



**County Council of  
Beaufort County  
Planning Commission  
Meeting**

**Chairman**

ED PAPPAS

**Vice Chairman**

RANDOLPH STEWART

**Commission Members**

DIANE CHMELIK

KEVIN HENNELLY

CAROLINE FERMIN

CECILY MCMILLAN

JASON HINCHER

FRANK DUCEY

JIMMIE LAWRENCE JR

**Interim County Administrator**

ERIC GREENWAY

**Staff Support**

ERIC GREENWAY

ROBERT MERCHANT

NOAH KREPPS

**Administration Building**

Beaufort County Government

Robert Smalls Complex

100 Ribaut Road

**Contact**

Post Office Drawer 1228

Beaufort, South Carolina 29901-1228

(843) 255-2140

[www.beaufortcountysc.gov](http://www.beaufortcountysc.gov)

# Planning Commission Agenda

Monday, February 1, 2021 at 6:00 p.m.

**VIRTUAL MEETING VIA WEBEX**

[This meeting is being held virtually in accordance with Beaufort County Resolution 2020-05.] ALL OF OUR MEETINGS ARE AVAILABLE FOR VIEWING ONLINE AT [WWW.BEAUFORTCOUNTYSC.GOV](http://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 MINUTES - October 5, 2020
5. APPROVAL OF AGENDA
6. WELCOME NEW COMMISSION MEMBER, JIMMIE LAWRENCE JR
7. CITIZEN COMMENTS (*Comments are limited to 3 minutes.*)  
  
CITIZENS MAY JOIN VIA WEBEX USING THE LINK AND MEETING INFORMATION PROVIDED.

[CLICK HERE FOR WEBEX LINK](#)

Meeting number (access code): 179 134 3031

Meeting password: meUQUmjP332

## ACTION ITEMS

8. ZONING MAP AMENDMENT/REZONING REQUEST for 17.92 acres (R600 013 000 00369 0000) at the Intersection of Okatie Highway and Cherry Point Road from T2 Rural to C3 Neighborhood Mixed Use and C4 Community Center Mixed Use Districts; Applicant: Antoine Iskandar, ACH Custom Homes.
9. ZONING MAP AMENDMENT/REZONING REQUEST for 2.0 acres (R600 036 000 015E 0000) at the Southwest Corner of May River Road and Benton Lane in Pritchardville from T3 Edge to T2 Rural Center; Applicant: Blaine McClure.

## DISCUSSION ITEMS

10. BEAUFORT COUNTY COMPREHENSIVE PLAN UPDATE
11. CHAIRMAN'S REPORT
12. ADJOURNMENT



COUNTY COUNCIL OF BEAUFORT COUNTY  
**Beaufort County Community Development 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 / FAX: 843-255-9432

The regular meeting of the Beaufort County Planning Commission (hereinafter “Commission”) was held virtually on Monday, October 5, 2020, 6:00 p.m.

**Members Present:**

Mr. Ed Pappas, Chairman	Dr. Caroline Fermin	Mr. Randolph Stewart, Vice Chairman
Ms. Diane Chmelik	Ms. Cecily McMillan	
Mr. Kevin Hennelly	Mr. Jason Hinch	

**Members Absent:**

General Harold Mitchell  
Mr. Frank Ducey

**Staff Present:**

Mr. Eric Greenway, BC Community Development Director  
Mr. Robert Merchant, BC Community Development Assistant Director  
Ms. Diane McMaster, Senior Administrative Specialist

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

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

**REVIEW OF MEETING MINUTES:** The Commissioners reviewed the August 4, 2020, meeting minutes, and Chairman Ed Pappas asked for a motion to approve same. Ms. Cecily McMillan made a motion to approve the August 4, 2020, minutes as submitted, and Mr. Jason Hinch seconded the motion. There was unanimous support for the motion.

**AGENDA REVIEW:** Chairman Ed Pappas asked if there were any revisions or additions to the meeting agenda. It was decided to address citizen comments at the beginning of the meeting and also at the beginning of discussion for Agenda Action Item #7, Text Amendment to Community Development Code to Clarify when a Subdivision Plan or Land Development Plan is Ripe for Appeal.

**CITIZEN COMMENTS:** By way of email to Mr. Eric Greenway dated October 5, 2020, from Attorney Thomas C. Taylor, Mr. Taylor’s letter to Chairman Ed Pappas dated April 28, 2020, addressing the virtual meeting format under which the Beaufort County Planning Commission met on May 4, 2020, was once again read and made a part of these minutes. Mr. Taylor’s 10/05/20 email request, referenced above, was also made a part of these minutes.

**ACTION ITEMS:**

**Text Amendment To The Community Development Code (CDC): Section 3.1.60; 3.1.70; 4.2.20.A; 4.2.30; 4.2.70; 10.1.70; and A.1.40.A to Clarify the Definition and Conditions for Accessory Dwelling Units and Guest Houses**

Mr. Robert Merchant, BC Community Development Deputy Director, presented the staff report. He explained that currently, there are two (2) separate uses in the CDC allowing secondary residential

dwellings as an accessory to single-family detached dwelling units: (1) Accessory Dwelling Units can be rented long term to a third party; and (2) a guest house is only for guests of the primary resident, is not a stand-alone unit, and therefore, has no kitchen.

Chairman Ed Pappas requested a motion to approve the proposed text amendment. Mr. Jason Hinchler made a motion to approve the proposed Text Amendment, seconded by Dr. Caroline Fermin. The motion passed by a vote of 6:1 (**FOR: Ms. Diane Chmelik, Mr. Jason Hinchler, Dr. Caroline Fermin, Mr. Kevin Hennelly, Chairman Ed Pappas, Ms. Cecily McMillan and OPPOSED: Vice Chairman Randolph Stewart.**)

**Text Amendment To The Community Development Code (CDC): Section 7.3.70.B and 7.2.60.E to Clarify When a Subdivision Plan or Land Development Plan is Ripe for Appeal**

Mr. Robert Merchant presented the staff report. The CDC currently allows both concept and final plans to be appealed. The proposed amendment would limit appeals to only after a development permit has been issued. This would give clarity to issues brought before the Zoning Board of Appeals and also eliminate application delays prior to staff conditions/requirements have been addressed.

Chairman Ed Pappas asked that a letter from Attorney Thomas C. Taylor, dated October 5, 2020, regarding appeals, be read and made a part of these meeting minutes. Mr. Eric Greenway, BC Community Development Director, read the letter to all in attendance.

Chairman Ed Pappas requested a motion to approve the proposed text amendment. Mr. Jason Hinchler made a motion to approve the proposed Text Amendment, seconded by Mr. Kevin Hennelly. The motion passed by a vote of 4:2:1 (**FOR: Mr. Jason Hinchler, Dr. Caroline Fermin, Mr. Kevin Hennelly, Chairman Ed Pappas; OPPOSED: Vice Chairman Randolph Stewart and Ms. Cecily McMillan; and ABSTAINED: Ms. Diane Chmelik.**)

At approximately 7:20 p.m., Vice Chairman Randolph Stewart left the meeting.

**Text Amendment To The Community Development Code (CDC): Section 5.12.20 to Make Community Development Code Consistent with Pending Southern Lowcountry Stormwater Ordinance and Design Manual**

Mr. Robert Merchant presented the staff report. The SoLoCo Ordinance and Design Manual was drafted by representatives from Beaufort County, Jasper County, City of Beaufort, Town of Bluffton, City of Hardeeville, and Town of Port Royal. The documents will provide direction for post-construction stormwater management and are intended to apply to all jurisdictions previously named.

Chairman Ed Pappas requested a motion to approve the proposed text amendment. Mr. Kevin Hennelly made a motion to approve the proposed Text Amendment, seconded by Dr. Caroline Fermin. The motion passed by a vote of 6:0 (**FOR: Ms. Diane Chmelik, Mr. Jason Hinchler, Dr. Caroline Fermin, Mr. Kevin Hennelly, Chairman Ed Pappas, Ms. Cecily McMillan; and Vice Chairman Randolph Stewart left the meeting prior to the vote.**)

Agenda item #9, **Approval of 2021 Planning Commission Meeting Schedule**, was not addressed during the meeting.

**DISCUSSION ITEM:**

Comprehensive Plan and Green Print Plan Updates - Mr. Glenn Walters, Consultant with Design Workshop, presented recent developments/public meetings/workshops regarding the BC Comprehensive Plan and Green Print Plan update efforts.

Comprehensive Plan feedback focused on the following topics:

- ❖ Quality of life in Beaufort County;
- ❖ Priorities for natural resources;
- ❖ Economic development;
- ❖ Land use; and
- ❖ Future growth

Green Print Plan feedback focused on the following topics:

- ❖ Conservation priorities;
- ❖ Development in Beaufort County; and
- ❖ Future growth

The consultant anticipates submitting a Comprehensive Plan draft for review by early December 2020 and having revisions back to the Planning Commission by mid-January 2021. The Green Print draft document should be ready by early November 2020 with revisions submitted early December 2020. The final document adoption process would follow.

**NEW/OTHER BUSINESS:**

**New Business:** None.

**Other Business:** **The next Planning Commission meeting** is scheduled for Monday, December 7, 2020, 6:00 p.m. Additional meeting details will be made available prior to the December 7 meeting date.

**ADJOURNMENT:** With no further business to discuss, Chairman Ed Pappas adjourned the meeting at 8:07 p.m.

**SUBMITTED BY:** Diane McMaster  
Community Development Senior Administrative Specialist

\_\_\_\_\_  
Ed Pappas  
Beaufort County Planning Commission Chairman

Date: \_\_\_\_\_

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**THOMAS C. TAYLOR, LLC**

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29938

April 28, 2020

**Via U.S. Mail and E-Mail Attachment to: edpappas42@gmail.com**

Hon. Edward J. Pappas  
Chairman, Beaufort County Planning Commission  
P.O. Box 1228  
Beaufort, South Carolina 29901-1228

**Re: Public Hearing requirement and virtual meetings**

Dear Chairman Pappas:

I represent a client with an interest in one of the proposed “action items” on the published Agenda for the Beaufort County Planning Commission meeting of May 4, 2020. I write today to advise you, your fellow Planning Commission members, the county staff, and Administrator Ashley Jacobs, that I believe the virtual meeting format under which the May 4, 2020 meeting is to be held, does not provide a legally acceptable public hearing for any “action items” requiring a public hearing and thus, I believe any action taken by the Planning Commission on an item requiring a public hearing, is either void or voidable. For that reason, I strongly urge you and your fellow Planning Commission members to delay any formal action on items that require a public hearing under Beaufort County’s ordinances or South Carolina statutory law until such time as we can all return to actual public meetings that allow all members of the public access to a required “public hearing.”

I have reviewed the South Carolina statutes and case law with an eye toward evaluating whether a required public hearing can be sufficiently held during a videoconference meeting of a public body. I do not believe it can be. My analysis begins first with the South Carolina Freedom of Information Act, S.C. Code Annot. Section 30-4-10 *et. seq.*, which specifically does authorize public bodies such as the Planning Commission, to meet via videoconferencing. *See* Section 30-4-20 (d), “Meeting” means the convening of a quorum of the constituent membership of a public body, whether corporal or by means of electronic equipment, to discuss or act upon a matter over which the public body has supervision, control, jurisdiction or advisory power. However, neither the Freedom of Information Act nor the Administrative Procedures Act at S.C. Code Annot. 1-23-10 *et. seq.* addresses the interplay of a required public hearing with an electronic meeting. And neither specifically defines the requirements of a “public hearing” in either an actual (physical) or videoconferencing meeting. Thus, we must analyze the normal requirements of a “public hearing” and evaluate whether those requirements can be met via videoconferencing.

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When a public hearing has been required as a part of the implementation process for a new or amended ordinance, the implicit intention of the requirement is to allow for (and indeed to solicit) true input from the public. Unless we are willing to admit that “public hearing” requirements are simply window dressing to appease the general public into believing that the Planning Commission (or other public body) actually seeks public involvement in the legislative process, then we must treat the public hearing requirements as vesting in the public certain “due process” rights to provide input in a meaningful manner. (Due process rights normally attach when an individual’s property rights are at stake. *See Brown v. Air Pollution Control Board*, 37 Ill. 2d 450, 454(1967), “[A] proceeding which could affect one’s property rights is governed by the fundamental principles and requirements of due process of law.”)

Although “due process” is an elusive concept, it is generally accepted as embodying the differing rules of fair play required in the particular set of circumstances. When applied to public hearings, the concept of due process often raises issues of the extent of the public’s right to participate in the legislative meeting during the “public hearing,” *i.e.*, should members of the public, for example, be allowed to question or cross examine Planning Commission members, witnesses or staff. But one thing should be clear: where there is a requirement of a “public hearing,” due process requires that the legislative body insure that the general public has a meaningful opportunity to be heard. In the extraordinary circumstances of the Covid-19 outbreak, where the Planning Commission is meeting via videoconferencing, ***it is patently obvious and the Commission should take notice of the fact that the general public can not have guaranteed access to the “public hearing” forum, because not everyone has either the electronic (computer) access necessary to participate in the meeting, not everyone has the connectivity (internet and/or high speed access) required to participate in the meeting, and not everyone has the sophistication (human know how) to use the videoconferencing applications being used by the Planning Commission and County, to facilitate the electronic meeting. It is simply unfair to mandate that members of the general public be required to have computer abilities, a computer and high-speed internet access, to participate in a required public hearing. It is--in point of fact--not a true public hearing because under all accepted societal norms, we know certain sections of our population will be excluded from having the ability to provide public input.*** While I acknowledge that this is not the intent of the Commission nor staff, and that the Commission is simply dealing with the public safety requirements of “social distancing,” the result of the action will be same: some members of the public will be excluded from a meaningful opportunity to provide public input through a required public hearing. And that will put in legal jeopardy any ordinance or text amendment adopted through the videoconferencing procedure when a public hearing was required.

For these reasons, I respectfully ask that the Planning Commission delay voting on any “action items” that require public hearings so that everyone can be sure the actions of the Planning Commission are not successfully challenged months or years down the line, after businesses and individuals have spent

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substantial money and invested substantial time in reliance upon the actions of this public body that were taken in clear derogation of the public hearing requirements. Thank you for your consideration.

As a final matter, I respectfully ask that this letter be made a part of the public records and/or public comment received regarding the May 4, 2020 meeting of the Beaufort County Planning Commission. Please contact me if you have any questions. Thank you again.

Cordially yours,

**LAW OFFICE OF THOMAS C. TAYLOR, LLC.**

A handwritten signature in blue ink, appearing to read 'T. Taylor', is written over a light blue rectangular background.

Thomas C. Taylor

TCT/dpt

cc: Ashley M. Jacobs, County Administrator via e-mail attachment  
Eric Greenway, Planning Department via e-mail attachment

## McMaster, Diane

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**From:** Greenway, Eric  
**Sent:** Tuesday, October 6, 2020 8:01 AM  
**To:** McMaster, Diane  
**Subject:** FW: request for inclusion of letter in public comment and public hearing at Planning Commission on 10.5.2020 virtual meeting  
**Attachments:** Taylor to Chair Ed Pappas regarding 10.5.2020 meeting and staff proposals to be considered.pdf; Taylor to Ed Pappas of April 28, 2020 regarding virtual public hearings.pdf

Diane,

All these need to be included in the record including the email.

Eric

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**From:** Tom Taylor <tom@thomastaylorlaw.com>  
**Sent:** Monday, October 5, 2020 4:23 PM  
**To:** Greenway, Eric <egreenway@bcgov.net>  
**Cc:** Donna Taylor <donna@thomastaylorlaw.com>  
**Subject:** request for inclusion of letter in public comment and public hearing at Planning Commission on 10.5.2020 virtual meeting

[EXTERNAL EMAIL] Please report any suspicious attachments, links, or requests for sensitive information to the Beaufort County IT Division at [helpdesk@bcgov.net](mailto:helpdesk@bcgov.net) or to 843-255-7000.

Director Greenway—Pursuant to our telephone conversation of this afternoon, I understand that I cannot participate directly or via live computer in the virtual meeting of the Planning Commission set for 6 p.m. this evening, and that the only way public input may be given is either via an email (such as this) or by posting something through Facebook. Since I don't do Facebook, I have elected to send you this email.

First, please read my attached letter to Chairman Pappas of this date into the record tonight to make sure the Planning Commission is aware of my opinions about the impropriety of a “virtual” public hearing, and further to make sure the Planning Commission is aware of my substantive arguments about the proposed amendment to the CDC deleting the rights of an applicant and members of the public to appeal a Staff action on concept approval of a major land development plan and major or commercial subdivision plats. And finally, please note my argument that insufficient public notice was given as this action item.

I am also attaching a copy of my earlier letter of April 28, 2020 to the Chairman setting forth my analysis of the legality of a virtual public hearing under our law. Please include it into the record also.

Thank you and the Planning Commission for your hard work.

Tom Taylor

*Thomas C. Taylor*

Law Office of Thomas C. Taylor, LLC  
22 Bow Circle, Suite A  
Hilton Head, SC 29928  
843-785-5050 (office)  
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Mailing Address:  
P.O. Box 5550  
Hilton Head, SC 29938

**This law firm is practicing social distancing in accordance with the recommendations of the CDC and SCDHEC. This means we are limiting face-to-face interactions at this time in the following ways:**

- 1. Until at least August 30, 2020, client meetings will take place by telephone.**
- 2. Until at least August 30, 2020, our office will be locked to outside guests.**
- 3. Documents that need to be delivered should be sent electronically or slipped under the office door.**
- 4. If you must come to the office to prepare for a hearing or in an emergency situation, we will make special accommodations in advance.**
- 5. If you need to schedule an appointment, a special accommodation or have questions, please call us at (843)785-5050.**

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October 5, 2020

**Via E-Mail Attachment to: EdPappas42@gmail.com**

The Honorable Edward J. Pappas  
Chairman, Beaufort County Planning Commission  
PO Drawer 1228  
Beaufort, SC 29910-1228

**Re: October 5, 2020 Planning Commission Meeting Agenda – Proposed  
Amendments to Beaufort County Community Development Code Regarding  
Appeals**

Dear Chairman Pappas:

I have noted that the Agenda for this evening's Planning Commission meeting includes, among other things, a proposal by the County Staff to amend the Community Development Code (the "CDC") to delete the right of an applicant and members of the public to appeal Staff action on concept approval of a major land development plans (CDC Section 7.2.60.E.1) and major and commercial subdivision plats (CDC Section 7.2.70.E.1), which is Action Item 7 on the agenda.

As an initial matter, I ask that all members of the Planning Commission be given a copy of this letter as soon as possible, so they have sufficient time to review it before this evening's Planning Commission meeting.

Because this evening's Planning Commission meeting is virtual, my ability and the ability of the public as a whole to comment on the proposed amendments to the CDC, and to be able to meaningfully participate in the public hearing the Planning Commission will hold this evening, is severely restricted, and is essentially nonexistent. On that point, I refer you to my letter to you of 28 April 2020, and I again urge you and the Planning Commission to refrain from holding any public hearings until you can do so in person, as the County's Zoning Board of Appeals did on the evening of 24 September 2020. If the Zoning Board of Appeals is able to again hold in person public hearings, then the Planning Commission should be able to do so, also.

The Honorable Edward J. Pappas  
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I also write to you today in order try to point out some of the potential problems that might result from implementing the CDC amendments on appeals recommended by the Staff. First, it will result in an applicant for a land development plan or a subdivision plat who is wrongly or incorrectly denied concept approval of their plans from seeking review by the Planning Commission of what might be an incorrect or improper denial by the Staff. This could seriously hamper an applicant's plans, if the applicant is left with no recourse to appeal a decision of the Staff which he or she thinks is incorrect or otherwise wrong.

Secondly, adoption of the proposed amendments recommended by the Staff will deny members of the public who disagree with a decision by the Staff on a concept plan for a land development plan or a subdivision plat, of the right to seek review by the Planning Commission of that decision. Such a situation could result in lulling the applicant into a false sense of security that they should spend the substantial amounts necessary to prepare final plans and documents for the land development plan or the subdivision plat, only to possibly have to deal with an appeal by another party in interest only after incurring those costly expenditures. If there are issues to be addressed in such an application, then they should be addressed as early as possible in the permitting process, and not held in abeyance until after final approval of the land development plan or the subdivision plat

I also believe that adoption of the amendment proposed by the Staff will violate state law, which is clear on the subject. Specifically, South Carolina Code Annot. Section 6-29-1150(C) says, "Staff action, if authorized, to approve or disapprove a land development plan may be appealed to the planning commission by any party in interest." That section of state law does not make a distinction between concept review and final review. At both of those stages in the process, the Staff is making a decision to approve or disapprove a plan or plat, and the Planning Commission has the power and duty to oversee such a decision by the Staff.

On a procedural issue, I object to the Planning Commission taking up the amendments proposed by the Staff at this evening's meeting due to failure of the Staff to comply with published notice requirements for the amendment of the CDC's land development regulations. Specifically, the Staff published notice of this evening's public hearing by the Planning Commission on the proposed amendments to the CDC provisions on appeals in the 20 September 2020 editions of *The Island Packet* and *The Beaufort Gazette*. As I count the days, that publication was 15 days before this evening's public hearing by the Planning Commission. However, while CDC Table 7.4.50.B says that the published notice of a public hearing on a text amendment to the CDC must be made "between 15 & 30 days before the public hearing", South Carolina Code Annot. Section 6-29-1130(B) says that the County may "amend the land development regulations after a public hearing on it, giving at least thirty days' notice of the time and place by publication in a newspaper of general circulation" in the county.

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Clearly, the published notice requirements of state law control over the CDC provisions on the same issue. I suggest to you that an amendment to the CDC's land development regulations, such as the CDC amendments on appeals proposed by the Staff, adopted pursuant to defective notice, is void or voidable. I therefore caution you, and the Staff, against proceeding with the CDC amendments on appeals proposed by the Staff without complying with the state-required published notice requirements.

With best regards, I am

Cordially,

**LAW OFFICE OF THOMAS C. TAYLOR, LLC**



Thomas C. Taylor

TCT/dpt

Attachment: Taylor letter of 28 April 2020 to Chairman Pappas

cc: The Honorable Joseph F. Passiment, Jr. (via email)  
Ms. Ashley M. Jacobs (via email)  
Mr. Eric Greenway (via email)  
W. Kurt Taylor, Esq. (via email)



# MEMORANDUM

**TO:** Beaufort County Planning Commission

**FROM:** Noah Krepps, Beaufort County Planning and Zoning Department

**DATE:** January 25, 2021

**SUBJECT:** Zoning Map Amendment/Rezoning Request for 17.92 acres (R600 013 000 00369 0000) at the Intersection of Okatie Highway and Cherry Point Road from T2 Rural to C3 Neighborhood Mixed Use and C4 Community Center Mixed Use Districts; Applicant: Jamie Crosby.

## **STAFF REPORT:**

### **A. BACKGROUND:**

<b>Case No.</b>	ZMA-2020-03
<b>Owner/Applicant:</b>	Owner - Jamie Crosby; Applicant – Antoine Iskandar, ACH Custom Homes
<b>Property Location:</b>	Located at the intersection of Okatie Hwy and Cherry Point Rd
<b>District/Map/Parcel:</b>	R600 013 000 0369 0000
<b>Property Size:</b>	17.92 acres
<b>Current Future Land Use Designation:</b>	Rural
<b>Current Zoning District:</b>	T2 Rural
<b>Proposed Zoning District:</b>	C3 Neighborhood Mixed Use and C4 Community Center Mixed Use

**B. SUMMARY OF REQUEST:** The applicant seeks to change the zoning of a 17.92-acre lot at the northeast corner of Okatie Hwy and Cherry Point Rd. The property is currently zoned T2 Rural (see attached map). The applicant seeks C4 Community Center Mixed Use zoning in the front of the property and C3 Neighborhood Mixed Use zoning in the rear to facilitate the development of commercial frontage and multi-family workforce housing on the site.

**C. EXISTING ZONING:** The lot is currently zoned T2 Rural (T2R), which permits residential development at a density of one dwelling unit per 3 acres. Under this zoning, 5 dwelling units would be permitted on this lot. T2 Rural also permits very limited non-residential uses.

**D. PROPOSED ZONING:** The Community Center Mixed Use (C4CCMU) district provides for a limited number of retail, service, and office uses intended to serve the surrounding neighborhood. These are smaller uses and not highway service types of uses. The intensity standards are set to ensure that the uses have the same suburban character as the surrounding suburban residential areas. They blend with the surrounding areas, rather than threaten the character of the area. The C4CCMU portion of this site would allow for a little over 70,000 square feet of commercial development.

The Neighborhood Mixed Use (C3NMU) district provides for high quality, moderate-density residential development, with denser areas of multi-family and mixed-use development to provide walkability and affordable housing options. The design requirements provide a suburban character and encourage pedestrian, as well as automobile, access. The C3NMU area on this property would allow for 80 multi-family dwelling units and 25 single-family dwelling units.

**E. COMPREHENSIVE PLAN FUTURE LAND USE MAP:** All 17.92 acres of the lot are designated Rural on the Future Land Use Map. The Comprehensive Plan states that future development in rural areas should be similar to the type and mix of land uses currently found in the Sheldon area, St. Helena Island, and along the SC-170 corridor between McGarvey's Corner and the Broad River Bridge. The maximum gross residential density in rural areas is one dwelling unit per three acres.

Staff concludes that the Rural designation is no longer appropriate for this property, as it is located next to Okatie Elementary, the River Oaks and Osprey Point PUDs, and existing service uses across SC-170. With these recent development trends, staff finds it appropriate to change the designation of the property to Neighborhood Mixed Use.

**F. 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.*" In response to staff's request for TIA, the applicant hired Bihl Engineering to do a traffic study, which is attached. The report provides the following recommendations:

- Due to the uncertainty both in the details of the site beyond a concept plan and the timing of improvements external to the site, the completion of formal traffic impact analysis is recommended when the plans for the site are more defined. This would include the following (but is not limited to):
  - Analysis of study area intersections as determined at that time by regulatory staff. (Additional improvements than what is noted in this study may be identified in future TIAs.)
  - Coordinate with Beaufort County and SCDOT the location, number and design details of the project access points on Cherry Point Road
- SC 170 at Cherry Point Road/Pearlstine Drive (if not already completed by others)
  - Restriping of the westbound approach (Cherry Point Road) into a shared through-right turn lane
  - Installation of a second left-turn lane on Cherry Point Road
  - Optimize traffic signal timings
- Cherry Point Road at C4 Project Access
  - Installation of eastbound left-turn lane on Cherry Point Road
- Cherry Point Road at C3 Project Access
  - Installation of eastbound left-turn lane on Cherry Point Road

- Coordinate with Beaufort County (and Okatie Village PUD developer as appropriate) on improvement plans for Cherry Point Road identified in the Okatie Village PUD
- Coordination with Beaufort County, Beaufort County School District staff regarding school access and stacking on Cherry Point Road
- Coordination with Beaufort County, LCOG, adjacent developers on future widening of SC 170 to six lanes, implementation of the LCOG access management concept, or other improvement.

Beaufort County contracted with Kimley-Horn to provide a professional analysis of the traffic study on behalf of the County. They will provide their analysis at the Planning Commission meeting.

**G. SCHOOL CAPACITY IMPACTS:** The School District has been given a copy of this proposed amendment. The School District does not have excess capacity to address the potential increase in the number of students in southern Beaufort County. In this immediate area, the District is already facing the need to absorb the students that will result from the 711 dwelling units in River Oaks and Mailand Bluff.

**H. 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;** Staff feels that the Rural designation in the Comprehensive Plan is no longer appropriate for this site. Given its proximity in each direction to multiple Planned Unit Developments, Okatie Elementary School, and a variety of service uses on the Jasper County side of SC-170, it would be better suited for the Neighborhood Mixed Use designation.

The proposed C4CCMU zoning for the lot frontage allows commercial uses that would be compatible with existing development on nearby lots along SC-170 and provide nearby residents access to commercial and service uses within their neighborhood.

The C3NMU zoning for the rear of the lot recommends a maximum gross density of 2 dwelling units per acre, but it does permit higher densities for workforce and affordable housing (see D above). This zoning would provide medium density residential development with potential for walkable/bike-able connections to the adjacent school and commercial development.

2. **Is not in conflict with any provision of this Development Code, or the Code of Ordinances;** The proposed rezoning does not conflict with the CDC or Code of Ordinances.
3. **Addresses a demonstrated community need;** The applicant proposed to develop affordable housing on the site, which has been documented in the Housing Needs Assessment to be a community need.
4. **Is required by changed conditions;** N/A.
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 site is located directly across SC-170 from Riverwalk Business Park, and adjacent to the River Oaks and Osprey Point PUDs. Okatie Elementary School is directly adjacent to the site as well. The immediate area is a mixture of residential, commercial, and institutional uses.
6. **Would not adversely affect nearby lands;** There are no apparent adverse impacts, but the developer will need to coordinate closely with County and school district staff through each step of development.

7. **Would result in a logical and orderly development pattern;** See 5 and 6 above.
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 site is in close proximity to public sewer and water, schools, fire and EMS. However, the nearest school, Okatie Elementary, is near capacity. Also, there are existing traffic issues at the Cherry Point Road/SC 170 intersection related to bus and car riders going to and from Okatie Elementary school. This issue along with other potential impacts of this rezoning need to be addressed in a Traffic Impact Analysis in coordination with the school district.

**I. STAFF RECOMMENDATION:** Staff **recommends conditional approval** of the application for the following condition:

- The applicant shall follow the recommendations of the Traffic Impact Analysis and any additional conditions as provided by Kimley-Horn and the Beaufort County School District.

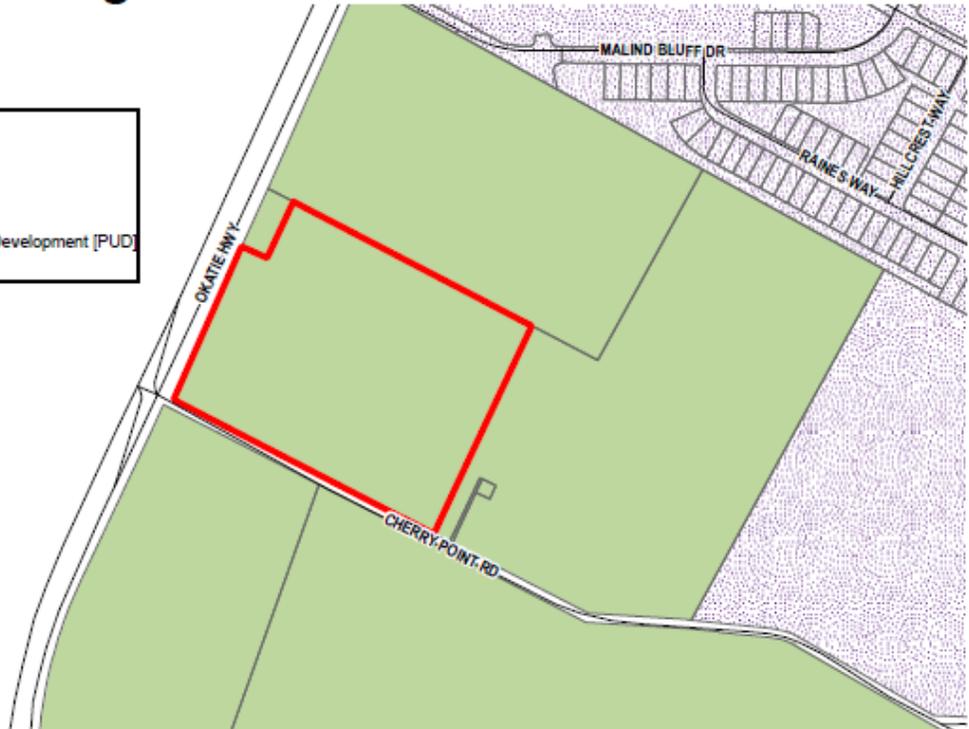
**J. ATTACHMENTS**

- Zoning Map (existing and proposed)
- Location Map

# Existing Zoning

**Legend**

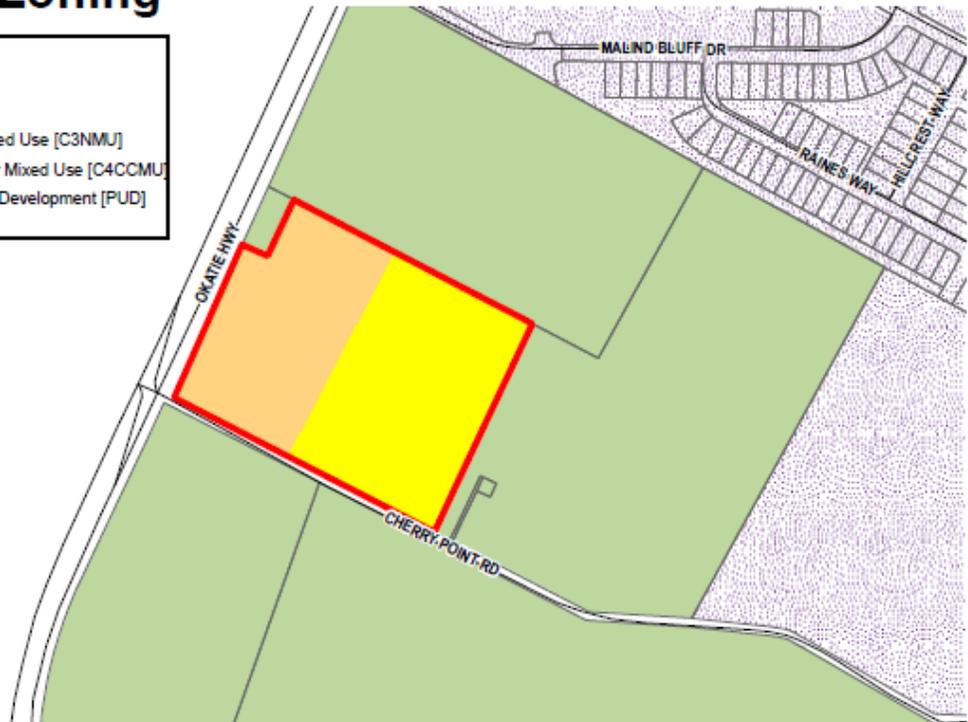
- R600 13 309
- Zone Districts
- FBCode
- Existing Planned Unit Development [PUD]
- T2 Rural (T2R)



# Proposed Zoning

**Legend**

- R600 13 309
- FBCode
- C3 Neighborhood Mixed Use [C3NMU]
- C4 Community Center Mixed Use [C4CCMU]
- Existing Planned Unit Development [PUD]
- T2 Rural (T2R)







## Memorandum

To: Antoine Iskandar, ACH Custom Homes

From: Jennifer T. Bihl, PE, PTOE, RSP21

Date: January 14, 2021

Re: *Parcel R600-013-000-0369-0000 Cherry Point Rezoning – Transportation Review*

This memorandum documents the transportation related items associated with the proposed rezoning of parcel R600-013-000-0369-0000 located on Cherry Point Road in Beaufort County, SC. The 17.92 acre parcel is currently zoned T2 Rural and is proposed to be rezoned C3 Neighborhood Mixed Use and C4 Community Center Mixed Use. While the exact details of the development are not known at this time, for the purposes of the study, the C3 portion of the site is planned for 250 mid-rise multifamily units with an expected buildout year of 2024 and the C4 portion of the site is planned for 100,000 square feet (sf) of general commercial use (land use code 820 – shopping center was assumed in the analysis) with an expected buildout year of 2023. There are three access points shown on the initial concept plan accessing Cherry Point Road, with one access point serving the C3 portion of the site and two access points serving the C4 portion of the site. The two C4 access points were combined for this study. As shown on the concept plan, internal connections between the C4 and C3 areas are planned. The parcel has approximately 1,100 feet of frontage on Cherry Point Road with no direct access to SC 170.

**Figure 1 (Appendix)** shows the site location, and **Figure 2 (Appendix)** shows the initial conceptual plan. The concept plan is expected to be updated and development details finalized as the project moves forward.

The study area for this transportation review was coordinated with Beaufort County Planning staff.

### Existing Roadway Conditions

The existing roadways in the project vicinity include SC 170, Cherry Point Road and Pearlstine Drive.

SC 170 is a principal arterial four-lane divided (grassed median) roadway with a posted speed limit of 55 miles per hour (mph). **Table 1** shows the Average Annual Daily Traffic (AADT) data on SC 170 collected by the South Carolina Department of Transportation (SCDOT) from 2009 to 2019.

Cherry Point Road is a two-lane Beaufort County roadway that provides access to the Cherry Point area and Okatie Elementary School. Cherry Point Road is paved from SC 170 to Okatie Elementary School and unpaved just east of Okatie Elementary School. This roadway experiences congestion during school pickup and drop-off periods. This is discussed in more detail later in the memo.

Pearlstine Drive is a two-lane roadway, which is located across from Cherry Point Road at its intersection with SC 170.

<p style="text-align: center;"><b>Table 1: SC 170 – SCDOT Daily Traffic Counts by Year</b></p>												
Road Section		Year										
Start	End	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
US 278	SC 462	35,000	33,400	33,000	30,100	29,200	27,700	25,800	24,300	23,300	23,300	22,500

Source: SCDOT AADT Data

Existing Intersection Conditions

The intersection of SC 170 at Cherry Point Road/Pearlstine Drive has exclusive left-turn lanes on SC 170 and an exclusive northbound right-turn lane on SC 170. The Cherry Point Road approach has a shared left-through lane with an exclusive right-turn lane. The Pearlstine Drive approach is a shared left-through-right lane.

Previous Transportation Studies in the Surrounding Area

The following sections discuss recent studies in the vicinity of the site and their applicability to this project.

Okatie Village PUD

The proposed Cherry Point development is adjacent to the Okatie Village PUD, which includes Malind Bluff (Osprey Point) and River Oaks developments. The PUD has both residential and commercial components. In discussions with Beaufort County Planning Staff, the trips associated with the residential component of the development (Phase 1) should be included as approved development in this analysis. The 2021 Phase 1 Build conditions for this study include the following land uses:

- Osprey Point PUD (Malind Bluff) – 345 single-family detached units
- River Oaks PUD – 315 single-family detached units

Traffic counts were collected in 2017 at the intersection of SC 170 at Cherry Point Road/Pearlstine Drive on a typical weekday from 7:00 AM to 9:00 AM and 2:00 PM to 6:00 PM. The 2017 existing conditions analysis showed the intersection operating at LOS E during the AM peak hour and LOS B during the PM peak hour.

The transportation improvements identified as part of Phase 1 of the Okatie Village PUD that are applicable to the Cherry Point rezoning site include:

- SC 170 at Pearlstine Drive/Cherry Point Road – Restriping of the westbound approach (Cherry Point Road) into a shared through right lane and a left-turn lane and installation of a second left-turn lane
- Improvements to Cherry Point Road (to be coordinated with County Staff) – Improvements to roadway conditions from site access point to SC 170, potential installation of left-turn lane into the School property, etc.
- Coordination with Beaufort County, Beaufort County School District staff and Developer regarding potential turn lane for school access
- Traffic signal timing optimization at study area signalized intersections

In the 2028 buildout phase of the Okatie Village PUD, SC 170 was planned to be widened as a transportation improvement associated with buildout of the PUD.

#### Lowcountry Council of Governments (LCOG) SC 170 Access Management Study – Phase 1

In 2019, LCOG reviewed potential access management strategies for application on SC 170 (*LCOG SC 170 Corridor Access Management Study – Phase 1*, AECOM, 2019). It is our understanding that this study is being reviewed by local agencies and has not yet been adopted by Beaufort County. Therefore, the results should be considered preliminary at this time. Traffic counts were collected in 2019 at the intersection of SC 170 at Cherry Point Road/Pearlstine Drive from 6:00 AM to 9:00 AM and 3:00 PM to 6:00 PM. The study found that the intersection operated at LOS E in the existing 2019 AM peak hour conditions and LOS C in the existing 2019 PM peak hour conditions. In the morning, the side street approaches experienced elevated delay. In the projected no build year 2040 conditions, the intersection was found to operate at LOS F during the AM and PM peak hour conditions. Based on the results of the access management study, the intersection is recommended to be converted to a restricted crossing U-Turn with U-Turn bulb outs north and south of this intersection on SC 170. With this intersection design concept, no left turns would be allowable from the side streets to SC 170.

#### Project Access Points

As stated previously, three access points are preliminarily planned on Cherry Point Road for this project. No access points are planned on SC 170. The approximate location of the project access points should be coordinated with Beaufort County and SCDOT as it relates to the spacing from the intersection of SC 170 at Cherry Point Road/Pearlstine Drive. Project access points should also be spaced appropriately and located outside of existing or planned turn lanes on Cherry Point Road with appropriate spacing from the existing school driveway.

It is recommended that the project access points be reviewed in detail in the next phase of the project to determine the appropriate number of access points, the location of the access points for the project and other driveway access design details.

#### Okatie Elementary School Pick-up Conditions

Currently, Okatie Elementary School uses Cherry Point Road as part of their stacking for families picking up their children at the end of the school day. Based on recent site observations, this stacking builds along Cherry Point Road as the time gets closer to the dismissal and extends along the entire distance of Cherry Point Road from the school driveway to SC 170. (Observations were made during COVID-19 conditions so queuing may vary under normal conditions.) During this time, vehicles (both personal vehicles and school buses) were observed traveling in the opposing traffic lane to travel through on Cherry Point Road or access the school (for purposes other than pick-up/drop-off) while the eastbound lane is blocked. It appears Okatie Elementary staff are stationed on Cherry Point Road to help identify the order of the vehicles queuing for pickup and to facilitate the processing of the queue.

As noted in the Okatie Village PUD traffic analysis, the operations of Cherry Point Road should be coordinated with County and the School District to review other opportunities to satisfy the needed stacking and/or facilitate traffic flow on Cherry Point Road. The County and School District should coordinate with the adjacent properties to investigate opportunities to improve the current conditions.

Improvements to this school queuing situation will need to be addressed prior to the development of this parcel because during the school pick-up time period in the afternoon, the 1,100 feet of frontage of the Cherry Point rezoning site will likely be partially to fully blocked for a 15 – 30 minute period.

#### Projected Trip Generation

The traffic generation potential of the proposed development was determined using trip generation rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation, 10<sup>th</sup> Edition* (2017) based on the projected use. The AM peak hour and School PM peak hour are being studied as a part of this project. To be conservative, projected trip generation for the PM peak hour of adjacent street traffic from 4 – 6 pm was used for the School PM peak hour analysis.

Internal capture trips are those trips that stay within the site and do not use the external roadway network. Internal capture trips were assumed within the proposed development and were calculated using National Cooperative Highway Research Program (NCHRP) Report 684 standards.

Pass-by trips are those trips currently on the roadway network that will pass by the proposed development during their original trip, enter the development, then return to their original trip. The AM and School PM peak hour pass-by trips were calculated using ITE standards. School PM peak hour conditions applied the PM peak hour pass-by percentages. No AM peak hour pass-by traffic is expected.

**Table 2** shows the projected trip generation for the proposed development for the AM and School PM peak hour conditions.

<b>Table 2: Projected Trip Generation</b>								
Land Use and Intensity	ITE Land Use Code	Daily Weekday (gross)	AM Peak Hour			School PM Peak Hour		
			Total	In	Out	Total	In	Out
250 Mid-Rise Multifamily Units	221	1,360	84	22	62	107	65	42
100,000 sf Shopping Center	820	6,012	202	125	77	544	261	283
<b>Gross Trips</b>		<b>7,372</b>	<b>286</b>	<b>147</b>	<b>139</b>	<b>651</b>	<b>326</b>	<b>325</b>
<i>Internal Capture Trips</i>			-2	-1	-1	-96	-48	-48
<b>Driveway Volumes</b>			284	146	138	555	278	277
<i>Pass-By Trips</i>			0	0	0	-169	-83	-86
<b>Net New Trips</b>			<b>284</b>	<b>146</b>	<b>138</b>	<b>386</b>	<b>195</b>	<b>191</b>

Source: ITE Trip Generation, 10<sup>th</sup> Edition, NCHRP 684

As shown in **Table 2**, the proposed development is projected to generate 284 driveway trips during the AM peak hour, 284 of which are new trips (146 entering and 138 exiting), and 555 driveway trips during the PM peak hour, 386 of which are new trips (195 entering and 191 exiting).

### Trip Distribution

The proposed project traffic was assigned to the surrounding roadway network. The directional distribution and assignments were based on qualitative knowledge of the project area, previous travel demand model information and expected trip length.

The following general trip distribution was applied to the project trips:

- 66% to/from the south on SC 170
- 30% to/from the north on SC 170
- 1% to/from the west on Pearlstine Drive
- 3% to/from the east on Cherry Point Road

It was assumed that C3 trips would primarily use the C3 Project Access and C4 trips would primarily use the C4 Project Access. The detailed trip distribution for the site is shown in **Figure 3 (Appendix)**.

### Existing Traffic Volumes

Historic 2017 traffic data was used in the analysis as it was collected during the school arrival and dismissal period. The 2017 count was compared to the 2019 count and they were found to be generally consistent (with growth applied to 2017 count data).

### Future Volume Projections

The development of the background traffic for SC 170 was determined by reviewing, historic AADT growth, projected travel demand model growth, and growth rates used in past studies. Historic traffic counts on the SC 170 corridor in this area shows a historic growth of approximately 5.5% per year for the 10-year, 5-year and 3-year periods. Based on the LCOG SC 170 Corridor Access Management Study, the travel demand model shows a projected annual growth of 1.31% per year in this segment of SC 170 however it is our understanding that some SC 170 developments are not included in this version of the model. This growth rate was used in their analysis with an SC 170 “balancing adjustment” applied. The Okatie Village PUD TIA applied a 6.5% growth rate per year from 2017 to 2021 and a 5% growth rate per year from 2021 to 2028. For the purposes of this study, a 5.5% growth rate per year was used for the SC 170 traffic volumes.

A 1% per year growth rate was used for the side street background traffic. On the Cherry Point approach, Okatie Village PUD Phase 1 traffic was added to the intersection traffic volumes as approved development traffic.

**Figure 4 (Appendix)** shows the existing and planned laneage for the study area intersections.

**Figure 5 (Appendix)** and **Figure 6 (Appendix)** shows the projected 2024 Build peak hour traffic volumes for the study area intersections for the AM peak hour and School PM peak hour, respectively.

### Turn Lane Analysis

The intersection of Cherry Point Road at C4 Project Access was reviewed for potential installation of an exclusive eastbound left-turn lane and an exclusive westbound right-turn lane on Cherry Point Road. Cherry Point Road is a Beaufort County roadway; however, the South Carolina Department of Transportation (SCDOT) *Roadway Design Manual* (2017) guidelines were reviewed at the intersection to determine if criteria were met for the consideration of exclusive turn lanes. Based on a comparison of the projected 2024 Build AM and PM peak hour traffic volumes to the criteria and the overall projected traffic volumes, it was determined that an exclusive eastbound left-turn lane “should be considered” and an exclusive westbound right-turn lane “may not be necessary.” Therefore, the exclusive eastbound left-turn lane is recommended on Cherry Point Road and included in the analysis. The exclusive westbound right-turn lane is not recommended at this time and was not included in the analysis. The turn lane analysis charts are attached.

The intersection of Cherry Point Road at C3 Project Access was also reviewed for potential installation of an exclusive eastbound left-turn lane and an exclusive westbound right-turn lane on Cherry Point Road. SCDOT *Roadway Design Manual* (2017) guidelines were reviewed at the intersection to determine if criteria were met for the consideration of exclusive turn lanes. Based on a comparison of the projected 2024 Build AM and PM peak hour traffic volumes to the criteria and the overall projected traffic volumes, it was determined that an exclusive eastbound left-turn lane “should be considered” and an exclusive westbound right-turn lane “may not be necessary.” Therefore, the exclusive eastbound left-turn lane is recommended on Cherry Point Road and included in the analysis. The exclusive westbound right-turn lane is not recommended at this time and was not included in the analysis. The turn lane analysis charts are attached.

### Capacity Analysis

Capacity analyses were performed for the AM and School PM peak hours for the 2024 Build conditions using the Synchro, Version 10 software to determine the operating characteristics of the adjacent roadway network and the impacts of the proposed project at the project driveways. The analyses were conducted with methodologies contained in the *Highway Capacity Manual, 6<sup>th</sup> Edition* (HCM 6) (Transportation Research Board, 2016). The Synchro intersection analysis worksheets are attached.

Capacity of an intersection is defined as the maximum number of vehicles that can pass through an intersection during a specified time, typically an hour. Capacity is described by level of service (LOS) for the operating characteristics of an intersection. LOS is a qualitative measure that describes operational conditions and motorist perceptions within a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F being the worst.

LOS for a two-way, stop-controlled (TWSC) intersection is determined by the delay of the poorest performing minor approach, as LOS is not defined for TWSC intersections as a whole. It is not unusual for minor stop-controlled side streets and driveways on major streets to experience longer delays at LOS E and LOS F during peak hours while the majority of the traffic moving through the corridor typically experiences little or no delay.

Capacity analyses were performed for the 2024 Build AM and School PM peak hour traffic conditions for the following intersections:

- SC 170 at Cherry Point Road/Pearlstine Drive
- Cherry Point Road at C4 Project Access (2024 Build only)
- Cherry Point Road at C3 Project Access (2024 Build only)

The peak hour factors (PHFs) were adjusted from the existing conditions to reflect the increase in traffic from the approved development and proposed development where a more consistent traffic flow is expected. This resulted in PHFs ranging from 0.70 to 0.80, therefore for the future conditions the PHFs for the Cherry Point Road approaches were adjusted to 0.75.

**Table 2** summarizes LOS and control delay (average seconds of delay per vehicle) for the existing 2017, 2024 No Build and 2024 Build AM and School PM peak hour conditions. The 2024 Build conditions were reviewed with and without the SC 170 at Cherry Point Road/Pearlstine Drive intersection improvements planned in the Okatie Village PUD. These improvements shown in **Figure 4 (Appendix)** included restriping of the westbound approach (Cherry Point Road) of the SC 170 at Cherry Point Road/Pearlstine Drive intersection into a shared through right lane and a left-turn lane and installation of a second left-turn lane. It is our understanding that these are not scheduled for construction at this time.

<b>Table 2: Level of Service and Delay (average seconds per vehicle)</b>									
Intersection	Traffic Control <sup>1</sup>	2017 Conditions		2024 No Build Conditions		2024 Build Conditions (without planned Okatie Village PUD SC 170 at Cherry Point Rd. Intersection Improvements)		2024 Build Conditions (with planned Okatie Village PUD SC 170 at Cherry Point Rd. Intersection Improvements)	
		AM Peak Hour	School PM Peak Hour	AM Peak Hour	School PM Peak Hour	AM Peak Hour	School PM Peak Hour	AM Peak Hour	School PM Peak Hour
SC 170 at Cherry Point Rd./ Pearlstine Dr.	S	E (71.2)	C (23.7)	F (253.7)	F (93.6)	F (246.9)	F (106.4)	F (161.1)	E (67.9)
Cherry Point Rd. at C4 Project Access	U	-	-	-	-	C (17.3) – SB	C (18.1) – EB	C (17.3) – SB	C (18.1) – EB
Cherry Point Road at C3 Project Access	U	-	-	-	-	B (13.9) – SB	B (11.7) – SB	B (13.9) – SB	B (11.7) – SB

1. U = Unsignalized, S = Signalized

As shown in **Table 2**, the intersection of SC 170 at Cherry Point Road/Pearlstine Drive is shown to operate at LOS E in the 2017 AM peak hour conditions and LOS C in the 2017 School PM peak hour conditions. In the 2024 No Build conditions, the intersection is projected to operate at LOS F in the AM peak hour conditions and the School PM peak hour conditions. This is primarily due to the traffic on SC 170. The intersection is projected to operate at LOS F in the AM peak hour and School PM peak hour conditions without the Okatie Village PUD improvements and LOS F (with a 35% decrease in delay and over a minute of average savings per vehicle) in the AM peak hour conditions and LOS F (with a 35% decrease in delay and approximately 40 seconds of average savings per vehicle) in the School PM peak hour conditions with the improvements.

As shown in **Table 2**, the intersection of Cherry Point Road and C4 Project Access is shown to operate at LOS C in the 2024 AM peak hour and School PM peak hour conditions with the addition of the eastbound left-turn lane on Cherry Point Road.

As shown in **Table 2**, the intersection of Cherry Point Road and C3 Project Access is shown to operate at LOS B in the 2024 AM peak hour and School PM peak hour conditions with the addition of the eastbound left-turn lane on Cherry Point Road.

### Recommendations

Based on the results of the analysis the following preliminary improvements are recommended as part of this project.

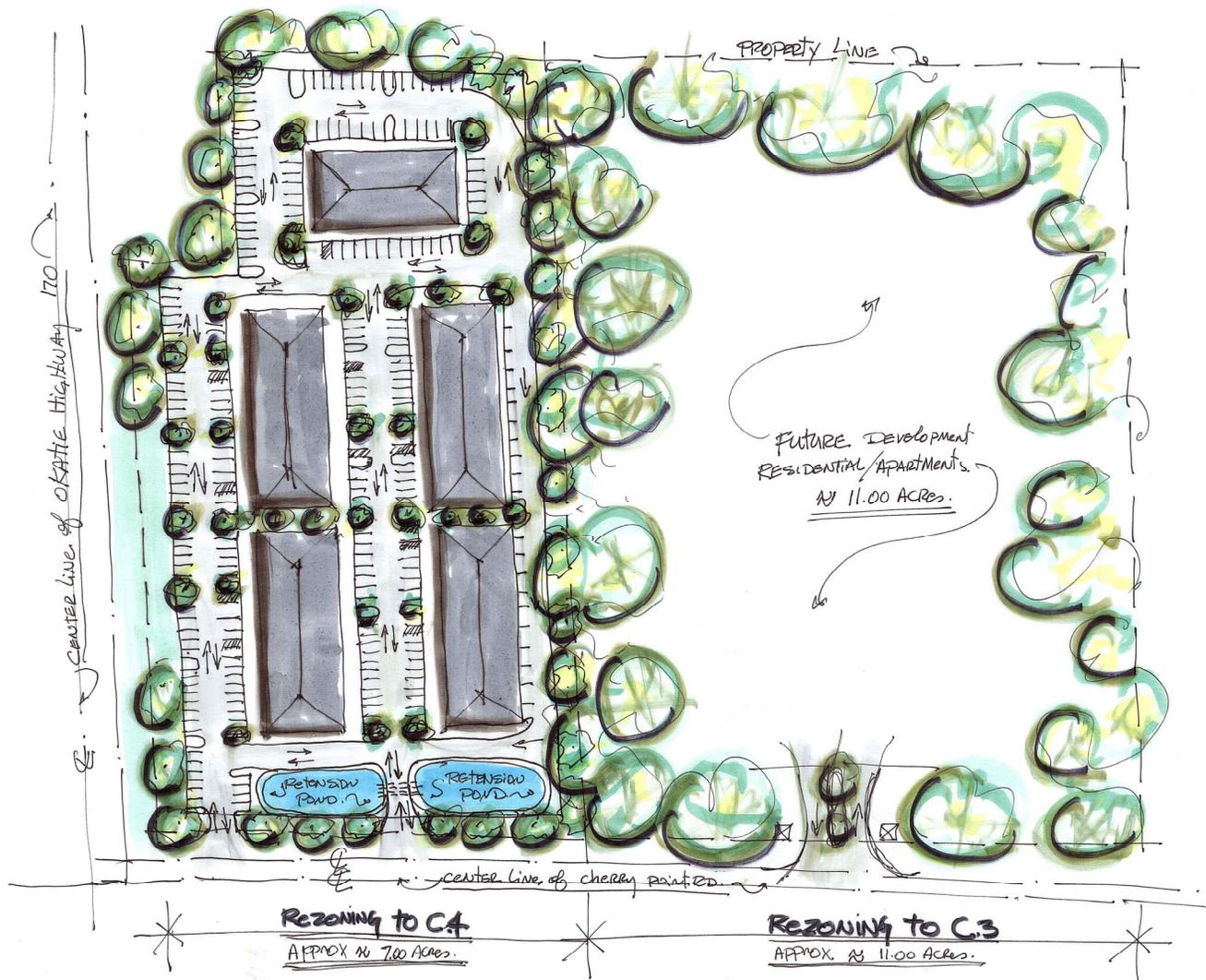
- Due to the uncertainty both in the details of the site beyond a concept plan and the timing of improvements external to the site, the completion of formal traffic impact analysis is recommended when the plans for the site are more defined. This would include the following (but is not limited to):
  - Analysis of study area intersections as determined at that time by regulatory staff. (Additional improvements than what is noted in this study may be identified in future TIAs.)
  - Coordinate with Beaufort County and SCDOT the location, number and design details of the project access points on Cherry Point Road
- SC 170 at Cherry Point Road/Pearlstine Drive (if not already completed by others)
  - Restriping of the westbound approach (Cherry Point Road) into a shared through-right turn lane
  - Installation of a second left-turn lane on Cherry Point Road
  - Optimize traffic signal timings
- Cherry Point Road at C4 Project Access
  - Installation of eastbound left-turn lane on Cherry Point Road
- Cherry Point Road at C3 Project Access
  - Installation of eastbound left-turn lane on Cherry Point Road
- Coordinate with Beaufort County (and Okatie Village PUD developer as appropriate) on improvement plans for Cherry Point Road identified in the Okatie Village PUD
- Coordination with Beaufort County, Beaufort County School District staff regarding school access and stacking on Cherry Point Road
- Coordination with Beaufort County, LCOG, adjacent developers on future widening of SC 170 to six lanes, implementation of the LCOG access management concept, or other improvement.

Results in this report are based solely on traffic studies and are considered input into final design considerations. The final design will be determined by the project engineer after other design elements (such as, but not limited to, utilities, stormwater, etc.) are taken into consideration.



## Appendix



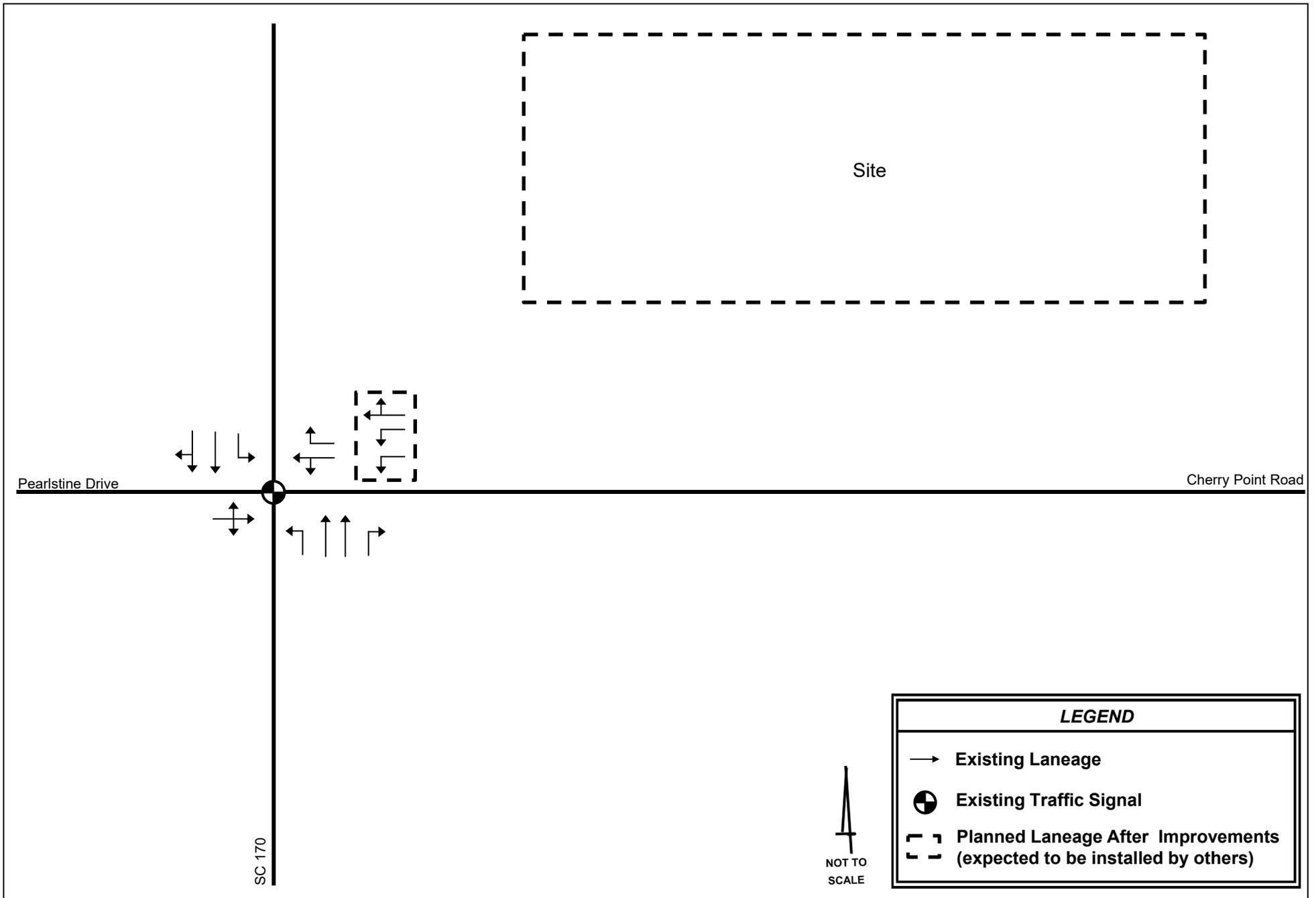


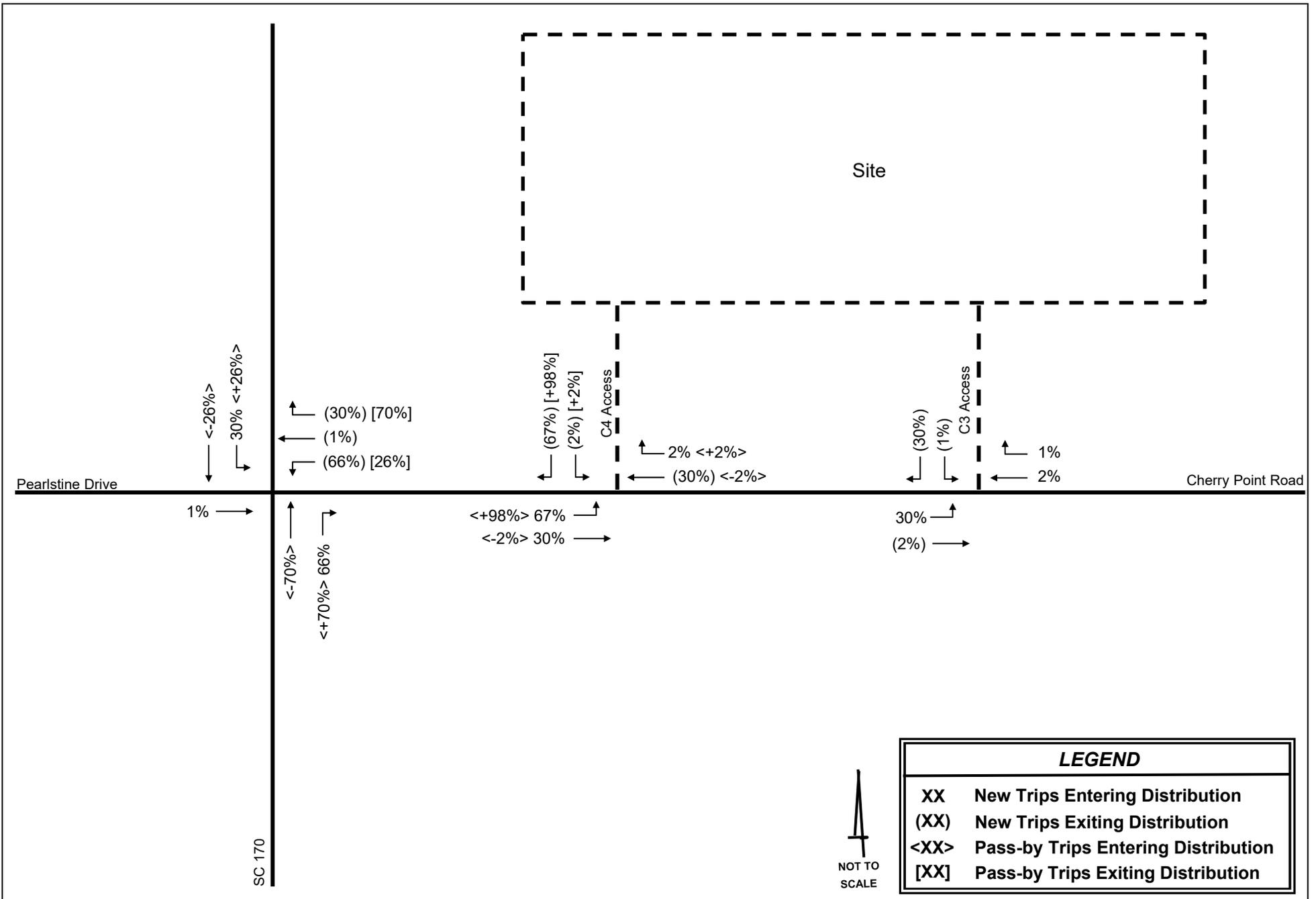
Source: Antoine Iskandar

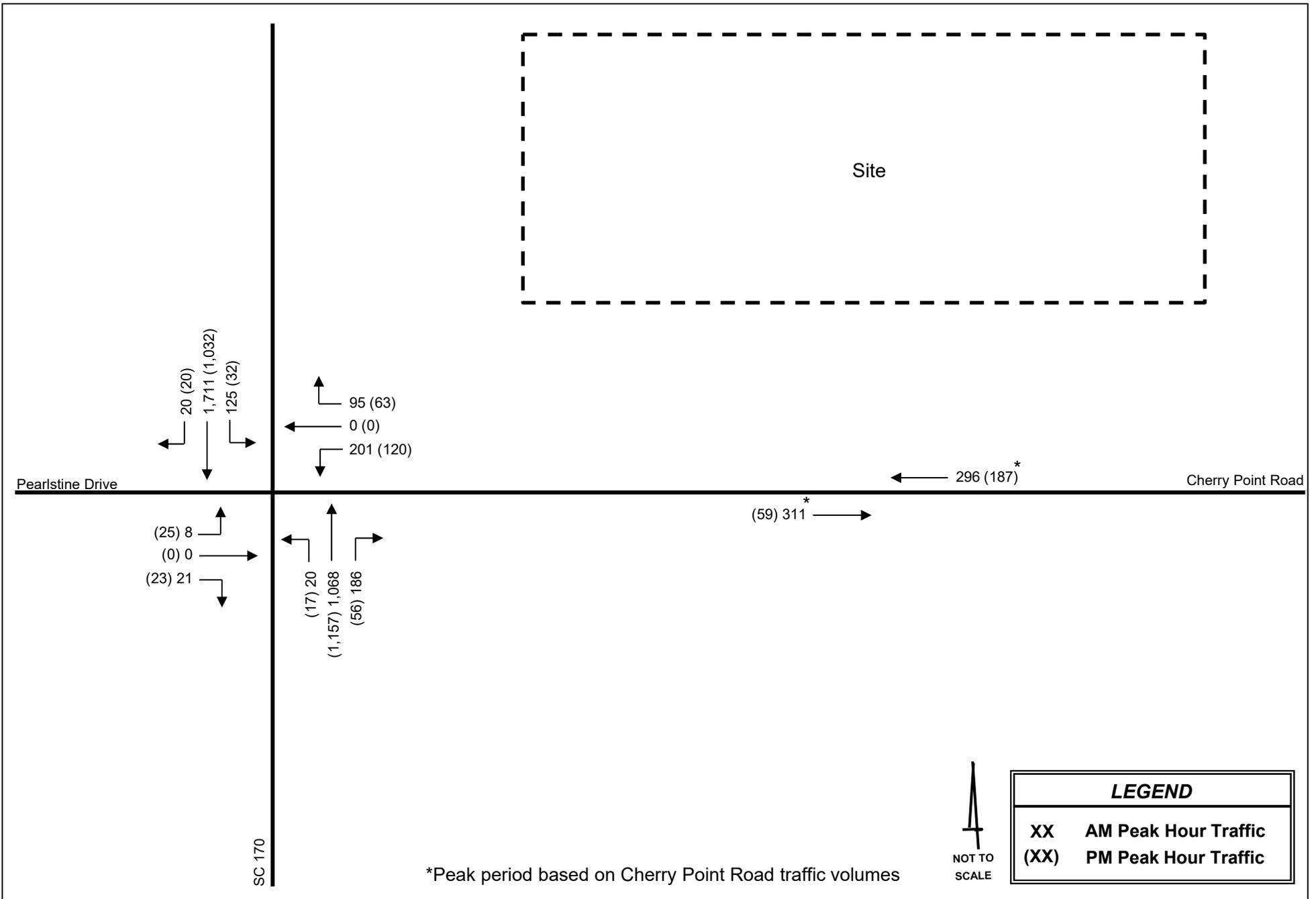
Cherry Point Rezoning  
Transportation Review

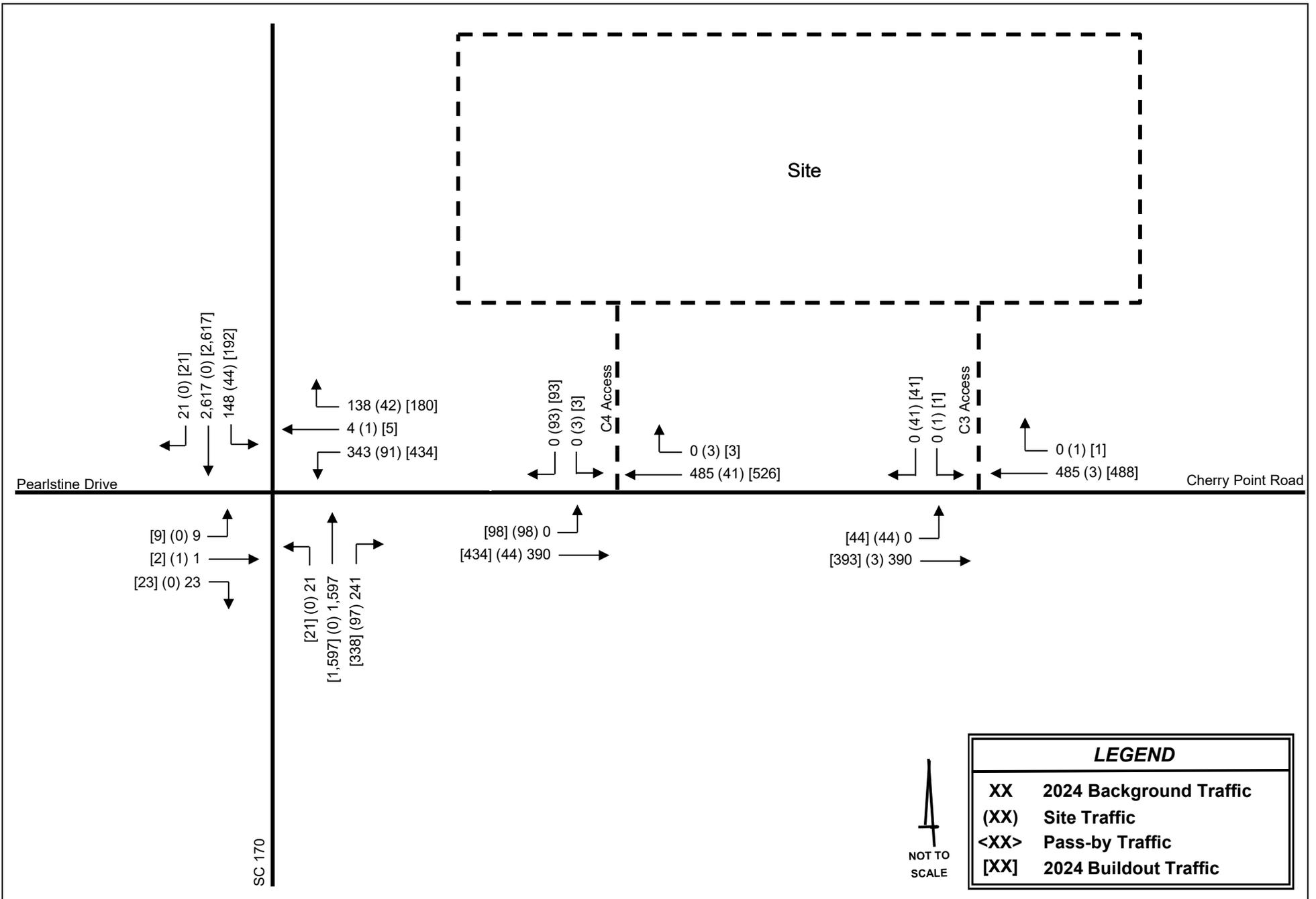
Conceptual Site Plan

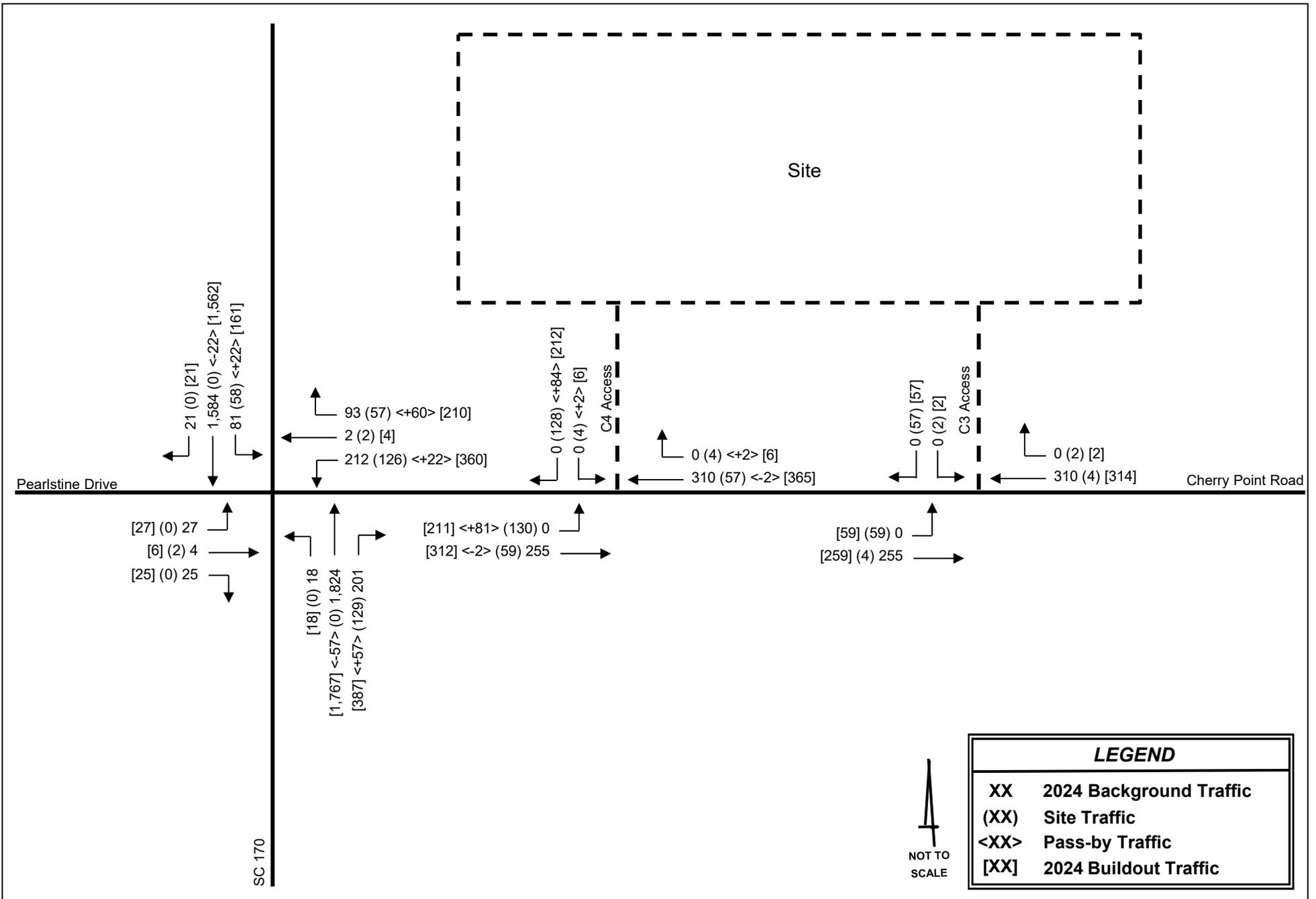
Figure 2













# Short Counts

File Name : SC 170 @ Pearlstine-Cherry Point

Site Code :

Start Date : 10/11/2017

Page No : 1

## Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

Start Time	SC 170 From North				Cherry Point Rd From East				SC 170 From South				Pearlstine Dr From West				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00 AM	33	404	13	0	44	0	15	0	5	215	37	0	1	0	2	0	769
07:15 AM	47	405	2	0	46	0	20	0	4	252	69	0	3	0	1	0	849
07:30 AM	41	458	0	0	79	0	50	0	6	318	75	0	4	0	11	0	1042
07:45 AM	4	444	5	0	32	0	10	0	5	283	5	0	0	0	7	0	795
Total	125	1711	20	0	201	0	95	0	20	1068	186	0	8	0	21	0	3455
08:00 AM	0	430	4	0	5	0	4	0	3	276	2	0	2	0	5	0	731
08:15 AM	2	370	5	0	3	0	1	0	2	281	3	0	1	0	3	0	671
08:30 AM	2	275	7	0	3	0	0	0	5	247	1	0	2	0	3	0	545
08:45 AM	2	314	4	0	1	0	1	0	7	238	3	0	2	0	7	0	579
Total	6	1389	20	0	12	0	6	0	17	1042	9	0	7	0	18	0	2526
02:00 PM	9	255	3	0	1	0	4	0	7	275	12	1	3	0	5	0	575
02:15 PM	10	253	4	0	2	0	3	0	4	254	14	0	2	0	4	0	550
02:30 PM	11	272	7	0	2	0	4	0	5	263	21	0	6	0	8	0	599
02:45 PM	16	244	5	0	31	0	23	0	5	269	25	0	7	0	5	0	630
Total	46	1024	19	0	36	0	34	0	21	1061	72	1	18	0	22	0	2354
03:00 PM	3	236	3	0	68	0	25	0	4	292	8	0	11	0	5	0	655
03:15 PM	2	280	5	0	19	0	11	0	3	333	2	0	1	0	5	0	661
03:30 PM	1	308	3	0	7	0	3	0	6	304	2	0	2	0	9	0	645
03:45 PM	1	324	0	0	6	0	3	0	1	356	4	0	2	0	2	0	699
Total	7	1148	11	0	100	0	42	0	14	1285	16	0	16	0	21	0	2660
04:00 PM	6	292	1	0	14	0	4	0	3	381	11	0	6	0	4	0	722
04:15 PM	0	272	1	0	11	0	5	0	0	419	4	0	1	0	6	0	719
04:30 PM	3	323	3	0	3	0	5	0	2	346	8	0	1	0	3	0	697
04:45 PM	4	359	0	0	4	0	5	0	6	390	4	0	2	0	5	0	779
Total	13	1246	5	0	32	0	19	0	11	1536	27	0	10	0	18	0	2917
05:00 PM	2	371	3	0	3	0	3	0	2	461	5	0	4	0	9	0	863
05:15 PM	2	345	0	0	7	0	2	0	0	447	1	0	2	0	3	0	809
05:30 PM	1	338	0	0	2	0	4	0	1	463	6	0	2	0	5	0	822
05:45 PM	3	295	0	0	3	0	0	0	0	345	2	0	1	0	1	0	650
Total	8	1349	3	0	15	0	9	0	3	1716	14	0	9	0	18	0	3144
Grand Total	205	7867	78	0	396	0	205	0	86	7708	324	1	68	0	118	0	17056
Apprch %	2.5	96.5	1	0	65.9	0	34.1	0	1.1	94.9	4	0	36.6	0	63.4	0	
Total %	1.2	46.1	0.5	0	2.3	0	1.2	0	0.5	45.2	1.9	0	0.4	0	0.7	0	
Passenger Vehicles	200	7570	57	0	383	0	197	0	71	7380	311	1	52	0	103	0	16325
% Passenger Vehicles	97.6	96.2	73.1	0	96.7	0	96.1	0	82.6	95.7	96	100	76.5	0	87.3	0	95.7
Heavy Vehicles	3	282	20	0	2	0	3	0	15	305	1	0	15	0	15	0	661
% Heavy Vehicles	1.5	3.6	25.6	0	0.5	0	1.5	0	17.4	4	0.3	0	22.1	0	12.7	0	3.9
Buses	2	15	1	0	11	0	5	0	0	23	12	0	1	0	0	0	70
% Buses	1	0.2	1.3	0	2.8	0	2.4	0	0	0.3	3.7	0	1.5	0	0	0	0.4

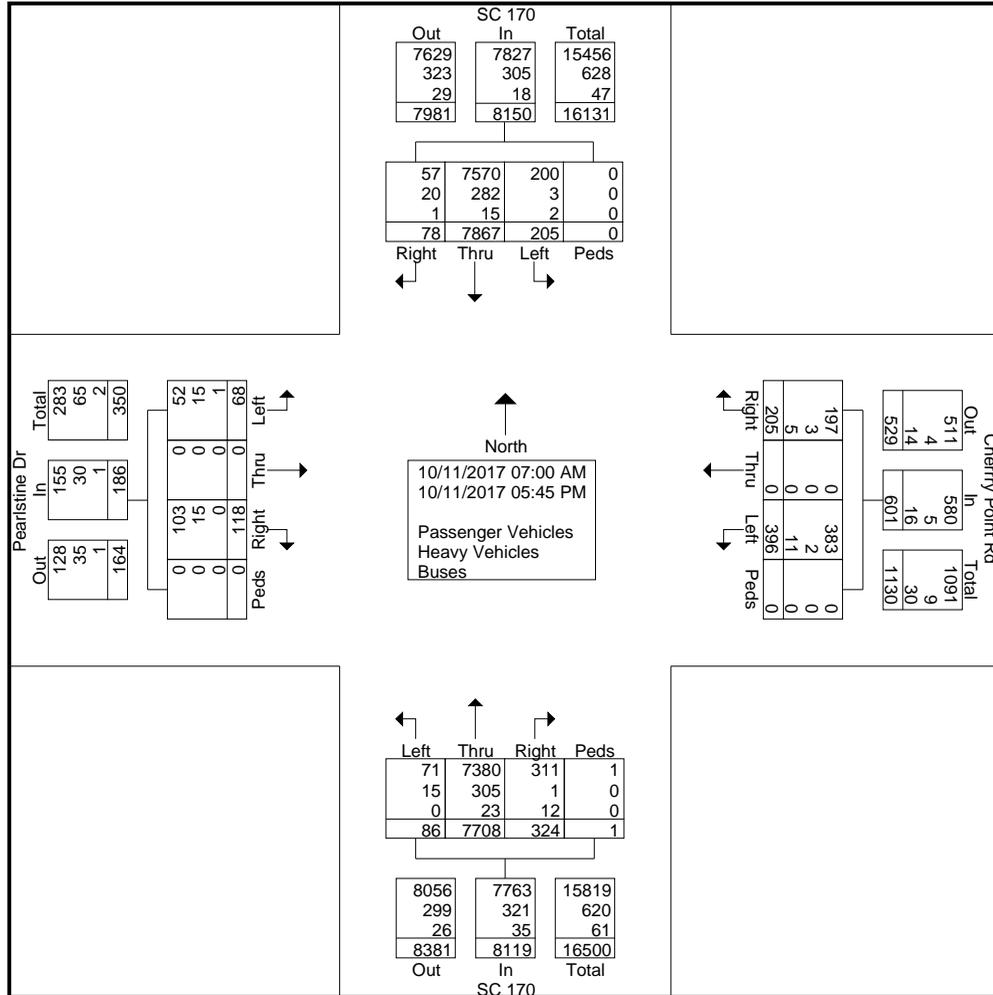
# Short Counts

File Name : SC 170 @ Pearlstine-Cherry Point

Site Code :

Start Date : 10/11/2017

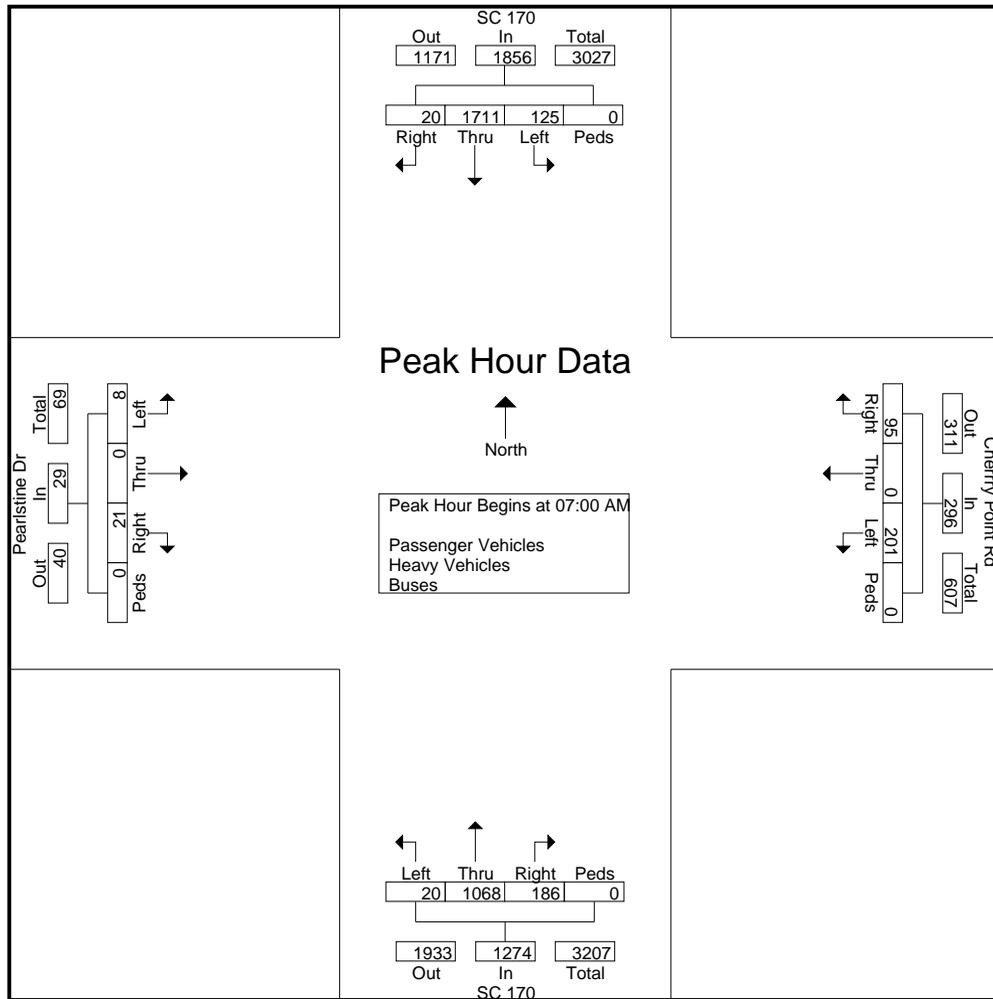
Page No : 2



# Short Counts

File Name : SC 170 @ Pearlstine-Cherry Point  
 Site Code :  
 Start Date : 10/11/2017  
 Page No : 3

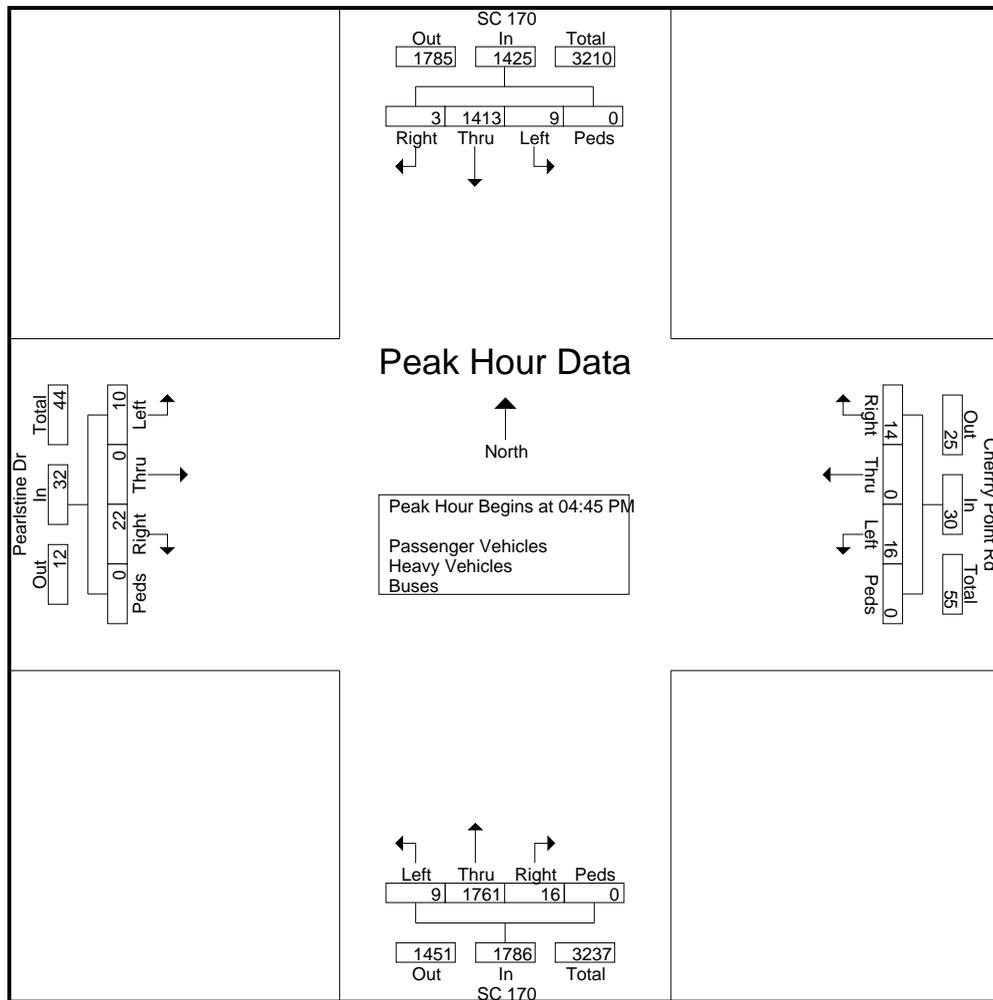
Start Time	SC 170 From North					Cherry Point Rd From East					SC 170 From South					Pearlstine Dr From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	33	404	13	0	450	44	0	15	0	59	5	215	37	0	257	1	0	2	0	3	769
07:15 AM	47	405	2	0	454	46	0	20	0	66	4	252	69	0	325	3	0	1	0	4	849
07:30 AM	41	<b>458</b>	0	0	<b>499</b>	<b>79</b>	0	<b>50</b>	0	<b>129</b>	<b>6</b>	<b>318</b>	<b>75</b>	0	<b>399</b>	<b>4</b>	0	<b>11</b>	0	<b>15</b>	<b>1042</b>
07:45 AM	4	444	5	0	453	32	0	10	0	42	5	283	5	0	293	0	0	7	0	7	795
Total Volume	125	1711	20	0	1856	201	0	95	0	296	20	1068	186	0	1274	8	0	21	0	29	3455
% App. Total	6.7	92.2	1.1	0		67.9	0	32.1	0		1.6	83.8	14.6	0		27.6	0	72.4	0		
PHF	.665	.934	.385	.000	.930	.636	.000	.475	.000	.574	.833	.840	.620	.000	.798	.500	.000	.477	.000	.483	.829



# Short Counts

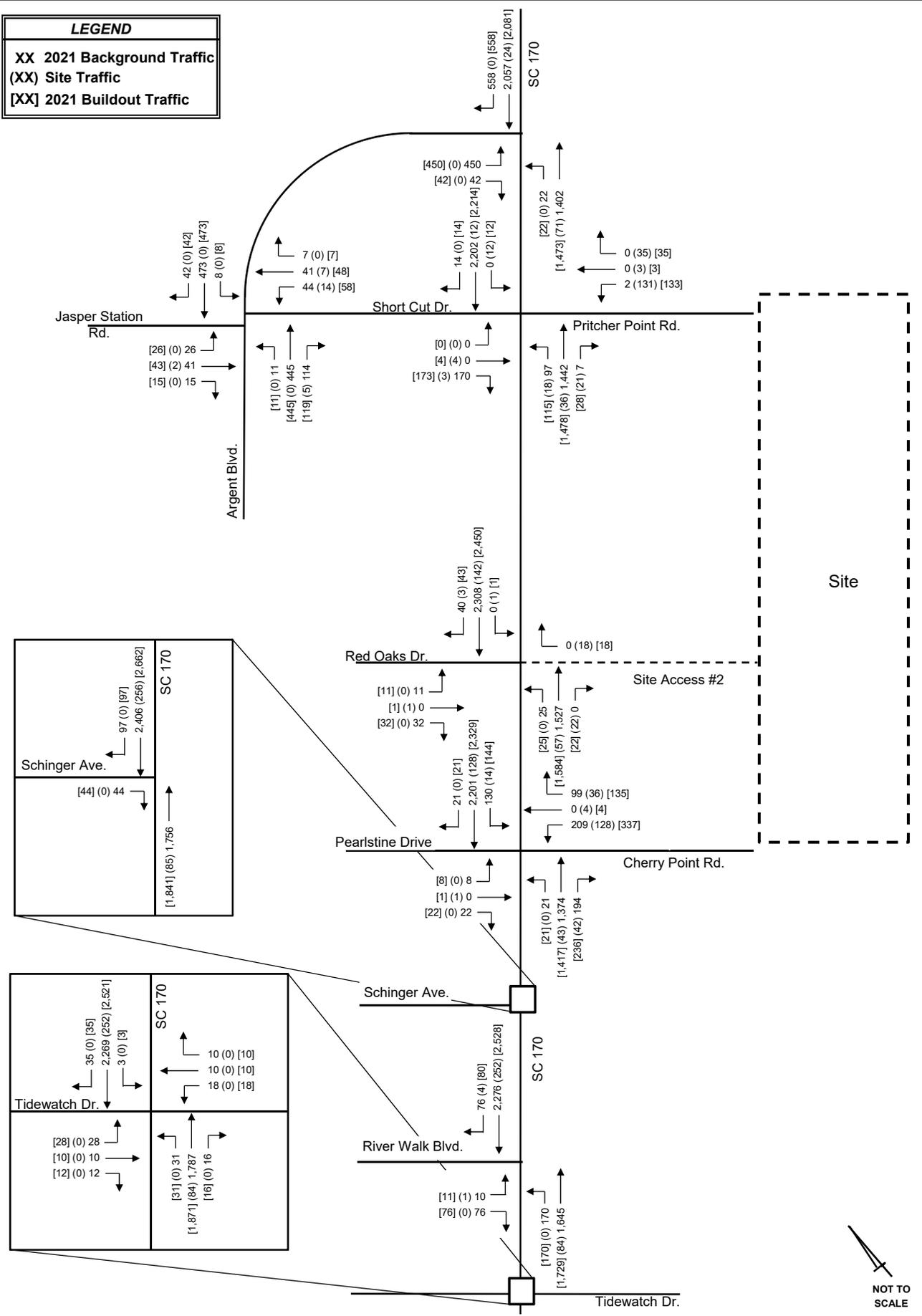
File Name : SC 170 @ Pearlstine-Cherry Point  
 Site Code :  
 Start Date : 10/11/2017  
 Page No : 4

Start Time	SC 170 From North					Cherry Point Rd From East					SC 170 From South					Pearlstine Dr From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	4	359	0	0	363	4	0	5	0	9	6	390	4	0	400	2	0	5	0	7	779
05:00 PM	2	371	3	0	376	3	0	3	0	6	2	461	5	0	468	4	0	9	0	13	863
05:15 PM	2	345	0	0	347	7	0	2	0	9	0	447	1	0	448	2	0	3	0	5	809
05:30 PM	1	338	0	0	339	2	0	4	0	6	1	463	6	0	470	2	0	5	0	7	822
Total Volume	9	1413	3	0	1425	16	0	14	0	30	9	1761	16	0	1786	10	0	22	0	32	3273
% App. Total	0.6	99.2	0.2	0		53.3	0	46.7	0		0.5	98.6	0.9	0		31.2	0	68.8	0		
PHF	.563	.952	.250	.000	.947	.571	.000	.700	.000	.833	.375	.951	.667	.000	.950	.625	.000	.611	.000	.615	.948





LEGEND	
XX	2021 Background Traffic
(XX)	Site Traffic
[XX]	2021 Buildout Traffic

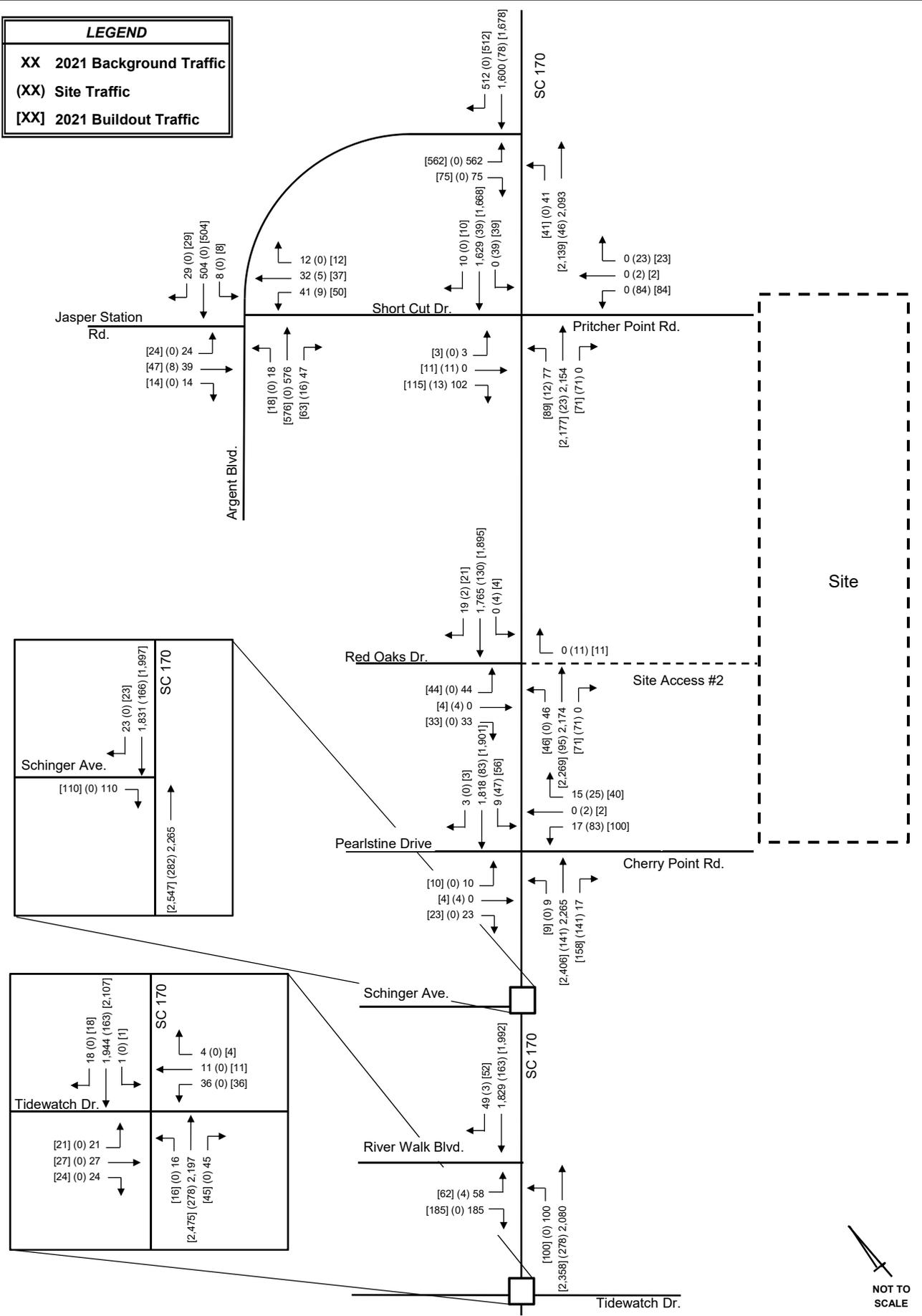


**Okatie Village  
Traffic Impact Analysis**

**2021 AM Peak  
Traffic Volumes**

**Figure 7**

LEGEND	
XX	2021 Background Traffic
(XX)	Site Traffic
[XX]	2021 Buildout Traffic



**Okatie Village  
Traffic Impact Analysis**

**2021 PM Peak  
Traffic Volumes**

**Figure 8**



**INTERSECTION VOLUME DEVELOPMENT**

**Cherry Point Rezoning**

**SC 170 at Cherry Point Road/Pearlstine Road**

**AM PEAK HOUR (7:00 AM to 8:00 AM)**

Description	SC 170 Northbound			SC 170 Southbound			Pearlstine Road Eastbound			Cherry Point Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 Raw Turning Movement Count Data	20	1,068	186	125	1,711	20	8	0	21	201	0	95
Pedestrians	0			0			0			0		
Heavy Vehicle %	4.0%			4.0%			17.0%			4.0%		
Peak Hour Factor	0.80			0.93			0.48			0.57 (0.75)		
Annual Growth Rate	1.0%	5.5%	1.0%	1.0%	5.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.072	1.455	1.072	1.072	1.455	1.072	1.072	1.072	1.072	1.072	1.072	1.072
Adjacent Site Development Traffic	0	43	42	14	128	0	0	1	0	128	4	36
2024 Background Traffic	21	1,597	241	148	2,617	21	9	1	23	343	4	138
<b>Trip Distribution</b>												
New Trips IN			66%	30%				1%				
New Trips OUT										66%	1%	30%
<b>Pass By Distribution</b>												
Pass By IN		-70%	70%	26%	-26%							
Pass By OUT										26%		70%
New Trips	0	0	97	44	0	0	0	1	0	91	1	42
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	97	44	0	0	0	1	0	91	1	42
<b>2024 Buildout Total</b>	<b>21</b>	<b>1,597</b>	<b>338</b>	<b>192</b>	<b>2,617</b>	<b>21</b>	<b>9</b>	<b>2</b>	<b>23</b>	<b>434</b>	<b>5</b>	<b>180</b>

**SCHOOL PM PEAK HOUR (2:30 PM to 3:30 PM)**

Description	SC 170 Northbound			SC 170 Southbound			Pearlstine Road Eastbound			Cherry Point Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 Raw Turning Movement Count Data	17	1,157	56	32	1,032	20	25	0	23	120	0	63
Pedestrians	0			0			0			0		
Heavy Vehicle %	4.0%			4.0%			17.0%			4.0%		
Peak Hour Factor	0.91			0.93			0.75			0.49 (0.75)		
Annual Growth Rate	1.0%	5.5%	1.0%	1.0%	5.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.072	1.455	1.072	1.072	1.455	1.072	1.072	1.072	1.072	1.072	1.072	1.072
Adjacent Site Development Traffic	0	141	141	47	83	0	0	4	0	83	2	25
2024 Background Traffic	18	1,824	201	81	1,584	21	27	4	25	212	2	93
<b>Trip Distribution</b>												
New Trips IN			66%	30%				1%				
New Trips OUT										66%	1%	30%
<b>Pass By Distribution</b>												
Pass By IN		-70%	70%	26%	-26%							
Pass By OUT										26%		70%
New Trips	0	0	129	58	0	0	0	2	0	126	2	57
Pass By Trips	0	-57	57	22	-22	0	0	0	0	22	0	60
Total Project Trips	0	-57	186	80	-22	0	0	2	0	148	2	117
<b>2024 Buildout Total</b>	<b>18</b>	<b>1,767</b>	<b>387</b>	<b>161</b>	<b>1,562</b>	<b>21</b>	<b>27</b>	<b>6</b>	<b>25</b>	<b>360</b>	<b>4</b>	<b>210</b>

**INTERSECTION VOLUME DEVELOPMENT**  
**Cherry Point Rezoning**  
**Cherry Point Road at C4 Access**  
**AM PEAK HOUR (7:00 AM to 8:00 AM)**

Description	- Northbound			C4 Access Southbound			Cherry Point Road Eastbound			Cherry Point Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 Raw Turning Movement Count Data	0	0	0	0	0	0	0	311	0	0	296	0
Pedestrians												
Heavy Vehicle %				2.0%			3.0%			3.0%		
Peak Hour Factor	0.90			0.90			0.67 (0.75)			0.57 (0.75)		
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072
Adjacent Site Development Traffic	0	0	0	0	0	0	0	57	0	0	168	0
2024 Background Traffic	0	0	0	0	0	0	0	390	0	0	485	0
<b>Trip Distribution</b>												
New Trips IN							67%	30%				2%
New Trips OUT				2%		67%					30%	
<b>Pass By Distribution</b>												
Pass By IN							98%	-2%			-2%	2%
Pass By OUT				2%		98%						
New Trips	0	0	0	3	0	93	98	44	0	0	41	3
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	3	0	93	98	44	0	0	41	3
<b>2024 Buildout Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>93</b>	<b>98</b>	<b>434</b>	<b>0</b>	<b>0</b>	<b>526</b>	<b>3</b>

**SCHOOL PM PEAK HOUR (2:45 PM to 3:45 PM)**

Description	- Northbound			C4 Access Southbound			Cherry Point Road Eastbound			Cherry Point Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 Raw Turning Movement Count Data	0	0	0	0	0	0	0	59	0	0	187	0
Pedestrians												
Heavy Vehicle %				2.0%			3.0%			3.0%		
Peak Hour Factor	0.90			0.90			0.36 (0.75)			0.5 (0.75)		
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072
Adjacent Site Development Traffic	0	0	0	0	0	0	0	192	0	0	110	0
2024 Background Traffic	0	0	0	0	0	0	0	255	0	0	310	0
<b>Trip Distribution</b>												
New Trips IN							67%	30%				2%
New Trips OUT				2%		67%					30%	
<b>Pass By Distribution</b>												
Pass By IN							98%	-2%			-2%	2%
Pass By OUT				2%		98%						
New Trips	0	0	0	4	0	128	130	59	0	0	57	4
Pass By Trips	0	0	0	2	0	84	81	-2	0	0	-2	2
Total Project Trips	0	0	0	6	0	212	211	57	0	0	55	6
<b>2024 Buildout Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>212</b>	<b>211</b>	<b>312</b>	<b>0</b>	<b>0</b>	<b>365</b>	<b>6</b>

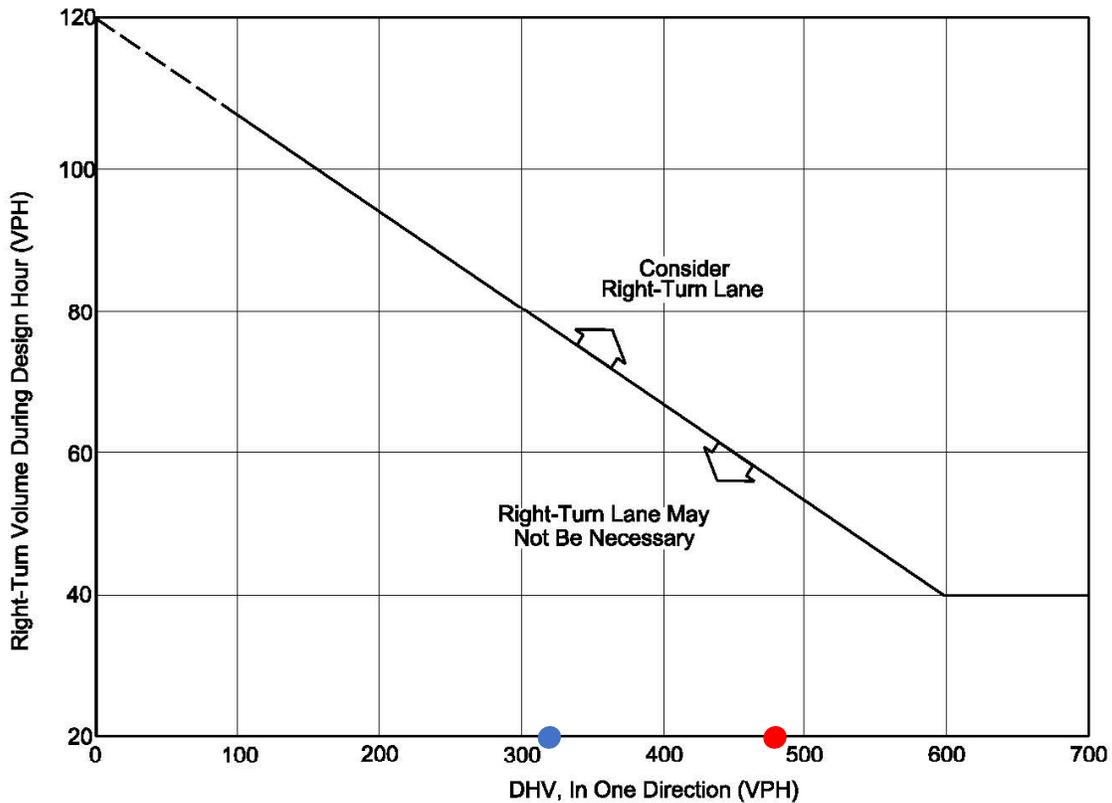
**INTERSECTION VOLUME DEVELOPMENT**  
**Cherry Point Rezoning**  
**Cherry Point Road at C3 Access**  
**AM PEAK HOUR (7:00 AM to 8:00 AM)**

Description	- Northbound			C3 Access Southbound			Cherry Point Road Eastbound			Cherry Point Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 Raw Turning Movement Count Data	0	0	0	0	0	0	0	311	0	0	296	0
Pedestrians												
Heavy Vehicle %				2.0%			3.0%			3.0%		
Peak Hour Factor				0.90			0.67 (0.75)			0.57 (0.75)		
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072
Adjacent Site Development Traffic	0	0	0	0	0	0	0	57	0	0	168	0
2024 Background Traffic	0	0	0	0	0	0	0	390	0	0	485	0
<b>Trip Distribution</b>												
New Trips IN							30%				2%	1%
New Trips OUT				1%		30%		2%				
<b>Pass By Distribution</b>												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	1	0	41	44	3	0	0	3	1
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	1	0	41	44	3	0	0	3	1
<b>2024 Buildout Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>41</b>	<b>44</b>	<b>393</b>	<b>0</b>	<b>0</b>	<b>488</b>	<b>1</b>

**SCHOOL PM PEAK HOUR (2:45 PM to 3:45 PM)**

Description	- Northbound			C3 Access Southbound			Cherry Point Road Eastbound			Cherry Point Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 Raw Turning Movement Count Data	0	0	0	0	0	0	0	59	0	0	187	0
Pedestrians												
Heavy Vehicle %				2.0%			3.0%			3.0%		
Peak Hour Factor				0.90			0.36 (0.75)			0.5 (0.75)		
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072	1.072
Adjacent Site Development Traffic	0	0	0	0	0	0	0	192	0	0	110	0
2024 Background Traffic	0	0	0	0	0	0	0	255	0	0	310	0
<b>Trip Distribution</b>												
New Trips IN							30%				2%	1%
New Trips OUT				1%		30%		2%				
<b>Pass By Distribution</b>												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	2	0	57	59	4	0	0	4	2
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	2	0	57	59	4	0	0	4	2
<b>2024 Buildout Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>57</b>	<b>59</b>	<b>259</b>	<b>0</b>	<b>0</b>	<b>314</b>	<b>2</b>





*Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.*

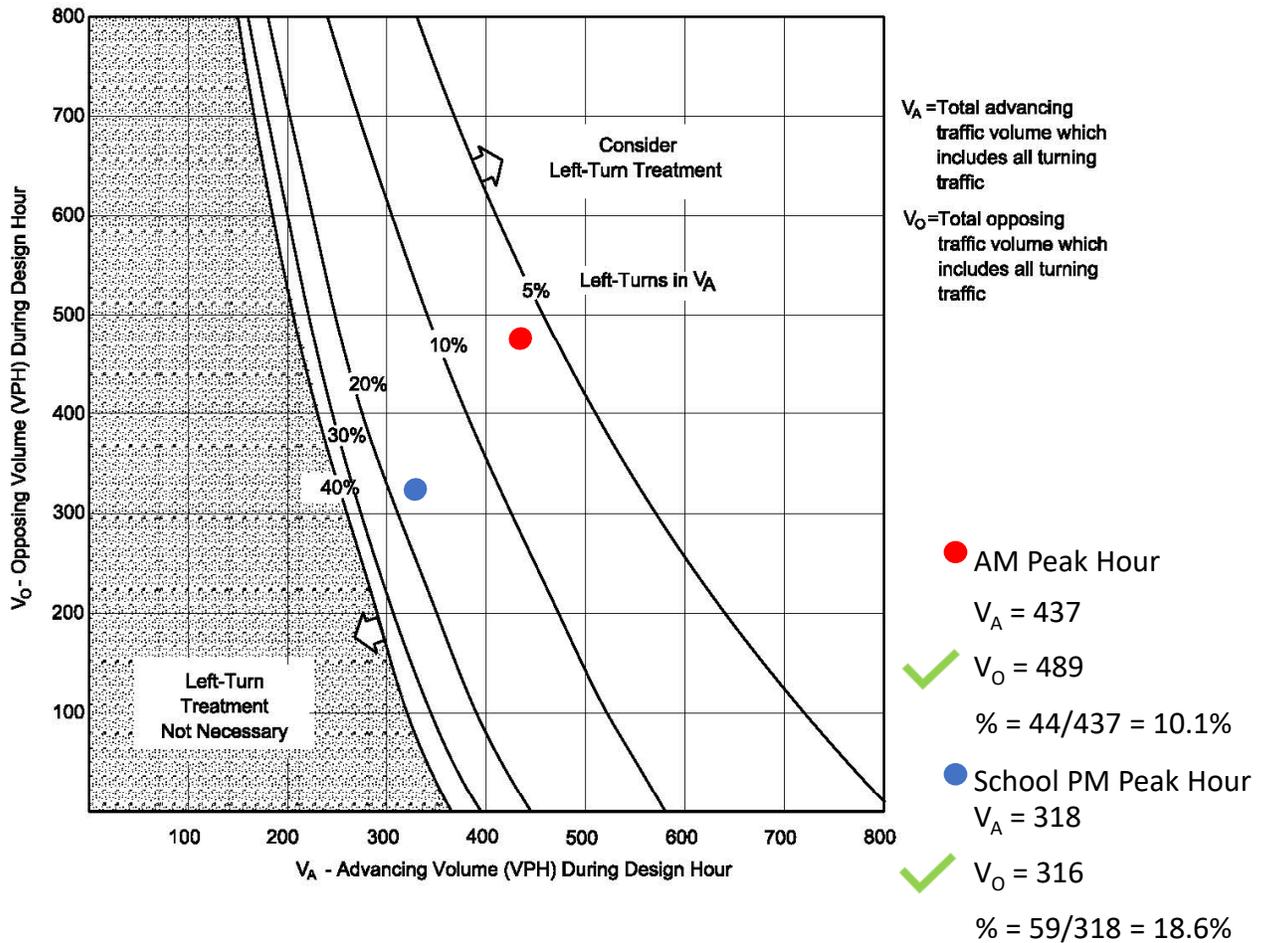
**Example**

<u>Given:</u>	Design Speed	=	35 miles per hour	Speed = NP	Speed = NP
	DHV	=	250 vehicles per hour	DHV = 489	DHV = 316
	Right Turns	=	100 vehicles per hour	R-Turns = 1	R-Turns = 2

Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use  $100 - 20 = 80$  vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

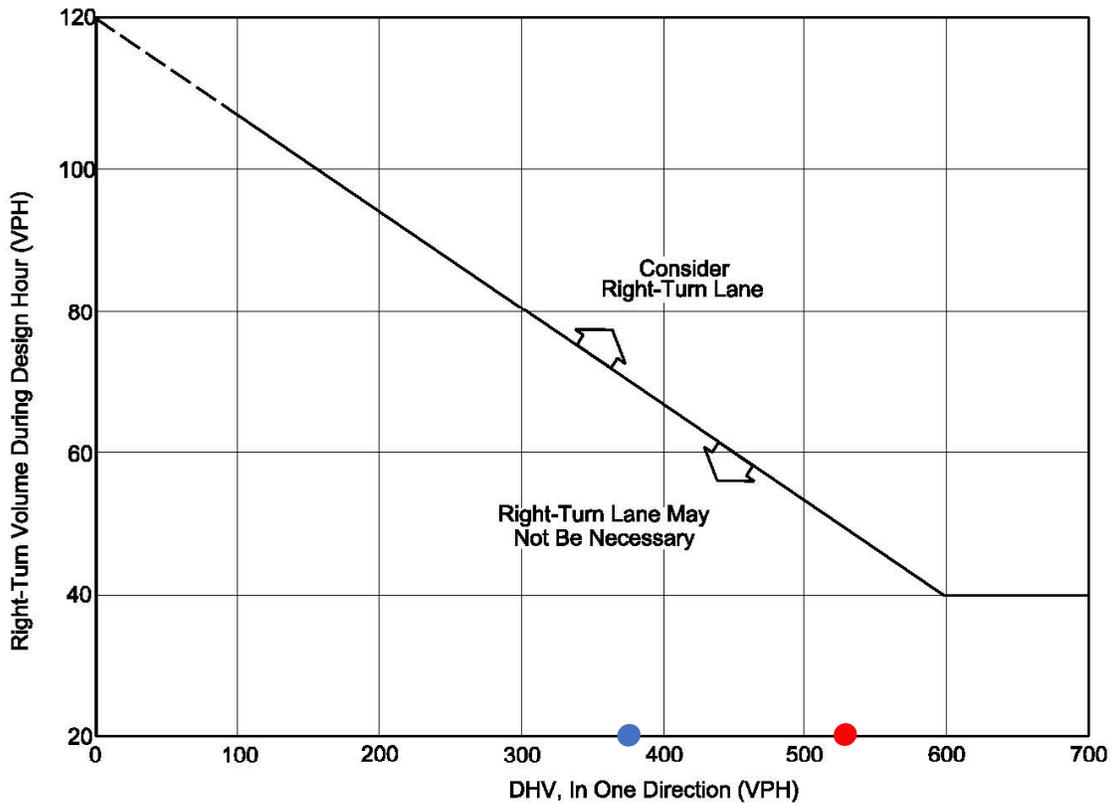
**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS  
 ON TWO-LANE HIGHWAYS  
 Figure 9.5-A**



*Instructions:*

1. The family of curves represents the percent of left turns in the advancing volume (V<sub>A</sub>). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V<sub>A</sub> and V<sub>O</sub> into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

**VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph)**  
Figure 9.5-G



*Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.*

**Example**

Given:

Design Speed = 35 miles per hour Speed = NP  
 DHV = 250 vehicles per hour DHV = 529  
 Right Turns = 100 vehicles per hour R-Turns = 3

● School PM Peak Hour  
 Speed = NP  
 DHV = 371  
 R-Turns = 6

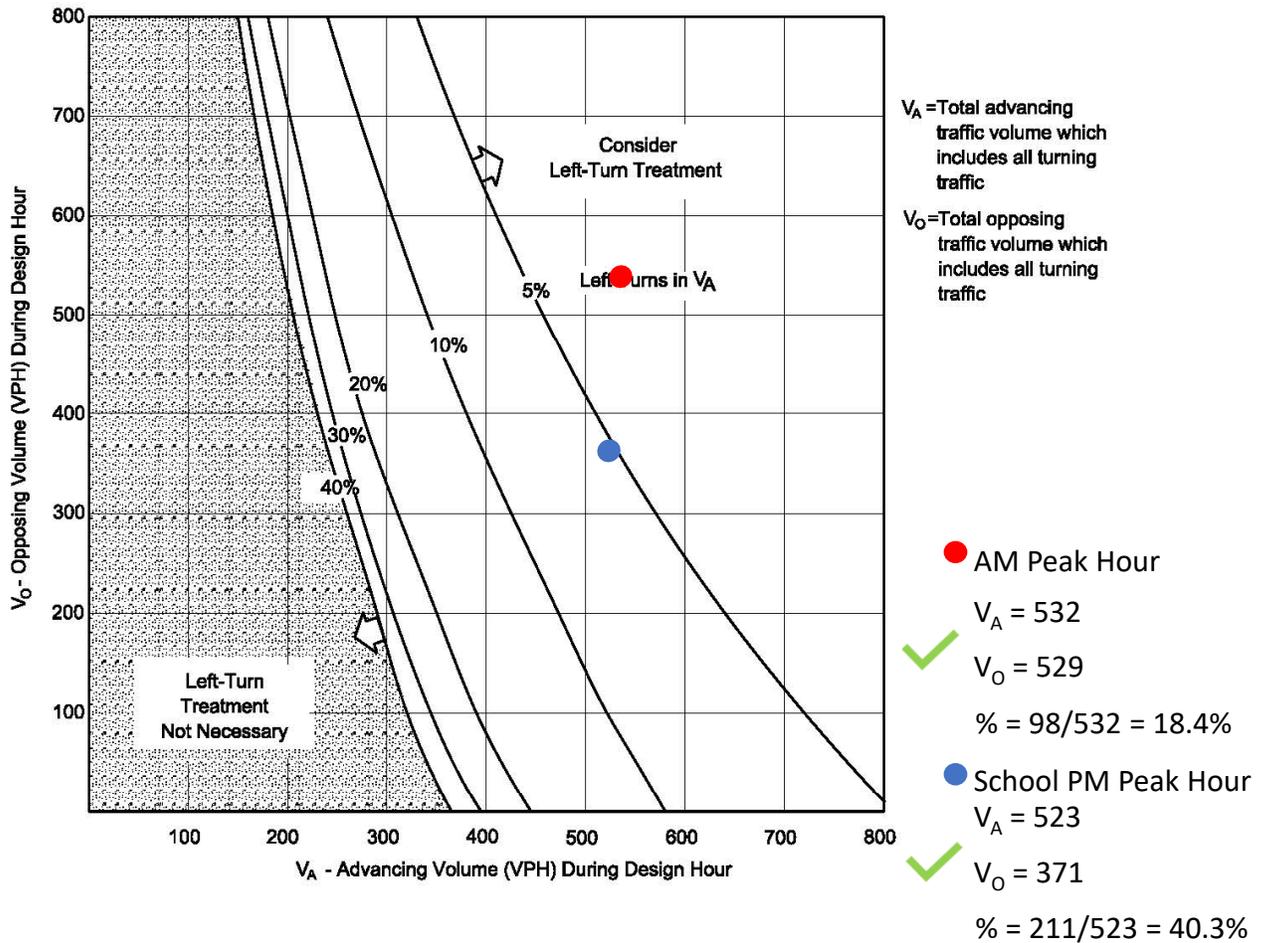
Problem:

Determine if a right-turn lane is necessary.

Solution:

To read the vertical axis, use  $100 - 20 = 80$  vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS  
 ON TWO-LANE HIGHWAYS  
 Figure 9.5-A**



Instructions:

1. The family of curves represents the percent of left turns in the advancing volume ( $V_A$ ). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read  $V_A$  and  $V_O$  into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph)  
Figure 9.5-G



HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

Cherry Point Rezoning - Transportation Review  
Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Traffic Volume (veh/h)	8	0	21	201	0	95	20	1068	186	125	1711	20
Future Volume (veh/h)	8	0	21	201	0	95	20	1068	186	125	1711	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	17	0	44	353	0	167	25	1335	0	134	1840	22
Peak Hour Factor	0.48	0.48	0.48	0.57	0.57	0.57	0.80	0.80	0.80	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	48	21	53	193	0	289	151	1720		288	1883	22
Arrive On Green	0.19	0.00	0.19	0.19	0.00	0.19	0.04	0.49	0.00	0.08	0.53	0.53
Sat Flow, veh/h	0	111	288	639	0	1560	1753	3497	1560	1753	3540	42
Grp Volume(v), veh/h	61	0	0	353	0	167	25	1335	0	134	907	95
Grp Sat Flow(s),veh/h/ln	399	0	0	639	0	1560	1753	1749	1560	1753	1749	1833
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	9.4	0.7	30.3	0.0	3.4	48.8	49.1
Cycle Q Clear(g_c), s	17.9	0.0	0.0	17.9	0.0	9.4	0.7	30.3	0.0	3.4	48.8	49.1
Prop In Lane	0.28		0.72	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	122	0	0	193	0	289	151	1720		288	930	975
V/C Ratio(X)	0.50	0.00	0.00	1.83	0.00	0.58	0.17	0.78		0.47	0.98	0.98
Avail Cap(c_a), veh/h	122	0	0	193	0	289	303	1861		370	931	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	0.0	0.0	42.8	0.0	35.9	22.1	20.2	0.0	16.7	22.0	22.1
Incr Delay (d2), s/veh	3.2	0.0	0.0	392.9	0.0	2.8	0.5	2.2	0.0	1.2	23.7	23.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	25.7	0.0	3.8	0.3	11.4	0.0	1.2	23.1	24.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	0.0	0.0	435.7	0.0	38.7	22.7	22.3	0.0	17.8	45.6	45.8
LnGrp LOS	D	A	A	F	A	D	C	C		B	D	D
Approach Vol, veh/h		61			520			1360	A		1996	
Approach Delay, s/veh		37.5			308.2			22.3			43.9	
Approach LOS		D			F			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	60.0		25.0	15.5	56.1		25.0				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6		7.1				
Max Green Setting (Gmax), s	12.3	* 51		17.9	12.3	* 51		17.9				
Max Q Clear Time (g_c+I1), s	2.7	51.1		19.9	5.4	32.3		19.9				
Green Ext Time (p_c), s	0.0	0.3		0.0	0.2	11.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	71.2
HCM 6th LOS	E

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

Cherry Point Rezoning - Transportation Review  
Existing School PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Traffic Volume (veh/h)	25	0	23	120	0	63	17	1157	56	32	1032	20
Future Volume (veh/h)	25	0	23	120	0	63	17	1157	56	32	1032	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	33	0	31	245	0	129	19	1271	0	34	1110	22
Peak Hour Factor	0.75	0.75	0.75	0.49	0.49	0.49	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	63	17	16	285	0	323	266	1647		246	1714	34
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.21	0.03	0.47	0.00	0.05	0.49	0.49
Sat Flow, veh/h	0	82	77	976	0	1560	1753	3497	1560	1753	3507	70
Grp Volume(v), veh/h	64	0	0	245	0	129	19	1271	0	34	553	579
Grp Sat Flow(s),veh/h/ln	159	0	0	976	0	1560	1753	1749	1560	1753	1749	1828
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	6.2	0.5	26.1	0.0	0.8	20.5	20.5
Cycle Q Clear(g_c), s	17.9	0.0	0.0	17.9	0.0	6.2	0.5	26.1	0.0	0.8	20.5	20.5
Prop In Lane	0.52		0.48	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	96	0	0	285	0	323	266	1647		246	854	893
V/C Ratio(X)	0.67	0.00	0.00	0.86	0.00	0.40	0.07	0.77		0.14	0.65	0.65
Avail Cap(c_a), veh/h	96	0	0	285	0	323	456	2078		405	1039	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	0.0	0.0	35.9	0.0	29.6	12.9	19.0	0.0	14.3	16.5	16.5
Incr Delay (d2), s/veh	16.2	0.0	0.0	22.2	0.0	0.8	0.1	1.7	0.0	0.3	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	6.9	0.0	0.1	0.2	9.5	0.0	0.3	7.4	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	0.0	0.0	58.1	0.0	30.4	13.0	20.7	0.0	14.6	17.9	17.8
LnGrp LOS	D	A	A	E	A	C	B	C		B	B	B
Approach Vol, veh/h		64			374			1290	A		1166	
Approach Delay, s/veh		50.7			48.6			20.6			17.8	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	50.9		25.0	12.2	49.3		25.0				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6		7.1				
Max Green Setting (Gmax), s	12.3	* 51		17.9	12.3	* 51		17.9				
Max Q Clear Time (g_c+I1), s	2.5	22.5		19.9	2.8	28.1		19.9				
Green Ext Time (p_c), s	0.0	11.4		0.0	0.0	12.6		0.0				

Intersection Summary

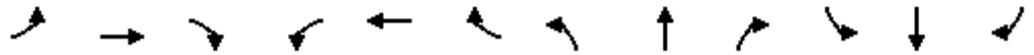
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

Cherry Point Rezoning - Transportation Review  
2024 No Build AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Traffic Volume (veh/h)	9	1	23	343	4	138	21	1597	241	148	2617	21
Future Volume (veh/h)	9	1	23	343	4	138	21	1597	241	148	2617	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	19	2	48	602	7	242	26	1996	0	159	2814	23
Peak Hour Factor	0.48	0.48	0.48	0.57	0.57	0.57	0.80	0.80	0.80	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	46	22	50	184	1	278	144	1787		209	1950	16
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.04	0.51	0.00	0.08	0.55	0.55
Sat Flow, veh/h	0	124	283	632	7	1560	1753	3497	1560	1753	3555	29
Grp Volume(v), veh/h	69	0	0	609	0	242	26	1996	0	159	1382	1455
Grp Sat Flow(s),veh/h/ln	407	0	0	640	0	1560	1753	1749	1560	1753	1749	1835
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.2	0.7	51.4	0.0	4.7	55.2	55.2
Cycle Q Clear(g_c), s	17.9	0.0	0.0	17.9	0.0	15.2	0.7	51.4	0.0	4.7	55.2	55.2
Prop In Lane	0.28		0.70	0.99		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	118	0	0	185	0	278	144	1787		209	959	1007
V/C Ratio(X)	0.58	0.00	0.00	3.29	0.00	0.87	0.18	1.12		0.76	1.44	1.45
Avail Cap(c_a), veh/h	118	0	0	185	0	278	286	1787		286	959	1007
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	0.0	44.8	0.0	40.2	23.4	24.6	0.0	25.2	22.7	22.7
Incr Delay (d2), s/veh	7.2	0.0	0.0	1045.4	0.0	24.7	0.6	61.0	0.0	7.7	204.5	206.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	58.3	0.0	7.7	0.3	33.6	0.0	2.1	73.7	77.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	0.0	0.0	1090.2	0.0	64.9	24.0	85.6	0.0	32.9	227.2	228.7
LnGrp LOS	D	A	A	F	A	E	C	F		C	F	F
Approach Vol, veh/h		69			851			2022	A		2996	
Approach Delay, s/veh		43.7			798.7			84.8			217.6	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	63.8		25.0	15.6	60.0		25.0				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6		7.1				
Max Green Setting (Gmax), s	12.3	* 51		17.9	12.3	* 51		17.9				
Max Q Clear Time (g_c+I1), s	2.7	57.2		19.9	6.7	53.4		19.9				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.2	0.0		0.0				

Intersection Summary

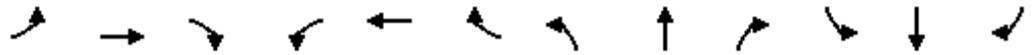
HCM 6th Ctrl Delay	253.7
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

Cherry Point Rezoning - Transportation Review  
2024 No Build School PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↑↑	↔	↔	↑↔	
Traffic Volume (veh/h)	27	4	25	212	2	93	18	1824	201	81	1584	21
Future Volume (veh/h)	27	4	25	212	2	93	18	1824	201	81	1584	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	36	5	33	433	4	190	20	2004	0	87	1703	23
Peak Hour Factor	0.75	0.75	0.75	0.49	0.49	0.49	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	54	18	14	237	2	279	169	1798		200	1953	26
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.03	0.51	0.00	0.07	0.55	0.55
Sat Flow, veh/h	0	99	80	925	9	1560	1753	3497	1560	1753	3533	48
Grp Volume(v), veh/h	74	0	0	437	0	190	20	2004	0	87	842	884
Grp Sat Flow(s),veh/h/ln	179	0	0	934	0	1560	1753	1749	1560	1753	1749	1832
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	11.4	0.5	51.4	0.0	2.2	41.5	41.7
Cycle Q Clear(g_c), s	17.9	0.0	0.0	17.9	0.0	11.4	0.5	51.4	0.0	2.2	41.5	41.7
Prop In Lane	0.49		0.45	0.99		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	86	0	0	239	0	279	169	1798		200	967	1013
V/C Ratio(X)	0.86	0.00	0.00	1.83	0.00	0.68	0.12	1.11		0.44	0.87	0.87
Avail Cap(c_a), veh/h	86	0	0	239	0	279	325	1798		288	967	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	0.0	43.7	0.0	38.4	18.0	24.3	0.0	22.2	19.3	19.3
Incr Delay (d2), s/veh	55.2	0.0	0.0	389.4	0.0	6.5	0.3	60.0	0.0	1.5	8.9	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.0	31.8	0.0	4.8	0.2	33.3	0.0	1.0	16.8	17.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.9	0.0	0.0	433.1	0.0	44.9	18.3	84.3	0.0	23.7	28.2	28.1
LnGrp LOS	F	A	A	F	A	D	B	F		C	C	C
Approach Vol, veh/h		74			627			2024	A		1813	
Approach Delay, s/veh		97.9			315.5			83.6			27.9	
Approach LOS		F			F			F			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	63.9		25.0	15.0	60.0		25.0				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6		7.1				
Max Green Setting (Gmax), s	12.3	* 51		17.9	12.3	* 51		17.9				
Max Q Clear Time (g_c+I1), s	2.5	43.7		19.9	4.2	53.4		19.9				
Green Ext Time (p_c), s	0.0	6.6		0.0	0.1	0.0		0.0				

Intersection Summary

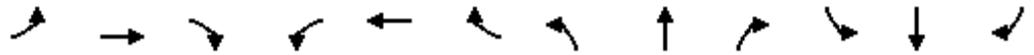
HCM 6th Ctrl Delay	93.6
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

Cherry Point Rezoning - Transportation Review  
2024 Build AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↑↑	↔	↔	↔	↔
Traffic Volume (veh/h)	9	2	23	434	5	180	21	1597	338	192	2617	21
Future Volume (veh/h)	9	2	23	434	5	180	21	1597	338	192	2617	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	19	4	48	579	7	240	26	1996	0	206	2814	23
Peak Hour Factor	0.48	0.48	0.48	0.75	0.75	0.75	0.80	0.80	0.80	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	45	24	50	179	1	272	142	1754		238	1978	16
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.04	0.50	0.00	0.10	0.56	0.56
Sat Flow, veh/h	0	137	285	623	8	1560	1753	3497	1560	1753	3555	29
Grp Volume(v), veh/h	71	0	0	586	0	240	26	1996	0	206	1382	1455
Grp Sat Flow(s),veh/h/ln	422	0	0	631	0	1560	1753	1749	1560	1753	1749	1835
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.4	0.7	51.4	0.0	7.7	57.0	57.0
Cycle Q Clear(g_c), s	17.9	0.0	0.0	17.9	0.0	15.4	0.7	51.4	0.0	7.7	57.0	57.0
Prop In Lane	0.27		0.68	0.99		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	118	0	0	180	0	272	142	1754		238	973	1021
V/C Ratio(X)	0.60	0.00	0.00	3.26	0.00	0.88	0.18	1.14		0.87	1.42	1.42
Avail Cap(c_a), veh/h	118	0	0	180	0	272	281	1754		281	973	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	0.0	45.8	0.0	41.3	23.8	25.5	0.0	30.0	22.7	22.7
Incr Delay (d2), s/veh	8.2	0.0	0.0	1029.7	0.0	26.6	0.6	69.7	0.0	21.1	195.5	197.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	56.1	0.0	7.9	0.3	35.7	0.0	3.6	72.7	76.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	0.0	0.0	1075.5	0.0	67.8	24.4	95.2	0.0	51.1	218.2	219.7
LnGrp LOS	D	A	A	F	A	E	C	F		D	F	F
Approach Vol, veh/h		71			826			2022	A		3043	
Approach Delay, s/veh		45.7			782.7			94.3			207.6	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	65.6		25.0	17.5	60.0		25.0				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6		7.1				
Max Green Setting (Gmax), s	12.3	* 51		17.9	12.3	* 51		17.9				
Max Q Clear Time (g_c+I1), s	2.7	59.0		19.9	9.7	53.4		19.9				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	246.9
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	98	434	526	3	3	93
Future Vol, veh/h	98	434	526	3	3	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	90	90
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	131	579	701	4	3	103

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	705	0	-	0	1544 703
Stage 1	-	-	-	-	703 -
Stage 2	-	-	-	-	841 -
Critical Hdwy	4.13	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.227	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	888	-	-	-	126 438
Stage 1	-	-	-	-	491 -
Stage 2	-	-	-	-	423 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	888	-	-	-	107 438
Mov Cap-2 Maneuver	-	-	-	-	107 -
Stage 1	-	-	-	-	418 -
Stage 2	-	-	-	-	423 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	17.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	888	-	-	-	399
HCM Lane V/C Ratio	0.147	-	-	-	0.267
HCM Control Delay (s)	9.8	-	-	-	17.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	1.1

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	393	488	1	1	41
Future Vol, veh/h	44	393	488	1	1	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	90	90
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	59	524	651	1	1	46

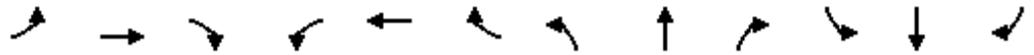
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	652	0	-	0	1294 652
Stage 1	-	-	-	-	652 -
Stage 2	-	-	-	-	642 -
Critical Hdwy	4.13	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.227	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	930	-	-	-	179 468
Stage 1	-	-	-	-	518 -
Stage 2	-	-	-	-	524 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	930	-	-	-	168 468
Mov Cap-2 Maneuver	-	-	-	-	168 -
Stage 1	-	-	-	-	485 -
Stage 2	-	-	-	-	524 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	930	-	-	-	449
HCM Lane V/C Ratio	0.063	-	-	-	0.104
HCM Control Delay (s)	9.1	-	-	-	13.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

Cherry Point Rezoning - Transportation Review  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Traffic Volume (veh/h)	27	6	25	360	4	210	18	1767	387	161	1562	21
Future Volume (veh/h)	27	6	25	360	4	210	18	1767	387	161	1562	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	36	8	33	480	5	280	20	1942	0	173	1680	23
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	20	15	230	2	277	174	1786		210	1962	27
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.03	0.51	0.00	0.08	0.56	0.56
Sat Flow, veh/h	0	111	83	895	9	1560	1753	3497	1560	1753	3532	48
Grp Volume(v), veh/h	77	0	0	485	0	280	20	1942	0	173	831	872
Grp Sat Flow(s),veh/h/ln	194	0	0	905	0	1560	1753	1749	1560	1753	1749	1832
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	17.9	0.5	51.4	0.0	5.6	40.5	40.7
Cycle Q Clear(g_c), s	17.9	0.0	0.0	17.9	0.0	17.9	0.5	51.4	0.0	5.6	40.5	40.7
Prop In Lane	0.47		0.43	0.99		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	87	0	0	232	0	277	174	1786		210	972	1018
V/C Ratio(X)	0.89	0.00	0.00	2.09	0.00	1.01	0.11	1.09		0.82	0.85	0.86
Avail Cap(c_a), veh/h	87	0	0	232	0	277	329	1786		286	972	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	0.0	0.0	44.1	0.0	41.4	17.5	24.6	0.0	27.0	18.9	19.0
Incr Delay (d2), s/veh	60.3	0.0	0.0	504.9	0.0	56.4	0.3	49.2	0.0	13.2	7.8	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	38.4	0.0	11.1	0.2	30.7	0.0	2.6	16.1	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.1	0.0	0.0	549.0	0.0	97.7	17.8	73.9	0.0	40.2	26.7	26.6
LnGrp LOS	F	A	A	F	A	F	B	F		D	C	C
Approach Vol, veh/h		77			765			1962	A		1876	
Approach Delay, s/veh		103.1			383.8			73.3			27.9	
Approach LOS		F			F			E			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	64.5		25.0	15.6	60.0		25.0				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6		7.1				
Max Green Setting (Gmax), s	12.3	* 51		17.9	12.3	* 51		17.9				
Max Q Clear Time (g_c+I1), s	2.5	42.7		19.9	7.6	53.4		19.9				
Green Ext Time (p_c), s	0.0	7.3		0.0	0.2	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	106.4
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	211	312	365	6	6	212
Future Vol, veh/h	211	312	365	6	6	212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	90	90
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	281	416	487	8	7	236

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	495	0	0
Stage 1	-	-	491
Stage 2	-	-	978
Critical Hdwy	4.13	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.227	-	3.518
Pot Cap-1 Maneuver	1064	-	140
Stage 1	-	-	615
Stage 2	-	-	364
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1064	-	103
Mov Cap-2 Maneuver	-	-	103
Stage 1	-	-	453
Stage 2	-	-	364

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1064	-	-	-	513
HCM Lane V/C Ratio	0.264	-	-	-	0.472
HCM Control Delay (s)	9.6	-	-	-	18.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	1.1	-	-	-	2.5

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	59	259	314	2	2	57
Future Vol, veh/h	59	259	314	2	2	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	90	90
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	79	345	419	3	2	63

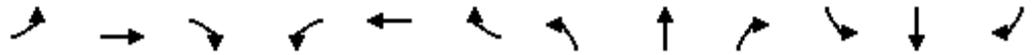
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	422	0	-	0	924 421
Stage 1	-	-	-	-	421 -
Stage 2	-	-	-	-	503 -
Critical Hdwy	4.13	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.227	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1132	-	-	-	299 632
Stage 1	-	-	-	-	662 -
Stage 2	-	-	-	-	607 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1132	-	-	-	278 632
Mov Cap-2 Maneuver	-	-	-	-	278 -
Stage 1	-	-	-	-	616 -
Stage 2	-	-	-	-	607 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1132	-	-	-	606
HCM Lane V/C Ratio	0.069	-	-	-	0.108
HCM Control Delay (s)	8.4	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

Cherry Point Rezoning - Transportation Review  
2024 Build with Improvements AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗ ↘	↖ ↙		↗ ↘	↕	↖ ↙	↗ ↘	↕	↖ ↙
Traffic Volume (veh/h)	9	2	23	434	5	180	21	1597	338	192	2617	21
Future Volume (veh/h)	9	2	23	434	5	180	21	1597	338	192	2617	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	19	4	48	579	7	240	26	1996	0	206	2814	23
Peak Hour Factor	0.48	0.48	0.48	0.75	0.75	0.75	0.80	0.80	0.80	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	47	12	59	417	11	360	111	1891		160	2021	16
Arrive On Green	0.07	0.07	0.07	0.12	0.24	0.24	0.04	0.54	0.00	0.06	0.57	0.57
Sat Flow, veh/h	247	183	897	3401	44	1522	1753	3497	1560	1753	3555	29
Grp Volume(v), veh/h	71	0	0	579	0	247	26	1996	0	206	1382	1455
Grp Sat Flow(s),veh/h/ln	1326	0	0	1700	0	1567	1753	1749	1560	1753	1749	1835
Q Serve(g_s), s	5.0	0.0	0.0	18.0	0.0	21.0	0.9	79.4	0.0	9.3	83.5	83.5
Cycle Q Clear(g_c), s	7.7	0.0	0.0	18.0	0.0	21.0	0.9	79.4	0.0	9.3	83.5	83.5
Prop In Lane	0.27		0.68	1.00		0.97	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	119	0	0	417	0	371	111	1891		160	994	1043
V/C Ratio(X)	0.60	0.00	0.00	1.39	0.00	0.67	0.23	1.06		1.29	1.39	1.39
Avail Cap(c_a), veh/h	146	0	0	417	0	404	145	1891		160	994	1043
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	0.0	0.0	64.4	0.0	50.8	34.8	33.7	0.0	49.5	31.7	31.7
Incr Delay (d2), s/veh	4.7	0.0	0.0	189.2	0.0	3.7	1.1	37.1	0.0	167.9	181.9	183.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	18.8	0.0	8.7	0.5	41.0	0.0	10.4	82.6	87.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	0.0	0.0	253.6	0.0	54.5	35.9	70.8	0.0	217.5	213.6	215.1
LnGrp LOS	E	A	A	F	A	D	D	F		F	F	F
Approach Vol, veh/h		71			826			2022	A		3043	
Approach Delay, s/veh		72.2			194.1			70.4			214.6	
Approach LOS		E			F			E			F	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	92.1		41.8	17.0	88.0	25.0	16.8				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6	7.0	7.1				
Max Green Setting (Gmax), s	8.0	* 81		37.9	9.3	* 79	18.0	12.9				
Max Q Clear Time (g_c+I1), s	2.9	85.5		23.0	11.3	81.4	20.0	9.7				
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	0.0	0.0	0.1				

Intersection Summary

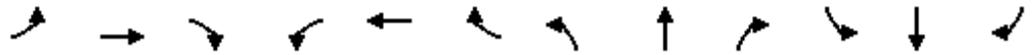
HCM 6th Ctrl Delay	161.1
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
6: SC 170 & Pearlstine Dr./Cherry Point Rd.

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2024 Build with Improvements School PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕	↕	↕	↕	↕
Traffic Volume (veh/h)	27	6	25	360	4	210	18	1767	387	161	1562	21
Future Volume (veh/h)	27	6	25	360	4	210	18	1767	387	161	1562	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	36	8	33	480	5	280	20	1942	0	173	1680	23
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	17	17	17	4	4	4	4	4	4	4	4	4
Cap, veh/h	70	18	39	459	7	395	144	1807		168	1959	27
Arrive On Green	0.08	0.08	0.08	0.13	0.26	0.26	0.03	0.52	0.00	0.07	0.55	0.55
Sat Flow, veh/h	463	237	525	3401	27	1537	1753	3497	1560	1753	3532	48
Grp Volume(v), veh/h	77	0	0	480	0	285	20	1942	0	173	831	872
Grp Sat Flow(s),veh/h/ln	1225	0	0	1700	0	1564	1753	1749	1560	1753	1749	1832
Q Serve(g_s), s	7.4	0.0	0.0	20.0	0.0	24.5	0.8	76.6	0.0	10.1	59.7	60.0
Cycle Q Clear(g_c), s	9.1	0.0	0.0	20.0	0.0	24.5	0.8	76.6	0.0	10.1	59.7	60.0
Prop In Lane	0.47		0.43	1.00		0.98	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	128	0	0	459	0	402	144	1807		168	970	1016
V/C Ratio(X)	0.60	0.00	0.00	1.05	0.00	0.71	0.14	1.07		1.03	0.86	0.86
Avail Cap(c_a), veh/h	142	0	0	459	0	421	186	1807		168	970	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.4	0.0	0.0	64.1	0.0	50.0	26.1	35.8	0.0	49.8	28.0	28.1
Incr Delay (d2), s/veh	5.9	0.0	0.0	54.6	0.0	5.2	0.4	44.4	0.0	77.5	7.9	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	12.2	0.0	10.2	0.3	41.7	0.0	6.6	25.5	26.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	0.0	0.0	118.7	0.0	55.1	26.6	80.3	0.0	127.3	35.9	35.8
LnGrp LOS	E	A	A	F	A	E	C	F		F	D	D
Approach Vol, veh/h		77			765			1962	A		1876	
Approach Delay, s/veh		73.3			95.0			79.7			44.3	
Approach LOS		E			F			E			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.2	90.8		45.2	17.8	85.2	27.0	18.2				
Change Period (Y+Rc), s	7.7	* 8.6		7.1	7.7	* 8.6	7.0	7.1				
Max Green Setting (Gmax), s	8.0	* 79		39.9	10.1	* 77	20.0	12.9				
Max Q Clear Time (g_c+I1), s	2.8	62.0		26.5	12.1	78.6	22.0	11.1				
Green Ext Time (p_c), s	0.0	12.8		1.5	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	67.9
HCM 6th LOS	E

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.





## MEMORANDUM

**TO:** Beaufort County Planning Commission  
**FROM:** Noah Krepps, Beaufort County Planning and Zoning Department  
**DATE:** January 25, 2021  
**SUBJECT:** Zoning Map Amendment/Rezoning Request for 1.96 acres (R600 036 000 015E 0000) at the Intersection of May River Rd and Benton Ln from T3 Edge to T2 Rural Center

### STAFF REPORT:

#### **A. BACKGROUND:**

**Case No.** ZMA-2020-03  
**Owner/Applicant:** Lydia Group LLC / Blaine McClure  
**Property Location:** Located at the intersection of May River Rd and Benton Ln  
**District/Map/Parcel:** R600 036 000 015E 0000  
**Property Size:** 1.96 acres  
**Current Future Land Use Designation:** Neighborhood Mixed-Use  
**Current Zoning District:** T3 Edge  
**Proposed Zoning District:** T2 Rural Center

**B. SUMMARY OF REQUEST:** The applicant seeks to change the zoning of a 1.96-acre lot at the western corner of Benton Ln and May River Rd from T3 Edge to T2 Rural Center (see attached map). The parcel was zoned Neighborhood Commercial District under the 1990 Development Standards Ordinance and was rezoned to Community Preservation in 1999, allowing the commercial development rights to carry over. In 2011, the County held a charrette for the Pritchardville community during the development of the Community Development Code. At that time, the community decided to limit commercial development to a smaller area around the intersection of Gibbet Rd and May River Rd. In 2014, the Community Development Code was adopted, and 122 May River Rd was zoned T3 Edge because it was outside of the small commercial district identified in the charrette.

The **T2 Rural Center (T2RC)** district allows a diverse mix of land uses including residential, retail, service, and limited light industrial. It is a lower intensity walkable area in the immediate vicinity of a rural crossroads or other important rural intersection.

**E. COMPREHENSIVE PLAN FUTURE LAND USE MAP:** This 1.96-acre lot is designated Neighborhood Mixed-Use on the Future Land Use Map. Future development in neighborhood mixed-use areas should be primarily residential with some supporting neighborhood retail establishments. A very small percentage of the designated area should consist of commercial development.

**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;**

The Land Use chapter of the Comprehensive Plan identifies the need to provide sufficient land for non-retail commercial uses that promote economic health and diversity. The Neighborhood Mixed-Use area in which the proposed rezoning lies already has a mix of service, retail, and light industrial uses between the parcel in question and the Gibbet Rd intersection.

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

The proposed rezoning constitutes a “spot zoning,” as it is not adjacent to any other T2 Rural Center parcels.

- 3. Addresses a demonstrated community need;**

See 1 above.

- 4. Is required by changed conditions;**

N/A.

- 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;**

Existing uses on the surrounding land are primarily residential. The proposed zoning change would allow for a broader mix of intense commercial, service, and light industrial uses.

- 6. Would not adversely affect nearby lands;**

As stated in 5, there is potential for adverse impacts on the existing residential developments in the adjacent area.

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

See 5 and 6 above.

- 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 site does not currently have access to public sewer or water. It does have paved vehicular access from Benton Ln. Future development that generates over 50 peak-hour trips will require a traffic impact analysis.

**G. STAFF RECOMMENDATION:** The proposed zoning change from T3 Edge to T2 Rural Center constitutes a “spot zoning” and cannot be supported by Planning staff. Staff also has concerns about potential impacts on the surrounding residential areas.

Staff acknowledges that the owner applied for development permits for a convenience store in both 2000 and 2002. The store was never built, but good faith was shown through the owner’s intent to develop at that time.

**H. ATTACHMENTS**

- Zoning Map (existing and proposed)
- Location Map

# Existing Zoning



# Proposed Zoning

