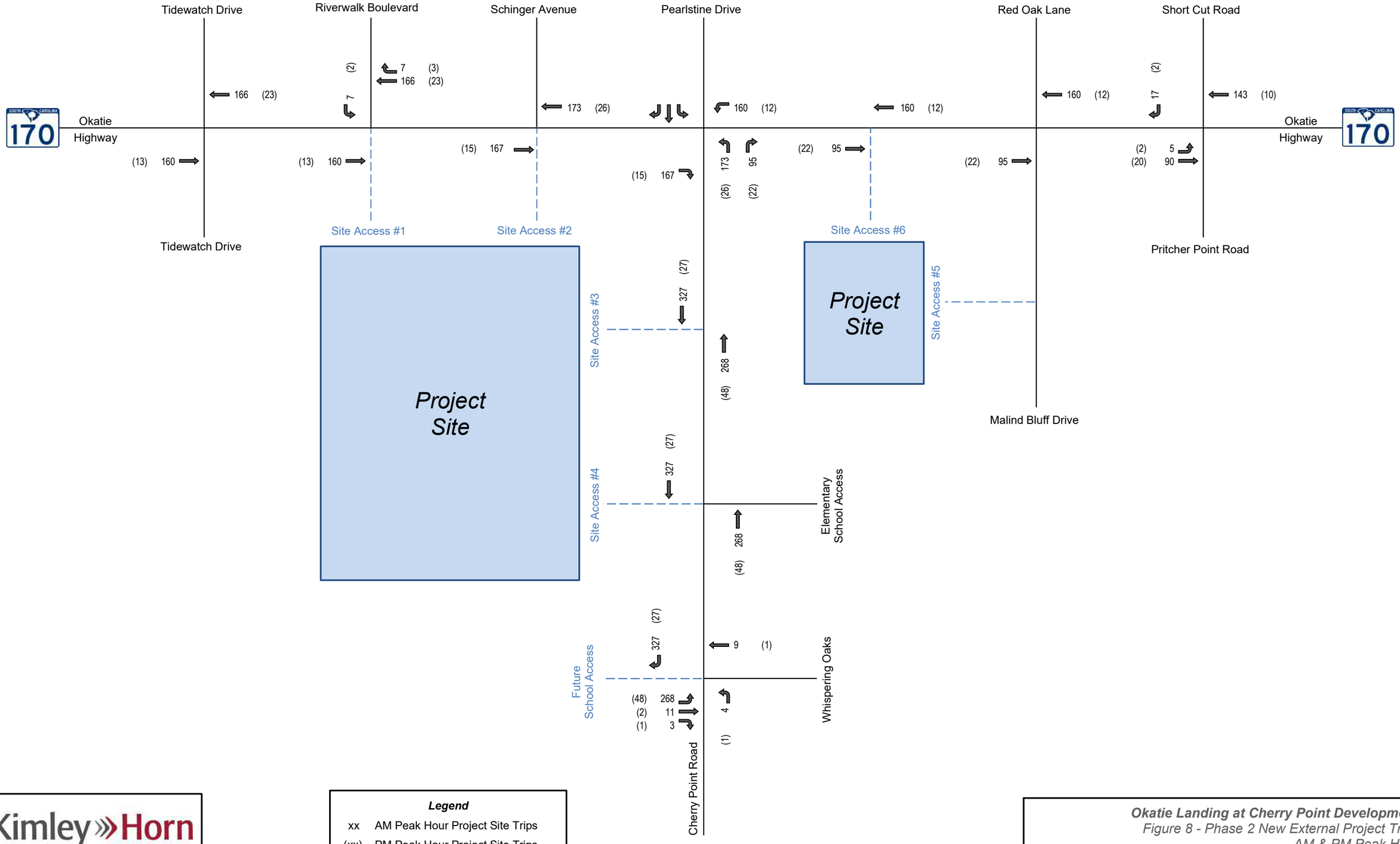


Legend

xx School Peak Hour Project Site Trips

Okatie Landing at Cherry Point Development

Figure 7 - Phase 1 New External Project Trips
School Peak Hour



Legend

xx AM Peak Hour Project Site Trips

(xx) PM Peak Hour Project Site Trips

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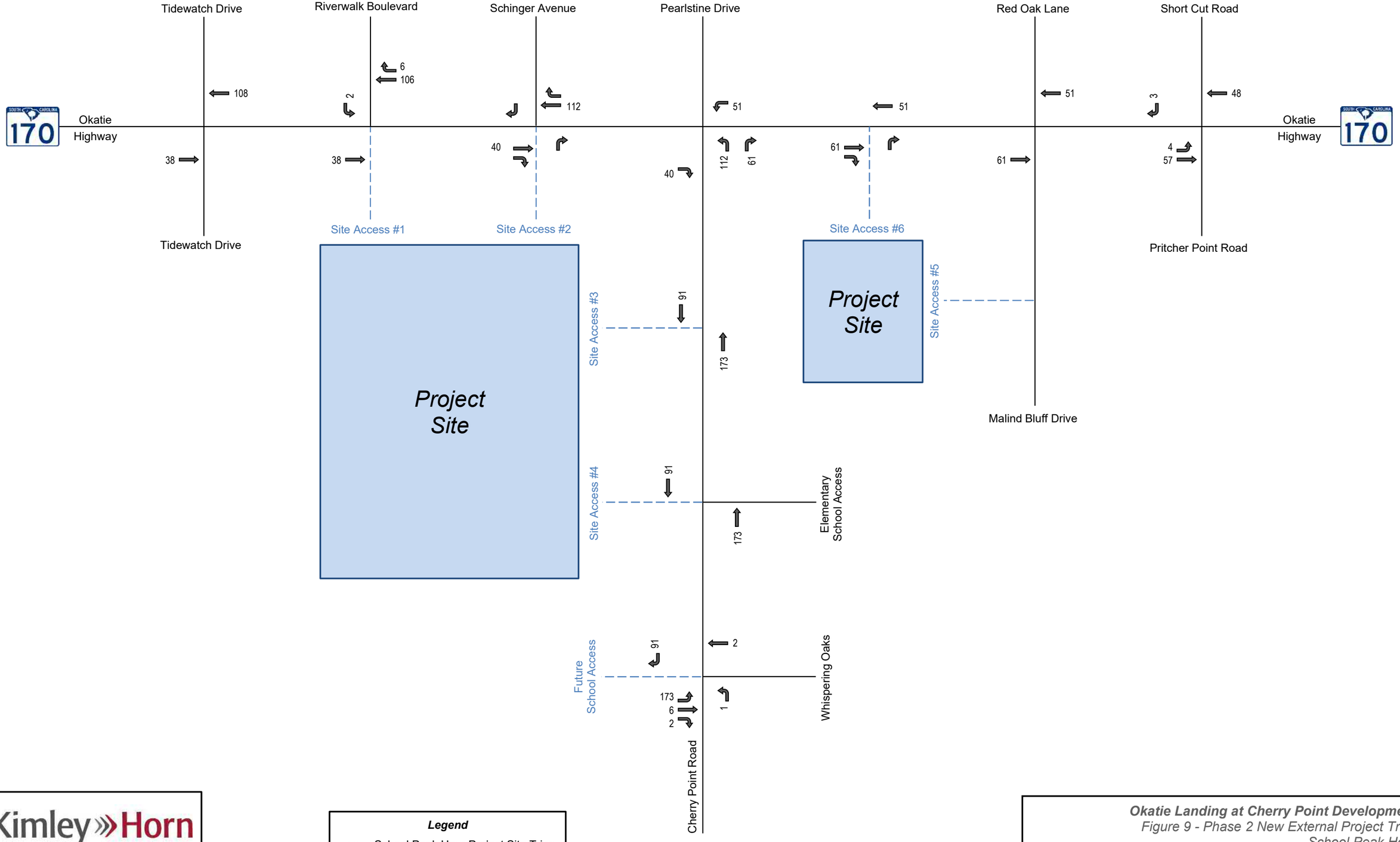
Okatie Landing at Cherry Point Development

Figure 8 - Phase 2 New External Project Trips

AM & PM Peak Hour



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Legend

xx School Peak Hour Project Site Trips

Okatie Landing at Cherry Point Development

Figure 9 - Phase 2 New External Project Trips

School Peak Hour

3 Existing and Future Traffic Volume Development

Existing 2024 traffic volumes were utilized in the analysis and future-year traffic volumes were developed for projected 2029 and 2035 traffic conditions. The future-year volumes consisted of the existing traffic volumes adjusted by an annual growth rate, approved background development traffic volumes, and the projected traffic volumes of the Okatie Landing at Cherry Point Development. Worksheets documenting the traffic volume development are provided in **Appendix B.**

3.1 2024 Existing Traffic

Peak-hour intersection turning movement counts were conducted in the AM peak period (7:00 AM to 9:00 AM), School peak period (2:00 PM to 4:00 PM), and PM peak period (4:00 PM to 6:00 PM) on Tuesday, November 12, 2024, at the intersections of study. **Figure 10** illustrates the 2024 Existing AM and PM peak hour traffic volumes, and **Figure 11** illustrates the 2024 Existing School peak hour traffic volumes. The raw turning-movement count data is included in **Appendix B**.

3.2 Future-Year No-Build Traffic Development

It was assumed that Phase 1 and Phase 2 of the development will be built and fully occupied by 2029 and 2035, respectively. The future-year traffic volumes consist of the 2024 existing traffic volumes adjusted by a growth rate for the no-build scenarios, and traffic volumes added to the network from identified approved developments in the study area.

Historical Growth Rate

To determine the historical growth rate in the area, the *LCOG SC 170 Corridor Study* was referenced, and traffic count data was obtained from SCDOT for the count stations along SC 170 (Okatie Highway). Over the past five years, these roadways have experienced an annual growth rate of approximately 3%, which was used to develop the 2029 No-Build traffic volumes. To develop 2035 No-Build traffic volumes, the 2029 No-Build traffic volumes were grown by 1% for six years. A worksheet documenting the growth rate determination is included in **Appendix C**.

Approved Developments

The following approved developments were used in the development of the 2026 no-build traffic volumes. Recommendations made to the existing road network part of these approved developments were utilized in future year analyses and are considered “committed improvements.” Select pages from these studies used in this analysis are provided in **Appendix D**.

Malind Bluff Development

A Traffic Analysis Summary Memo for the Malind Bluff Development Phase 1A and Phase 1B was conducted by Bihl Engineering in August of 2019 and is located along SC 170/Okatie Highway. Committed improvements part of this development consists of lane geometry improvements along Red Oak Lane, and lane geometry improvements and signalized intersection control as the intersection of SC 170 (Okatie Highway) at Short Cut Road/Pitcher Point Road.

Okatie Village Development

The *Okatie Village Traffic Impact Analysis* was prepared by Bihl Engineering in August of 2019. This approved development is located along SC 170 (Okatie Highway) and Cherry Point Road. Committed improvements part of this development include lane geometry improvements along the Cherry Point Road approach at the intersection of SC 170/Okatie Highway at Cherry Point Road/Pearlstine Drive.

Speedway Gas/Convenience Store Development

The *1591 SC-170 Speedway 101172 Traffic Impact Study* was prepared by Qk4, Inc. in February of 2020. This approved development is located in the southwest quadrant at the intersection of SC 170/Okatie Highway at Cherry Point Road/ Pearlstine Drive. Committed improvements part of this development include lane geometry improvements along the Pearlstine Drive approach at the intersection of SC 170/Okatie Highway at Cherry Point Road/Pearlstine Drive.

Traffic volumes associated with the approved developments listed above are illustrated in **Figure 12**. Please note, studies associated with the approved development did not analyze the School peak hour. Therefore, for a conservative analysis, the approved development PM peak hour traffic volumes were used for the School peak hour volume development as part of this study.

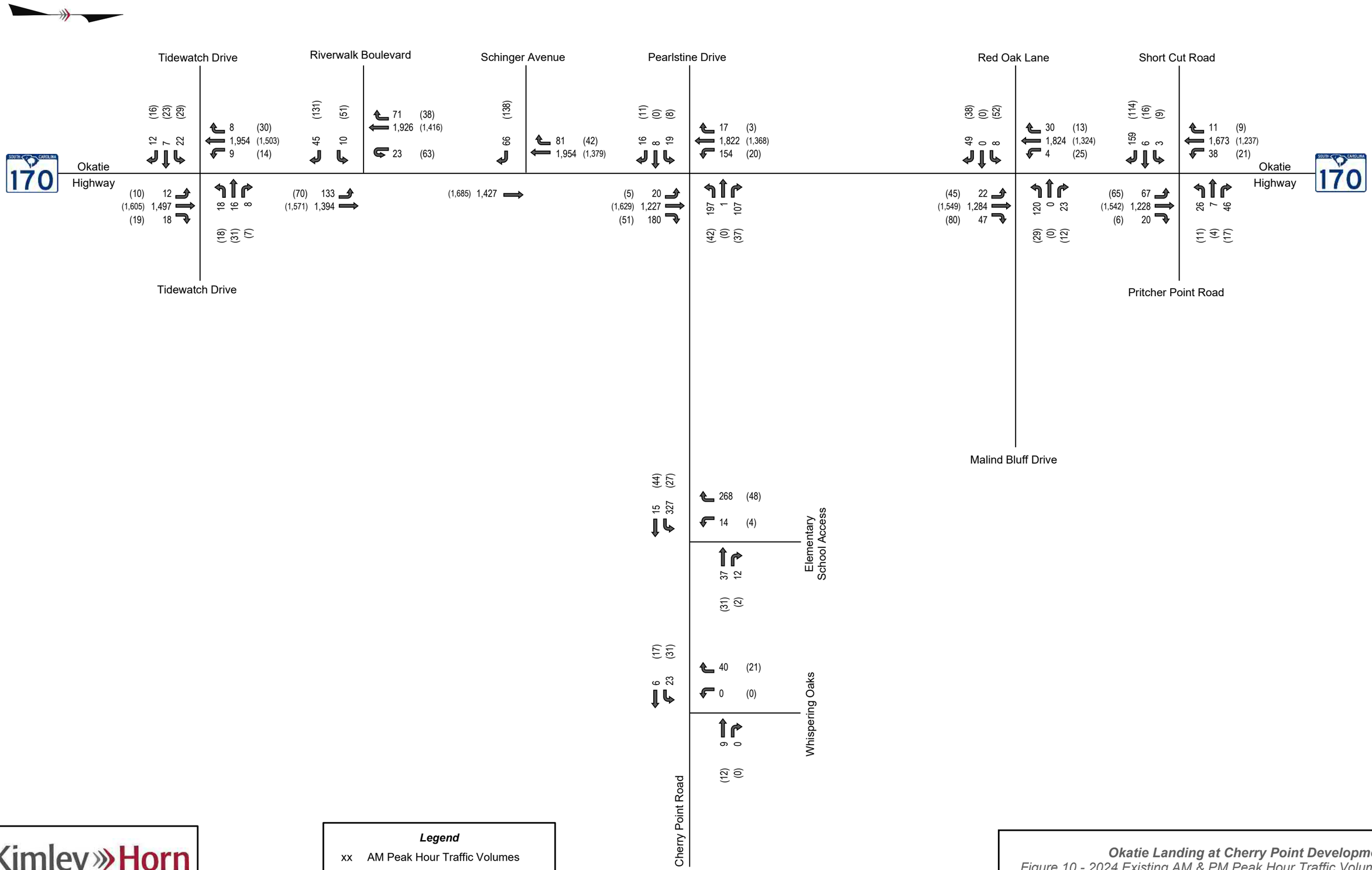
Figures illustrating the no-build traffic volumes are as follows:

- **Figure 13** – 2029 No-Build AM & PM Peak Hour Traffic Volumes
- **Figure 14** – 2029 No-Build School Peak Hour Traffic Volumes
- **Figure 15** – 2035 No-Build AM & PM Peak Hour Traffic Volumes
- **Figure 16** – 2035 No-Build School Peak Hour Traffic Volumes

3.3 Future-Year Build Traffic Development

Okatie Landing at Cherry Point Development Phase 1 and Phase 2 project traffic volumes were added to the 2029 No-Build traffic volumes and 2035 No-Build traffic volumes, respectively, to develop the 2029 Build Phase 1 and 2035 Build Phase 2 peak hour traffic volumes. Figures illustrating the build traffic volumes are as follows:

- **Figure 17** – 2029 Build Phase 1 AM & PM Peak Hour Traffic Volumes
- **Figure 18** – 2029 Build Phase 1 School Peak Hour Traffic Volumes
- **Figure 19** – 2035 Build Phase 2 AM & PM Peak Hour Traffic Volumes
- **Figure 20** – 2035 Build Phase 2 School Peak Hour Traffic Volumes



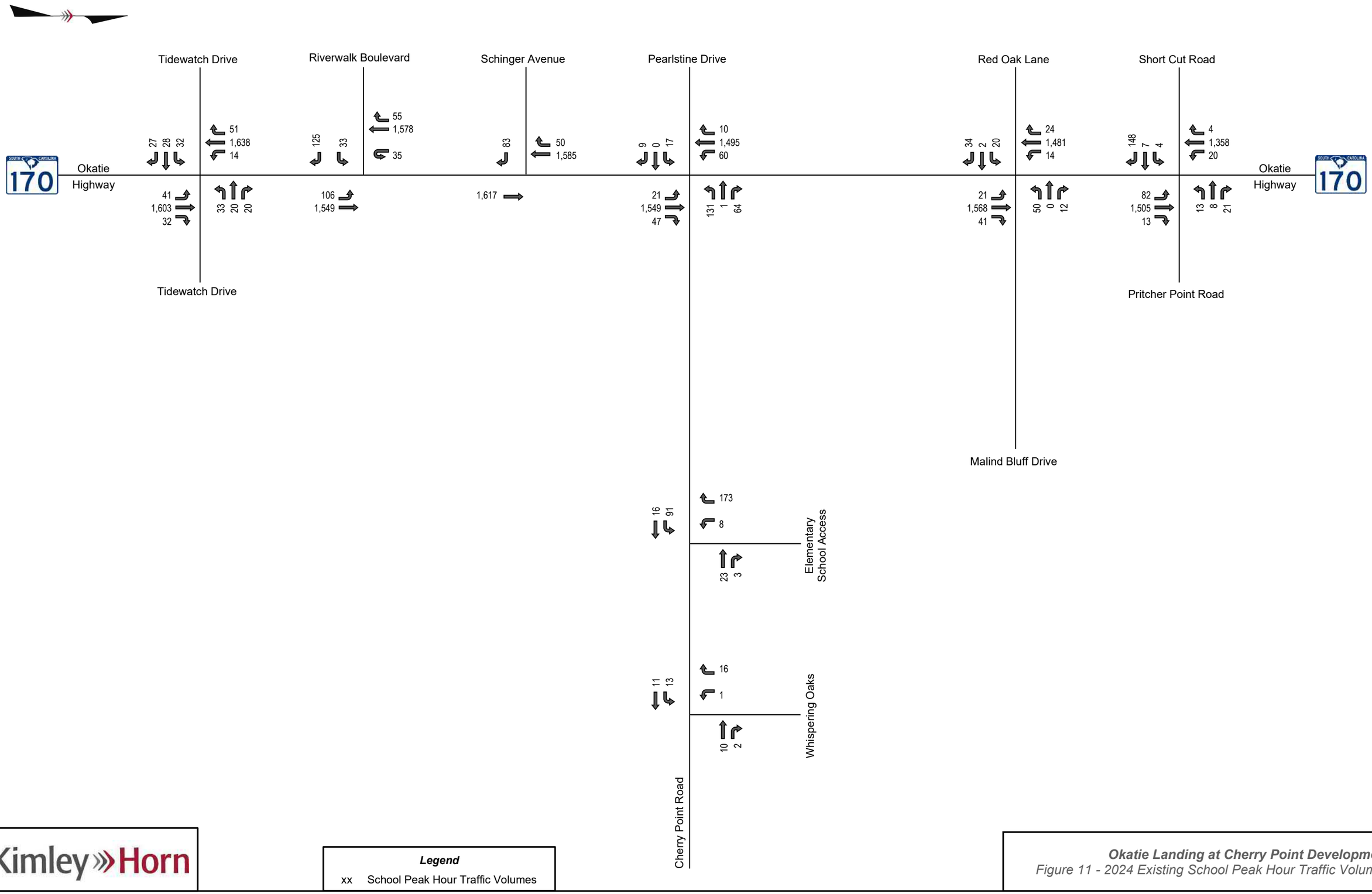
Legend

xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 10 - 2024 Existing AM & PM Peak Hour Traffic Volumes

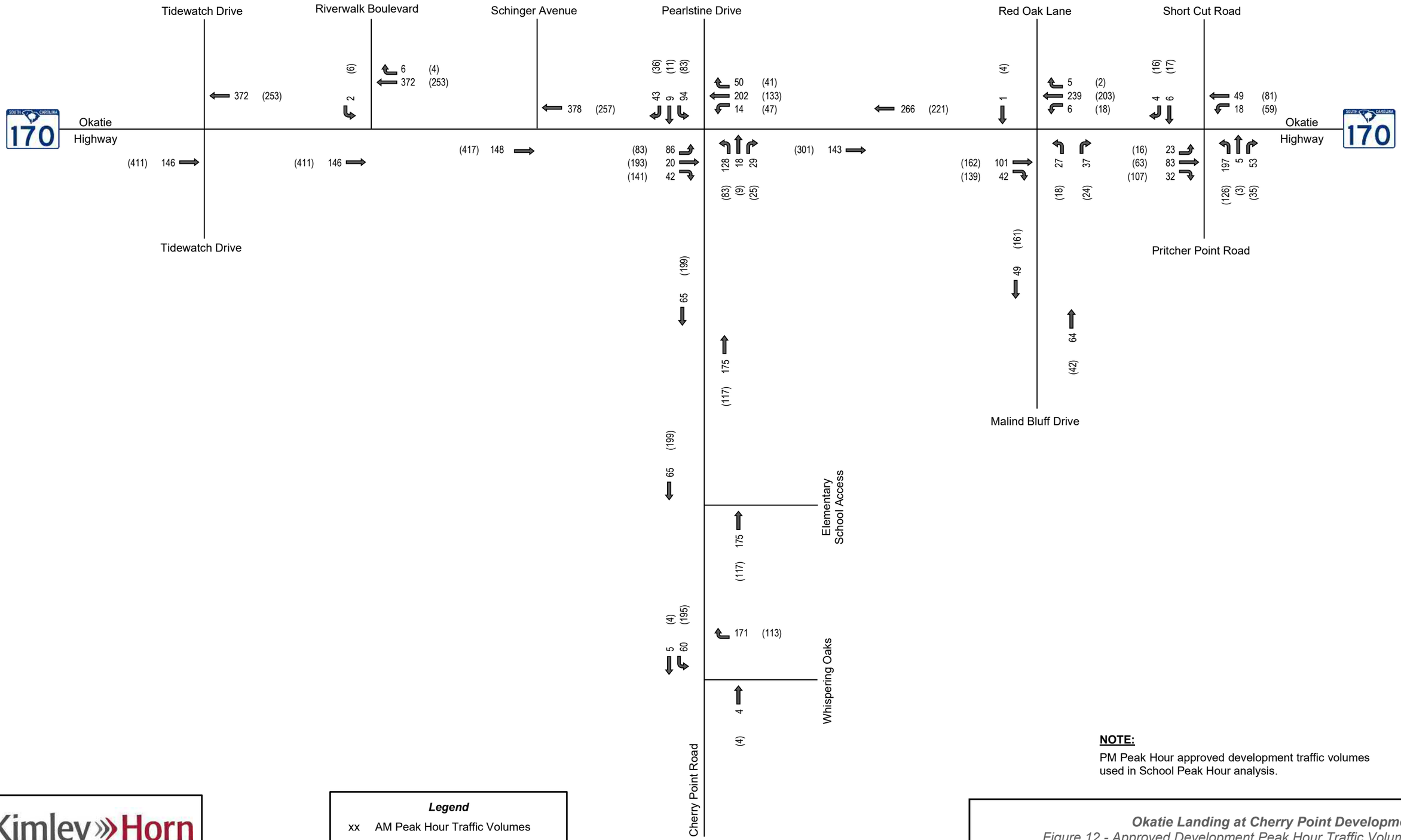


Legend

xx School Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 11 - 2024 Existing School Peak Hour Traffic Volumes



NOTE:

PM Peak Hour approved development traffic volumes used in School Peak Hour analysis.

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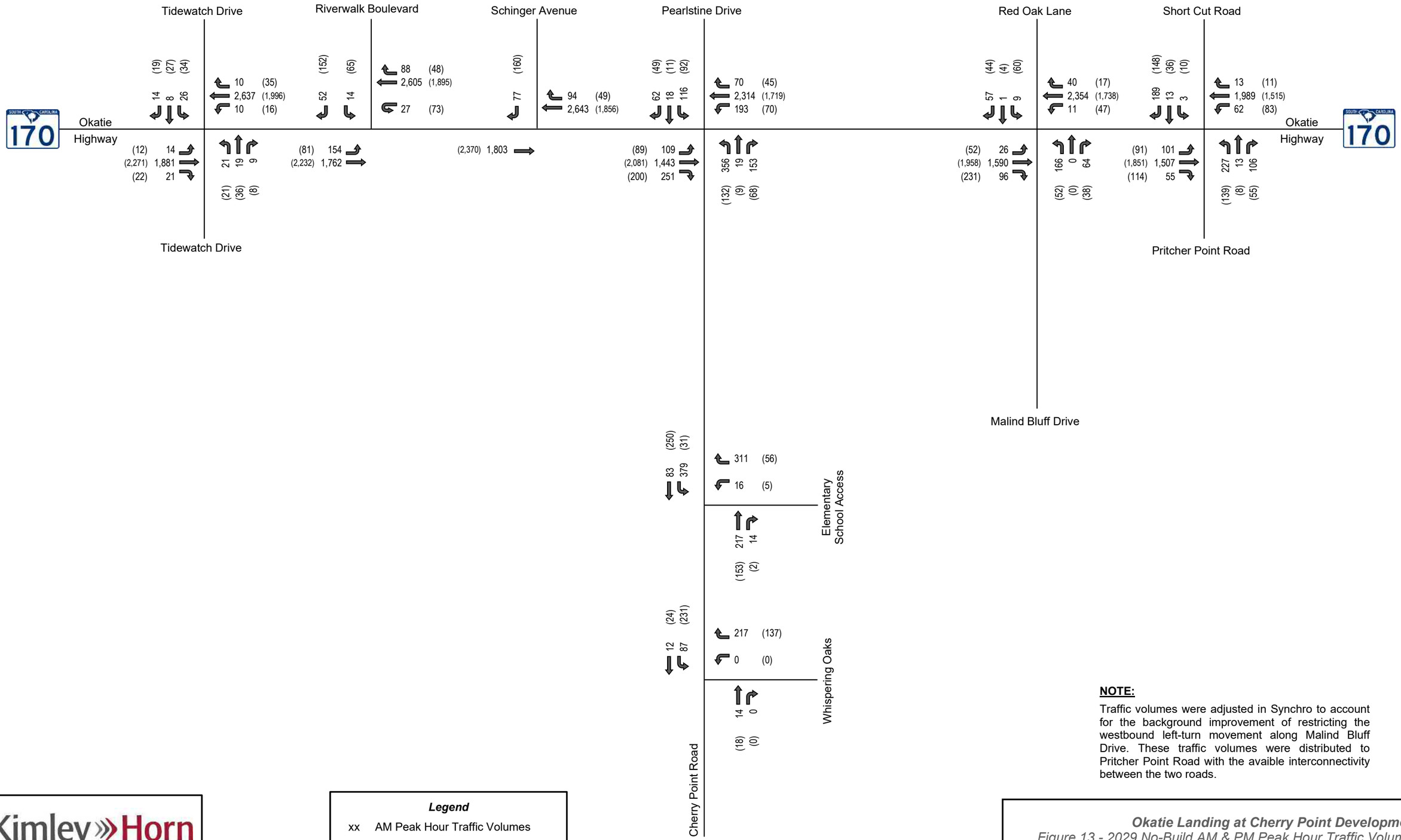
Legend

xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 12 - Approved Development Peak Hour Traffic Volumes



NOTE:

Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

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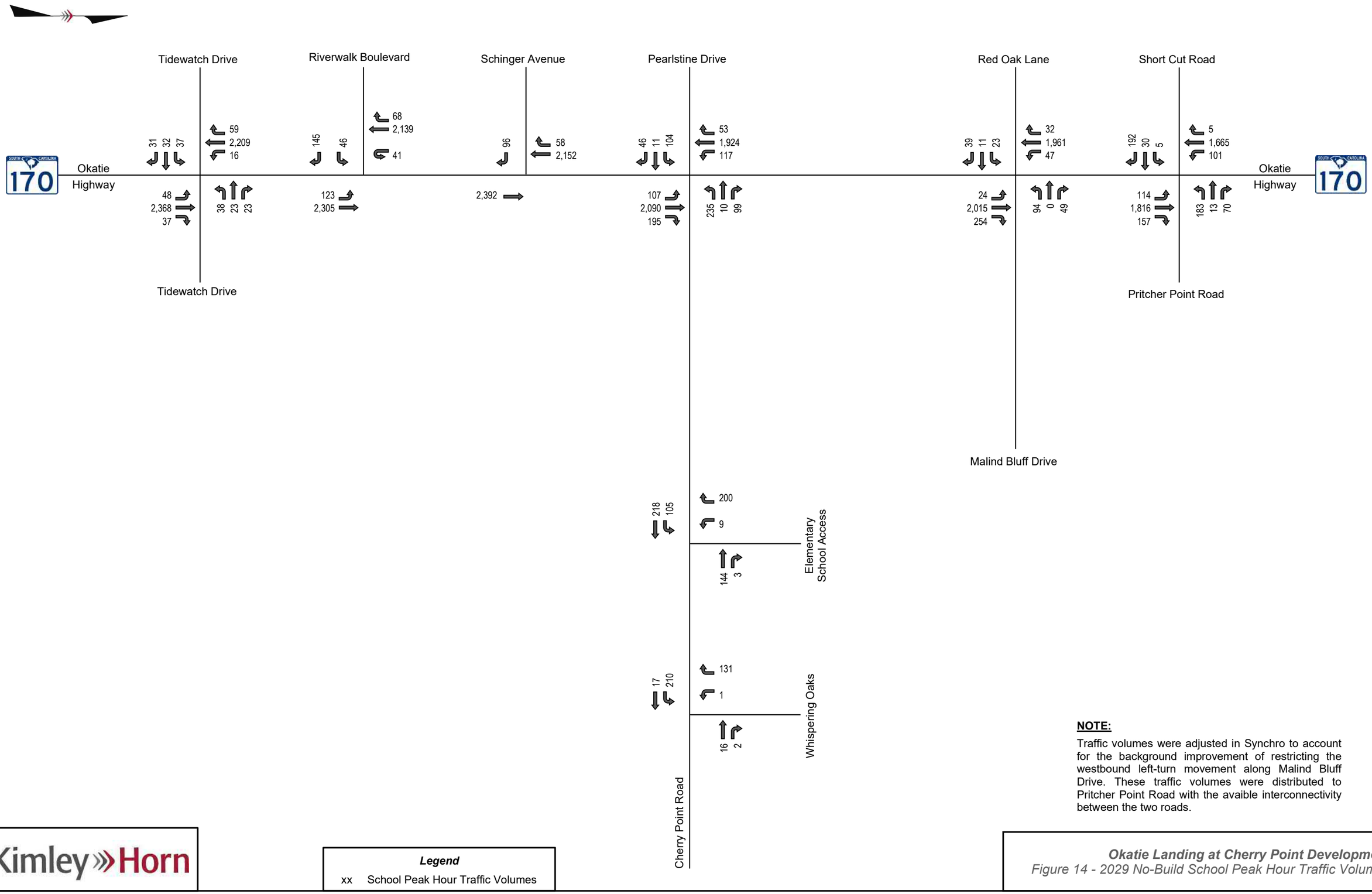
Legend

xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 13 - 2029 No-Build AM & PM Peak Hour Traffic Volumes



NOTE:

Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

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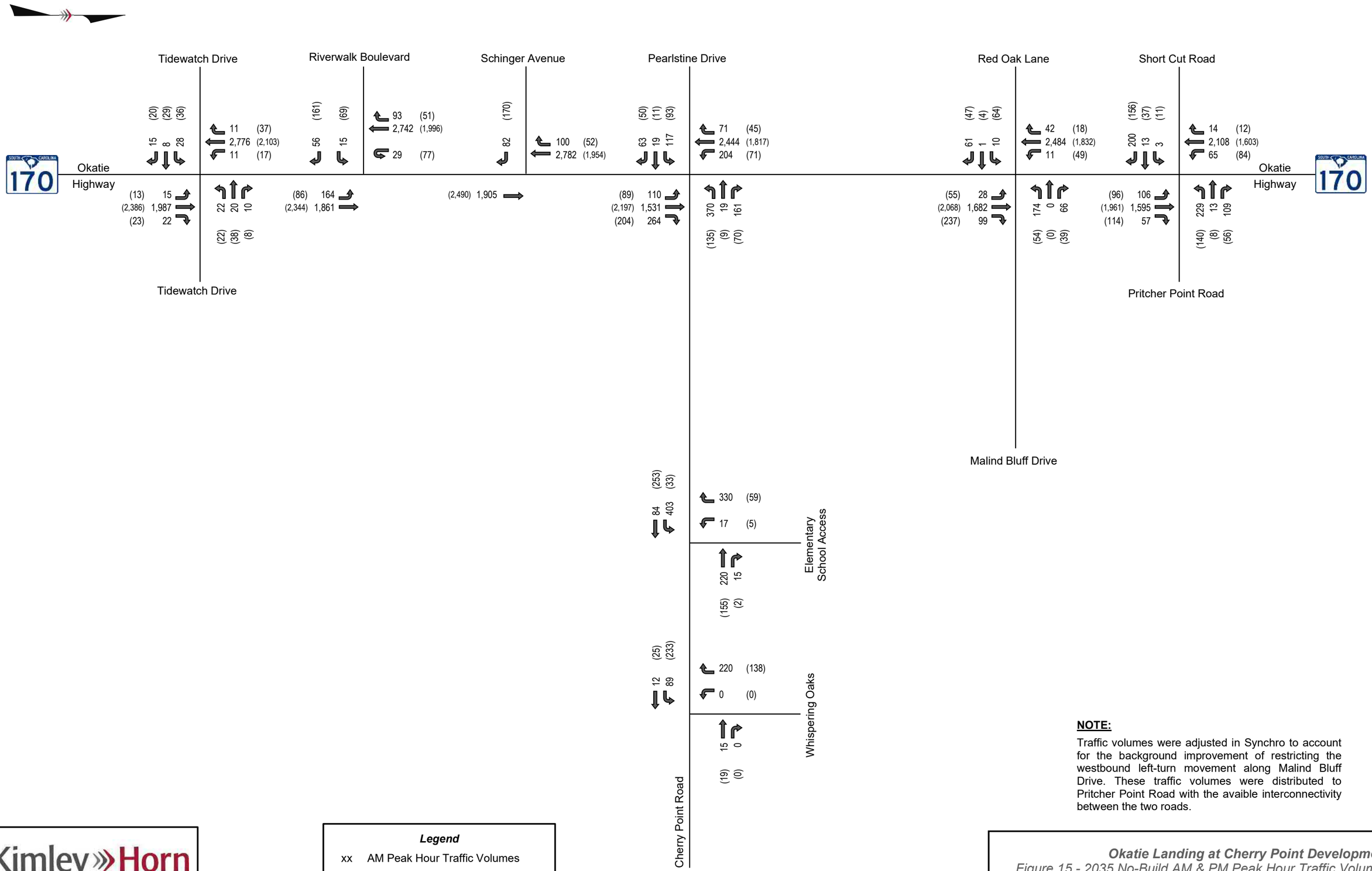
Legend

xx School Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 14 - 2029 No-Build School Peak Hour Traffic Volumes



NOTE:

Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

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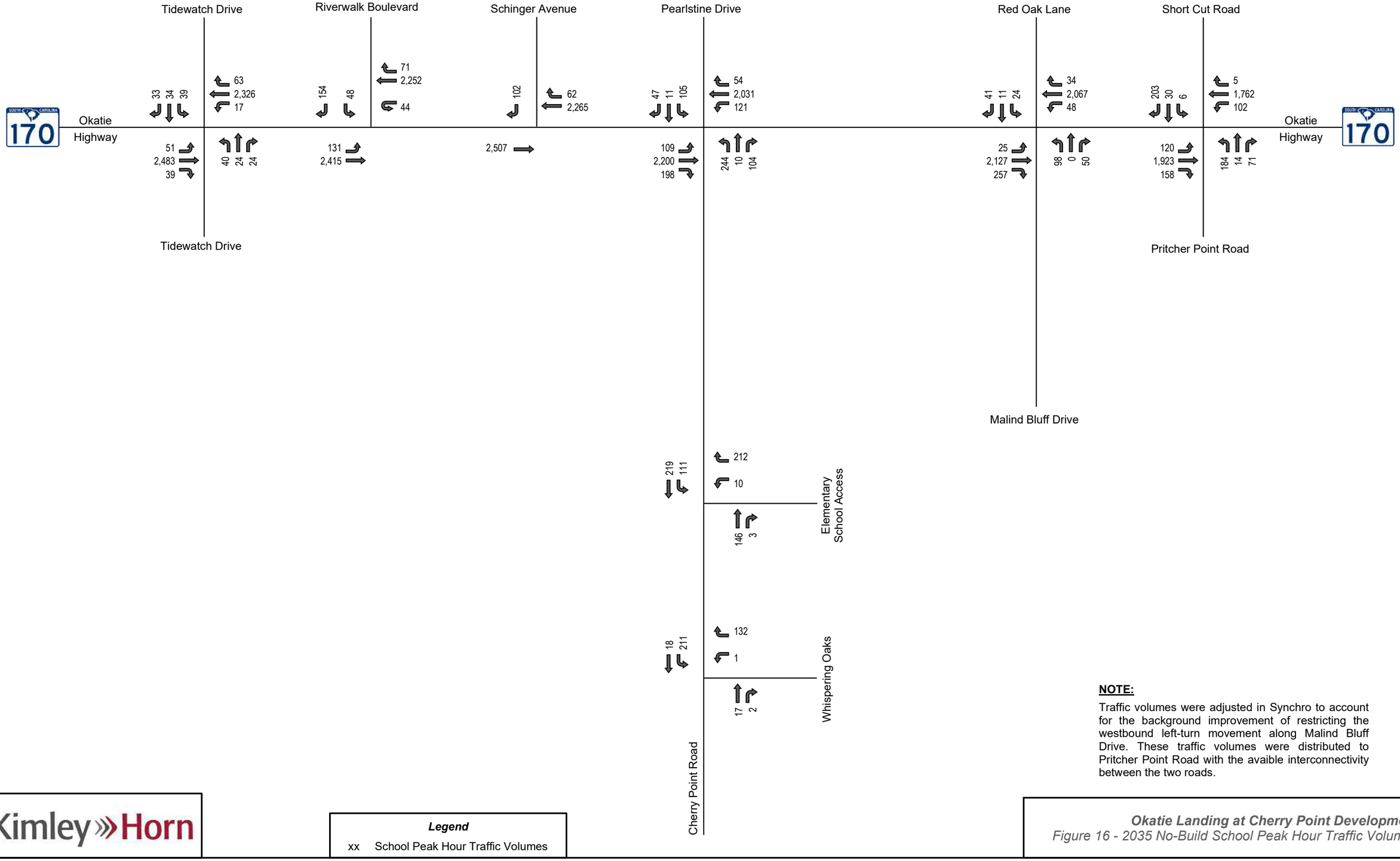
Legend

xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 15 - 2035 No-Build AM & PM Peak Hour Traffic Volumes



NOTE:

Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

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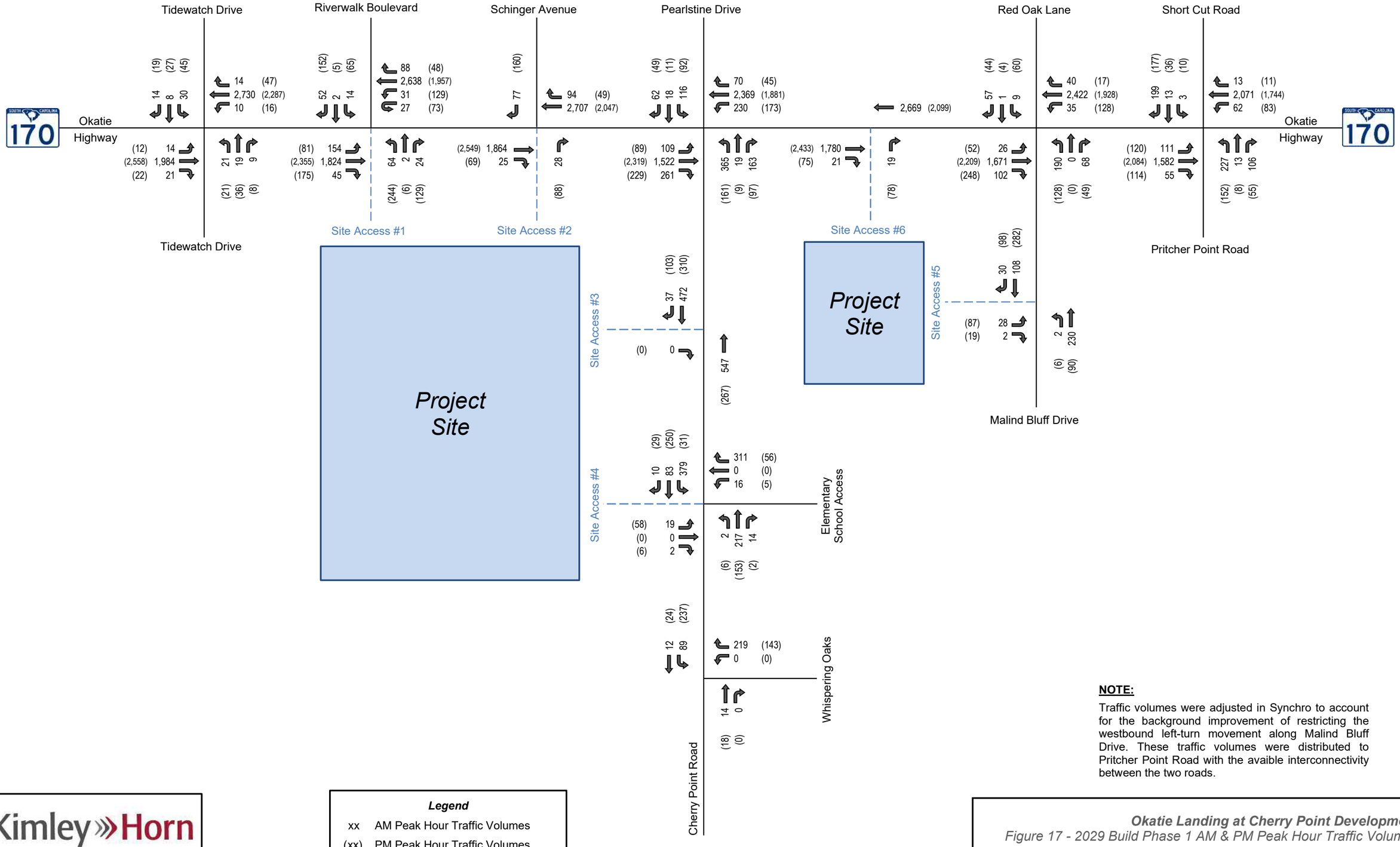
Legend

xx School Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 16 - 2035 No-Build School Peak Hour Traffic Volumes



NOTE:

Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

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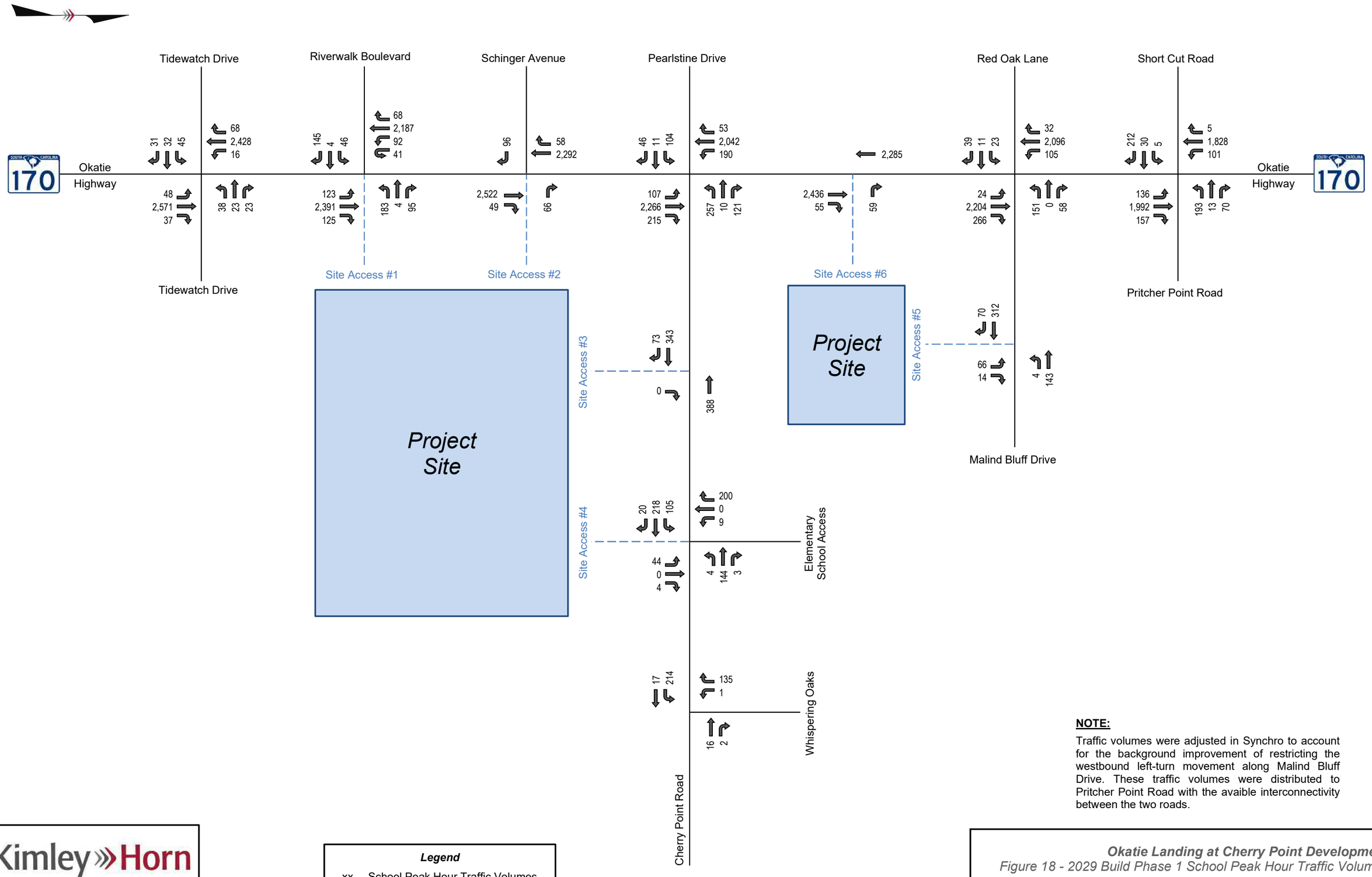
Legend

xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 17 - 2029 Build Phase 1 AM & PM Peak Hour Traffic Volumes



NOTE:

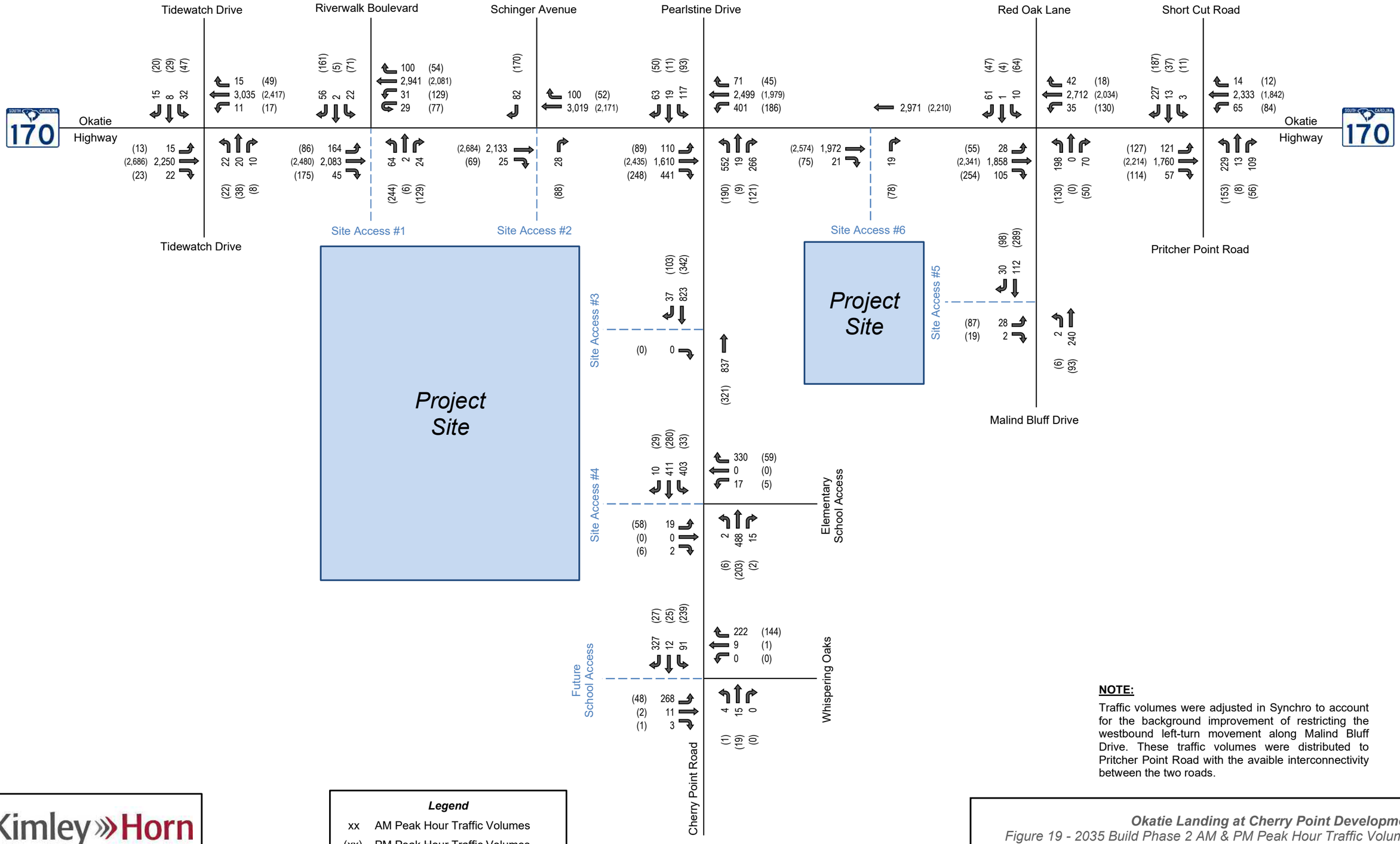
Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

Legend

xx School Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 18 - 2029 Build Phase 1 School Peak Hour Traffic Volumes



NOTE:

Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

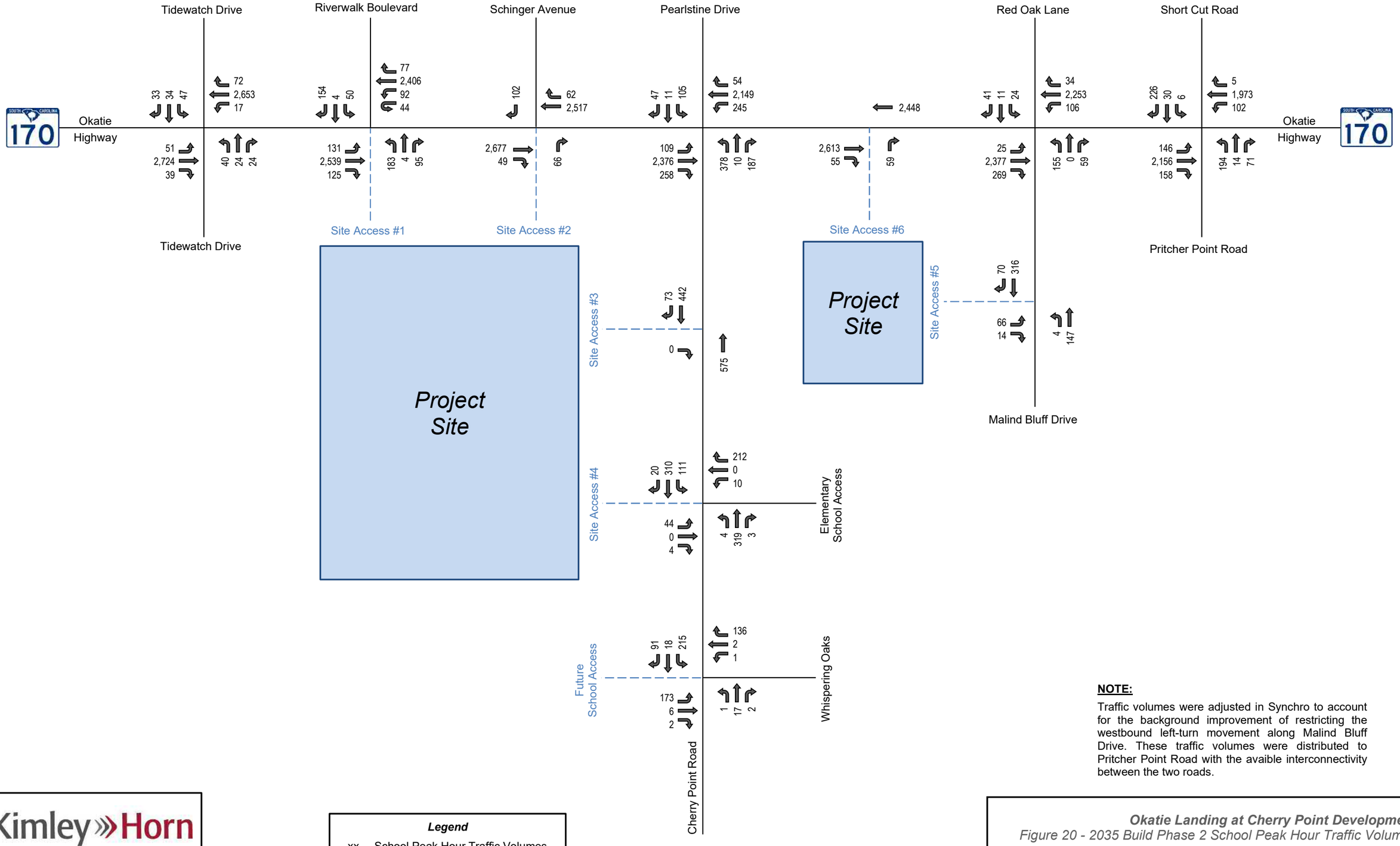
Legend

xx AM Peak Hour Traffic Volumes

(xx) PM Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 19 - 2035 Build Phase 2 AM & PM Peak Hour Traffic Volumes



NOTE:

Traffic volumes were adjusted in Synchro to account for the background improvement of restricting the westbound left-turn movement along Malind Bluff Drive. These traffic volumes were distributed to Pritcher Point Road with the avaible interconnectivity between the two roads.

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Legend

xx School Peak Hour Traffic Volumes

Okatie Landing at Cherry Point Development

Figure 20 - 2035 Build Phase 2 School Peak Hour Traffic Volumes

4 Capacity Analysis

Capacity/level-of-Service (LOS) analyses were conducted using the *Highway Capacity Manual (HCM),* 6th Edition, methodologies of the *Synchro*, Version 12, traffic analysis software. Capacity analyses were conducted for the AM and PM peak hours of the 2024 Existing, 2029 No-Build, 2029 Build Phase 1, 2035 No-Build, and 2035 Build Phase 2 conditions.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, gridlocked conditions with high vehicular delays, and are generally considered undesirable. However, it is not uncommon for minor street approaches to experience LOS F operations during peak hours of travel. **Table 3** lists the LOS control delay thresholds published in the *HCM* for signalized and unsignalized intersections.

Table 3 – *HCM* Level of Service Criteria

LOS	Control Delay per Vehicle (sec/veh)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

As part of the intersection analysis, SCDOT's default Synchro parameters were utilized. Existing peak-hour factors (PHF) were utilized for the existing intersections of study and the PHFs for new proposed intersections were assumed to be 0.90. Existing heavy vehicle percentages were utilized for all scenarios, with a minimum of 2% considered.

HCM 6th methodology produces an error message that does calculated LOS and delay when U-Turns conflict a right-turn overlap phase at signalized intersections. The U-Turns were added as left-turns in the situations this error message occurred in the capacity analysis.

For the purpose of this study, any recommendations for roadway geometry and traffic control improvements identified under 2029 Build Phase 1 Improved conditions were accounted for in 2035 Build Phase 2 conditions.

The following sections outline the results of the capacity analysis for each of the study intersections. The capacity analysis worksheets are included in **Appendix F**.

4.1 SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road

The capacity analysis results for the SC 170 (Okatie Highway) at Short Cut Road/Pritcher Point Road intersection are summarized in **Table 4** and **Table 5** on the following pages. This intersection is currently unsignalized under minor street stop control. As part of the approved background improvements, this intersection is proposed to be placed under traffic signal control with lane improvements along Short Cut Road and Pritcher Point Road.

Existing and 2029 Phase 1

Under 2024 Existing conditions, the minor eastbound and westbound approaches operate at LOS F during the analyzed peak hours. It is not uncommon for minor streets to experience higher delays during these peak hours. The anticipated long delay can be attributed to the high through volumes on SC 170 (Okatie Highway) creating minimal gaps for vehicles to get onto or off of SC 170 (Okatie Highway). With the committed improvements, the intersection is anticipated to operate at LOS E during the AM peak hour and LOS D during both the School and PM peak hours under 2029 No-Build conditions. With the addition of project trips associated with Phase 1 of the development, the intersection is anticipated to continue to operate at LOS E during the AM peak hour and increase to LOS E during both the School and PM peak hours. Additionally, the eastbound approach is anticipated to operate with delays excess of 300 sec/veh and the westbound approach is anticipated to operate at LOS F with vehicle queues extending over 600 feet.

To mitigate for deficiencies in operations, split phase traffic signal operations for the minor street approaches was considered. This would allow for the westbound lane geometry to consist of an exclusive left-turn lane, shared through-left lane, and an exclusive right-turn lane. Additional signal phasing improvements considered in this analysis included the northbound and eastbound right-turn movements to operate as an overlap with protected left-turn movements from other approaches. With these improvements, the overall intersection and approaches are anticipated to operate similar, or better, when compared to the 2029 No-Build conditions during the AM, School, and PM peak hours.

2035 Phase 2

Under 2035 No-Build conditions, the overall intersections is anticipated to operate at LOS F during the AM peak hour, and LOS D during both the School and PM peak hours. With considering the improvements identified under 2029 Build Phase 1 Improved conditions in the 2035 Build Phase 2 conditions, the overall intersection is anticipated to operate at LOS E during the AM peak hour and continue to operate at LOS D during the School and PM peak hours.

Final Recommendations

Based on the summary above, and the results presented in **Table 4** and **Table 5**, it is recommended that under 2029 Build Phase 1 conditions the intersection should be retimed to operate in coordination with adjacent signalized intersections and to operate under split phase operations for the minor street approaches. The westbound approach along Pritcher Point Road should consist of an exclusive left-turn lane, a shared through-left lane, and an exclusive right-turn lane. The northbound right-turn movement should operate with an overlap phase with the westbound protected left-turn phase. The eastbound right-turn movement should operate with an

overlap phase with the northbound protected left-turn phase.

Under 2035 Build Phase 2 conditions, no further improvements are recommended for mitigation. However, the traffic signal should be retimed to account for traffic volume growth, and to remain in coordination with the adjacent signalized intersections along SC 170 (Okatie Highway).

Table 4 – SC 170 (Okatie Highway) & Shortcut Road/Pritcher Point Road Analysis Results (AM & School Peak Hour)

Condition	Measure	Short Cut Road			Pritcher Point Road			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM Peak Hour														
2024 Existing	Approach LOS (Delay)	+			F ($)			C (19.1)*			B (12.4)*			-
	95th Percentile Q	+			155'		10'	20'	0'	0'	5'	0'		
2029 No-Build	Approach LOS (Delay)	F (286.1)			F (89.4)			C (34.8)			E (68.1)			E (68.2)
	95th Percentile Q	42'		#204'	#535'	30'	62'	#183'	748'	0'	41'	#1314'		
2029 Build Phase 1	Approach LOS (Delay)	F ($)			F (103.2)			D (39.1)			F (81.3)			E (78.8)
	95th Percentile Q	42'		#228'	#589'	30'	66'	#212'	817'	0'	57'	#1403'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	F (190.1)			F (83.6)			C (29.0)			E (56.1)			E (55.3)
	95th Percentile Q	45'		218'	#434'	#422'	47'	m102'	933'	m10'	40'	#1547'		
2035 No-Build	Approach LOS (Delay)	F ($)			F (132.2)			D (35.1)			E (61.3)			F (89.7)
	95th Percentile Q	44'		#277'	#651'	31'	82'	#208'	762'	0'	46'	#1370'		
2035 Build Phase 2	Approach LOS (Delay)	F (274.2)			F (170.2)			C (31.7)			E (78.1)			E (79.7)
	95th Percentile Q	45'		#299'	#509'	#520'	53'	m#143'	1035'	m6'	56'	#1688'		
School Peak Hour														
2024 Existing	Approach LOS (Delay)	+			F ($)			B (14.4)*			B (14.1)*			-
	95th Percentile Q	+			105'		5'	18'	0'	0'	5'	0'		
2029 No-Build	Approach LOS (Delay)	F (248.1)			E (78.7)			C (30.6)			C (27.3)			D (44.3)
	95th Percentile Q	72'		#202'	#490'	31'	37'	#158'	930'	48'	#143'	758'		
2029 Build Phase 1	Approach LOS (Delay)	F ($)			F (127.1)			D (43.1)			C (33.8)			E (59.9)
	95th Percentile Q	72'		#252'	#644'	31'	37'	#251'	#1212'	48'	#143'	920'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	F (191.3)			E (76.9)			C (34.5)			C (24.2)			D (42.0)
	95th Percentile Q	74'		240'	#352'	#345'	15'	m90'	m930'	m29'	115'	937'		
2035 No-Build	Approach LOS (Delay)	F ($)			E (60.0)			C (32.5)			C (28.0)			D (47.2)
	95th Percentile Q	73'		#238'	#270'	33'	40'	#177'	1019'	47'	#147'	866'		
2035 Build Phase 2	Approach LOS (Delay)	F (166.8)			E (78.4)			D (51.6)			C (28.5)			D (50.4)
	95th Percentile Q	75'		260'	#354'	#353'	17'	m94'	m967'	m28'	#119'	#1186'		

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections
3. + - Computation not defined
4. $ - Delay exceeds 300 sec/veh
5. # - 95th percentile volume exceeds capacity, queue may be longer
6. m - Volume for 95th percentile queue is metered by upstream signal

Table 5 – SC 170 (Okatie Highway) & Shortcut Road/Pritcher Point Road Analysis Results (PM Peak Hour)

Condition	Measure	Short Cut Road			Pritcher Point Road			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
PM Peak Hour														
2024 Existing	Approach LOS (Delay)	F($)			+			B (13.6) *			C (15.6)*			-
	95th Percentile Q	450'			+		5'	13'	0'	0'	5'	0'		
2029 No-Build	Approach LOS (Delay)	F ($)			E (73.5)			C (27.3)			C (20.6)			D (47.2)
	95th Percentile Q	#106'		#172'	#289'	25'	27'	69'	982'	27'	#110'	674'		
2029 Build Phase 1	Approach LOS (Delay)	F ($)			F (152.7)			D (45.9)			C (26.8)			E (72.5)
	95th Percentile Q	#106'		#252'	#515'	25'	27'	#204'	#1377'	27'	#110'	899'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	F (133.0)			E (77.7)			D (51.7)			C (24.2)			D (46.7)
	95th Percentile Q	96'		202'	#310'	#313'	3'	m64'	m984'	m28'	98'	#1028'		
2035 No-Build	Approach LOS (Delay)	F ($)			E (71.1)			D (35.2)			C (23.4)			D (53.8)
	95th Percentile Q	#112'		#195'	#287'	25'	28'	104'	#1247'	27'	#115'	784'		
2035 Build Phase 2	Approach LOS (Delay)	F (217.8)			E (75.7)			E (61.1)			C (23.4)			D (54.8)
	95th Percentile Q	#105'		221'	#301'	#306'	4'	m88'	m297'	m0'	103'	#1211'		

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections
3. + - Computation not defined
4. $ - Delay exceeds 300 sec/veh
5. # - 95th percentile volume exceeds capacity, queue may be longer
6. m - Volume for 95th percentile queue is metered by upstream signal

4.2 SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive

The capacity analysis results for the SC 170 (Okatie Highway) at Red Oaks Lane/Malind Bluff Drive intersection are summarized in **Table 6** on the following page. This intersection currently operates as a unsignalized, full-movement intersection under minor street stop control. As part of the approved background improvements, the westbound approach along Malind Bluff Road is planned to be restricted to right-out movements only.

Existing and 2029 Phase 1

Under 2024 Existing conditions, the minor eastbound and westbound approaches operate at LOS F and over capacity during all peak hours. It is not uncommon for minor streets to experience higher delays during these peak hours. The anticipated long delay can be attributed to the high through volumes on SC 170 (Okatie Highway) creating minimal gaps for vehicles to get onto or off of SC 170 (Okatie Highway). With the committed improvement of limiting the westbound approach to a ¾ access, the westbound approach is anticipated to improve to short/moderate delays. The eastbound approach is anticipated to continue to operate over capacity. With the addition of project trips associated with Phase 1 of the development, the intersection is anticipated to continue to operate over capacity during the analyzed conditions. The northbound and southbound left-turn movements are anticipated to operate with moderate to long delays during the analyzed conditions due to the limited available gaps for the mainline left-turn movements against the opposing volumes along SC 170 (Okatie Highway).

2035 Phase 2

Under 2035 No-Build conditions, the overall intersections is anticipated to operate at LOS F during the AM peak hour, and LOS D during both the School and PM peak hours. With considering the improvements identified under 2029 Build Phase 1 Improved conditions in the 2035 Build Phase 2 conditions, the overall intersection is anticipated to operate at LOS E during the AM peak hour and continue to operate at LOS D during the School and PM peak hours.

Final Recommendations

Based on the summary above; to mitigate for deficiencies in operations, it is recommended to modify the northbound right-turn movement to be channelized under yield control. To accommodate anticipated southbound left-turn queuing, it is recommended to extend the southbound left-turn lane to 400’ of full-width storage. These improvements do not provide a LOS improvement; however, they help with queuing along SC 170 (Okatie Highway)

Under 2035 Build Phase 2 conditions, no further improvements are recommended for mitigation.

Table 6 – SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive Analysis Results

Condition	Measure	Red Oaks Lane			Malind Bluff Drive			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2024 Existing	Approach LOS (Delay)	F (293.4)			F ($)			C (17.7)*			B (12.3)*		
	95th Percentile Q	128'			410'		5'	5'	0'	0'	0'	0'	0'
2029 No-Build	Approach LOS (Delay)	F ($)			C (19.3)			D (32.4)*			C (15.4)*		
	95th Percentile Q	65'		53'	-		20'	15'	0'	0'	3'	0'	0'
2029 Build Phase 1	Approach LOS (Delay)	F ($)			C (20.8)			E (35.4)*			C (17.2)*		
	95th Percentile Q	65'		58'	-		23'	18'	0'	0'	10'	0'	0'
2029 Build Phase 1 Improved	Approach LOS (Delay)	F ($)			C (20.8)			E (35.4)*			C (16.0)		
	95th Percentile Q	65'		58'	-		23'	18'	0'	0'	8'	0'	0'
2035 No-Build	Approach LOS (Delay)	F ($)			C (20.8)			E (37.9)*			C (16.4)*		
	95th Percentile Q	70'		68'	-		23'	20'	0'	0'	3'	0'	0'
2035 Build Phase 2	Approach LOS (Delay)	F ($)			C (24.3)			E (49.5)*			C (18.4)*		
	95th Percentile Q	70'		88'	-		28'	25'	0'	0'	10'	0'	0'
School Peak Hour													
2024 Existing	Approach LOS (Delay)	F ($)			F ($)			C (16.0)*			B (14.7)*		
	95th Percentile Q	165'			193'		3'	5'	0'	0'	3'	0'	0'
2029 No-Build	Approach LOS (Delay)	F ($)			D (25.3)			D (26.3)*			D (27.5)*		
	95th Percentile Q	155'		18'	-		20'	10'	0'	0'	23'	0'	0'
2029 Build Phase 1	Approach LOS (Delay)	+			D (31.2)			D (31.6)*			F (56.0)*		
	95th Percentile Q	+		20'	-		30'	13'	0'	0'	88'	0'	0'
2029 Build Phase 1 Improved	Approach LOS (Delay)	+			D (31.2)			D (31.6)*			E (36.0)		
	95th Percentile Q	+		20'	-		30'	13'	0'	0'	63'	0'	0'
2035 No-Build	Approach LOS (Delay)	F ($)			D (27.9)			D (26.6)*			D (31.2)*		
	95th Percentile Q	160'		20'	-		23'	13'	0'	0'	25'	0'	0'
2035 Build Phase 2	Approach LOS (Delay)	+			E (37.5)			E (37.9)*			E (47.8)*		
	95th Percentile Q			25'	-		38'	18'	0'	0'	80'	0'	0'
PM Peak Hour													
2024 Existing	Approach LOS (Delay)	F ($)			F ($)			C (23.7)			C (16.9)		
	95th Percentile Q	328'			135'		3'	20'	0'	0'	8'	0'	0'
2029 No-Build	Approach LOS (Delay)	F ($)			D (26.9)			F (52.3)*			D (31.9)*		
	95th Percentile Q	283'		20'	-		20'	50'	0'	0'	28'	0'	0'
2029 Build Phase 1	Approach LOS (Delay)	+			E (37.1)			F (94.0)*			F (143.4)*		
	95th Percentile Q	+		25'	-		35'	75'	0'	0'	188'	0'	0'
2029 Build Phase 1 Improved	Approach LOS (Delay)	+			E (37.1)			F (94.0)*			F (73.8)*		
	95th Percentile Q	+		25'	-		35'	75'	0'	0'	133'	0'	0'
2035 No-Build	Approach LOS (Delay)	F ($)			D (29.9)			F (66.9)*			E (37.4)*		
	95th Percentile Q	295'		23'	-		23'	63'	0'	0'	35'	0'	0'
2035 Build Phase 2	Approach LOS (Delay)	+			E (43.5)			F (133.9)*			F (107.8)*		
	95th Percentile Q	+		30'	-		40'	95'	0'	0'	165'	0'	0'

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections
3. + - Computation not defined
4. $ - Delay exceeds 300 sec/veh

4.3 SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road

The capacity analysis results for the SC 170 (Okatie Highway) at Pearlstine Drive/Cherry Point Road intersection are summarized in **Table 7** and **Table 8** on the following pages.

Existing and 2029 Phase 1
The signalized intersection of SC 170 (Okatie Highway) at Pearlstine Drive/Cherry Point Road currently operates at Level of Service D during the AM peak hour, LOS B during the school dismissal peak hour and LOS B during the PM peak hour. Please note, the existing school drop-off during the AM and School peak hour from Okatie Elementary School queues back through this intersection. At times during the AM and School Peak hour, parents will be queued on the side of Cherry Point Road and onto SC 170 (Okatie Highway). This latent demand of queuing does not appear in the Synchro tables, but should be noted for improvements to this intersection and at the entrance to Okatie Elementary School.

During the 2029 No-Build conditions the intersection is anticipated to degrade LOS F during the AM peak hour, LOS D during the School peak hour, and LOS D during the PM Peak hour. The degradation in LOS and delay is due to background area growth and nearby approved developments, exclusive of the Okatie Landing at Cherry Point Road Development.

With the site traffic included, the intersection is anticipated to continue to operate at LOS F during the AM peak hour, drop to LOS F during the School peak hour, and drop to LOS F during the PM peak hour.

To mitigate the increase in delay associated with the Okatie Landing Development it is recommended to:

- Extend the existing southbound left-turn lane along SC 170 (Okatie Highway) to consist of 450 feet of full-width storage and an appropriate taper length
- Construction of an additional southbound left-turn lane along SC 170 (Okatie Highway) with 450 feet of full-width storage and an appropriate taper length
- Widen Cherry Point Road to receive the dual southbound left-turn lanes from SC 470 (Okatie Highway)
- Remove the existing channelized northbound right-turn movement and place under traffic signal control to operate with overlap phasing with the westbound protected left-turn phase
- Constructed a dedicated westbound right-tur lane with 250 feet of full-width storage and an appropriate taper length

With these mitigations in place, the intersection delay is anticipated to be less than the no-build conditions during the AM peak hour, the School Peak hour is anticipated to improve to LOS E and the PM peak hour is also anticipated to improve to LOS E. .

2035 Phase 2
Under 2035 No-Build conditions, the overall intersections is anticipated to operate at LOS F during the AM peak hour, and LOS E during both peak hour. With the consideration of the proposed

Okatie Landing at Cherry Point development traffic, the intersection is anticipated to operate at LOS F during the analyzed peak hour conditions.

To mitigate the additional delay associated with the Beaufort County School property (Phase 2), it is recommended to retime the signal to account for volume growth in the area and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

With this mitigation in place, the overall intersection delay is anticipated to decrease by over 25 seconds during the AM peak hour, the overall intersection delay is anticipated to decrease by over 14 seconds during the School Peak hour, and the PM peak hour LOS is anticipated to improve to LOS E which matches the 2035 No-Build LOS grade.

Final Recommendations

Based on the summary above, and the results presented in **Table 7** and **Table 8**, the following mitigation is recommended:

2029 Phase 1

- Extend the existing southbound left-turn lane along SC 170 (Okatie Highway) to consist of 450 feet of full-width storage and an appropriate taper length
- Construction of an additional southbound left-turn lane along SC 170 (Okatie Highway) with 450 feet of full-width storage and an appropriate taper length
- Widen Cherry Point Road to receive the dual southbound left-turn lanes from SC 470 (Okatie Highway)
- Remove the existing channelized northbound right-turn movement and place under traffic signal control to operate with overlap phasing with the westbound protected left-turn phase
- Constructed a dedicated westbound right-tur lane with 250 feet of full-width storage and an appropriate taper length

2035 Phase 2

- To mitigate the additional delay associated with the Beaufort County School property (Phase 2), it is recommended to retime the signal to account for volume growth in the area and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

Table 7 – SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road Analysis Results (AM & School Peak Hour)

Condition	Measure	Pearlstine Drive			Cherry Point Road			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM Peak Hour														
2024 Existing	Approach LOS (Delay)	D (52.0)			F (89.2)			B (19.7)			D (37.3)			D (35.8)
	95th Percentile Q	58'			#327'		48'	m12'	m497'	m39'	93'	#1000'		
2029 No-Build	Approach LOS (Delay)	F (123.3)			F (271.2)			C (28.7)			F (129.2)			F (112.3)
	95th Percentile Q	#225'	80'		#357'	#150'		m#189'	m759'	m87'	#247'	#1797'		
2029 Build Phase 1	Approach LOS (Delay)	F (123.3)			F (294.9)			D (35.7)			F (141.6)			F (123.3)
	95th Percentile Q	#225'	80'		#369'	#184'		m#188'	m836'	m95'	#376'	#1860'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	F (105.4)			F (156.5)			D (50.7)			F (109.2)			F (93.1)
	95th Percentile Q	#208'	#120'		#375'	52'	170'	m#220'	1026'	110'	m134'	m#1710'		
2035 No-Build	Approach LOS (Delay)	F (180.8)			F (258.1)			C (32.8)			F (141.8)			F (120.8)
	95th Percentile Q	#268'	#93'		#393'	114'		m#215'	m918'	m112'	#286'	#2028'		
2035 Build Phase 2	Approach LOS (Delay)	F (109.5)			F ($)			D (39.8)			F (154.9)			F (141.0)
	95th Percentile Q	#210'	#129'		#615'	52'	329'	m#177'	1085'	231'	m#280'	m#1627'		
2035 Build Phase 2 Improved	Approach LOS (Delay)	F (106.2)			F (271.0)			C (22.4)			F (140.3)			F (115.7)
	95th Percentile Q	191'	#129'		#591'	52'	307'	m#180'	#1106'	0'	m212'	m#1653'		
School Peak Hour														
2024 Existing	Approach LOS (Delay)	D (47.9)			D (48.2)			B (18.1)			B (15.6)			B (18.9)
	95th Percentile Q	0'			170'		3'	m12'	590'	m0'	26'	558'		
2029 No-Build	Approach LOS (Delay)	F (98.5)			F (180.4)			D (44.4)			D (37.8)			D (53.1)
	95th Percentile Q	#162'	60'		#225'	74'		m#187'	m#1276'	m57'	#192'	#1177'		
2029 Build Phase 1	Approach LOS (Delay)	F (99.1)			F (234.7)			E (70.7)			E (62.2)			F (80.1)
	95th Percentile Q	#191'	59'		#264'	#115'		m#189'	m#1466'	m67'	#375'	#1305		
2029 Build Phase 1 Improved	Approach LOS (Delay)	E (67.5)			F (140.4)			E (60.4)			E (60.9)			E (66.5)
	95th Percentile Q	155'	59'		#252'	30'	111'	m#122'	m#1340'	m31'	m#150'	#1318'		
2035 No-Build	Approach LOS (Delay)	F (90.3)			F (213.6)			E (59.1)			D (46.3)			E (65.5)
	95th Percentile Q	#177'	60'		#250'	79'		m#189'	m#1391'	m57'	#205'	#1295'		
2035 Build Phase 2	Approach LOS (Delay)	E (68.0)			F ($)			E (78.2)			F (86.4)			F (103.6)
	95th Percentile Q	157'	60'		#396'	30'	199'	m#116'	m#1321'	m35'	m#202'	#1432'		
2035 Build Phase 2 Improved	Approach LOS (Delay)	F (101.5)			F (209.5)			E (72.1)			E (78.8)			F (89.0)
	95th Percentile Q	161'	#74'		#373'	31'	#189'	m#136'	m$1295'	m25'	m#206'	#1395'		

Notes:
1. Delay presented in sec/veh
2. $ - Delay exceeds 300 sec/veh
3. # - 95th percentile volume exceeds capacity, queue may be longer
4. m - Volume for 95th percentile queue is metered by upstream signal

Table 8 – SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road Analysis Results (PM Peak Hour)

Condition	Measure	Pearlstine Drive			Cherry Point Road			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
PM Peak Hour														
2024 Existing	Approach LOS (Delay)	D (49.4)			D (51.2)			B (12.9)			A (9.1)			B (12.4)
	95th Percentile Q	0'			75'		0'	m3'	577'	m1'	8'	426'		
2029 No-Build	Approach LOS (Delay)	E (79.4)			F (105.2)			E (60.1)			C (30.3)			D (50.4)
	95th Percentile Q	152'	62'		#133'	66'		m107'	#1417'	m65'	81'	952'		
2029 Build Phase 1	Approach LOS (Delay)	E (75.2)			F (149.3)			F (120.3)			E (61.3)			F (95.4)
	95th Percentile Q	149'	62'		#148'	74'		m#108'	m#1720'	m87	#354'	#1274'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	E (74.8)			F (106.6)			F (86.2)			D (46.7)			E (70.9)
	95th Percentile Q	148'	62'		#173'	30'	70'	m96'	m#1388'	m35'	m#140'	#1242'		
2035 No-Build	Approach LOS (Delay)	F (81.2)			F (110.9)			F (81.7)			D (35.7)			E (63.6)
	95th Percentile Q	153'	62'		#137'	67'		m#123'	#1552'	m66'	82'	1062'		
2035 Build Phase 2	Approach LOS (Delay)	E (75.2)			F (142.2)			F (108.4)			E (57.7)			F (88.9)
	95th Percentile Q	149'	62'		#212'	30'	104'	m90'	m#1398'	m36'	m#145'	#1326'		
2035 Build Phase 2 Improved	Approach LOS (Delay)	F (98.5)			F (88.2)			F (88.7)			E (56.6)			E (76.0)
	95th Percentile Q	153'	52'		#188'	30'	92'	m86'	m#1365'	m29'	m#145'	#1364'		

Notes:
1. Delay presented in sec/veh
2. $ - Delay exceeds 300 sec/veh
3. # - 95th percentile volume exceeds capacity, queue may be longer
4. m - Volume for 95th percentile queue is metered by upstream signal

4.4 SC 170 (Okatie Highway) & Schinger Avenue/Site Access #2

The capacity analysis results for the SC 170 (Okatie Highway) at Schinger Avenue/Site Access #2 intersection are summarized in **Table 9** on the following page. Site Access #2 is assumed to have one ingress and one egress lane and operate as a right-in/right-out.

Existing and 2029 Phase 1
During the 2024 existing conditions, the strop controlled eastbound approach (Schinger Avenue) operates with short to moderate delays. With the inclusion of background area growth and approved developments, the eastbound approach delays are anticipated to operate with moderate to long delays during the 2029 No-build conditions.

With the Okatie Landing at Cherry Point Development site traffic added to the study area, the eastbound approach delay is anticipated to continue to operate with moderate to long delays. The new westbound approach (Site Access #2) is anticipated to operate with short delays during the AM peak hour and moderate to long delays during the School Peak hour and PM peak hour. Side-streets operating with long delays during peak hour conditions is not uncommon.

SCDOT Auxiliary Turn Lane Warrants were analyzed at for Site Access #2 and it was determined that a northbound right-turn lane should be constructed at this intersection. The northbound right-turn lane should be constructed with a minimum of 150 feet of full-width storage and an appropriate taper length.

2035 Phase 2
Under 2035 Phase 2 conditions the side street approaches are anticipated to operate with long delays the analyzed conditions, with the exception of the westbound approach during AM peak hour which is anticipated to operate with moderate delays. No further mitigation is recommended for the 2035 Phase 2 conditions.

Final Recommendations
Based on the summary above, and the results presented in **Table 9** the following mitigation is recommended:

2029 Phase 1
- Construct a northbound right-turn lane with 150 feet of full-width storage and an appropriate taper length
- Site Access #2 should be constructed with one ingress and one egress lane
- Site Access #2 should be restricted to right-in and right-out movements only and operate under minor street stop sign control.

Please note, no further mitigation is recommended for the 2035 Phase 2 conditions.

Table 9 – SC 170 (Okatie Highway) & Schinger Avenue/Site Access #2 Analysis Results

Condition	Measure	Schinger Avenue	Site Access #2
		EBR	WBR
AM Peak Hour			
2024 Existing	Approach LOS (Delay)	D (29.6)	-
	95th Percentile Q	33'	
2029 No-Build	Approach LOS (Delay)	F (81.2)	
	95th Percentile Q	88'	
2029 Build Phase 1	Approach LOS (Delay)	F (90.1)	C (21.4)
	95th Percentile Q	95'	10'
2035 No-Build	Approach LOS (Delay)	F (112.2)	-
	95th Percentile Q	113'	
2035 Build Phase 2	Approach LOS (Delay)	F (173.1)	D (25.6)
	95th Percentile Q	138'	13'
School Peak Hour			
2024 Existing	Approach LOS (Delay)	C (21.1)	-
	95th Percentile Q	28'	
2029 No-Build	Approach LOS (Delay)	E (40.7)	
	95th Percentile Q	63'	
2029 Build Phase 1	Approach LOS (Delay)	E (48.9)	E (49.5)
	95th Percentile Q	75'	53'
2035 No-Build	Approach LOS (Delay)	F (50.3)	-
	95th Percentile Q	80'	
2035 Build Phase 2	Approach LOS (Delay)	F (76.0)	F (56.8)
	95th Percentile Q	105'	60'
PM Peak Hour			
2024 Existing	Approach LOS (Delay)	D (26.8)	-
	95th Percentile Q	65'	
2029 No-Build	Approach LOS (Delay)	F (82.1)	
	95th Percentile Q	173'	
2029 Build Phase 1	Approach LOS (Delay)	F (134.2)	F (137.4)
	95th Percentile Q	220'	140'
2035 No-Build	Approach LOS (Delay)	F (122.3)	-
	95th Percentile Q	220'	
2035 Build Phase 2	Approach LOS (Delay)	F (208.9)	F (156.7)
	95th Percentile Q	283'	150'

Notes:
1. Delay presented in sec/veh

4.5 SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1

The capacity analysis results for the SC 170 (Okatie Highway) at Riverwalk Boulevard/Site Access #1 intersection are summarized in **Table 10** and **Table 11** on the following pages.

Existing and 2029 Phase 1
The existing unsignalized intersection of SC 170 (Okatie Highway) at Riverwalk Boulevard/Site Access #1 currently operates with long delays (LOS F) on the eastbound approach during the analyzed peak hour conditions. The already failing side-street delays are anticipated to worsen with the inclusion of background area growth and approved development traffic. The mainline northbound left-turn movement is anticipated to operate with elevated delays during the analyzed conditions as well. The elevated delays for the side-street and mainline left-turn movements is due to the high traffic volume on SC 170 (Okatie Highway) which causes limited available gaps for the unsignalized movements.

With the inclusion of the site traffic, the sidestreet and mainline left-turn movements are anticipated to operate over capacity.

To mitigate the exiting delays and increase in delay associated with the Okatie Landing Development it is recommended to:

- Place the intersection under traffic signal control when MUTCD signal warrants are met
    - The Okatie Landing Development should conduct 13-hour turning movement counts at this intersection once the development is operational at an agreed upon date(s) with SCDOT and/or Beaufort County to determine when the signal is warranted.
        - It is recommended to count the intersection at least twice per year while school is in session.
- A traffic signal at Riverwalk Boulevard/Site Access #1 does not meet SCDOT signal spacing requirements for major arterials (2,640') from Cherry Point Road along SC 170 (Okatie Highway); therefore, a variance would be needed from SCDOT
    - The intersection spacing from Cherry Point Road to Riverwalk Boulevard/Site Access #1 is approximately 1,240', which is less than ½ the distance required by SCDOT
    - Due to the limited spacing between Cherry Point Road and Riverwalk Boulevard, it is recommended to relocate Riverwalk Boulevard/Site Access #1 further to the south along SC 170 (Okatie Highway)
    - Please note, there is a significant wetland located approximately 260' to the south of Riverwalk Boulevard along SC 170 (Okatie Highway) that may limit how far Riverwalk Boulevard can be relocated
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 200 feet of full-width storage and an appropriate taper length
- Reconfigure the eastbound approach along Riverwalk Boulevard to consists of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane
- Construct Site Access #1 to consist of one ingress lane and three egress lanes

    - Site Access #1 egress lanes should consist of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane.
- The westbound left-turn movement should operate under protected/permissive left-turn phasing
- The northbound right-turn movement should operate with overlap phasing with eh westbound protected left-turn phase
- The eastbound right-turn movement should operate with overlap phasing with the northbound protected left-turn phase.

With these mitigations in place, the intersection is anticipated to operate at LOS D during the AM peak hour, LOS D during the School peak hour, and LOS E during the PM peak hour.

2035 Phase 2
Under 2035 No-Build conditions, the intersection would operate with long delays on the analyzed approaches without a traffic signal. With a traffic signal in place for the 2035 Build conditions, the intersection is anticipated to operate at LOS E during the analyzed peak hour conditions.

Final Recommendations
Based on the summary above, and the results presented in **Table 10** and **Table 11**, the following mitigation is recommended:

2029 Phase 1
- Place the intersection under traffic signal control when MUTCD signal warrants are met
    - The Okatie Landing Development should conduct 13-hour turning movement counts at this intersection once the development is operational at an agreed upon date(s) with SCDOT and/or Beaufort County to determine when the signal is warranted.
        - It is recommended to count the intersection at least twice per year while school is in session.
- A traffic signal at Riverwalk Boulevard/Site Access #1 does not meet SCDOT signal spacing requirements for major arterials (2,640') from Cherry Point Road along SC 170 (Okatie Highway); therefore, a variance would be needed from SCDOT
    - The intersection spacing from Cherry Point Road to Riverwalk Boulevard/Site Access #1 is approximately 1,240', which is less than ½ the distance required by SCDOT
    - Due to the limited spacing between Cherry Point Road and Riverwalk Boulevard, it is recommended to relocate Riverwalk Boulevard/Site Access #1 further to the south along SC 170 (Okatie Highway)
    - Please note, there is a significant wetland located approximately 260' to the south of Riverwalk Boulevard along SC 170 (Okatie Highway) that may limit how far Riverwalk Boulevard can be relocated
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 200 feet of full-width storage and an appropriate taper length

- Reconfigure the eastbound approach along Riverwalk Boulevard to consists of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane
- Construct Site Access #1 to consist of one ingress lane and three egress lanes
    - Site Access #1 egress lanes should consist of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane.
- The westbound left-turn movement should operate under protected/permissive left-turn phasing
- The northbound right-turn movement should operate with overlap phasing with eh westbound protected left-turn phase
- The eastbound right-turn movement should operate with overlap phasing with the northbound protected left-turn phase.

2035 Phase 2

- To mitigate the additional delay associated with the Beaufort County School District property (Phase 2), it is recommended to retime the signal to account for volume growth in the area and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

Table 10 – SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1 Analysis Results (AM & School Peak Hour)

Condition	Measure	Riverwalk Boulevard			Site Access #1			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBUL	SBT	SBR	
AM Peak Hour														
2024 Existing	Approach LOS (Delay)	F (66.6)			-			D (31.0)*			D (29.6)*			-
	95th Percentile Q	33'	-	18'				65'	0'	-	13'	0'		
2029 No-Build	Approach LOS (Delay)	+						F (176.1)*			F (57.1)*			-
	95th Percentile Q	+	-	45'				223'	0'	-	28'	0'		
2029 Build Phase 1	Approach LOS (Delay)	+			+			F (189.4)*			F (59.5)*			-
	95th Percentile Q	+		45'	+			230'	0'		55'	0'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	E (68.7)			E (63.1)			B (10.3)			F (83.8)			D (53.3)
	95th Percentile Q	40'	12'	36'	114'	11'	28'	#282'	681'	m2'	m13'	m922'		
2035 No-Build	Approach LOS (Delay)	+			-			F (272.3)*			F (72.2)*			-
	95th Percentile Q	+	-	58'				283'	0'	-	35'	0'		
2035 Build Phase 2	Approach LOS (Delay)	E (69.5)			E (63.1)			B (11.3)			F (117.9)			E (72.4)
	95th Percentile Q	57'	12'	41'	114'	11'	32'	m#250'	847'	m3'	m11'	m952'		
School Peak Hour														
2024 Existing	Approach LOS (Delay)	F (51.6)			-			C (18.8)*			E (44.4)*			-
	95th Percentile Q	65'	-	53'				30'	0'	-	28'	0'		
2029 No-Build	Approach LOS (Delay)	F (153.5)						E (43.4)*			F ($)*			-
	95th Percentile Q	125'	-	135'				85'	0'	-	108'	0'		
2029 Build Phase 1	Approach LOS (Delay)	+			+			E (47.5)*			F ($)*			-
	95th Percentile Q	+		143'	+			90'	0'		423'	0'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	F (87.7)			E (76.9)			C (31.4)			D (39.9)			D (39.4)
	95th Percentile Q	#102'	17'	152'	#367'	15'	113'	m79'	#1516'	m17'	m81'	m923'		
2035 No-Build	Approach LOS (Delay)	F ($)			-			F (59.1)*			F ($)*			-
	95th Percentile Q	173'	-	173'				110'	0'	-	128'	0'		
2035 Build Phase 2	Approach LOS (Delay)	F (86.2)			E (77.2)			E (71.2)			E (67.3)			E (70.3)
	95th Percentile Q	#112'	17'	164'	#367'	15'	113'	m79'	m#1522'	m15'	m74'	m945'		

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections
3. + - Computation not defined
4. $ - Delay exceeds 300 sec/veh
5. # - 95th percentile volume exceeds capacity, queue may be longer
6. m - Volume for 95th percentile queue is metered by upstream signal

Table 11 – SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1 Analysis Results (PM Peak Hour)

Condition	Measure	Riverwalk Boulevard			Site Access #1			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBUL	SBT	SBR	
PM Peak Hour														
2024 Existing	Approach LOS (Delay)	F ($)			-			C (16.9)*			F (96.4)*			-
	95th Percentile Q	205'	-	60'				20'	0'	-	90'	0'		
2029 No-Build	Approach LOS (Delay)	F (160.7)						D (30.5)*			F ($)*			-
	95th Percentile Q	165'	-	155'				45'	0'	-	238'	0'		
2029 Build Phase 1	Approach LOS (Delay)	+			F ($)			D (33.5)			+			-
	95th Percentile Q	+		170'	1060'			50'	0'		+	0'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	F (109.5)			F (156.5)			E (70.5)			D (37.3)			E (64.6)
	95th Percentile Q	#161'	22'	175'	#544'	21'	164'	96'	#1633'	32'	m#288'	m900'		
2035 No-Build	Approach LOS (Delay)	F ($)			-			E (37.0)*			F ($)*			-
	95th Percentile Q	223'	-	200'				58'			265'	0'		
2035 Build Phase 2	Approach LOS (Delay)	F (120.8)			F (157.5)			F (95.1)			D (44.9)			E (79.7)
	95th Percentile Q	#181'	22'	188'	#544'	21'	164'	m36'	m#1568'	m23'	m#268'	m#936'		

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections
3. + - Computation not defined
4. $ - Delay exceeds 300 sec/veh
5. # - 95th percentile volume exceeds capacity, queue may be longer
6. m - Volume for 95th percentile queue is metered by upstream signal

4.6 SC 170 (Okatie Highway) & Tidewatch Drive

The capacity analysis results for the SC 170 (Okatie Highway) at Tidewatch Drive intersection are summarized in **Table 12** on the following page.

Existing, 2029 Phase 1, and 2035 Phase 2

The signalized intersection of SC 170 (Okatie Highway) at Tidewatch Drive is anticipated to operate at LOS D or better under all conditions during the AM, School, and PM peak hours. Queuing is expected along SC 170 (Okatie Highway) in the northbound and southbound approaches, however; no significant increase in delay is expected to occur as a result of the site traffic. Therefore, no improvements are recommended for capacity reasons as part of this study. However, with the recommendations of signal coordination and retiming of adjacent study intersections, it is recommended that this intersection be placed under coordination and retimed as well.

Final Recommendations

With the recommendations of signal coordination and retiming of adjacent study intersections, it is recommended that this intersection be placed under coordination and retimed with the adjacent study intersections.

Table 12 – SC 170 (Okatie Highway) & Tidewatch Drive Analysis Results

Condition	Measure	Tidewatch Drive			Tidewatch Drive			SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM Peak Hour														
2024 Existing	Approach LOS (Delay)		E (59.5)			E (58.7)			A (5.5)			A (8.6)		A (8.3)
	95th Percentile Q	49'	24'	0'	42'	40'	0'	4'	316'	0'	3'	586'	0'	
2029 No-Build	Approach LOS (Delay)		E (60.8)			E (59.7)			A (7.7)			D (38.6)		C (26.3)
	95th Percentile Q	57'	27'	0'	50'	45'	0'	4'	487'	0'	3'	#1511'	0'	
2029 Build Phase 1	Approach LOS (Delay)		E (61.0)			E (59.5)			A (8.7)			D (52.4)		C (34.4)
	95th Percentile Q	#66'	27'	0'	50'	45'	0'	4'	556'	0'	3'	#1601'	0'	
2035 No-Build	Approach LOS (Delay)		E (61.0)			E (59.7)			A (8.8)			E (59.8)		D (38.8)
	95th Percentile Q	59'	27'	0'	50'	48'	0'	4'	557'	0'	3'	#1645'	0'	
2035 Build Phase 2	Approach LOS (Delay)		E (79.6)			E (76.9)			A (10.0)			E (60.4)		D (39.6)
	95th Percentile Q	#92'	30'	0'	60'	56'	0'	4'	763'	0'	m0'	m45'	m0'	
School Peak Hour														
2024 Existing	Approach LOS (Delay)		E (59.0)			E (58.9)			A (6.9)			A (7.8)		A (9.4)
	95th Percentile Q	64'	57'	0'	65'	47'	0'	10'	398'	1'	5'	406'	6'	
2029 No-Build	Approach LOS (Delay)		E (63.2)			E (63.1)			B (16.7)			B (13.5)		B (16.7)
	95th Percentile Q	#86'	65'	0'	#87'	52'	0'	39'	#1042'	2'	4'	756'	8'	
2029 Build Phase 1	Approach LOS (Delay)		E (64.0)			E (63.1)			C (30.6)			C (20.7)		C (27.0)
	95th Percentile Q	#107'	65'	0'	#88'	52'	0'	39'	#1436'	2'	4'	#1099'	10'	
2035 No-Build	Approach LOS (Delay)		E (63.7)			E (63.6)			C (22.9)			B (16.6)		C (21.3)
	95th Percentile Q	#91'	69'	0'	#95'	53'	0'	43'	#1351'	3'	4'	903'	9'	
2035 Build Phase 2	Approach LOS (Delay)		E (79.7)			E (76.8)			D (36.4)			A (4.7)		C (22.6)
	95th Percentile Q	#140'	77'	4'	#117'	59'	0'	52'	#1747'	4'	m1'	m144'	m0'	
PM Peak Hour														
2024 Existing	Approach LOS (Delay)		E (58.7)			E (57.7)			A (7.6)			A (6.6)		A (8.8)
	95th Percentile Q	61'	50'	0'	44'	64'	0'	4'	420'	0'	5'	361'	0'	
2029 No-Build	Approach LOS (Delay)		E (62.9)			E (61.6)			B (18.7)			B (10.3)		B (16.1)
	95th Percentile Q	#79'	59'	0'	49'	72'	0'	3'	950'	0'	4'	601'	2'	
2029 Build Phase 1	Approach LOS (Delay)		E (65.8)			E (61.6)			D (48.7)			B (17.3)		C (34.7)
	95th Percentile Q	#110'	59'	0'	49'	72'	0'	3'	#1486'	0'	4'	922'	5'	
2035 No-Build	Approach LOS (Delay)		E (63.6)			E (62.1)			C (27.8)			B (12.2)		C (21.7)
	95th Percentile Q	#84'	61'	0'	50'	76'	0'	4'	#1316'	0'	4'	696'	2'	
2035 Build Phase 2	Approach LOS (Delay)		F (93.4)			E (76.7)			D (53.6)			A (1.3)		C (30.3)
	95th Percentile Q	#141'	69'	0'	#59'	#91'	0'	3'	#1782'	0'	m1'	m186'	m0'	

Notes:
1. Delay presented in sec/veh
2. # - 95th percentile volume exceeds capacity, queue may be longer
3. m - Volume for 95th percentile queue is metered by upstream signal

4.7 Cherry Point Road & Elementary School Access/Access #4

The capacity analysis results for the SC 170 (Okatie Highway) at Okatie Elementary School/Site Access #4 intersection are summarized in **Table 13** on the following pages. Site Access #4 is assumed to have one ingress and one egress lane and operate as full-movement.

Okatie Elementary School Operations
The existing school drop-off during the AM and School Peak hour from Okatie Elementary School queues back through the intersection of SC 170 (Okatie Highway) at Cherry Point Road. At times during the AM and School peak hour, parents will be queued on the side of Cherry Point Road and onto SC 170 (Okatie Highway). The Okatie Landing at Cherry Point Development will work with Beaufort County to construct an additional eastbound lane onto Cherry Point Road to help provide extra storage for queued parents along Cherry Point Road to help mitigate the queue issue. The development and Beaufort County should work with the Beaufort County School District to help contain as much queuing on the Okatie Elementary site as possible.

Existing and 2029 Phase 1
During the 2024 existing conditions, the analyzed approaches are anticipated to operate with short delays. With the inclusion of background area growth and approved developments the southbound approach delays is anticipated to operate over capacity during the AM peak hour.

With the Okatie Landing at Cherry Point Development site traffic added to the study area, the southbound approach delay is anticipated to continue to operate over capacity during the AM peak hour. The proposed northbound approach (Site Access #4) is anticipated to operate over capacity during the AM and School peak hours. The northbound approach is anticipated to operate with short delays during the PM peak hour.

To mitigate the delays associated with the Okatie Landing at Cherry Point Development, the following mitigation is recommended:

- Construct an eastbound dedicated left-turn lane along Cherry Point Road. This should be a drop lane to SC 170 (Okatie Highway)
- Construct a channelized southbound right-turn lane along the Okatie Elementary School Access that operates as a free movement
- Utilizing the transition taper from the eastbound left-turn lane, a westbound left-turn lane should be striped.
- Construct Site Access #4 to consist of one ingress lane and one egress lane
- Site Access #4 should operate as full-movement under stop sign control.

2035 Phase 2
Under 2035 Phase 2 conditions the side street approaches are anticipated to operate with long delays the AM and School Dismissal peak hours and operate with short delays during the PM peak hour. The long delays are associated with school traffic to/from Okatie Elementary School and the potential new Beaufort County School District Site.

Final Recommendations

Based on the summary above, and the results presented in **Table 13** the following mitigation is recommended:

2029 Phase 1

- Construct an eastbound dedicated left-turn lane along Cherry Point Road. This should be a drop lane to SC 170 (Okatie Highway)
- Construct a channelized southbound right-turn lane along the Okatie Elementary School Access that operates as a free movement
- Utilizing the transition taper from the eastbound left-turn lane, a westbound left-turn lane should be striped.
- Construct Site Access #4 to consist of one ingress lane and one egress lane
- Site Access #4 should operate as full-movement under stop sign control.

Please note, no further mitigation is recommended for the 2035 Phase 2 conditions.

Table 13 – Cherry Point Road & Elementary School Access/Site Access #4 Analysis Results

Condition	Measure	Cherry Point Road			Cherry Point Road			Site Access #4			Elementary School Access		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2024 Existing	Approach LOS (Delay)	A (8.8)*			A (0.0)						C (19.7)		
	95th Percentile Q	45'		-	-	0'			-		133'		
2029 No-Build	Approach LOS (Delay)	B (12.0)*			A (0.0)						F ($)		
	95th Percentile Q	93'		-	-	0'					875'		
2029 Build Phase 1	Approach LOS (Delay)	B (12.0)*			A (7.5)*			F ($)			F($)		
	95th Percentile Q	93'			0'			155'			940'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	B (10.5)*			A (7.5)*			F (120.9)			F (126.8)		
	95th Percentile Q	63'	-		0'	0'		53'			43'		0'
2035 No-Build	Approach LOS (Delay)	B (12.7)*			A (0.0)						F ($)		
	95th Percentile Q	105'		-	-	0'			-		1100'		
2035 Build Phase 2	Approach LOS (Delay)	B (11.3)*			A (8.3)*			F (214.1)			F (221.2)		
	95th Percentile Q	58'	0'		0'	0'		58'			50'		0'
School Peak Hour													
2024 Existing	Approach LOS (Delay)	A (7.5)*			A (0.0)						B (10.1)		
	95th Percentile Q	8'		-	-	0'			-		30'		
2029 No-Build	Approach LOS (Delay)	A (8.1)*			A (0.0)						B (14.0)		
	95th Percentile Q	10'			-	0'					60'		
2029 Build Phase 1	Approach LOS (Delay)	A (8.1)*			A (8.1)*			F (94.4)			B (14.5)		
	95th Percentile Q	10'			0'			93'			63'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	A (8.1)*			A (8.1)*			D (27.8)			C (24.1)		
	95th Percentile Q	10'	0'		0'	0'		35'			5'		0'
2035 No-Build	Approach LOS (Delay)	A (8.1)*			A (0.0)						B (14.7)		
	95th Percentile Q	13'		-	-	0'			-		68'		
2035 Build Phase 2	Approach LOS (Delay)	A (9.1)*			A (8.5)*			F (86.2)			E (49.8)		
	95th Percentile Q	15'	0'		0'	0'		88'			15'		0'
PM Peak Hour													
2024 Existing	Approach LOS (Delay)	A (7.4)*			A (0.0)						A (8.8)		
	95th Percentile Q	3'		-	-	0'			-		5'		
2029 No-Build	Approach LOS (Delay)	A (7.7)*			A (0.0)						A (9.8)		
	95th Percentile Q	3'		-	-	0'					8'		
2029 Build Phase 1	Approach LOS (Delay)	A (7.7)*			A (7.9)*			C (15.6)			A (9.9)		
	95th Percentile Q	3'			0'			15'			8'		
2029 Build Phase 1 Improved	Approach LOS (Delay)	A (7.7)*			A (7.9)*			B (14.1)			B (13.3)		
	95th Percentile Q	3'	0'		0'	0'		13'			0'		0'
2035 No-Build	Approach LOS (Delay)	A (7.7)*			A (0.0)						A (9.8)		
	95th Percentile Q	3'		-	-	0'			-		8'		
2035 Build Phase 2	Approach LOS (Delay)	A (7.9)*			A (8.0)*			C (15.8)			B (14.6)		
	95th Percentile Q	3'	0'		0'	0'		15'			0'		0'

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections
3. $ - Delay exceeds 300 sec/veh

4.8 Cherry Point Road & Whispering Oaks/Future School Access

The capacity analysis results for the intersection of Cherry Point Road at Whispering Oaks/Future School Access are summarized in **Table 14** on the following page.

Future BCSD Site
Phase 2 of the Okatie Landing at Cherry Point Development has been dedicated to BCSD. The exact use of the property by BCSD has not yet been determined. Per discussions with Beaufort County, it was assumed that the existing traffic into the Okatie Elementary School would match the future Beaufort County School District property as a conservate estimate for the trip generation in this Traffic Impact Study. An updated TIS will be required once the exact use for the BCSD site is known.

Existing and 2029 Phase 1
During the 2024 existing conditions and 2029 No-Build conditions, the southbound approach is anticipated to operate with short delays during the analyzed conditions. Please note the Okatie Landing at Cherry Point Development is not anticipated to extend to Whispering Oaks in Phase 1.

2035 Phase 2
The side-street southbound approach is anticipated to continue to operate with short delays during the 2035 analyzed conditions.

With the Okatie Landing at Cherry Point Development site traffic added to the study area, the proposed BCSD access is anticipated to with moderate delays during the AM and PM peak hours and operate over capacity during the School peak hour.

To mitigate the delays associated with the Okatie Landing at Cherry Point Development, the following mitigation is recommended:

- Construct an eastbound channelized right-turn lane along Cherry Point Road with 150 feet of full-width storage and an appropriate taper length
- The channelized eastbound right-turn movement should operate as free flow
- Construct the future BCSD site access with two ingress lanes and one egress lane
- The BCSD site access should operate as full-movement under stop sign control

With these improvement in place the northbound approach (BCSD site access) is anticipated to improve to short delays during the AM peak hour and the school dismissal delay is anticipated to decrease by more than 60 seconds.

Final Recommendations
Based on the summary above, and the results presented in **Table 13** the following mitigation is recommended:

2029 Phase 1
- No improvements recommended

2035 Phase 2

- Construct an eastbound channelized right-turn lane along Cherry Point Road with 150 feet of full-width storage and an appropriate taper length
- The channelized eastbound right-turn movement should operate as free flow
- Construct the future BCSD site access with two ingress lanes and one egress lane
- The BCSD site access should operate as full-movement under stop sign control

Table 14 – Cherry Point Road & Whispering Oaks/BCSD School Access Analysis Results

Condition	Measure	Cherry Point Road			Cherry Point Road			Future School Access			Whispering Oaks		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2024 Existing	Approach LOS (Delay)	A (7.3)*			A (0.0)			-			A (8.5)		
	95th Percentile Q	0'		-	0'						3'		
2029 No-Build	Approach LOS (Delay)	A (7.4)*			A (0.0)						A (9.3)		
	95th Percentile Q	5'		-	0'						20'		
2029 Build Phase 1	Approach LOS (Delay)	A (7.5)*			A (0.0)						A (9.3)		
	95th Percentile Q	5'		-	0'						20'		
2035 No-Build	Approach LOS (Delay)	A (7.5)*			A (0.0)						A (9.3)		
	95th Percentile Q	5'		-	0'						20'		
2035 Build Phase 2	Approach LOS (Delay)	A (7.5)*			A (8.0)*			E (47.6)			A (9.7)		
	95th Percentile Q	5'			0'			178'			23'		
2035 Build Phase 2 Improved	Approach LOS (Delay)	A (7.5)*			A (7.2)*			C (24.6)			A (9.5)		
	95th Percentile Q	5'		0'	0'			103'			23'		
School Peak Hour													
2024 Existing	Approach LOS (Delay)	A (7.3)*			A (0.0)			-			A (8.5)		
	95th Percentile Q	0'		-	0'						3'		
2029 No-Build	Approach LOS (Delay)	A (7.9)*			A (0.0)						A (9.3)		
	95th Percentile Q	18'		-	0'						18'		
2029 Build Phase 1	Approach LOS (Delay)	A (7.9)*			A (0.0)						A (9.3)		
	95th Percentile Q	18'		-	0'						18'		
2035 No-Build	Approach LOS (Delay)	A (7.9)*			A (0.0)						A (9.3)		
	95th Percentile Q	18'		-	0'						18'		
2035 Build Phase 2	Approach LOS (Delay)	A (7.9)*			A (7.5)*			F (216.2)			A (9.6)		
	95th Percentile Q	18'			0'			358'			20'		
2035 Build Phase 2 Improved	Approach LOS (Delay)	A (7.9)*			A (7.3)*			F (155.6)			A (9.5)		
	95th Percentile Q	18'		0'	0'			308'			18'		
PM Peak Hour													
2024 Existing	Approach LOS (Delay)	A (7.3)*			A (0.0)			-			A (8.5)		
	95th Percentile Q	3'		-	0'						3'		
2029 No-Build	Approach LOS (Delay)	A (7.8)*			A (0.0)						A (9.2)		
	95th Percentile Q	18'		-	0'						15'		
2029 Build Phase 1	Approach LOS (Delay)	A (7.8)*			A (0.0)						A (9.2)		
	95th Percentile Q	18'		-	0'						15'		
2035 No-Build	Approach LOS (Delay)	A (7.8)*			A (0.0)						A (9.2)		
	95th Percentile Q	18'		-	0'						15'		
2035 Build Phase 2	Approach LOS (Delay)	A (7.8)*			A (7.3)*			D (25.8)			A (9.3)		
	95th Percentile Q	18'			0'			25'			15'		
2035 Build Phase 2 Improved	Approach LOS (Delay)	A (7.8)*			A (7.3)*			D (25.0)			A (9.3)		
	95th Percentile Q	18'		0'	0'			25'			15'		

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections

4.9 Malind Bluff Drive & Site Access #5

The capacity analysis results for the proposed intersection of Malind Bluff Drive at Site Access #5 are summarized in **Table 15**. Site Access #5 is proposed to be constructed with Phase 1 of the development.

Table 15 - Malind Bluff Drive & Site Access #5 Analysis Results

Condition	Measure	Malind Bluff Drive		Malind Bluff Drive		Site Access #5	
		EBT	EBR	WBL	WBT	NBL	NBR
AM Peak Hour							
2029 Build Phase 1	Approach LOS (Delay)	A (0.0)		A (7.5)*		A (9.2)	
	95th Percentile Q	0'		0'		3'	
2035 Build Phase 2	Approach LOS (Delay)	A (0.0)		A (7.5)*		A (9.1)	
	95th Percentile Q	0'	0'	0'		3'	
School Peak Hour							
2029 Build Phase 1	Approach LOS (Delay)	A (0.0)		A (8.2)*		B (11.4)	
	95th Percentile Q	0'		0'		13'	
2035 Build Phase 2	Approach LOS (Delay)	A (0.0)		A (8.2)*		B (11.1)	
	95th Percentile Q	0'	0'	0'		10'	
PM Peak Hour							
2029 Build Phase 1	Approach LOS (Delay)	A (0.0)		A (8.2)*		B (11.6)	
	95th Percentile Q	0'		0'		15'	
2035 Build Phase 2	Approach LOS (Delay)	A (0.0)		A (8.2)*		B (11.1)	
	95th Percentile Q	0'	0'	0'		15'	

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections

Results

As shown in **Table 14**, the proposed northbound approach along Site Access #5 is anticipated to operate at LOS A during the AM peak hour and LOS C during both the School and PM peak hours under 2029 Build Phase 1 conditions. Under 2035 Build Phase 2 conditions, the westbound approach is anticipated to continue to operate at LOS A during the AM peak hour, and LOS B during the School and PM peak hours.

A turn lane warrant analysis was conducted based on SCDOT guidelines for an eastbound right-turn lane and westbound left-turn lane. The results of the turn lane analysis indicated that a right-turn lane is warranted, but a westbound left-turn lane is not. The turn lane warrant analysis is included in **Appendix F**.

Recommendations

Based on this analysis, it is recommended that Site Access #5 be constructed with one ingress lane and one egress lane. Site Access #5 should operate as full-movement under minor street stop control. Additionally, it is recommended that an eastbound right-turn lane along Malind Bluff Drive be constructed for vehicles entering the site. This right-turn lane should be constructed with 100 feet of full-width storage and an appropriate taper length.

4.10 SC 170 (Okatie Highway) & Site Access #6

The capacity analysis results for the SC 170 (Okatie Highway) at Site Access #6 are summarized in **Table 16**. Site Access #6 is proposed to be constructed with Phase 1 of the development.

Table 16 - SC 170 (Okatie Highway) & Site Access #6 Analysis Results

Condition	Measure	Site Access #6
		WBR
AM Peak Hour		
2029 Build Phase 1	Approach LOS (Delay)	C (21.4)
	95th Percentile Q	8'
2035 Build Phase 2	Approach LOS (Delay)	C (24.3)
	95th Percentile Q	8'
School Peak Hour		
2029 Build Phase 1	Approach LOS (Delay)	F (55.9)
	95th Percentile Q	58'
2035 Build Phase 2	Approach LOS (Delay)	F (66.3)
	95th Percentile Q	65'
PM Peak Hour		
2029 Build Phase 1	Approach LOS (Delay)	F (74.6)
	95th Percentile Q	43'
2035 Build Phase 2	Approach LOS (Delay)	F (83.4)
	95th Percentile Q	95'

Notes:
1. Delay presented in sec/veh
2. * - Major street left-turn delay reported for unsignalized intersections

Results

As shown in **Table 16**, the proposed westbound approach along Site Access #6 is anticipated to operate at LOS C during the AM peak hour and LOS F during both the School and PM peak hours under 2029 Build Phase 1 conditions. Under 2035 Build Phase 2 conditions, the westbound approach is anticipated to continue to operate at LOS C during the AM peak hour, and LOS F during the School and PM peak hours. A right-turn lane warrant analysis was conducted based on SCDOT guidelines for the northbound approach. The results of the turn lane analysis indicated that a right-turn lane is warranted. The turn lane warrant analysis is included in **Appendix F**.

Recommendations

Based on this analysis, it is recommended that Site Access #6 be constructed with one ingress lane and one egress lane. Site Access #6 should be restricted to right-in/right-out movements only and operate under minor street stop control. Additionally, a northbound right-turn lane along SC 170 (Okatie Highway) should be constructed for vehicles entering the site. This right-turn lane should be constructed with 150 feet of full-width storage and an appropriate taper length.

Please note, the current proposed location of Site Access #6 is at a proposed future bulb-out location shown in the SC 170 Corridor Study by AECOM. To accommodate the future potential bulb-out it is recommended to move this access to be at the midpoint between Mailind Bluff and the bulb-out location. The exact location of this access should be coordinated with SCDOT and Beaufort County.

4.11 Cherry Point Road at Site Access #3

Site Access #3 is proposed to be constructed with Phase 1 of the development and is planned to be restricted to right-in/right-out movements only. No delay is anticipated to occur on the northbound approach at the intersection on Cherry Point Road at Street D, due to the limited number of exiting right-turns anticipated at this intersection. A right-turn lane warrant analysis was conducted based on SCDOT guidelines for the eastbound approach. The results of the turn lane analysis indicated that a right-turn lane is warranted. The turn lane warrant analysis is included in **Appendix F**

Recommendations

Based on this analysis, it is recommended that Site Access #3 be constructed with one ingress lane and one egress lane. Site Access #3 should be restricted to right-in/right-out movements only and operate under minor street stop control. Additionally, it is recommended that an eastbound right-turn lane along Cherry Point Road be constructed for vehicles entering the site. This right-turn lane should be constructed with 100 feet of full-width storage and an appropriate taper length.

5 Signalized Thru-Cut Supplemental Analysis

A supplemental analysis was conducted under 2029 Build Phase 1 and 2035 Build Phase 2 conditions to determine if the alternative intersection design of a signalized thru-cut intersection would provide any additional benefits to the road network and intersections of study. A signalized thru-cut is a type of alternative intersection that does not allow through movements between the two minor street approaches and allows the traffic signal to operate with fewer phases, which can increase the capacity of the intersection and allow for better traffic flow along the SC 170 (Okatie Highway) Corridor.

The intersections included in this supplemental analysis include SC 170 (Okatie Highway) at Short Cut Road, SC 170 (Okatie Highway) at Pearlstine Drive/Cherry Point Road, and SC 170 (Okatie Highway) at Riverwalk Boulevard/Site Access #1. These intersections were considered due to their lower through movements volumes between the minor street approaches, and due the availability of those through movements being able to be rerouted easily to their destination with available interconnectivity. The results for these intersections are provided in **Table 16**, **Table 17**, and **Table 18**.

Based on the results, SC 170 (Okatie Highway) shows the greatest benefits when considering implementing thru-cut intersections at these three signalized locations. The results show that not just the overall intersection would improve, but vehicle queue lengths would along SC 170 (Okatie Highway) would also benefit.

Through-cuts along this section of SC 170 (Okatie Highway) can work in conjunction with the future SC 170 (Okatie Highway) R-Cut corridor, as the R-Cut would prevent several minor street through movements.

Table 17 – SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road Supplemental Analysis Results

Condition	Measure	Short Cut Road		Pritcher Point Road		SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	F (89.6)		F (87.0)		B (10.8)			B (12.5)			C (23.7)
	95th Percentile Q	13'	#295'	#331'	95'	m108'	m224'	m0'	m8'	m143'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	E (69.9)		E (73.3)		B (16.4)			C (27.7)			C (28.6)
	95th Percentile Q	15'	#273'	#217'	57'	m105'	m558'	m5'	m16'	m305'		
School Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	E (57.5)		E (66.5)		A (7.0)			A (7.4)			B (12.8)
	95th Percentile Q	20'	196'	152'	1'	m74'	m164'	m1'	m68'	21'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	E (69.0)		E (73.0)		B (16.9)			C (25.5)			C (25.8)
	95th Percentile Q	24'	#264'	#172'	8'	m134'	m483'	m15'	m100'	m633'		
PM Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	F (80.3)		E (76.5)		B (12.0)			A (7.3)			B (17.5)
	95th Percentile Q	31'	#265'	#235'	31'	m83'	m381'	m0'	m56'	m21'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	F (90.2)		E (75.7)		B (18.7)			B (14.6)			C (23.3)
	95th Percentile Q	33'	#257'	#204	0'	m85'	m543'	m5'	m40'	m238'		

Notes:
1. Delay presented in seconds/veh (s/veh)
2. # - 95th percentile volume exceeds capacity, queue may be longer
3. m - Volume for 95th percentile queue is metered by upstream signal

Table 18 – SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road Supplemental Analysis Results

Condition	Measure	Pearlstine Drive		Cherry Point Road		SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	F (107.8)		F (133.4)		C (22.3)			F (81.3)			E (66.2)
	95th Percentile Q	#275'	0'	#357'	161'	m#162'	671'	61'	m120'	m#1637'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	F (90.4)		F (251.7)		C (33.4)			F (84.0)			F (88.7)
	95th Percentile Q	#276'	0'	#591'	#349'	m#174'	794'	245'	m220'	m#1760'		
School Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	E (70.4)		E (64.9)		B (17.2)			D (47.5)			C (34.8)
	95th Percentile Q	#215'	0'	#202'	47'	m#96'	m635'	m0'	m#168'	1297'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	E (70.9)		F (128.5)		D (36.6)			D (51.1)			D (52.5)
	95th Percentile Q	#226'	0'	#285'	#204'	m#96'	m1087'	m14'	m#242'	805'		
PM Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	F (99.0)		E (78.9)		C (25.9)			C (30.7)			C (32.5)
	95th Percentile Q	#227	9'	#160'	80'	m50'	m151'	m0'	m#130'	904'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	F (98.9)		F (91.8)		D (42.3)			D (37.4)			D (44.6)
	95th Percentile Q	#229'	0'	#201'	50'	m40'	m214'	m0'	m#162'	1238'		

Notes:
1. Delay presented in seconds/veh (s/veh)
2. # - 95th percentile volume exceeds capacity, queue may be longer
3. m - Volume for 95th percentile queue is metered by upstream signal

Table 19 – SC 170 (Okatie Highway) & Riverwalk Boulevard Supplemental Analysis Results

Condition	Measure	Riverwalk Boulevard		Site Access #1		SC 170 (Okatie Highway)			SC 170 (Okatie Highway)			Intersection
		EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBUL	SBT	SBR	
AM Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	C (24.4)		E (57.8)		B (14.6)			D (51.9)			D (36.4)
	95th Percentile Q	42'	21'	59'	28'	#264'	513'	m0'	m5'	m331'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	C (31.6)		E (65.5)		B (17.3)			F (99.9)			E (64.3)
	95th Percentile Q	#62'	0'	63'	0'	m#262'	521'	m2'	m1'	m867'		
School Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	D (46.9)		E (64.8)		C (32.2)			B (17.7)			C (28.0)
	95th Percentile Q	96'	#121'	#156'	37'	m98'	#1506'	m6'	m#157'	498'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	E (56.3)		E (68.8)		E (75.7)			D (37.1)			E (57.5)
	95th Percentile Q	107'	#160'	#158'	45'	m112'	m#1651'	m25'	m#171'	m#1600'		
PM Peak Hour												
2029 Build Phase 1 Thru-Cut Supplemental	Approach LOS (Delay)	D (52.6)		F (89.6)		E (74.5)			C (20.5)			D (52.6)
	95th Percentile Q	124'	118'	#235'	117'	m41'	#1635'	m44'	m#268'	625'		
2035 Build Phase 2 Thru-Cut Supplemental	Approach LOS (Delay)	E (65.8)		F (131.3)		E (65.0)			C (31.9)			E (55.8)
	95th Percentile Q	#156'	#173'	#258'	124'	m42'	m#1621'	m31'	m#326'	m452'		

Notes:
1. Delay presented in seconds/veh (s/veh)
2. # - 95th percentile volume exceeds capacity, queue may be longer
3. m – Volume for 95th percentile queue is metered by upstream signal

6 SC 170 (Okatie Highway) Corridor Study

An additional analysis was conducted for the SC 170 (Okatie Highway) corridor which considered the recommendations from the Lowcountry Council of Government's *SC 170 Corridor Access Management Study – Phase 1 (AECOM, August 2019).* The recommendation from the Lowcountry Council of Government's *SC 170 Corridor Access Management Study – Phase 1* was to implement a reduced conflict intersection (RCI) corridor along SC 170 (Okatie Highway). Additionally, the widening of SC 170 (Okatie Highway) from a four-lane to a six-lane divided highway was accounted for in this analysis.

The South Carolina Department of Transportation (SCDOT) defines an RCI as "*The Reduced Conflict Intersection (RCI) is an innovative intersection design that improves safety and operations by changing how minor road traffic crosses or turns left at a major road. The RCI does not change any of the movements that are possible from the major road. At an RCI, drivers stopped at the minor road waiting to cross or turn left no longer must navigate a complex intersection of two directions of traffic often traveling at high speed" (https://www.scdot.org/travel/reduceconflict-intersection.aspx).*

The capacity analysis section utilizes the recommendations from the Lowcountry Council of Government's *SC 170 Corridor Access Management Study – Phase 1* for the 2026 Build conditions. **Tables 20-22** on the following pages shows the 2029 and 2035 No-Build Build capacity analysis results for the RCI corridor along SC 170. Please note the node numbers are provided in the tables to align the Synchro results capacity results attached in the appendix.

As shown in **Tables 20-22** on the following pages, the signalized movements along SC 170 are anticipated to operate at LOS D or better with the RCI implemented. However, several of the unsignalized left-turn and U-Turn movements are anticipated to fail during the AM and PM peak hours. It is important to note that stop-controlled sidestreet and mainline U-Turn movements typically operate with long delays during peak hour conditions.

The proposed Okatie Landing at Cherry Point Development has minimal impacts to the proposes signalized operations for the proposed future SC 170 Corridor. The unsignalized operates that are anticipated to operate over capacity prior to the Okatie Landing site traffic are anticipated to continue to operate over capacity with the inclusion of Okatie Landing traffic.

Since the SC 170 Corridor Study and implementation is still in the planning phase, and the study has not yet been adopted by SCDOT, further consideration from the planning team with Beaufort County should be given to signalizing the identified failing movements in **Tables 20-22.**

Table 20 – SC 170 (Okatie Highway) Corridor Study Analysis Results (AM Peak Hour)

Intersection	(Synchro Node #) RCI Direction	2029 No-Build LOS (Delay)	2029 Build Phase 1 LOS (Delay)	2035 No-Build LOS (Delay)	2035 Build Phase 2 LOS (Delay)
SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road	(1) NB U-Turn - Unsignalized	F (71.1)	F (108.8)	F (93.2)	F (145.4)
	(2) EB Right-Turn - Signalized	C (27.4)	C (27.0)	C (27.1)	C (30.7)
	(2) NB Left-Turn - Signalized	D (35.5)	C (29.6)	D (36.6)	C (30.9)
	(2) SB Through-Right - Signalized	A (7.8)	A (8.8)	A (8.9)	B (10.1)
	(3) SB Left-Turn - Unsignalized	F (63.0)	F (73.3)	F (78.9)	F (115.0)
	(3) WB Right-Turn - Unsignalized*	F (258.4)	F ($)	F ($)	F ($)
	(4) SB U-Turn - Signalized	A (9.7)	B (13.6)	B (13.4)	B (18.7)
	(4) NB Through - Signalized	A (0.7)	A (0.7)	A (0.7)	A (0.8)
SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive	(5) EB Right-Turn - Unsignalized*	F (86.9)	F (101.1)	F (121.0)	F (197.6)
	(5) NB Left-Turn - Unsignalized	F ($)	F ($)	F ($)	F (Err)
	(6) SB Left-Turn - Unsignalized	F (56.5)	F (103.5)	F (66.3)	F (174.8)
	(6) WB Right-Turn - Unsignalized*	F (111.5)	F (143.9)	F (159.8)	F ($)
	(7) SB U-Turn - Unsignalized	A (9.4)	A (9.5)	A (9.5)	A (9.9)
SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road	(8) NB U-Turn - Signalized	F (80.1)	E (79.3)	F (91.1)	F (119.4)
	(8) SB Through - Signalized	B (14.6)	B (18.5)	C (22.0)	F (121.7)
	(9) EB Right-Turn - Signalized	D (42.3)	D (49.4)	D (43.3)	E (62.1)
	(9) NB Left-Turn - Signalized	D (39.4)	D (41.1)	D (37.2)	C (29.0)
	(9) SB Through-Right - Signalized	A (2.8)	A (2.5)	A (3.5)	A (5.1)
	(10) SB Left-Turn - Signalized	B (17.0)	C (25.8)	B (14.0)	C (23.7)
	(10) WB Right-Turn - Signalized	C (27.7)	C (28.7)	C (30.1)	C (33.7)
	(10) NB Through-Right - Signalized	A (7.5)	A (6.7)	A (7.4)	B (10.7)
SC 170 (Okatie Highway) & Schinger Avenue	(11) EB Right-Turn - Unsignalized*	F (202.6)	F (258.9)	F (293.7)	F ($)
SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1	(12) EB Right-Turn - Signalized	B (12.7)	B (13.0)	B (13.3)	B (14.6)
	(12) NB Left-Turn - Signalized	C (23.0)	C (27.2)	C (23.6)	C (28.7)
	(12) SB Through-Right - Signalized	A (8.4)	B (11.9)	B (12.5)	D (41.8)
	(13) SB Left-Turn - Signalized in Build	C (21.3)	B (19.8)	C (23.3)	B (19.0)
	(13) WB Right-Turn - Signalized	-	B (15.3)	-	B (15.2)
	(14) SB U-Turn - Unsignalized	C (15.2)	C (15.9)	C (15.9)	C (18.2)
SC 170 (Okatie Highway) & Tidewatch Drive	(15) NB U-Turn - Unsignalized	C (22.8)	C (24.0)	C (24.9)	D (29.0)
	(16) EB Right-Turn - Signalized	B (13.0)	B (14.3)	B (14.0)	B (14.9)
	(16) NB Left-Turn - Signalized	C (27.6)	C (27.6)	C (27.7)	C (27.7)
	(16) SB Through-Right - Signalized	A (1.0)	A (1.3)	A (1.6)	A (3.2)
	(17) SB Left-Turn - Signalized	D (39.6)	C (20.2)	D (39.2)	C (21.0)
	(17) WB Right-Turn - Signalized	B (13.4)	B (13.4)	B (14.3)	B (14.3)
	(17) NB Through-Right - Signalized	A (4.2)	A (4.5)	A (4.5)	A (5.1)
	(18) SB U-Turn - Unsignalized	C (15.9)	C (16.7)	C (16.7)	C (19.0)
SC 170 (Okatie Highway) & Access #2	(19) WB Right-Turn - Unsignalized*	-	D (30.4)	-	E (38.6)
SC 170 (Okatie Highway) & Access #6	(20) WB Right-Turn - Unsignalized*	-	C (23.4)	-	D (27.0)

*Results taken from HCM 6th TWSC Report

Table 21 – SC 170 (Okatie Highway) Corridor Study Analysis Results (School Peak Hour)

Intersection	(Synchro Node #) RCI Direction	2029 No-Build LOS (Delay)	2029 Build Phase 1 LOS (Delay)	2035 No-Build LOS (Delay)	2035 Build Phase 2 LOS (Delay)
SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road	(1) NB U-Turn - Unsignalized	C (24.4)	E (40.9)	D (27.0)	F (52.5)
	(2) EB Right-Turn - Signalized	C (26.5)	C (26.3)	C (26.9)	C (27.6)
	(2) NB Left-Turn - Signalized	C (31.8)	C (26.1)	C (33.4)	C (26.6)
	(2) SB Through-Right - Signalized	A (7.2)	A (8.5)	A (7.8)	A (9.1)
	(3) SB Left-Turn - Unsignalized	F (220.5)	F ($)	F ($)	F ($)
	(3) WB Right-Turn - Unsignalized*	F (270.9)	F ($)	F ($)	F ($)
	(4) SB U-Turn - Signalized	C (25.8)	C (30.1)	C (29.4)	C (32.3)
	(4) NB Through - Signalized	A (1.3)	A (1.3)	A (1.2)	A (1.5)
SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive	(5) EB Right-Turn - Unsignalized*	E (45.4)	F (60.4)	F (59.4)	F (82.1)
	(5) NB Left-Turn - Unsignalized	F (210.0)	F ($)	F (292.2)	F ($)
	(6) SB Left-Turn - Unsignalized	F (397.4)	F (Err)	F ($)	F (Err)
	(6) WB Right-Turn - Unsignalized*	F (108.7)	F ($)	F (153.4)	F ($)
	(7) SB U-Turn - Unsignalized	B (10.4)	B (11.2)	B (10.8)	B (12.3)
SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road	(8) NB U-Turn - Signalized	C (33.2)	C (30.1)	D (36.1)	D (41.6)
	(8) SB Through - Signalized	A (7.8)	A (8.2)	A (7.9)	B (15.4)
	(9) EB Right-Turn - Signalized	C (29.2)	C (22.1)	C (29.5)	C (24.5)
	(9) NB Left-Turn - Signalized	C (30.4)	C (28.0)	C (30.6)	C (23.9)
	(9) SB Through-Right - Signalized	A (2.2)	A (4.2)	A (2.5)	A (3.8)
	(10) SB Left-Turn - Signalized	C (30.5)	C (34.6)	C (29.6)	C (32.3)
	(10) WB Right-Turn - Signalized	C (33.7)	C (34.3)	C (33.0)	D (51.5)
	(10) NB Through-Right - Signalized	A (4.9)	A (5.5)	A (5.7)	A (9.2)
SC 170 (Okatie Highway) & Schinger Avenue	(11) EB Right-Turn - Unsignalized*	F (97.6)	F (192.7)	F (138.9)	F ($)
SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1	(12) EB Right-Turn - Signalized	C (25.3)	C (25.8)	C (26.5)	C (27.2)
	(12) NB Left-Turn - Signalized	C (26.2)	C (28.4)	C (26.6)	C (28.4)
	(12) SB Through-Right - Signalized	A (3.9)	A (5.9)	A (4.2)	A (8.6)
	(13) SB Left-Turn - Signalized in Build	C (21.3)	C (26.8)	E (39.9)	C (25.7)
	(13) WB Right-Turn - Signalized	-	C (26.3)	-	C (26.2)
	(14) SB U-Turn - Unsignalized	C (20.8)	C (23.7)	C (22.3)	D (26.4)
SC 170 (Okatie Highway) & Tidewatch Drive	(15) NB U-Turn - Unsignalized	C (20.4)	C (23.2)	C (22.0)	D (26.9)
	(16) EB Right-Turn - Signalized	C (23.1)	C (25.6)	C (25.2)	C (26.8)
	(16) NB Left-Turn - Signalized	C (29.2)	C (30.0)	C (30.3)	C (30.3)
	(16) SB Through-Right - Signalized	A (1.3)	A (1.3)	A (1.3)	A (1.6)
	(17) SB Left-Turn - Signalized	C (30.4)	C (20.4)	C (30.5)	C (22.1)
	(17) WB Right-Turn - Signalized	C (23.9)	C (21.0)	C (24.9)	C (21.8)
	(17) NB Through-Right - Signalized	A (6.3)	A (7.9)	A (6.8)	A (9.0)
	(18) SB U-Turn - Unsignalized	C (23.1)	D (27.3)	D (25.3)	D (31.3)
SC 170 (Okatie Highway) & Access #2	(19) WB Right-Turn - Unsignalized*	-	F (127.5)	-	F (167.9)
SC 170 (Okatie Highway) & Access #6	(20) WB Right-Turn - Unsignalized*	-	F (63.3)	-	F (82.4)

*Results taken from HCM 6th TWSC Report

Table 22 – SC 170 (Okatie Highway) Corridor Study Analysis Results (PM Peak Hour)

Intersection	(Synchro Node #) RCI Direction	2029 No-Build LOS (Delay)	2029 Build Phase 1 LOS (Delay)	2035 No-Build LOS (Delay)	2035 Build Phase 2 LOS (Delay)
SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road	(1) NB U-Turn - Unsignalized	C (18.2)	E (44.8)	C (19.3)	D (30.2)
	(2) EB Right-Turn - Signalized	C (24.7)	C (26.0)	C (25.2)	C (26.6)
	(2) NB Left-Turn - Signalized	D (40.6)	C (34.3)	D (40.0)	C (33.2)
	(2) SB Through-Right - Signalized	A (6.4)	A (7.8)	A (6.7)	A (8.0)
	(3) SB Left-Turn - Unsignalized	F (165.7)	F (293.3)	F (218.1)	F ($)
	(3) WB Right-Turn - Unsignalized*	F (156.4)	F ($)	F (207.7)	F ($)
	(4) SB U-Turn - Signalized	C (22.0)	C (25.6)	C (23.6)	C (27.1)
	(4) NB Through - Signalized	A (1.1)	A (1.3)	A (1.2)	A (1.5)
SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive	(5) EB Right-Turn - Unsignalized*	E (43.2)	F (68.0)	F (54.1)	F (94.0)
	(5) NB Left-Turn - Unsignalized	F (218.1)	F ($)	F ($)	F ($)
	(6) SB Left-Turn - Unsignalized	F (375.9)	F (Err)	F ($)	F (Err)
	(6) WB Right-Turn - Unsignalized*	F (51.5)	F (95.4)	F (64.6)	F ($)
	(7) SB U-Turn - Unsignalized	B (10.5)	B (11.6)	B (10.9)	B (12.5)
SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road	(8) NB U-Turn - Signalized	C (26.0)	B (19.5)	C (25.3)	C (22.0)
	(8) SB Through - Signalized	A (5.0)	A (6.5)	A (5.2)	A (7.4)
	(9) EB Right-Turn - Signalized	C (27.2)	C (21.5)	C (27.4)	B (19.0)
	(9) NB Left-Turn - Signalized	D (36.5)	C (20.8)	D (37.7)	C (28.6)
	(9) SB Through-Right - Signalized	A (2.3)	A (3.2)	A (2.7)	A (5.1)
	(10) SB Left-Turn - Signalized	C (30.2)	D (42.0)	C (30.1)	D (43.8)
	(10) WB Right-Turn - Signalized	C (27.6)	C (27.6)	C (28.1)	C (31.3)
	(10) NB Through-Right - Signalized	A (3.4)	A (6.4)	A (2.7)	A (6.9)
SC 170 (Okatie Highway) & Schinger Avenue	(11) EB Right-Turn - Unsignalized*	F (130.3)	F ($)	F (187.8)	F ($)
SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1	(12) EB Right-Turn - Signalized	C (26.6)	C (28.0)	C (27.3)	C (30.0)
	(12) NB Left-Turn - Signalized	B (17.5)	C (26.8)	B (16.2)	C (26.8)
	(12) SB Through-Right - Signalized	A (4.3)	A (6.0)	A (4.6)	A (6.0)
	(13) SB Left-Turn - Signalized in Build	E (37.2)	D (38.6)	E (44.5)	D (38.2)
	(13) WB Right-Turn - Signalized	-	C (31.1)	-	C (30.9)
	(14) SB U-Turn - Unsignalized	C (21.0)	D (25.6)	C (22.8)	D (28.7)
SC 170 (Okatie Highway) & Tidewatch Drive	(15) NB U-Turn - Unsignalized	C (17.8)	C (20.8)	C (19.0)	C (22.7)
	(16) EB Right-Turn - Signalized	B (19.4)	C (22.3)	C (20.6)	C (23.3)
	(16) NB Left-Turn - Signalized	C (26.5)	C (27.5)	C (27.0)	C (27.5)
	(16) SB Through-Right - Signalized	A (1.4)	A (1.3)	A (1.4)	A (1.4)
	(17) SB Left-Turn - Signalized	C (34.5)	B (19.3)	D (35.4)	C (20.8)
	(17) WB Right-Turn - Signalized	B (17.1)	B (17.1)	B (17.8)	B (17.8)
	(17) NB Through-Right - Signalized	A (5.2)	A (6.3)	A (6.9)	A (8.7)
	(18) SB U-Turn - Unsignalized	C (20.6)	D (26.1)	C (22.3)	D (28.3)
SC 170 (Okatie Highway) & Access #2	(19) WB Right-Turn - Unsignalized*	-	F (230.5)	-	F (292.1)
SC 170 (Okatie Highway) & Access #6	(20) WB Right-Turn - Unsignalized*	-	F (84.6)	-	F (115.7)

*Results taken from HCM 6th TWSC Report

7 Conclusion

The proposed Okatie Landing at Cherry Point Development is located SC 170 (Okatie Landing) and Malind Bluff Road in in Beaufort County, South Carolina. The proposed development is planned to be constructed in two phases. Phase 1 is planned to be built out by the end of 2029 and is proposed to consist of up to 350,000 square feet of retail space and 258 multifamily residential units. Phase 2 is planned to be constructed by the end of 2035 and is proposed to consist of a new development for the Beaufort County School District. The exact use of the property by Beaufort County School District (BCSD) has not yet been determined. Per discussions with Beaufort County, it was assumed that the existing traffic into the Okatie Elementary School would match the future Beaufort County School District property as a conservate estimate for the trip generation in this Traffic Impact Study (TIS). An updated TIS will be required once the exact use of the BCSD site is known.

It is assumed that the project will access the roadway network via two driveways along SC 170 (Okatie Highway), three driveways along Cherry Point Road, and one driveway along Malind Bluff Drive.

Proposed Site Accesses:

- Site Access #1: Full access located along SC 170 (Okatie Highway) at Riverwalk Boulevard
- Site Access #2: Right-in/right-out only access along SC 170 (Okatie Highway) approximately located across from Schinger Avenue.
- Site Access #3: Right-in/right-out only located along Cherry Point Road between SC 170 (Okatie Highway) and Okatie Elementary School Access.
- Site Access #4: Full access located along Cherry Point Road that is proposed to be aligned with the Okatie Elementary School Access.
- Site Access #5: Full access located along Malind Fluff Drive east of SC 170 (Okatie Highway).
- Site Access #6: Right-in/right-out located along SC 170 (Okatie Highway) located south of Malind Bluff Drive.
- Site Access #7: Full access located along Cherry Point Road that is proposed to be aligned with Whispering Oak Road.
    - This site access is for the future BCSD site

It was assumed that phase 1 and phase 2 of development will be built and fully occupied by 2029 and 2035, respectively. This study summarizes the results of the traffic analyses at the following study intersections.

1. SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road
2. SC 170 (Okatie Highway) & Red Oaks Lane/Malind Bluff Drive
3. SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road
4. SC 170 (Okatie Highway) & Schinger Avenue/Site Access #2
5. SC 170 (Okatie Highway)& Riverwalk Boulevard/Site Access #1
6. SC 170 (Okatie Highway) & Tidewatch Drive
7. Cherry Point & Okatie Elementary School/Site Access #4
8. Cherry Point Road & Whispering Oaks Road/Future BCSD Access
9. Malind Bluff Drive & Site Access #5
10. SC 170 (Okatie Highway) & Site Access #6
11. Cherry Point Road & Site Access #3

In the vicinity of the study area there are several background developments that have committed improvements to the existing geometry. ***The committed improvements as follows***:

SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road

- Place intersection under signalized control
- Construct eastbound right-turn lane and shared through-left lane along Short Cut Road
- Construct westbound left-turn lane along Pritcher Point Road

SC 170 (Okatie Highway) & Red Oak Lane/Malind Bluff Drive

- Construct an eastbound right-turn lane and shared through-left lane along Red Oak Lane
- Modify geometry to only allow westbound right-turn movement along Malind Bluff Drive

SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road

- Construct an eastbound left-turn lane along Pearlstine Drive
- Construct westbound dual left-turn lanes and a shared through-right movement lane along Cherry Point Road

The results of the traffic analyses indicate the following improvements are recommended to mitigate the impact of the proposed development:

SC 170 (Okatie Highway) & Short Cut Road/Pritcher Point Road

2029 Build Phase 1

- Modify the existing westbound laneage to provide an exclusive left-turn lane, shared through-left lane, and exclusive right-turn lane.
- The future traffic signal should operate with minor street split phasing.
- The northbound right-turn movement should operate with an overlap phase with the westbound traffic signal phase.
- The eastbound right-turn movement should operate with an overlap phase with the northbound protected left-turn phase.
- Traffic signal should operate in coordination with the adjacent signalized intersections along SC 170 (Okatie Highway).

2035 Build Phase 2

- Retime signal to account for volume growth and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

SC 170 (Okatie Highway) & Malind Bluff Drive/Red Oaks Lane

2029 Build Phase 1

- Extend the existing southbound left-turn lane along SC 170 (Okatie Highway) to consist of 400 feet of full-width storage length and an appropriate taper length.
- Channelize the existing northbound right-turn movement and place under yield control.

2035 Build Phase 2

- No additional improvements recommended.

SC 170 (Okatie Highway) & Pearlstine Drive/Cherry Point Road

2029 Build Phase 1

- Extend the existing southbound left-turn lane along SC 170 (Okatie Highway) to consist of 450 feet of full-width storage length and an appropriate taper length.
- Construct an additional southbound left-turn lane along SC 170 (Okatie Highway) with 450 feet of full-width storage length and an appropriate taper length.
- Widen Cherry Point Road to receive the dual southbound left-turn lanes from SC 470 (Okatie Highway)
- Remove the existing channelized northbound right-turn movement and place under traffic signal control to operate with overlap phasing with the westbound protected left-turn phase.
- Construct a dedicated westbound right-turn lane with 250 feet of full-width storage and an appropriate taper length.

2035 Build Phase 2

- Retime signal to account for volume growth and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

SC 170 (Okatie Highway) & Schinger Avenue/Site Access #2

2029 Build Phase 1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 150 feet of full-width storage length and an appropriate taper length.
- Construct Site Access #2 with one ingress lane and one egress lane.
- Site Access #2 should be restricted to right-in and right-out movements only and operate under minor street stop sign control.

2035 Build Phase 2

- No additional improvements recommended.

SC 170 (Okatie Highway) & Riverwalk Boulevard/Site Access #1

2029 Build Phase 1

- Place the intersection under traffic signal control when MUTCD signal warrants are met
    - The Okatie Landing Development should conduct 13-hour turning movement counts at this intersection once the development is operational at an agreed upon date(s) with SCDOT and/or Beaufort County to determine when the signal is warranted.
        - It is recommended to count the intersection at least twice per year while school is in session.
- A traffic signal at Riverwalk Boulevard/Site Access #1Site Access #1 does not meet SCDOT signal spacing requirements for major arterials (2,640') from Cherry Point Road along SC 170 (Okatie Highway); therefore, a variance would be needed from SCDOT.
    - The intersection spacing from Cherry Point Road to Riverwalk Boulevard/Site Access #1Site Access #1 is approximately 1,240', which is less than ½ the distance required by SCDOT.
    - Due to the limited spacing between Cherry Point Road and Riverwalk Boulevard, it is recommended to relocate Riverwalk Boulevard/Site Access #1Site Access #1 further to the south along SC 170 (Okatie Highway).
    - Please note, there is a significant wetland located approximately 260' to the south of Riverwalk Boulevard along SC 170 (Okatie Highway) that may limit how far Riverwalk Boulevard can be relocated.
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 200 feet of full-width storage and an appropriate taper length.
- Reconfigure the eastbound approach along Riverwalk Boulevard to consists of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane.
- Construct Site Access #1 to consist of one ingress lane and three egress lanes.
    - Site Access #1 egress lanes should consist of a dedicated left-turn lane, dedicated through lane, and a dedicated right-turn lane.

- The westbound left-turn movement should operate under protected/permissive left-turn phasing.
- The northbound right-turn movement should operate with overlap phasing with eh westbound protected left-turn phase.
- The eastbound right-turn movement should operate with overlap phasing with the northbound protected left-turn phase.

2035 Build Phase 2

- Retime the signal to account for volume growth in the area and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

SC 170 (Okatie Highway) & Tidewatch Drive

2029 Build Phase 1

- Retime signal to operate in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

2035 Build Phase 2

- Retime signal to account for volume growth and remain in coordination with adjacent signalized intersections along SC 170 (Okatie Highway).

Cherry Point Road & Okatie Elementary School Access/Site Access #4

2029 Build Phase 1

- Construct an eastbound dedicated left-turn lane along Cherry Point Road with continuous storage to SC 170 (Okatie Highway).
- Construct a channelized southbound right-turn lane along Okatie Elementary School Access that operates as a free movement.
- Utilizing the transition taper from the eastbound left-turn lane, a westbound left-turn lane should be striped.
- Construct Site Access #4 to consist of one ingress lane and one egress lane.
- Site Access #4 should operate as full-movement under minor street stop sign control.

2035 Build Phase 2

- No additional improvements recommended.

Cherry Point Road & Whispering Oaks/ Future BCSD Access

2029 Build Phase 1

- No improvements recommended.

2035 Build Phase 2

- Construct an eastbound channelized right-turn lane along Cherry Point Road with 150 feet of full-width storage and an appropriate taper length.
- The channelized eastbound right-turn movement should operate as a free movement.
- Construct the BCSD Access with two ingress lanes and one egress lane.
- The BCSD a=Access should operate as full-movement under minor street stop sign control.

Malind Bluff Drive & Site Access #5

2029 Build Phase 1

- Construct Site Access #5 with one ingress lane and one egress lane.
- Site Access #5 should operate as full-movement under minor street stop sign control.
- Construct an eastbound right-turn lane along Malind Bluff Drive with 100 feet of full-width storage and an appropriate taper length.

2035 Build Phase 2

- No additional improvements recommended.

SC 170 (Okatie Highway) & Site Access #6

2029 Build Phase 1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) with 150 feet of full-width storage length and an appropriate taper length.
- Construct Site Access #6 with one ingress lane and one egress lane.
- Site Access #6 should be restricted to right-in and right-out movements only and operate under minor street stop sign control.
- Please note, the current proposed location of Site Access #6 is at a proposed future bulb-out location show in the SC 170 Corridor Study by AECOM. To accommodate the future potential bulb-out it is recommended to move this access to be at the midpoint between Mailind Bluff and the bulb-out location. The exact location of this access should be coordinated with SCDOT and Beaufort County.

2035 Build Phase 2

- No additional improvements recommended.

Cherry Point Road & Site Access #3

2029 Build Phase 1

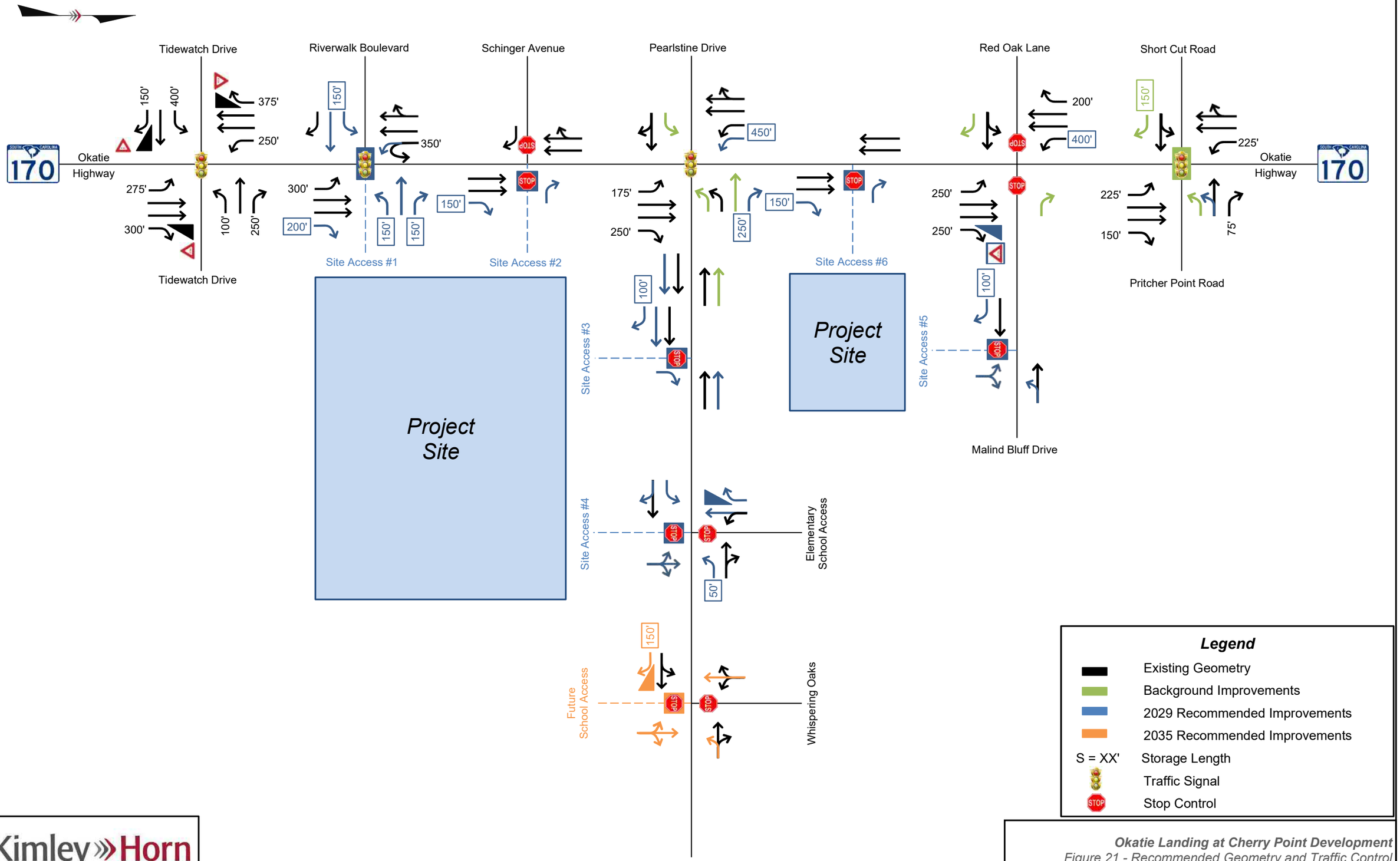
- Construct an eastbound right-turn lane along Cherry Point Road with 100 feet of full-width storage length and an appropriate taper length.

- Construct Site Access #3 with one ingress lane and one egress lane.
- Site Access #3 should be restricted to right-in and right-out movements only and operate under minor street stop sign control.

2035 Build Phase 2

- No additional improvements recommended.

The recommended improvements are shown in **Figure 21**



Kimley»Horn

Okatie Landing at Cherry Point Development

Figure 21 - Recommended Geometry and Traffic Control

BEAUFORT COUNTY
SCHOOL DISTRICT

(843) 322-2300
beaufortschools.net
2900 Mink Point Boulevard,
Beaufort SC 29902

Re: Cherry Point Rezoning to Place Type Overlay District

To: Beaufort County Planning Commission

The Beaufort County School District is under contract with Clearview Homes LLC. concerning the exchange of parcels of land in the Cherry Point Area of Okatie, Beaufort County named Okatie Landing. Clearview Homes LLC. in partnership with Beaufort County School District is seeking the rezoning of this area, including land owned by the School District to adopt a Place Type Overlay as outlined in the Comprehensive Plan.

The School District, as the owner of land subject to the rezoning has joined in the application. Beaufort County School District is excited about the possibility of having land in the area that could support a future school building. Please feel free to reach out if you have any questions, comments or concerns.

Sincerely,

Robert S. Oetting
Chief Operations Officer
Beaufort County School District
P.O. Drawer 309
Beaufort, SC 29901
843-322-0783

MEMORANDUM

TO: Beaufort County Planning Commission

FROM: Robert Merchant, AICP, Beaufort County Planning and Zoning Department

DATE: January 6, 2025

SUBJECT: CONSIDERATION OF AN ORDINANCE AMENDING THE ZONING MAP FOR 3.28 ACRES LOCATED AT 64 JAMES O CT (R600 036 000 0022 0000) FROM T3 EDGE (T3E) TO MAY RIVER COMMUNITY PRESERVATION (MRCP)

STAFF REPORT:

A. BACKGROUND:

Case No.	CDPA-000045-2024
Owner:	Ana Rebeca Alvarado Ortega
Property Location:	64 James O Ct
District/Map/Parcel:	R600 036 000 0022 0000
Property Size:	3.28 Acres
Current Future Land Use Designation:	Neighborhood/Mixed-Use
Current Zoning District:	T3 Edge
Proposed Zoning District:	May River Community Preservation (MRCP)

B. SUMMARY OF REQUEST: The applicant is requesting to rezone a parcel to accommodate agricultural use of animal production.

C. EXISTING ZONING: The lot is currently zoned T3 Edge, which permits residential lots at 75' width and 150' depth minimums (11,250 sqft lot size minimum). It is intended to reinforce established neighborhoods, to maintain neighborhood stability, and provide a transition between the walkable neighborhood and Natural Preserves and Waterways.

D. PROPOSED ZONING: The proposed zoning district is May River CP. The Community Development Code (CDC) defines the May River CP district as **"**intended to promote low

intensity rural development patterns comprised primarily of residential uses; while encouraging and allowing more urban development to locate outside the district at either end of the corridor."

E. TRAFFIC IMPACT ANALYSIS (TIA): According to Section 6.3.20.D of the CDC, *"An application for a rezoning shall include a TIA where the particular project or zoning district may result in a development that generates 50 trips during the peak hour or will change the level of service of the affected street."* The application does not require a TIA.

F. ZONING MAP AMENDMENT REVIEW STANDARDS: In determining whether to adopt or deny a proposed Zone Map Amendment, the County Council shall weigh the relevance of and consider whether and the extent to which the proposed amendment:

1. **Is consistent with and furthers the goals, and policies of the Comprehensive Plan and the purposes of this Development Code;**
   Yes, it helps further the goal C4 of the 2040 Comprehensive Plan which states to "promote the preservation and viability of agriculture and forestry." This rezoning would permit the use of crop and animal production.

2. **Is not in conflict with any provision of this Development Code, or the Code of Ordinances;**
   No, it is not.

3. **Addresses a demonstrated community need;**
   Yes, active agriculture and animal raising is a community need as suggested in 1.

4. **Is required by changed conditions;**
   No, it is not.

5. **Is compatible with existing and proposed uses surrounding the land subject to the application, and is the appropriate zone and uses for the land;**
   Yes, the property adjoins land that is zoned May River CP district and would further the rural nature of the area.

6. **Would not adversely affect nearby lands;**
   Yes, this would not adversely affect nearby lands. The rezoning would be considered a down zoning. There are concerns that agricultural use would cause a disturbance. Staff recommends that the CDC is amended to state that a 50-foot buffer is required in the MRCP district when animal production abuts single-family residential land.

7. **Would result in a logical and orderly development pattern**;
   Yes, see 5 and 6

8. **Would not result in adverse impacts on the natural environment – including, but not limited to, water, air, noise, stormwater management, wildlife, vegetation, wetlands, and the natural functioning of the environment:**
   Any development on the site would be required to adhere to the natural resource protection, tree protection, wetland protection, and stormwater standards in the Community Development Code and the Stormwater BMP Manual.

9. **Would result in development that is adequately served by public facilities (e.g.. streets, potable water, sewerage, stormwater management, solid waste collection and disposal, schools, parks, police, and fire and emergency medical facilities:**
   The development would not affect schools. Stormwater will be reviewed by SC Department of Environmental Services as it is exempt from County review (MS4 permit).

G. STAFF RECOMMENDATION:

Staff supports this rezoning request as the County Comprehensive Plan recommends promoting the preservation and viability of agriculture and forestry. However, the Planning Commission needs to take into consideration the compatibility issues of the use with the surrounding residential neighbors as noise and odor pollution is a concern. Also, the future land use designation for the parcel is Neighborhood/ Mixed-Use.

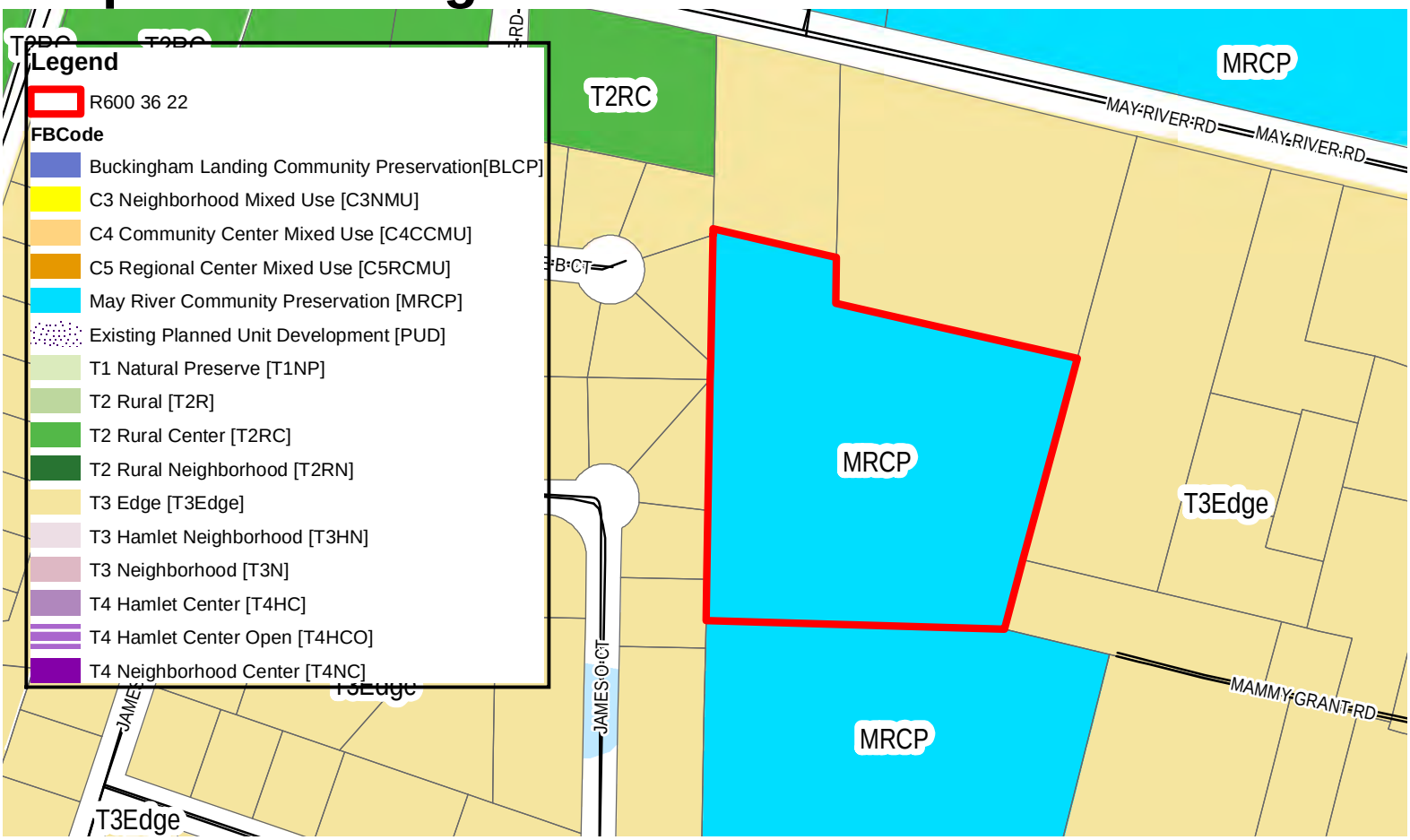
Therefore, if the rezoning is granted, staff recommends that the CDC is concurrently amended to implement agriculture as a Conditional use. The condition should state that a 50-foot buffer is required when animal production ("the raising, breeding, feeding, and/or keeping of animals for the principal purpose of commercially producing products for human use or consumption") abuts single-family residential parcels.

H. ATTACHMENTS

- Zoning Map (existing and proposed)
- Application

Existing Zoning

Proposed Zoning



BEAUFORT COUNTY, SOUTH CAROLINA
COMMUNITY DEVELOPMENT CODE (CDC) ZONING MAP AMENDMENT

TO: Beaufort County Council

The undersigned hereby respectfully requests that the Community Development Code (CDC) be amended as described below:

GENERAL INFORMATION	
OWNER'S NAME(S)*:	Ana Rebeca Alvarado Ortega
MAILING ADDRESS:	93 Davis Rd Bluffton SC 29910
PHONE:	843.305.0303
EMAIL:	
NAME OF APPLICANT (IF DIFFERENT FROM OWNER):	
MAILING ADDRESS:	
PHONE:	
EMAIL:	

*Only property owners or their authorized representative/agent can sign this application. If there are multiple owners, each property owner must sign an individual application and all applications must be submitted simultaneously. If a business entity is the owner, the authorized representative/agent of the business must attach: 1- a copy of the power of attorney that gives him the authority to sign for the business, and 2- a copy of the articles of incorporation that lists the names of all the owners of the business.

PROPERTY INFORMATION	
PARCEL NUMBER(S) (TMS):	R600 036 000 0022 0000
ADDRESS OF SUBJECT PARCEL(S):	64 James O Ct
SIZE OF SUBJECT PROPERTY:	3.28 Acres
PRESENT ZONING CLASSIFICATION (AND ANY APPLICABLE OVERLAY DISTRICTS):	T3 Edge
REQUESTED ZONING CLASSIFICATION:	May River CP
REASON FOR REQUEST:	To have animals.
ATTACH TRAFFIC IMPACT ANALYSIS (TIA) (IF APPLICABLE)**	

**The applicant should address and attach a Traffic Impact Analysis per Division 6.3.20(D) if a particular project or zoning district may result in a development that generates 50 trips during the peak hour or will change the level of service of the affected street.

It is understood by the undersigned that while this application will be carefully reviewed and considered, the burden of proof for the proposed rezoning rests with the owner.

Ana R Alvarado O.

Signature of Owner Date

UPON RECEIPT OF APPLICATIONS, THE STAFF HAS THREE (3) WORKDAYS TO REVIEW ALL APPLICATIONS FOR COMPLETENESS. THE COMPLETED APPLICATIONS WILL BE REVIEWED FIRST BY THE BEAUFORT COUNTY PLANNING COMMISSION SUBCOMMITTEE RESPONSIBLE FOR THE AREA WHERE YOUR PROPERTY IS LOCATED. MEETING SCHEDULES ARE LISTED ON THE APPLICATION PROCESS (ATTACHED). COMPLETE APPLICATIONS MUST BE SUBMITTED BY *NOON* FIRST MONDAY OF THE MONTH PRIOR TO THE APPLICABLE PLANNING COMMISSION MEETING DATE.

SUBMISSION OF APPLICATION. **ALL APPLICATIONS SHALL BE SUBMITTED TO THE APPROPRIATE COUNTY DEPARTMENT. NO APPLICATION WILL BE ACCEPTED UNLESS ACCOMPANIED BY THE REQUIRED FEE. APPLICATIONS RECEIVED BEFORE 12:00 P.M. SHALL BE DATED THE SAME WORKING DAY. APPLICATIONS RECEIVED AFTER 12:00 P.M. SHALL BE DATED THE NEXT WORKING DAY.**

FOR MAP AMENDMENT REQUESTS, THE PLANNING OFFICE WILL POST A NOTICE ON THE AFFECTED PROPERTY AS OUTLINED IN DIV. 7.4.50 OF THE COMMUNITY DEVELOPMENT CODE.

CONTACT THE PLANNING DEPARTMENT AT (843) 255-2140 FOR EXACT APPLICATION FEES.