# AGENDA ITEM: XI-A

Ordinance item A

\* \*The 1st Reading of this Ordinance is by TITLE ONLY\* \*

| A BOND ORDINANCE PROVIDING FOR THE ISSUANCE AND SALE OF A JASPER COUNTY, SOUTH CAROLINA, HOSPITALITY AND ACCOMMODATIONS FEE REVENUE BOND (AIRPORT CAPITAL IMPROVEMENT PROJECTS), SERIES 2022 IN THE PRINCIPAL AMOUNT OF NOT TO EXCEED \$5,000,000; TO PRESCRIBE THE PURPOSES FOR WHICH THE PROCEEDS SHALL BE EXPENDED; TO PROVIDE FOR |
|---|
| THE PAYMENT THEREOF; AND OTHER MATTERS RELATING THERETO.  |
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# AGENDA ITEM: XI-B

Ordinance item B



# Jasper County Planning and Building Services

358 Third Avenue - Post Office Box 1659 Ridgeland, South Carolina 29936 Phone (843) 717-3650 Fax (843) 726-7707

Lisa Wagner, CFM Director of Planning and Building Services <a href="https://www.esu.gov">www.esu.gov</a>

# Jasper County Council Staff Report

| Meeting Date:   | April 4, 2022   |
|-----------------|---|
| Project:        | Zoning Map Amendment – Planned Development District and<br>Amendment to the Center Point PDD / DA and Concept Map   |
| Applicant:      | First Carolina Corporation of SC  |
| Tax Map Number: | 081-00-03-030 and 081-00-03-031   |
| Submitted For:  | 1st Reading   |
| Recommendation: | Planning Commission Recommends Approval of Zoning Map<br>Amendment to designate 2 parcels as PDD and approval of the<br>Amendment to the Center Point PDD, DA, and Concept Plan |

Description: The Applicant is requesting an approval of a Planned Development District (PDD) zoning designation for the purpose of adding two properties to the Center Point PDD. Included with the Zoning Map Amendment application is an amendment to the Center Point PDD, DA, and Concept Plan. The subject properties are located to the rear of the Center Point PDD and are surrounded on three sides by the existing PDD. One of the parcels is zoned Residential and consist of 16 acres. The other parcel is zoned Rural Preservation and consists of 41.75 acres. Both properties are undeveloped and only have access through the PDD. The Center Point PDD was approved by Jasper County Council on August 14, 2008 and is located along N. Okatie Highway (Highway 170) between the intersection of Highway 462 and Snake Road. The only development that has taken place within the Center Point PDD is the John Paul II Catholic School and Caroline's Cottage. The subject parcels were not originally included in the PDD because they were intended for the school site; however, the school decided to build on the western portion of the Center Point PDD.

The purpose of the amendment to the Center Point PDD, DA, and the Concept Plan is to add 57.75 acres to the Center Point PDD. The Concept Map shows the two parcels as Phase IA and Phase IB. Each parcel will be designated as Mixed Use Residential and will include a density of 12 dwelling units per gross acre for multi-family, 8 dwelling units per gross acre for single-family attached, and 3 dwelling units per gross acre for single-family detached, so the density per acre will remain the same as the previously approved density for the Center Point PDD.

Analysis: All Zoning Map Amendments and PDD's shall conform to the Jasper County Comprehensive Land Use Plan and Land Use Map (latest edition).

- Comprehensive Plan: According to the 2018 Jasper County Comprehensive Plan, the Future Land Use Map identifies this area as "Rural Conservation." Rural Conservation seeks to protect and promote the character of Jasper County that largely exists today outside of the municipalities. In these areas, new development should be thoughtfully placed within the existing landscape.
- Adjacent Zoning: Adjacent parcels are zoned Planned Development District on the east, south, and west, and Rural Preservation to the north.
- Adjacent Land Uses: Adjacent land uses are vacant, with a 24-hour hospice facility nearby.
- *Traffic and Access:* The subject parcels will be served by a private road through the Center Point PDD. The private road will have direct access to Highway 170, which is a four-lane state maintained highway classified as an arterial road.

**Planning Commission Recommendation:** The PDD application is supported by the Comprehensive Plan; as such, Planning Commission recommends approval of the PDD designation, and the amendment of the Center Point PDD, DA and the Concept Plan.

#### Attachments:

- 1. Ordinance
- 2. Letter from Attorney Kevin Dukes
- 3. Application and Power of Attorney
- 4. Proposed Amendment to Center Point DA and PDD
- 5. Proposed Amendment of the Center Point Concept Plan
- 6. Traffic Impact Analysis
- 7. Exhibit H Concept Plan (Revised)
- 8. Concept Plan adopted August 14, 2008

#### STATE OF SOUTH CAROLINA JASPER COUNTY

ORDINANCE #2022 -\_\_\_\_

#### AN ORDINANCE OF JASPER COUNTY COUNCIL

To amend the Center Point Planned Development District to add two tracts of land consisting of approximately 57.75 acres, bearing Jasper County Tax Map Numbers 081-00-03-030 and 081-00-03-031, to make certain text amendments, concept plan revisions, and matters related thereto.

**WHEREAS**, The Planned Development District Zoning was adopted by Jasper County to permit and encourage flexibility in the development of land in order to promote its most appropriate use; and to do so in a manner that will enhance public health, safety, morals, and general welfare; and

WHEREAS, The Center Point Planned Development District was approved by Jasper County Council on August 14, 2008; and

WHEREAS, Jasper County has received a request from the owner to amend the Center Point Planned Development District to add two tracts of land consisting of approximately 57.75 acres, bearing Jasper County Tax Map Number 081-00-03-030 and 081-00-03-031, to make certain text amendments, concept plan revisions, and matters related thereto; and

WHEREAS, the above mentioned property was duly posed, with public hearings properly noticed and held by the Jasper County Planning Commission on March 8, 2022, which recommended approval and adoption, and by the Jasper County Council; and

WHEREAS, Jasper County Council finds the amended Planned Development District and the Concept Map (Exhibit H) to be in accordance with the statutory requirements of the state, and consistent with the Jasper County Comprehensive Plan, Jasper's Journey, as well as the Jasper County Zoning and Land Development Ordinances; and

**NOW THEREFORE, BE IT RESOLVED** by Jasper County Council, in council duly assembled and by the authority of the same:

| 1. | Jasper County Council finds in accordance with the staff report, and   |
|----|--|
|    | the recommendation of Jasper County Planning Commission, the           |
|    | proposed zoning is consistent with the continued pattern of growth in  |
|    | the vicinity and is in harmony with the Jasper County Comprehensive    |
|    | Plan. Good cause having been shown to approve the applicant's request  |
|    | for Planned Development District Zoning for the Property, and of the   |
|    | amendment of the Center Point Planned Development District and         |
|    | Concept Plan (Exhibit H), and to amend the Jasper County Official      |
|    | Zoning Map to reflect Planned Development District zoning for two      |
|    | tracts of land consisting of approximately 57.75 acres, bearing Jasper |
|    | County Tax Map Number 081-00-03-030 and 081-00-03-031 and              |
|    | known as the Center Point PDD  |

| 2. | This ord | linance sl | hall tal | ce effect | upon a | approval | by Council |
|----|----------|------------|----------|-----------|--------|----------|------------|
|----|----------|------------|----------|-----------|--------|----------|------------|

| Ms. Barbara I<br>Chairwoman | 3. Clark |
|-----------------------------|----------|
| ATTEST:                     |          |
| Wanda Simm                  |          |

ORDINANCE: # 2022-\_\_
First Reading: April 4, 2022
Public Hearing: \_\_\_
Second Reading: \_\_\_
Third Reading: \_\_\_
Adopted: \_\_\_

Considered by the Jasper County Planning Commission at it's meeting on March 8, 2022 and recommended for approval.

| Reviewed for form and draftsmanship by the Jasper County | Attorney. |
|--|-----------|
|  |           |
|  |           |
| David Tedder   |           |



W BRANTLEY HARVEY, SR (1893-1981)

W BRANTLEY HARVEY JR (1930-2018)

COLDEN R BATTEY, JR (Of Counsel)

WILLIAM B. HARVEY, III (SC Circuit Court Mediator)

THOMAS C DAVIS (SC Circuit Court Mediator) THOMAS A HOLLOWAY
EUGENE PARRS
J SAMUEL SCOVILLE
KEVIN E DUKES
DAVID L TEDDER
(Of Counsel)
AUSTIN M BLAKE

#### February 15, 2022

Ms. Lisa Wagner
Director of Planning and Building
358 Third Avenue, Room 202
Ridgeland, South Carolina 29936

Re: Amendment of Center Point Development Agreement and PDD

Dear Ms. Wagner:

On behalf of First Carolina Corporation of SC, I am submitting a request that the Development Agreement and Planned Development District for Center Point be amended to include additional adjacent real property. The need to include this property in the Development Agreement and PDD arose in 2012 when John Paul II Catholic School was moved from a site directly adjacent to Center Point to the western 70 acres of the Center Point development.

The proposed amendment meets with the original intent of the community and creates uniformity in zoning at the site. The proposed supplemental property is bounded on three sides by Center Point PDD, classified Mixed Used Residential. The proposed supplemental property is bordered on the north by the water supply canal of Beaufort Jasper Water and Sewer Authority, creating a physical barrier preventing access to the north. As a result, the supplemental property currently acts as a zoning donut hole and submission to the Center Point PDD is required to fix this undesirable trait.

Further, the proposed submission of the supplemental property to the Center Point PDD does not increase density as the total acreage available under the PDD was reduced by moving the school to its new site, a reduction of approximately 70 acres. The addition requested is for 53.7 acres, resulting in a net reduction of more than 16 acres. All density under the Center Point PDD is tied to acreage. The reduction of the total acreage available for development is a de facto reduction in density.

With this letter I am submitting the following documents:

- Zoning Map Amendment Application;
- SCDOR Form 2848;
- Proposed Draft First Amendment to Development Agreement Center Point;



W BRANTLEY HARVEY, SR (1893-1981)

W BRANTLEY HARVEY, JR (1930-2018)

COLDEN R. BATTEY, JR (Of Counsel)

WILLIAM B HARVEY III (SC Circuit Court Mediator)

THOMAS C DAVIS
(SC Circuit Court Mediator)

THOMAS A. HOLLOWAY
EUGENE PARRS
J. SAMUEL SCOVILLE
KEVIN E. DUKES
DAVID L. TEDDER
(Of Counsel)
AUSTIN M. BLAKE

- Proposed Draft First Amendment to Planned Development District Plan Center Point; and
- Traffic Impact Analysis.

I believe this should provide you and the Commission all the information it needs to review and approve this application. If you have any questions or need additional information, please feel free to give me a call at (843) 524-3109 or email me at kdukes@harveyandbattey.com. I very much appreciate your help to date, and I look forward to working with moving forward.

Yours truly,

Kevin E. Dukes



# Jasper County Planning and Building Services

358 Third Avenue - Post Office Box 1659 Ridgeland, South Carolina 29936 Phone (843) 717-3650 Fax (843) 726-7707

### **Zoning Map Amendment Application**

| Owner or Owner-<br>Authorized Applicant:            | First Carolina Corporation of SC                         |
|---|--|
| Address:  | Clo Keum E. Onker<br>P.O. Box 1107<br>Beanfart, SC 29901 |
| Telephone/Fax:                                      | 843-524 - 3109   |
| Email:  | Kdukes @ harvey and battey. Com                          |
| Property Address or Physical Location:              | NIA  |
| Tax Map Number(s):                                  | 081-00-03-030 and 081-00-03-031                          |
| Gross Acreage:                                      | 53.7   |
| Current Zoning:                                     | Fural Preservation and Presidential                      |
| Proposed Zoning:                                    | Center Point PDD Mixed use Rosidentral                   |
| Administrative Fee: (\$250 per lot)                 | \$ 500.00  |
| Date Mailed or Hand<br>Delivered:                   | Hand Delivered 2/15/2022                                 |
| Reason for Request: (attach narrative if necessary) | SEE ATTACHED   |

| Due t dol  | 2/15/2028 |
|--|-----------|
| Signature of Owner or Owner-Authorized Applicant | Date      |
| (Proof of owner-authorization required)          |           |

| Internal Use Only |  |  |  |  |
|-------------------|--|--|--|--|
| Date Received:    |  |  |  |  |
| Amount Received:  |  |  |  |  |
| Staff Member:     |  |  |  |  |

1350

# STATE OF SOUTH CAROLINA DEPARTMENT OF REVENUE POWER OF ATTORNEY AND DECLARATION OF REPRESENTATIVE

SC2848 (Rev. 7/6/21) 3307

dor.sc.gov POWER OF ATTOR

| Part I: Power of Attorney *indicates a required field. If all required fields are r  | not completed, the nov                        | vor of atternay will be essented   | and four list                    |
|--|---|--|----------------------------------|
| 1 Taxpayer information - Taxpayer must sig   | n and date this form of                       | n page 2 line 7  | red invalid.                     |
| * Taxpayer name and address  | ii ailu uate triis tottii D                   | * SSN  | * FEIN                           |
|  |   |  | 57-0735115                       |
| First Carolina Corporation of SC   |   | Spouse's SSN (if filing jointly)   | Plan number (if applicable)      |
|  |   | Daytime phone number   | Email address                    |
| hereby appoints the following representatives as attorneys-  | in-fact:                                      |  |                                  |
| 2 Representative information - Representation  | tives must sign and da                        | te this form on page 2, Part II  |                                  |
| *Name and address  |   | *Phone 843-524-3109  |                                  |
| Kevin E. Dukes   |   |  |                                  |
| P.O. Box 1107  |   | Fax  |                                  |
| Beaufort, SC 29901   |   | Email kdukes@harveya   | ndbattey.com                     |
|  |   | Check if new: Address [  | Phone Fax Email                  |
| Name and address   |   | Phone  |                                  |
|  |   | Fax  | <del></del>                      |
|  |   | Email  |                                  |
|  |   |  | Phone Fax Email                  |
| Name and address   |   | Phone  |                                  |
|  |   | Phone  |                                  |
|  |   | Fax<br>Email   |                                  |
|  |   |  | Phone Fax Email                  |
| to represent the taxpayer before the SCDOR for the following   | 18  | <u>'                                    </u>                               |                                  |
| Tax matters (See instructions, Include specifi   |   |  |                                  |
| <ul> <li>Type of tax or license (Individual, Corporate,<br/>Withholding, Sales, ABL, etc.)</li> </ul>  | I   | rm number (SC1040,<br>I1605, ST-3, etc.)                                   | * Years or Periods               |
| Zoning Amendments in Jasper County   |   | plications and all other required forms for<br>ude development agreements. | 2021 and 2022                    |
|  |   |  |                                  |
| Acts authorized: A representative is an individed any and all acts on behalf of the taxpayer with any agreements, consents, or other documents endorse or cash refund checks. You may aut 12-2-75. | respect to the tax ma<br>s. You may not use t | itters described on line 3. This   | s includes the authority to sign |
| List any specific additions to or deletions from the   | ne acts otherwise auth                        | orized in this power of attorne  | y:                               |
|  |   |  |                                  |

| 5 Receipt of endorse of      | f refund checks: If you want in reash them, initial here        | to authorize a representative named on and list the name of that repre                       | line 2 to receive refund checks, but not to esentative below.   |
|------------------------------|---|--|---|
| Name of re                   | presentative to receive refund c                                | hecks  |   |
| 6 Retention/r<br>attorney on | revocation of prior powers of file with the SCDOR for the san   | f attorney: Filing this power of attorney tax matters for years or periods covere            | y automatically revokes all earlier powers of<br>ed by this document.   |
| Check this                   | box if you do not want to revoke                                | a prior power of attorney  |   |
| YOU MUST                     | TATTACH A COPY OF ANY PO  | OWER OF ATTORNEY YOU WANT TO   | REMAIN IN EFFECT.   |
| sign. If sign                | ned by a corporate officer, pove, or trustee on behalf of the t | artner, guardian, tax matters partner, axpayer, I certify that I have the legal a            | ing joint representation, both taxpayers must LLC member, executor, receiver, personal uthority to execute this form on behalf of the |
|                              | The SCDO  | DR will not accept an unsigned power   |   |
| - ( Unit                     | Signature   | * 2/14/2022<br>Date  | Manager  Title (if applicable)  |
| * John Trask,                | III   | 246  | The (ii applicable)   |
|                              | Print name  |  |   |
|                              | Signature   | Date   | Title (if applicable)   |
|                              |   |  |   |
| 3.52 fr.                     | Print name  |  |   |
| indicates a requi            |   | re not completed, the declaration of repre<br>ers identified in Part I for the tax matters s |   |
| <ul> <li>I am one</li> </ul> | e of the following:   |  |   |
|                              |   | of the bar of the highest court of the juris   |   |
|                              |   | lified to practice as a certified public accounder the requirements of the US Treasu         |   |
| d. Office                    | er: a bona fide officer of the taxp                             | ayer organization  | any Dopartment Greater 200  |
|                              | Time Employee: a full-time employee                             |  | habita aaaadaaaa ka aa ka kii ka  |
|                              | child, brother, or sister)                                      | payers intriediate family (spouse, parent  | t, child, grandparent, grandchild, step-parent,   |
| •                            | n Preparer  |  |   |
| h. Other                     | r (provide explanation):  |  |   |
|                              |   |  |   |
|                              |   |  |   |
| I declare that this          |   | accept an unsigned declaration of rue, correct, and complete to the best of r                |   |
| * Designation (e             |   | * Signature  | *Date   |
| letter a-h from at           | SC  | BINT   |   |
| -                            |   | The Tash   | 2/14/2022   |
|                              | 1   |  |   |
|                              |   |  |   |

This instrument prepared by:

Kevin E. Dukes Harvey & Battey, P.A. P.O. Drawer 1107 Beaufort, South Carolina 29901

#### FIRST AMENDMENT TO DEVELOPMENT AGREEMENT

#### **CENTER POINT**

| This FIRST AMENDMENT TO T                 | HE DEVELOPMENT AGREEMENT FOR CENTER                  |
|---|--|
| POINT, made and entered into as of        | , 2022 ("Amendment") by First Carolina               |
| Corporation of SC, landowner ("Owner")    | and Jasper County Council, as governmental authority |
| for Jasper County, South Carolina ("Count |  |

#### RECITALS

- A. The parties entered into that certain DEVELOPMENT AGREEMENT for CENTER POINT dated August 18, 2008, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Volume 691 at Page 172 (the "Development Agreement") for the purpose of outlining agreed upon development for a certain tract of property described in the Development Agreement and located along highway 170 in Jasper County, South Carolina.
- B. In addition to the Development Agreement, the parties entered into a Planned Development District of even date, a copy of which was recorded in the office of the ROD for Jasper County in Volume 691 at Page 226 (the "PDD").
- C. The Development Agreement did not contain certain property located along the northern boundary of the Property, as that term is defined in the Development Agreement, which was designated for the future development of John Paul II Catholic School (the "School").
- D. In 2012 the School and Owner decided to relocate the School to the western portion of the Property shown and described as WESTERN PORTION OF TRACT B, containing 70.66 acres, more or less, on that certain play prepared by Surveying Consultants, dated February 24, 2012, and recorded in the office of the ROD for Jasper County in Plat Volume 32 at Page 484. The new School site is located, and the School was constructed, within the Property covered by the Development Agreement and PDD.
- E. After the relocation of the School, the parties did not amend the Development Agreement and PDD to incorporated the previous site into the Development Agreement and PDD. The parties now wish to amend the Development Agreement and PDD to include the following property into the Development Agreement and PDD, to wit:

ALL those certain pieces, parcels or lots of land shown and described as PHASE 1A and PHASE 1B, containing 41.75 and 16

acres respectively, on that certain plat titled PHASES 1A &1B by Ward Edwards, Inc. and dated December 7, 2004, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Plat Volume 27 at Page 436 (the "Supplemental Property").

F. Pursuant to Section XVI of the Development Agreement, modifications and amendments may be made upon written agreement of Owner and County.

#### <u>AMENDMENT</u>

NOW, THEREFORE, the parties, by and through their undersigned officers, do hereby declare that effective this \_\_\_ day of \_\_\_\_\_, 2022, the Development Agreement shall hereby be amended as follows:

1. EXHIBIT A, and accordingly the defined terms "Center Point PDD" and "Property" under Section II, shall be amended to add the following real property, to wit:

AND ALSO, ALL those certain pieces, parcels or lots of land shown and described as PHASE 1A and PHASE 1B, containing 41.75 and 16 acres respectively, on that certain plat titled PHASES 1A &1B by Ward Edwards, Inc. and dated December 7, 2004, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Plat Volume 27 at Page 436.

Jasper County Tax Parcel IDs: 081-00-03-030 and 081-00-03-031

Except as set forth above, the Owner and County have not further supplemented, modified or amended the Development Agreement, and the Development Agreement is in full force and effect as of the date hereof. In the event of any conflict between the provisions of the Development Agreement and those of this Amendment, the provisions of this Amendment shall govern.

### WITNESS the following signature pursuant to due authority.

| Witnesses:   | JASPER COUNTY, SOUTH CAROLINA  |
|--|--|
|  | By:<br>lts:  |
| STATE OF SOUTH CAROLINA CITY/COUNTY OF JASPER, to wit: | ACKNOWLEDGMENT   |
| •  | s signed to the foregoing instrument or writing, has jurisdiction aforesaid. |
| GIVEN under my hand this d My commission expires:      | ay of, 2022.   |
| [SEAL]   | Notary Public  |

## WITNESS the following signature pursuant to due authority.

| Witnesses:  | FIRST CAROLIN                               | A CORPORATION OF SC  |                    |
|---|---|--|--------------------|
|   | By:   | er   |                    |
| STATE OF SOUTH CAROLINA CITY/COUNTY OF JASPER, to wit:  | :   | ACKNOWLEDGMENT   |                    |
| I hereby certify that John Trasl<br>name is signed to the foregoing instru-<br>my jurisdiction aforesaid. | k, III, as Manager o<br>ument or writing, I | f First Carolina Corporation of SC<br>has acknowledged the same before | , whose<br>e me in |
| GIVEN under my hand this _  | day of                                      | , 2022.  |                    |
| My commission expires:  |   | ·  |                    |
|   | _   | Notary Public  |                    |
| [SEAL]  |   |  |                    |

This instrument prepared by:

Kevin E. Dukes Harvey & Battey, P.A. P.O. Drawer 1107 Beaufort, South Carolina 29901

#### FIRST AMENDMENT TO PLANNED DEVELOPMENT DISTRICT CONCEPT PLAN

#### **CENTER POINT**

|               |                         |                     |       |        |               | DEVELOPMENT         | DISTRICT    |
|---------------|-------------------------|---------------------|-------|--------|---------------|---------------------|-------------|
|               |                         | OR CENTER PO        |       |        |               |                     | , 2022      |
| ("Amendme     | nt") by F               | irst Carolina Corp  | porat | ion of | SC, landowne  | er ("Owner") and Ja | sper County |
| Council, as a | gov <mark>ern</mark> me | ental authority for | Jaspe | r Coun | ty, South Car | olina ("County").   | -           |

#### **RECITALS**

- A. The parties entered into that certain DEVELOPMENT AGREEMENT for CENTER POINT dated August 18, 2008, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Volume 691 at Page 172 (the "Development Agreement") for the purpose of outlining agreed upon development for a certain tract of property described in the Development Agreement and located along highway 170 in Jasper County, South Carolina.
- B. In addition to the Development Agreement, the parties entered into a Planned Development District of even date, a copy of which was recorded in the office of the ROD for Jasper County in Volume 691 at Page 226 (the "PDD").
- C. The PDD Property did not contain certain property, designated for the future development of John Paul II Catholic School (the "School"), located along the northern boundary of the Property, as that term is defined in the SECTION 1A of the PDD.
- D. In 2012 the School and Owner decided to relocate the School to the western portion of the Property shown and described as WESTERN PORTION OF TRACT B, containing 70.66 acres, more or less, on that certain play prepared by Surveying Consultants, dated February 24, 2012, and recorded in the office of the ROD for Jasper County in Plat Volume 32 at Page 484. The new School site is located within, and the School was constructed within, the Property covered by the Development Agreement and PDD.
- E. After the relocation of the School, the parties did not amend the Development Agreement and PDD to incorporated the previous site into the Development Agreement and PDD. The parties now wish to amend the Development Agreement and PDD to include the following property into the Development Agreement and PDD, to wit:

ALL those certain pieces, parcels or lots of land shown and described as PHASE 1A and PHASE 1B, containing 41.75 and 16

acres respectively, on that certain plat titled PHASES 1A &1B by Ward Edwards, Inc. and dated December 7, 2004, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Plat Volume 27 at Page 436 (the "Supplemental Property").

F. Pursuant to Section IIA of the PDD, the boundaries of the PDD may be modified to include adjacent acreage upon written agreement of Owner and County.

#### <u>AMENDMENT</u>

NOW, THEREFORE, the parties, by and through their undersigned officers, do hereby declare that effective this \_\_\_\_ day of \_\_\_\_\_, 2022, the PLANNED DEVELOPMENT DISTRICT CONCEPT PLAN FOR CENTER POINT shall be amended as follows:

1. SECTION IA THE PROPERTY shall be amended to add the following real property, to wit:

AND ALSO, ALL those certain pieces, parcels or lots of land shown and described as PHASE 1A and PHASE 1B, containing 41.75 and 16 acres respectively, on that certain plat titled PHASES 1A &1B by Ward Edwards, Inc. and dated December 7, 2004, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Plat Volume 27 at Page 436 (collectively the "Supplemental Property").

Jasper County Tax Parcel IDs: 081-00-03-030 and 081-00-03-031

 The Supplemental Property shall be added to the PDD as Mixed Use Residential. APPENDIX H shall be amended to include the Supplemental Property as 53.7 acres of Mixed Used Residential, containing 51.27 acres of highland acreage and 2.43 acres of wetland acreage.

Except as set forth above, the Owner and County have not further supplemented, modified or amended the PDD, and the PDD is in full force and effect as of the date hereof. In the event of any conflict between the provisions of the PDD and those of this Amendment, the provisions of this Amendment shall govern.

### WITNESS the following signature pursuant to due authority.

| Witnesses:   | JASPER COUNTY, SOUTH CAROLINA  |
|--|--|
|  | By:  |
|  |  |
| STATE OF SOUTH CAROLINA  | ACKNOWLEDGMENT   |
| CITY/COUNTY OF JASPER, to wit:   |  |
| Jasper County Council, whose name is acknowledged the same before me in my | s signed to the foregoing instrument or writing, has jurisdiction aforesaid. |
| GIVEN under my hand this d   | lay of, 2022.  |
| My commission expires:   | •  |
|  | Notary Public  |
| [SEAL]   |  |

## WITNESS the following signature pursuant to due authority.

| Witnesses:   | FIRST CAROLI                           | NA CORPORATION OF SC  |                      |
|--|--|---|----------------------|
|  | By:<br>Its: Mana                       | ger   |                      |
| STATE OF SOUTH CAROLINA CITY/COUNTY OF JASPER, to wit  | ı:                                     | ACKNOWLEDGMENT  |                      |
| I hereby certify that John Tras<br>name is signed to the foregoing instr<br>my jurisdiction aforesaid. | k, III, as Manager<br>ument or writing | of First Carolina Corporation of , has acknowledged the same be | SC, whose fore me in |
| GIVEN under my hand this _   | day of                                 | , 2022.   |                      |
| My commission expires:   |  | •   |                      |
|  |  | Notary Public   | _                    |
| [SEAL]   |  |   |                      |



### **CENTER POINT DEVELOPMENT**

| 2021   | Project No: | DRAFT |
|--------|-------------|-------|
| August | 171002443   |       |

PREPARED FOR:

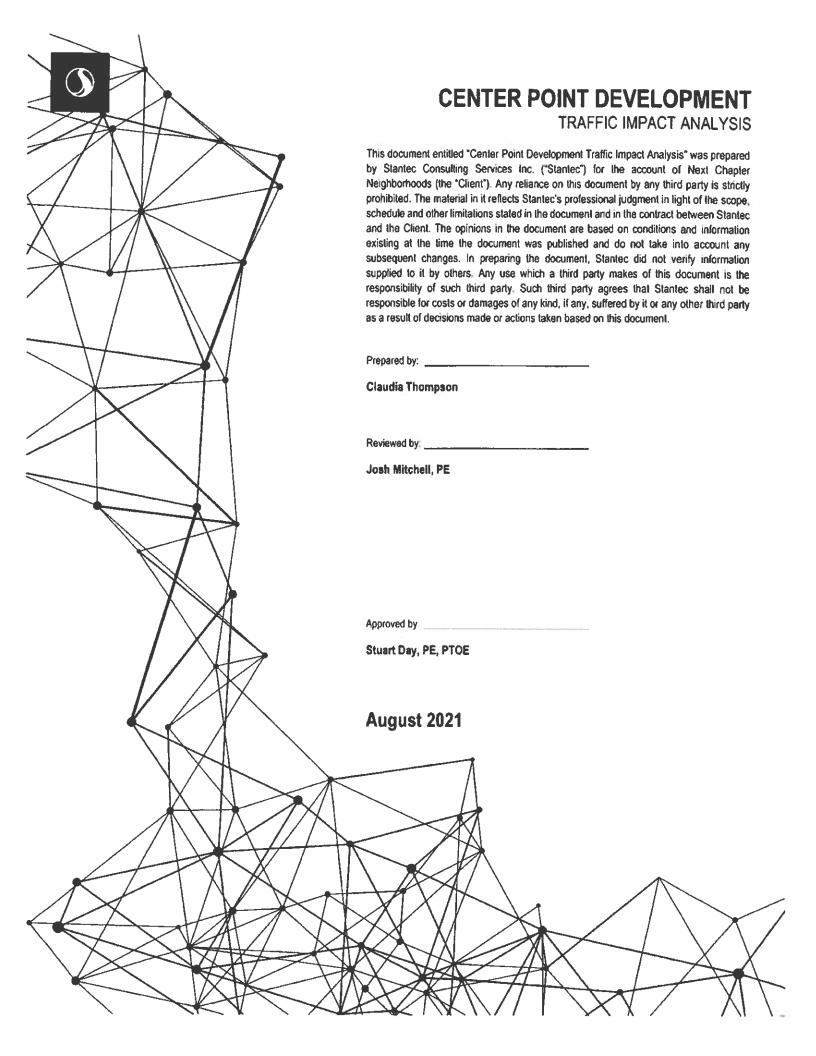
**NEXT CHAPTER NEIGHBORHOODS** 

6 WALNUT LANE NORTH AUGUSTA, SC 29860

# TRAFFIC IMPACT ANALYSIS

ALONG SC 170/OKATIE HIGHWAY IN JASPER COUNTY, SOUTH CAROLINA





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#### **EXECUTIVE SUMMARY**

A traffic impact analysis was conducted for the Center Point development in accordance with SCDOT and Jasper County guidelines.

The proposed Center Point development (which is anticipated to be constructed by 2024) is located along SC 170 and will consist of Multi-family Housing Units (Mid-Rise), Single Family Housing Units, and a Nursing Home.

Access to the development is proposed to be provided via one proposed full access driveway along SC 170 aligned with Old Meadow Road, which meets the SCDOT spacing requirement.

Therefore, the extent of the roadway network analyzed consisted of the intersection of:

 SC 170/Okatie Highway & Old Meadow Road/Project Driveway #1.

The operation of this intersection (in terms of average vehicular delay and level of service) was analyzed with and without the project traffic anticipated to be generated by the Center Point development.

Future access is also planned along SC 170 to the east with the intersection of Camp St. Mary's Road. This eastern access is planned to serve a future phase of development (not included in this study). Therefore, it is recommended that a future traffic impact analysis study be performed at the time of the encroachment permit for the permanent access at Camp St. Mary's Road.

The results of the analysis indicate that the intersection of SC 170/Okatie Highway & Old Meadow Road/Project Driveway is projected to experience undesirable delay in both peak hours of the 2024 Build Conditions. Therefore, upon completion of the Center Point Development in 2024, it is recommended to perform a signal warrant analysis to determine if the intersection meets the criteria and to install the traffic signal, if warranted.

Based on the turn lane criteria in SCDOT's Roadway Design Manual, an exclusive eastbound left-turn lane and westbound right-turn lane along SC 170/Okatie Highway are recommended at Project Driveway #1.

Per the criteria documented in SCDOT's Access and Roadside Management Standards, it is recommended that the exclusive left-turn lane consist of a total of 400 feet, with 200 feet of storage and a 200-foot taper. However, due to the fact that there is an existing two-way left-turn-lane (TWLTL) which provides 225 feet of storage in the eastbound direction, it is recommended that the existing TWLTL be extended by approximately 175 feet (to provide length for the recommended 400 feet of storage and taper). It is recommended that the exclusive right-turn lane consist of a total of 300 feet, with 100 feet of storage and a 200-foot taper.

#### 1.0 INTRODUCTION

#### 1.1 PROJECT BACKGROUND

The purpose of this report is to document the procedures and findings of a traffic impact analysis for the proposed Center Point development in accordance with SCDOT and Jasper County guidelines. The proposed Center Point development is located along SC 170, as shown in Exhibit 1.1, and will consist of the following land uses, with anticipated completion in 2024:

- 220 Single Family Detached Housing Units;
- 240 Multi Family (Mid Rise) Housing Units; and
- a 20,600 square-foot Nursing Home.

Access to the development will be provided through one full access driveway, as shown in the site plan in Exhibit 1.2.

Future access is also planned along SC 170 to the east with the intersection of Camp St. Mary's Road. This eastern access is planned to serve a future phase of development (not included in this study). Therefore, it is recommended that a future traffic impact analysis study be performed at the time of the encroachment permit for the permanent access at Camp St. Mary's Road.

The traffic impact analysis considers the weekday AM peak hour (between 7:00 AM and 9:00 AM) and the weekday PM peak hour (between 4:00 PM and 6:00 PM) as the study time frames. The extent of the existing roadway network to be studied consists of the intersection of:

 SC 170/Okatie Highway & Old Meadow Road/Project Driveway #1.

#### 1.2 EXISTING ROADWAY CONDITIONS

SC 170/Okatie Highway is a four-lane principal arterial that primarily serves residential and commercial land uses. The posted speed limit is 55 mph and 45 mph in the school zone. The average annual daily traffic (AADT) in 2020 was 33,400 vehicles/day. Based upon existing turning movement counts, the percentage of heavy vehicles along SC 170/Okatie Highway is approximately 2%.

Old Meadow Road is a two-lane local roadway that primarily serves residential land uses. Based upon existing turning movement counts, the percentage of heavy vehicles along Old Meadow Road is less than 1%.

Exhibit 1.1 - Center Point Location Map

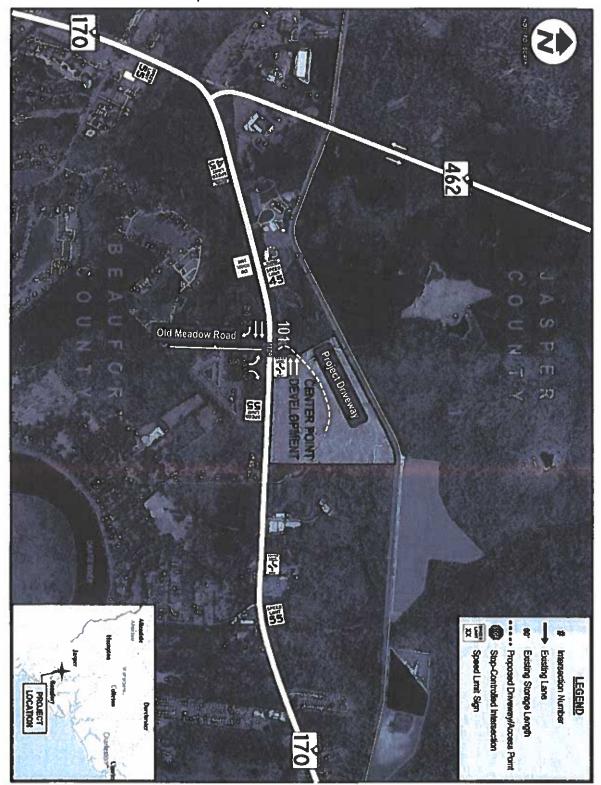
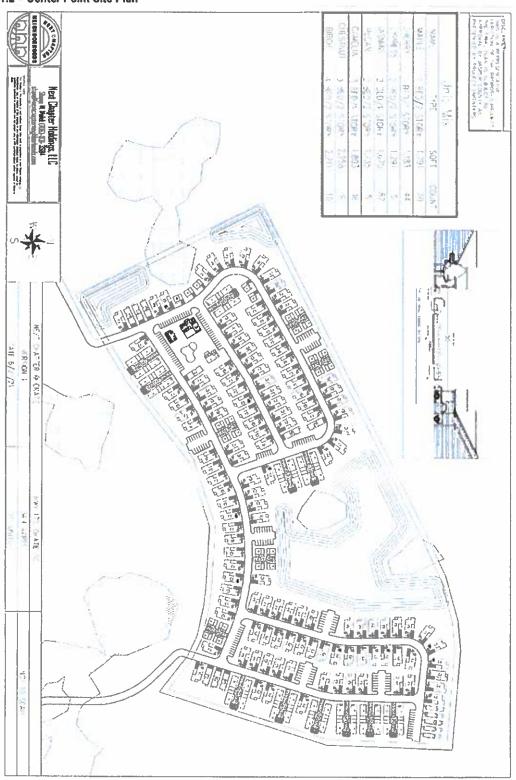


Exhibit 1.2 - Center Point Site Plan



#### 2.0 DRIVEWAY SPACING REVIEW

Access to the development will be provided through one proposed full access driveway along SC 170/Okatie Highway.

**Project Driveway #1** is proposed to be located along SC 170/Okatie Highway aligned with Old Meadows Road which meets the spacing criteria.

Future access is also planned along SC 170 to the east with the intersection of Camp St. Mary's Road. This eastern access is planned to serve a future phase of development (not included in this study). Therefore, it is recommended that a future traffic impact analysis study be performed at the time of the encroachment permit for the permanent access at Camp St. Mary's Road

**NEXT CHAPTER NEIGHBORHOODS** 

#### 3.0 PROJECT TRAFFIC

#### 3.1 PROPOSED LAND USES

Project Traffic in this analysis is defined as the vehicle trips anticipated to be generated by the proposed Center Point development. These trips were distributed and assigned throughout the study roadway network.

The Center Point development is proposed to consist of the following land uses:

- 220 Single Family Detached Housing Units;
- 240 Multifamily (Mid Rise) Housing Units; and
- a 20,600 square-foot Nursing Home.

#### 3.2 TRIP GENERATION ESTIMATES

The trip generation potential for the development was estimated using information contained in ITE's *Trip Generation Manual*, 10th Edition (2017) reference. The estimates utilized the following land use codes:

- LUC 210 Single-Family Detached Housing;
- LUC 220 Multifamily Housing (Mid-Rise); and
- LUC 620 Nursing Home.

Due to the nature of the proposed Center Point development, internal capture trips and pass-by trips were not considered in the trip generation estimates.

The trip generation estimates for the development are shown below in **Table 3.1** and documented in **Appendix A**.

#### 3.3 TRIP DISTRIBUTION & ASSIGNMENT

#### 3.3.1 New External Traffic

New external traffic expected to be generated by the Center Point development was distributed and assigned to the roadway network based upon existing travel patterns in the area. The general distribution of project trips was assumed to be:

- 50% to/from the east via SC 170/Okatie Highway; and
- 50% to/from the west via SC 170/Okatie Highway.

The assignment of new external project traffic anticipated to be generated by the Center Point development is illustrated in Exhibit 3.1 and the AM and PM peak hour project traffic volumes are illustrated in Exhibit 3.2.

Table 3.1 - Trip Generation Estimates

| Land Use                       | ITE  | Scale          | Daily |       | ekday<br>ak Period | Weekday<br>PM Peak Period |      |
|--------------------------------|------|----------------|-------|-------|--------------------|---------------------------|------|
|                                | LUC  |                |       | Enter | Exit               | Enter                     | Exit |
| Single-Family Detached Housing | 210  | 220 DU         | 2,148 | 41    | 121                | 137                       | 81   |
| Multifamily Housing (Mid-Rise) | 220  | 240 DU         | 1,774 | 25    | 85                 | 82                        | 48   |
| Nursing Home                   | 620  | 20.6 KSF       | 152   | 11    | 3                  | 5                         | 7    |
|                                | •    | Gross Trips:   | 4,074 | 77    | 209                | 224                       | 136  |
|                                | New, | External Trips | 4,074 | 77    | 209                | 224                       | 136  |

Project Traffic Volume Assistment Legend

Exhibit 3.1 - Project Traffic Distribution and Assignment

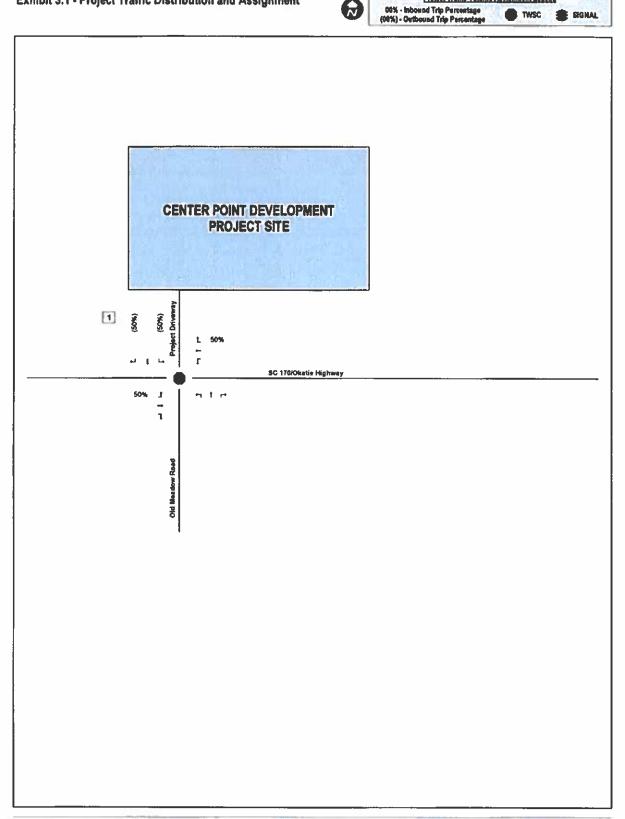




Exhibit 3.2 - Peak Hour Project Traffic Volumes Traffic Volumes Legend 000 - Alli Peak Hour Volumes (000) - Pill Peak Hour Volumes TWSC SIGNAL **CENTER POINT DEVELOPMENT PROJECT SITE** 1 9 105 Project L 39 (112) \$ SC 179/Okatle Highway (112) 38 \_j

#### 4.0 TRAFFIC VOLUME DEVELOPMENT

#### 4.1 EXISTING TRAFFIC VOLUMES

The traffic impact analysis considers the weekday AM peak hour (between 7:00 AM and 9:00 AM) and the weekday PM peak hour (between 4:00 PM and 6:00 PM) as the study time frames. The extent of the existing roadway network to be studied consists of the intersection of:

 SC 170/Okatie Highway & Old Meadow Road/Project Driveway #1.

Existing 2021 traffic volumes were collected at these study area intersections during the AM and PM peak periods listed above.

The raw traffic volume counts are provided in **Appendix B** and the 2021 existing AM and PM peak hour traffic volumes are illustrated in **Exhibit 4.1**.

#### 4.2 FUTURE TRAFFIC PROJECTIONS

Future 2024 No Build traffic volumes were developed by adding background traffic growth to the collected existing study area peak hour volumes. Background traffic growth is growth anticipated to occur in the study area regardless of the proposed Center Point development.

To develop an annual background growth rate for use in the analysis, historical count data long SC 170/Okatie Highway (SCDOT count stations #169 and #184) was reviewed over the past 10 years. It was determined that the roadways have experienced a collective annual growth of 3.9%. Therefore, in an effort to be conservative, a 4% annual growth rate was utilized to develop anticipated background traffic growth through the anticipated 2024 buildout year.

2024 No Build AM and PM peak hour traffic volumes, illustrated in Exhibit 4.2, were developed by adding the background traffic growth (assuming 4% annual growth of the existing traffic volumes) to the 2021 existing AM and PM peak hour traffic volumes.

2024 Build AM and PM peak hour traffic volumes, illustrated in Exhibit 4.3, were developed by adding the Center Point project traffic (shown in Exhibit 3.2) volumes to the 2024 No Build traffic volumes.

Volume development worksheets for each intersection are documented in **Appendix C**.

Traffic Volumes Legend

Exhibit 4.1 - Existing Peak Hour Traffic Volumes

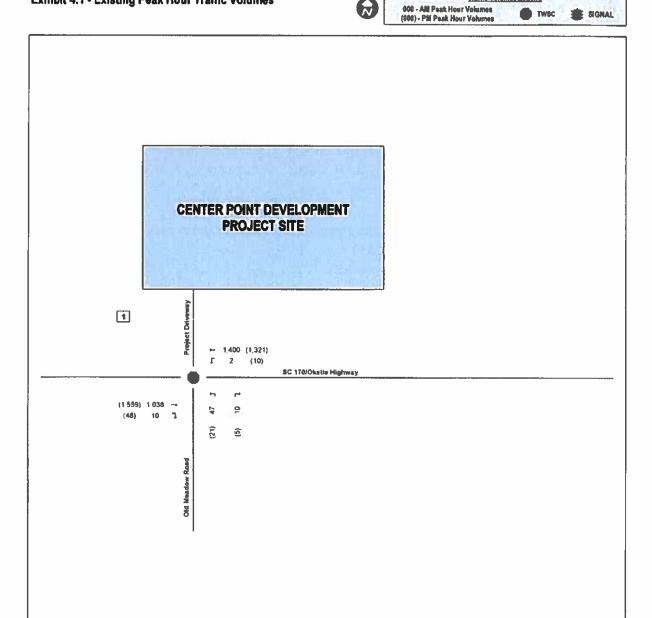
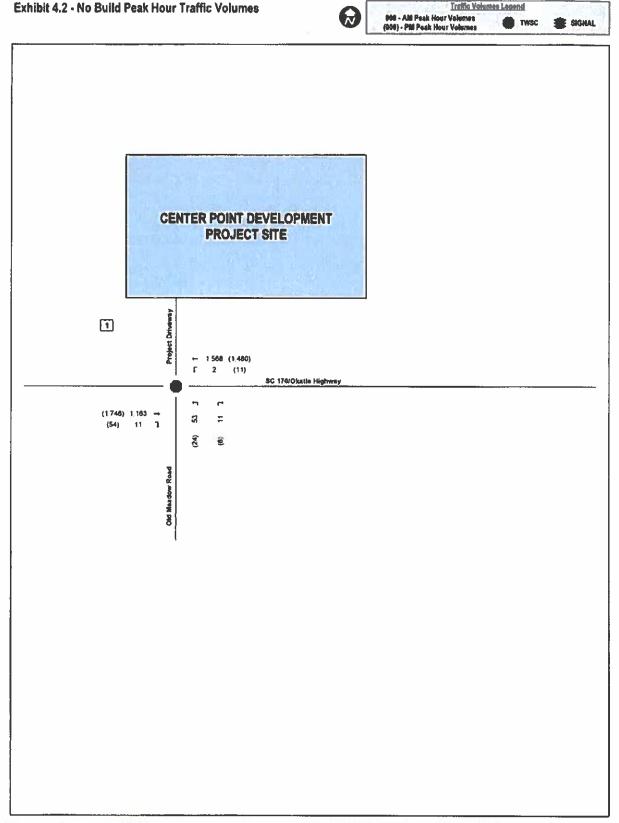




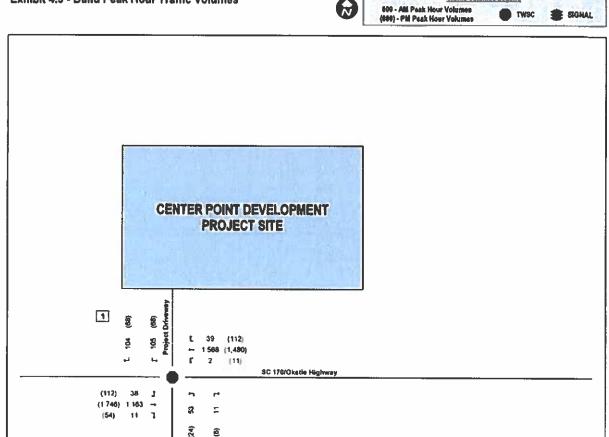
Exhibit 4.2 - No Build Peak Hour Traffic Volumes



TWSC SIGNAL

Treffic Volumes Legend

**Exhibit 4.3 - Build Peak Hour Traffic Volumes** 



(24)

### 5.0 TRAFFIC IMPACT ANALYSIS

A traffic impact analysis was conducted for the Center Point development which analyzed the need for turn lanes at the project driveways as well as the operation of study area intersections according to *Highway Capacity Manual 2010 (HCM 2010)* methodologies.

### 5.1 TURN LANE ANALYSIS

### 5.1.1 Right-Turn Lanes

The need for exclusive right-turn lanes is based upon the criteria documented in Section 9.5.1.1 of SCDOT's Roadway Design Manual (2017), which consists of nine considerations, listed below:

- At a free-flowing leg of any unsignalized intersection on a two-lane urban or rural highway which satisfies the criteria in Figure 9.5-A;
- at a free-flowing leg of any unsignalized intersection on a high-speed (50 mph or greater), four-lane urban or rural highway which satisfies the criteria in Figure 9.5-B;
- at the free-flowing leg of any unsignalized intersection on a six-lane urban or rural highway;
- at any intersection where a capacity analysis determines a right-turn lane is necessary to meet the overall level-ofservice criteria.
- as a general rule, at any signalized intersection where the projected right-turning volume is greater than 300 vehicles per hour and where there are greater than 300 vehicles per hour per lane on the mainline (A traffic analysis will be required if the turning volumes are greater than 300 vehicles per hour);
- for uniformity of intersection design along the highway if other intersections have right-turn lanes;
- at any intersection where the mainline is curved to the left and where the mainline curve requires superelevation;
- 8. at railroad crossings where the railroad is paralleled to the facility and is located close to the intersection and where a right-turn lane would be desirable to store queued vehicles avoiding interference with the movement of through traffic; or
- at any intersection where the crash experience, existing traffic operations, sight distance restrictions (e.g., intersection beyond a crest vertical curve), or engineering judgement indicates a significant conflict related to right-turning vehicles;

Table 5.1 below details whether the previously mentioned criteria for exclusive right-turn lanes are satisfied for each driveway. An "\*" indicates that the criteria is not met; a "\sqrt{"}" indicates that it is met; and "N/A" indicates that the criteria is not applicable.

Table 5.1 - Right-Turn Lane Criteria Warrants

| Criteria | Project Driveway<br>1 | Reference/Note                      |
|----------|-----------------------|-------------------------------------|
| 1        | ✓                     | Appendix H                          |
| 2        | <b>*</b>              | Appendix H                          |
| 3        | ж                     | Not a 6-lane highway                |
| 4        | ×                     | Fails with or without turn lane     |
| 5        | JK.                   | Exhibit 4.3                         |
| 6        | ✓                     | Right turn lanes typically provided |
| 7        | ж                     | Not curved to the left              |
| 8        | JK .                  | No railroad crossing                |
| 9        | N/A                   | Crash data not provided             |

Based on SCDOT's Roadway Design Manual considerations, an exclusive westbound right-turn lane along SC 170/Okatie Highway is recommended at Project Driveway #1 prior to full buildout of the Center Point development.

Per the criteria documented in Section 5D-4 of SCDOT's Access and Roadside Management Standards (ARMS, 2008), it is recommended that the exclusive right-turn lane consist of a total of 300 feet, with 100 feet of storage and a 200-foot taper.

### 5.1.2 Left-Turn Lanes

The need for exclusive left-turn lanes is based upon the criteria documented in Section 9.5.1.2 of SCDOT's Roadway Design Manual (2017), which consists of nine considerations, listed below:

- At any unsignalized intersection on principal, high-speed rural highways with other arterials or collectors;
- at any unsignalized intersection on a two-lane urban or rural highway that satisfies the criteria in Figures 9.5-C, 9.5-D, 9.5-E, 9.5-F, or 9.5-G;
- at any intersection where a capacity analysis determines a left-turn lane is necessary to meet the level of service criteria:
- at any signalized intersection where the left-turn volume is 300 vehicles per hour or more, conduct a traffic review to determine if dual left-turn lanes are required;
- as a general rule, at any intersection where the leftturning volume is 100 vehicles per hour (for a single turn lane) or 300 vehicles per hour (for a dual turn lane);
- at all entrances to major residential, commercial, and industrial developments;
- 7. at all median crossovers;
- for uniformity of intersection design along the highway if other intersections have left-turn lanes (i.e., to satisfy driver expectancy); or
- at any intersection where the crash experience, existing traffic operations, sight distance restrictions (e.g., intersection beyond a crest vertical curve), or engineering judgement indicates a significant conflict related to left-turning vehicles;

Table 5.2 below details whether the previously mentioned criteria for exclusive left-turn lanes are satisfied for each driveway. An "x" indicates that the criteria is not met; a "\sqrt{"}" indicates that it is met; and "N/A" indicates that the criteria is not applicable.

Table 5.2 - Left-Turn Lane Criteria Warrants

| Criteria | Project Driveway<br>1 | Reference/Note                  |
|----------|-----------------------|---------------------------------|
| 1        | ×                     | Not arterial or collector       |
| 2        | ✓                     | Appendix H                      |
| 3        | ж                     | Fails with or without turn lane |
| 4        | 36                    | Exhibit 4.3                     |
| 5        | 4                     | Exhibit 4.3                     |
| 6        | ж                     | Not a major development         |
| 7        | 1                     | SC 170 has median crossing      |
| 8        | ×                     | TWLTL provided along SC 170     |
| 9        | N/A                   | Crash data not provided         |

\*TWLTL = two way left turn lane

Based on SCDOT's Roadway Design Manual considerations, an exclusive eastbound left-turn lane along SC 170/Okatie Highway is recommended at Project Driveway #1 prior to full buildout of the Center Point development.

Per the chteria documented in Section 5D-4 of SCDOT's Access and Roadside Management Standards (ARMS, 2008), it is recommended that the exclusive left-turn lane consist of a total of 400 feet, with 200 feet of storage and a 200-foot taper. However, due to the fact that there is an existing two-way left-turn-lane (TWLTL) which provides 225 feet of storage in the eastbound direction, it is recommended that the existing TWLTL be extended by approximately 175 feet (to provide length for the recommended 400 feet of storage and taper).

### 5.2 INTERSECTION LOS ANALYSIS

Using the existing and projected peak hour traffic volumes previously discussed, intersection analysis was conducted for the study and project driveway intersections considering 2021 Existing Conditions, 2024 No Build Conditions, and 2024 Build Conditions. The analysis was conducted using the Transportation Research Board's *Highway Capacity Manual 2010 (HCM 2010)* methodologies of the *Synchro*, Version 10 software for stop-controlled and signalized intersection analysis.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, forced-flow (bumper-to-bumper) conditions with high vehicular delays, and are generally considered undesirable. Table 5.3 summarizes the HCM 2010 control delay thresholds associated with each LOS grade for unsignalized and signalized intersections. Level of service A through D is considered to be acceptable LOS, while LOS E and F is considered to be undesirable.

Table 5.3 - HCM 2010 Intersection LOS Criteria

| LOS | Control Delay | per Vehicle (s) |
|-----|---------------|-----------------|
| 103 | Unsignalized  | Signafized      |
| A   | ≤ 10          | ≤ 10            |
| В   | > 10 and ≤ 15 | > 10 and ≤ 20   |
| Ç   | > 15 and ≤ 25 | > 20 and ≤ 35   |
| D   | > 25 and ≤ 35 | > 35 and ≤ 55   |
| E   | > 35 and ≤ 50 | > 55 and ≤ 80   |
| F   | > 50          | > 80            |

As part of the intersection analysis, SCDOT's default *Synchro* parameters were utilized. The existing 2021 traffic counts' peak hour factors (PHF) were utilized in the analysis of existing conditions. Future-year 2024 conditions were analyzed utilizing existing PHF, but with a minimum PHF of 0.90 and maximum PHF of 0.95 considered. The existing 2021 heavy vehicle percentages, as previously discussed, were utilized in the analysis, with a minimum percentage of 2% considered.

Existing lane geometry was utilized for the analysis of 2021 Existing Conditions and 2024 No Build Conditions. The 2024 Build Conditions were analyzed both with existing lane geometry and with any proposed improvements resulting from this impact analysis (including any proposed exclusive turn lanes per the results of **Section 5.1**) to illustrate their anticipated impact on traffic operations.

The results of the intersection analysis for existing and futureyear conditions for the weekday AM and PM peak hour time periods are summarized in **Table 5.4**.

For signalized intersections, the overall intersection LOS and delay results are evaluated for acceptable operation, while for two-way stop-controlled (TWSC) intersections, the LOS and delay results are evaluated for the worst-case minor-street approaches only, per *HCM 2010* methodologies for TWSC intersections.

Table 5.4 - Peak Hour Intersection Analysis Results

|                                |   |      |                |                |                 | LOS/Delay (sec | (seconds/vehicle) |                |            |               |
|--------------------------------|---|------|----------------|----------------|-----------------|----------------|-------------------|----------------|------------|---------------|
|                                |   | 1    |                | AM Peak Hour   | k Hour          |                |                   | PM Peak Hour   | r Hour     |               |
|                                |   |      | 2021           | 2024           | 2024            | 2024 Build     | 2021              | 2024           | 2024       | 2024 Build    |
|                                |   |      | Existing       | No Build       | Ruid            | If signalized  | Existing          | No Build       | Build      | If signafized |
| SC 170.<br>1 Old Meado<br>Driv | SC 170/Okatie Highway &<br>Old Meadow Road (NB)/Project<br>Driveway #1 (SB) | TWSC | C/23.4<br>(NB) | D/29.1<br>(NB) | F/184.3<br>(NB) | C/23.3         | D/32.3<br>(NB)    | E/46.9<br>(NB) | F•<br>(NB) | B/19.9        |

\*Delay exceeds 300 seconds

As shown in **Table 5.4**, the results of the analysis indicate that the study intersections currently operate and are expected to continue to operate at an acceptable LOS with the proposed Center Point development, with one exception:

The intersection of SC 170/Okatie Highway & Old Meadow Road/Project Driveway is projected to experience undesirable delay in both peak hours of the 2024 Build Conditions. However, this projected delay is likely due to the conservative nature of the *HCM 2010* unsignalized methodology and is not an uncommon condition for two-way stop control during the peak hours of the day. Therefore, upon completion of the Center Point Development in 2024, it is recommended to perform a signal warrant analysis to determine if the intersection meets the criteria and to install the traffic signal, if warranted.

Worksheets documenting the intersection analyses are provided in Appendix D for 2021 Existing Conditions, Appendix E for 2024 No Build Conditions, Appendix F for 2024 Build Conditions, and in Appendix G for 2024 Build Conditions with proposed improvements.

### 6.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS

A traffic impact analysis was conducted for the Center Point development in accordance with SCDOT and Jasper County guidelines.

The proposed Center Point development (which is anticipated to be constructed by 2024) is located along SC 170 and will consist of Multi-family Housing Units (Mid-Rise), Single Family Housing Units, and a Nursing Home.

Access to the development is proposed to be provided via one proposed full access driveway along SC 170 aligned with Old Meadow Road, which meets the SCDOT spacing requirement.

Therefore, the extent of the roadway network analyzed consisted of the intersection of:

 SC 170/Okatie Highway & Old Meadow Road/Project Driveway #1.

The operation of this intersection (in terms of average vehicular delay and level of service) was analyzed with and without the project traffic anticipated to be generated by the Center Point development.

Future access is also planned along SC 170 to the east with the intersection of Camp St. Mary's Road. This eastern access is planned to serve a future phase of development (not included in this study). Therefore, it is recommended that a future traffic impact analysis study be performed at the time of the encroachment permit for the permanent access at Camp St. Mary's Road.

The results of the analysis indicate that the intersection of SC 170/Okatie Highway & Old Meadow Road/Project Driveway is projected to experience undesirable delay in both peak hours of the 2024 Build Conditions. Therefore, upon completion of the Center Point Development in 2024, it is recommended to perform a signal warrant analysis to determine if the intersection meets the criteria and to install the traffic signal, if warranted.

Based on the turn lane criteria in SCDOT's Roadway Design Manual, an exclusive eastbound left-turn lane and westbound right-turn lane along SC 170/Okatie Highway are recommended at Project Driveway #1.

Per the criteria documented in SCDOT's Access and Roadside Management Standards, it is recommended that the exclusive left-turn lane consist of a total of 400 feet, with 200 feet of storage and a 200-foot taper. However, due to the fact that there is an existing two-way left-turn-lane (TWLTL) which provides 225 feet of storage in the eastbound direction, it is recommended that the existing TWLTL be extended by approximately 175 feet (to provide length for the recommended 400 feet of storage and taper). It is recommended that the exclusive right-turn lane consist of a total of 300 feet, with 100 feet of storage and a 200-foot taper.

### CENTER POINT TRAFFIC IMPACT ANALYSIS APPENDICES

### Appendix A TRIP GENERATION WORKSHEETS

# TRIP GENERATION ESTIMATES Center Point Development

### Weekday Daily

| Trip Generat                   | neratio | on Cha | tion Characteristics | stics |  | Direc'<br>Distrik | Directional<br>Distribution | Ğ,    | Gross Trips | sd           | New                                  | New External Trips                      | Trips |
|--------------------------------|---------|--------|----------------------|-------|--|-------------------|-----------------------------|-------|-------------|--------------|--------------------------------------|---|-------|
| asj puel                       | ä       | LUC    | LUC Scale Unit       | Unit  | Equation/Rate                          | E                 | Out                         | 드     | Out         | In Out Total | E                                    | Out                                     | Total |
| Single-Family Detached Housing | 10th    | 210    | 220                  | 2     | 210 220 DU Ln(T) = 0.92 Ln(X) + 2.71   | 20%               | 20%                         | 1,074 | 1,074       | 2,148        | 1.074                                | 50% 1,074 1,074 2,148 1,074 1,074 2,148 | 2,148 |
| Multifamily Housing (Mid-Rise) | 10th    | 220    | 240                  | 2     | 220 240 DU T=7.56(X)-40.86             | 20%               | 20%                         | 887   | . 288       | 1,774 887    | 887                                  | 887                                     | 1,774 |
| Nursing Home                   | 10th    | 620    | 20.6                 | KSF   | 620 20.6 KSF Ln(T) = 0.83 Ln(X) + 2.51 | 20%               | 20%                         | 76 76 | 76          | 152          | 9/                                   | 9/                                      | 152   |
|                                |         |        |                      |       |  |                   | Total:                      | 2,037 | 2,037       | 4,074        | Total: 2,037 2,037 4,074 2,037 2,037 |   | 4,074 |

## Weekday AM Peak Hour

| Trip Generation Characteristics | neratio | n Cha | racterí            | stics |   | Directional<br>Distribution | tional<br>ution | છે | Gross Trips | Sd           | New F | New External Trips | rrips |
|---------------------------------|---------|-------|--------------------|-------|---|-----------------------------|-----------------|----|-------------|--------------|-------|--------------------|-------|
| Land Use                        | Ed      | LUC   | Ed. LUC Scale Unit | Unit  | Equation/Rate                             | ra<br>La                    | Out             |    | Out         | In Out Total | Ē     | Out                | Total |
| Single-Family Detached Housing  | 10th    | 210   | 10th 210 220 DU    | 3     | T = 0.71(X) + 4.80                        | 25%                         | 75%             | 41 | 121         | 162          | 41    | 121                | 162   |
| Multifamily Housing (Mid-Rise)  | 10th    | 220   | 240                | DO    | 10th 220 240 DU Ln(T) = 0.95 Ln(X) - 0.51 | 23%                         | 77%             | 25 | 88          | 110          | 25    | 85                 | 110   |
| Nursing Home                    | 10th    | 620   | 620 20.6 KSF       | KSF   | Ln(T) = 0.84 Ln(X)                        | 78%                         | 22%             | 11 | ဧ           | 14           | 11    | 3                  | 14    |
|                                 |         | 201   |                    | 1     |   |                             | Total: 77       | 11 | 208         | 286          | 11    | 209                | 286   |

## Weekday PM Peak Hour

| Trip Generation Characteristics | neratio | an Cha | racteri        | stics |  | Directional<br>Distribution | ional<br>ution | G   | Gross Trips | sd           | Š   | New External<br>Trips | ष     |
|---------------------------------|---------|--------|----------------|-------|--|-----------------------------|----------------|-----|-------------|--------------|-----|-----------------------|-------|
| Land Use                        | ij      | LUC    | LUC Scale Unit | Unit  | Equation/Rate                            | E                           | Out            |     | Out         | In Out Total | ٥   | Out                   | Total |
| Single-Family Detached Housing  | 10th    | 210    | 220            | 3     | 210 220 DU Ln(T) = 0.96 Ln(X) + 0.20 63% | 83%                         | 37%            | 137 | 81 218      | 218          | 137 | 81                    | 218   |
| Multifamily Housing (Mid-Rise)  | 10th    | 220    | 240            | 20    | 220 240 DU Ln(T) = 0.89 Ln(X) - 0.02 63% | 63%                         | 37%            | 82  | 48          | 48 130       | 82  | 84                    | 130   |
| Nursing Home                    | 10th    | 620    | 620 20.6 KSF   | KSF   | T=0.59(X)                                | 41%                         | 29%            | 2   | 7           | 12           | သ   | 7                     | 12    |
|                                 |         |        |                | 1     |  |                             | Total: 224 136 | 224 | 136         | 360          | 224 | 136                   | 360   |



### Appendix B TRAFFIC VOLUME DATA

### S 360 RT COUNTS, LLC 735 Maryland St

735 Maryland St Columbia, SC 29201 We can't say we're the Best, but you Can!

File Name: SC 170 @ Old Meadow Rd

Site Code :

Start Date : 08/03/2021

|   |                  | South |       |         |                  | SC                               |                  |                  | C                 |       | dow Rd           |                  |                  | SC                               |                          |                  |                             |
|---|------------------|-------|-------|---------|------------------|----------------------------------|------------------|------------------|-------------------|-------|------------------|------------------|------------------|----------------------------------|--------------------------|------------------|-----------------------------|
| -   | [                |       | -     |         |                  | West                             | -                |                  |                   | North | - 1              | _                |                  | Eastb                            |                          |                  |                             |
| Start Time                                | Left             | Thru  | Right | Peds    | Left             | Thru                             | Right            | Peds             | Left              | Thru  | Right            | Peds             | Left             | Thru                             | Right                    | Peds             | Int. Tota                   |
| 07:00                                     | 0                | 0     | 0     | 0       | 1                | 304                              | 0                | 0                | 15                | 0     | 4                | 0                | 0                | 250                              | 3                        | 0                | 57                          |
| 07:15                                     | 0                | 0     | 0     | 0       | 0                | 388                              | 0                | 0                | 14                | 0     | 4                | 0                | 0                | 256                              | 2                        | 0                | 664                         |
| 07:30                                     | 0                | 0     | 0     | 0       | 0                | 381                              | 0                | 0                | 7                 | 0     | 0                | 0                | 0                | 279                              | 4                        | 0                | 67                          |
| 07:45                                     | 0                | 0     | 0     | 0       | 1                | 327                              | 0                | 0                | 11                | 0     | 2                | 0                | 0                | 253                              | 1                        | 0                | 59                          |
| Total                                     | 0                | 0     | 0     | 0       | 2                | 1400                             | 0                | 0                | 47                | 0     | 10               | 0                | 0                | 1038                             | 10                       | 0                | 250                         |
| 08:00                                     | 0                | 0     | 0     | 0       | 0                | 291                              | 0                | 0                | 9                 | 0     | 3                | 0                | 0                | 260                              | 3                        | 0                | 56                          |
| 08:15                                     | 0                | 0     | 0     | 0       | 0                | 288                              | 0                | 0                | 10                | 0     | 0                | 0                | 0                | 252                              | 2                        | 0                | 55                          |
| 08:30                                     | 0                | 0     | 0     | 0       | 1                | 296                              | 0                | 0                | 12                | 0     | 3                | 0                | 0                | 215                              | 3                        | 0                | 53                          |
| 08:45                                     | 0                | 0     | 0     | 0       | 2                | 278                              | 0                | 0                | 13                | 0     | 2                | 0                | 0                | 211                              | 3                        | 0                | 50                          |
| Total                                     | 0                | 0     | 0     | 0       | 3                | 1153                             | 0                | 0                | 44                | 0     | 8                | 0                | 0                | 938                              | 11                       | 0                | 215                         |
| 16:00<br>16:15<br>16:30<br>16:45<br>Total | 0<br>0<br>0<br>0 | 0 0   | 0 0 0 | 0 0 0 0 | 2<br>4<br>1<br>3 | 307<br>352<br>337<br>330<br>1326 | 0<br>0<br>0<br>0 | 0<br>0<br>0<br>0 | 5<br>4<br>6<br>16 | 0 0 0 | 2<br>1<br>0<br>1 | 0<br>0<br>0<br>0 | 0<br>0<br>0<br>0 | 316<br>346<br>357<br>349<br>1368 | 8<br>16<br>8<br>14<br>46 | 0<br>0<br>0<br>0 | 63<br>72<br>70<br>70<br>277 |
| 17:00                                     | 0                | 0     | 0     | 0       | 1                | 339                              | 0                | 0                | 3                 | 0     | 2                | 0                | 0                | 400                              | 10                       | 0                | 75                          |
| 17:15                                     | Ŏ                | ŏ     | ō     | 0       | 4                | 325                              | Ď                | 0                | 5                 | ŏ     | 1                | ŏ                | ő                | 404                              | 8                        | ŏ                | 74                          |
| 17:30                                     | 0                | 0     | 0     | 0       | 2                | 327                              | 0                | 0                | 7                 | Ŏ     | 1                | Ö                | ō                | 406                              | 16                       | Ď                | 75                          |
| 17:45                                     | 0                | 0     | Ö     | 0       | 1                | 264                              | - 0              | 0                | 8                 | ŏ     | 4                | 0                | Ö                | 388                              | 14                       | Ŏ                | 67                          |
| Total                                     | 0                | 0     | 0     | 0       | 8                | 1255                             | 0                | 0                | 23                | 0     | 8                | 0                | 0                | 1598                             | 48                       | 0                | 294                         |
| Grand Total                               | 0                | 0     | 0     | 0       | 23               | 5134                             | 0                | 0                | 130               | 0     | 30               | 0                | 0                | 4942                             | 115                      | 0                | 1037                        |
| Apprch %                                  | 0                | 0     | 0     | 0       | 0.4              | 99.6                             | 0                | 0                | 81.2              | 0     | 18.8             | 0                | 0                | 97.7                             | 2.3                      | 0                |                             |
| Total %                                   | 0                | 0     | 0     | 0       | 0.2              | 49.5                             | 0                | 0                | 1.3               | 0     | 0.3              | 0                | 0                | 47.6                             | 1.1                      | 0                |                             |
| Passenger Vehicles                        | 0                | 0     | 0     | 0       | 23               | 5000                             | 0                | 0                | 130               | 0     | 30               | 0                | G                | 4805                             | 114                      | 0                | 1010                        |
| % Passanger Venicles                      | 0                | 0     | 0     | 0       | 100              | 97.4                             | 0                | 0                | 100               | 0     | 100              | 0                | 0                | 97.2                             | 99 1                     | 0                | 97                          |
| Heavy Vehicles                            | 0                | 0     | 0     | 0       | 0                | 133                              | 0                | 0                | 0                 | 0     | 0                | 0                | 0                | 135                              | 1                        | 0                | 26                          |
| % Heavy Vehicles                          | 0                | 0     | 0     | 0       | 0                | 2.6                              | 0                | 0                | 0                 | 0     | 0                | 0                | 0                | 2.7                              | 0.9                      | 0                | 2.                          |
| Buses                                     | 0                | 0     | 0     | 0       | 0                | 1                                | 0                | 0                | 0                 | 0     | 0                | 0                | 0                | 2                                | 0                        | 0                |                             |
| % Buses                                   | 0                | 0     | 0     | 0       | 0                | 0                                | 0                | 0                | 0                 | 0     | 0                | 0                | 0                | ٥                                | 0                        | 0                |                             |

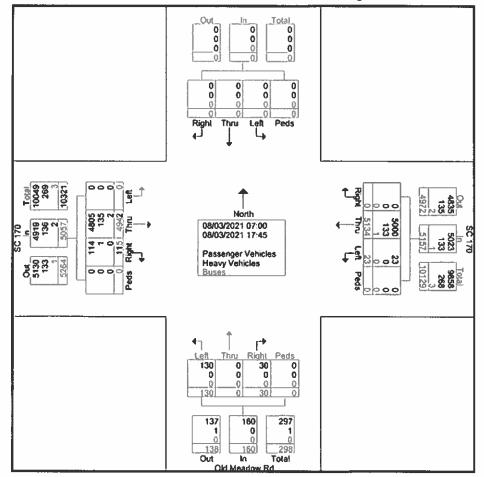
### S HO RT COUNTS, LLC 735 Maryland St

735 Maryland St Columbia, SC 29201 We can't say we're the Best, but you Can!

File Name: SC 170 @ Old Meadow Rd

Site Code :

Start Date : 08/03/2021



### S HO RT COUNTS, LLC 735 Maryland St

Columbia, SC 29201

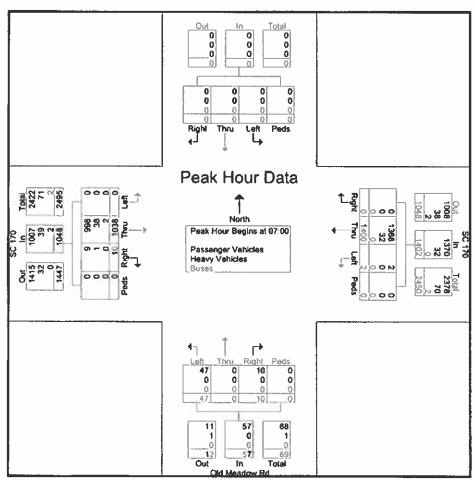
We can't say we're the Best, but you Can!

File Name: SC 170 @ Old Meadow Rd

Site Code :

Start Date : 08/03/2021

|                       |      | Se   | outhbo | und |           |       |      | SC 17 | _                |                 |      |       | Meado |       |             |      | 6    | SC 17  |       |           |            |
|-----------------------|------|------|--------|-----|-----------|-------|------|-------|------------------|-----------------|------|-------|-------|-------|-------------|------|------|--------|-------|-----------|------------|
| Start Time            | Left |      |        |     | App Total | Left  |      | Right | the residence of | App. Total      | Left |       |       | Peds  | App Tetal   | Left |      |        | Peds  | App Total | Int. Total |
| Peak Hour Ar          |      |      |        |     |           |       |      | 7.00  |                  | -99 10 <b>0</b> |      | 71.70 | 1.00  | 1 000 | LAND ARREST |      |      | 749.14 | 1 005 | пер том   | INC. FORES |
| Peak Hour for         |      |      |        |     |           |       |      |       |                  |                 |      |       |       |       |             |      |      |        |       |           |            |
| 07:00                 | 0    | 0    | 0      | Ō   | 0         | 1     | 304  | 0     | 0                | 305             | 15   | 0     | 4     | 0     | 19          | 0    | 250  | 3      | 0     | 253       | 577        |
| 07:15                 | 0    | 0    | 0      | 0   | 0         | 0     | 388  | 0     | 0                | 388             | 14   | 0     | 4     | 0     | 18          | 0    | 256  | 2      | 0     | 258       | 664        |
| 07:30                 | 0    | 0    | 0      | 0   | 0         | 0     | 381  | 0     | 0                | 381             | 7    | 0     | 0     | 0     | 7           | 0    | 279  | 4      | 0     | 283       | 671        |
| 07:45                 | 0    | 0_   | 0      | 0   | 0         | 1     | _327 | 0     | . 0              | 328             | 11   | 0     | 2     | 0     | 13          | 0    | 253  | 1_     | 0     | 254       | 595        |
| Total Volume          | 0    | 0    | 0      | 0   | 0         | 2     | 1400 | 0     | 0                | 1402            | 47   | 0     | 10    | 0     | 57          | 0    | 1038 | 10     | 0     | 1048      | 2507       |
| % App. Total          | 0    | 0    | 0_     | 0_  |           | 0.1   | 99.9 | 0     | . 0              |                 | 82.5 | C     | 17.5  | . 0   |             | 0    | 99   | 1      | . 0   |           |            |
| PHF                   | 000  | .000 | .000   | 000 | 000       | _ 500 | .902 | .000  | .000             | 903             | 783_ | .000  | 625   | .000  | .750        | .000 | .930 | .625   | .000  | 926       | .934       |
| Pessenger Vehicles    | 0    | •    | Ð      | 0   | 0         | 2     | 1368 |       |                  |                 |      |       |       |       |             |      |      |        |       |           |            |
| ls Passergus Vehicles | 0    | 0    | 0      | 0   | 0         | 100   | 97.7 | 0     | 0                | 97.7            | 100  | 0     | 100   | 0     | 100         | 0    | 96.1 | 90.0   | 0     | 96.1      | 97.1       |
| Heavy Vahicles        | 0    | 0    | 0      | 0   | 0         | 0     | 32   | 0     | 0                | 32              | 0    | 0     | 0     | 0     | 0           | 0    | 38   | 1      | 0     | 39        | 71         |
| % Heavy Velucies      | 0    | 0    | 0      | 0   | 0         | 0     | 2.3  | 0     | 0                | 2.3             | 0    | 0     | 0     | 0     | 0           | 0    | 3.7  | 10.0   | 0     | 3.7       | 2.8        |
| Buses                 | 0    | 0    | 0      | 0   | 0         | 0     | 0    | 0     | 0                | 0               | 0    | 0     | 0     | 0     | 0           | 0    | 2    | 0      | 0     | 2         | 2          |
| % Buses               | 0    | 0    | 0      | 0   | 0         | 0     | 0    | 0     | 0                | 0               | 0    | 0     | 0     | 0     | 0           | 0    | 0.2  | 0      | 0     | 0.2       | 0.1        |



### S HO RT COUNTS, LEC 735 Maryland St

Columbia, SC 29201

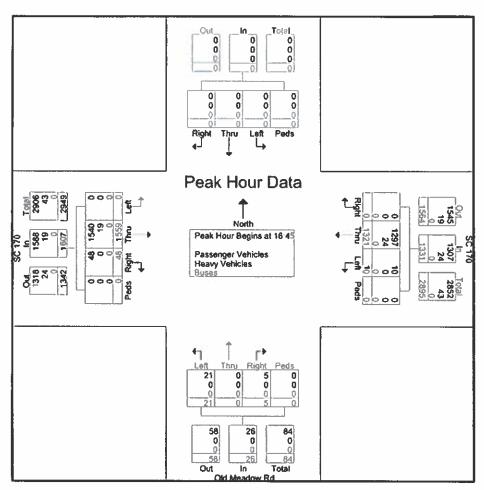
We can't say we're the Best, but you Can!

File Name: SC 170 @ Old Meadow Rd

Site Code :

Start Date : 08/03/2021

|                      |         | So     | outhbo  | und           |           |        | v    | SC 17 | •    |                |      |      | Meado<br>orthbo |      |            |      |      | SC 17 | -    |            |            |
|----------------------|---------|--------|---------|---------------|-----------|--------|------|-------|------|----------------|------|------|-----------------|------|------------|------|------|-------|------|------------|------------|
| Start Time           | Left    | Thru   | Right   | Peds          | App Total | _Left  | Thru | Right | Peds | App Total      | Left | Thru | Right           | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| Peak Hour Ar         | nalysis | From   | 16:00 t | o 17:45       | - Peak    | 1 of 1 |      |       |      |                |      |      |                 |      |            |      |      |       |      |            |            |
| Peak Hour for        | Entire  | Inters | ection  | <b>Begins</b> | at 16:4   | 5      |      |       |      |                |      |      |                 |      |            |      |      |       |      |            |            |
| 16:45                | 0       | 0      | 0       | 0             | 0         | 3      | 330  | 0     | 0    | 333            | 6    | 0    | 1               | 0    | 7          | 0    | 349  | 14    | 0    | 363        | 703        |
| 17:00                | 0       | 0      | 0       | 0             | 0         | 1      | 339  | 0     | 0    | 340            | 3    | 0    | 2               | 0    | 5          | 0    | 400  | 10    | 0    | 410        | 755        |
| 17:15                | 0       | 0      | 0       | 0             | 0         | 4      | 325  | 0     | 0    | 329            | 5    | 0    | 1               | 0    | 6          | 0    | 404  | 8     | 0    | 412        | 747        |
| 17:30                | 0       | 0_     | 0_      | 0_            | 0         | 2      | 327  | 0_    | 0_   | 329            | 7    | 0_   | 1_              | 0    | 8          | 0    | 406  | 16    | 0    | 422        | 759        |
| Total Volume         | 0       | 0      | 0       | 0             | 0         | 10     | 1321 | 0     | 0    | 1331           | 21   | 0    | 5               | 0    | 26         | 0    | 1559 | 48    | 0    | 1607       | 2964       |
| % App. Total         | 0       | 0      | 0       | 0             |           | 0.8    | 99.2 | 0     | 0    |                | 80.8 | 0    | 19.2            | 0    | -          | 0    | 97   | 3     | D    |            |            |
| PHF                  | .000    | .000   | .000    | .000          | .000      | .625   | .974 | .000  | .000 | .979           | .750 | .000 | .625            | .000 | .813       | .000 | .960 | 750_  | .000 | .952       | .976       |
| Passanger Vehicles   | 0       | D      | 0       | 0             | 0         | 10     | 1297 |       |      | 10 70 10 10 10 |      |      |                 |      | W-2        |      | 1540 |       |      |            |            |
| % Passanger Valentes | 0       | 0      | 0       | 0             | 0         | 100    | 98.2 | 0     | 0    | 98.2           | 100  | 0    | 100             | 0    | 100        | 0    | 98.8 | 100   | 0    | 98.8       | 98.5       |
| Heavy Vehicles       | 0       | 0      | 0       | 0             | 0         | 0      | 24   | 0     | 0    | 24             | 0    | 0    | 0               | 0    | 0          | . 0  | 19   | 0     | 0    | 19         | 43         |
| % Heavy Velocies     | 0       | 0      | 0       | 0             | 0         | 0      | 1.8  | 0     | 0    | 1.8            | 0    | 0    | 0               | 0    | 0          | 0    | 1.2  | 0     | 0    | 1.2        | 1.5        |
| Buses                | 0       | 0      | 0       | 0             | 0         | 0      | 0    | 0     | 0    | 0              | 0    | 0    | 0               | 0    | 0          | 0    | 0    | 0     | 0    | 0          | 0          |
| % Buses              | 0       | 0      | 0       | 0             | 0         | 0      | 0    | 0     | 0    | 0              | 0    | 0    | 0               | 0    | 0          | 0    | 0    | 0     | 0    | 0          | 0          |



### Appendix C TRAFFIC VOLUME DEVELOPMENT WORKSHEETS

|   |              |                |              |              | 1014           | J. PROJE     | ECTIF        | AFFIC        |              |              |              |              |
|---|--------------|----------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Traffic Contro  | TVISC        |                |              |              | 151            | OUT          |              | IIV.         | OUT          |              |              |              |
| Date Counted  | 8/3/202      |                |              | Atti         | 77             | 209          | Pta          | 224          | 136          |              |              |              |
| AM PEAK HOUR<br>7:00 AM - 8:00 AM   | EBL          | EBT            | EBR          | WBL          | WBT            | WBR          | NBL          | NBT          | NBR          | SBL          | SBT          | SBF          |
| 2021 Existing Traffic Volumes   | 0            | 1,038          | 10 5         | @ 252        | 1,400          | 1031         | G 47.8       | 0            | 10           | 0            | 0            | 0            |
| Years to Buildout<br>Yearly Growth Rate<br>Background Traffic             | 3<br>4%<br>0 | 3<br>4%<br>125 | 3<br>4%<br>1 | 3<br>4%<br>0 | 3<br>4%<br>168 | 3<br>4%<br>0 | 3<br>4%<br>6 | 3<br>4%<br>0 | 3<br>4%<br>1 | 3<br>4%<br>0 | 3<br>4%<br>0 | 3<br>4%<br>0 |
| 2024 No Build Traffic Volumes   | CHOLE        | 1,163          | 11           | 10 2 13      | 1,568          | 10           | 53           | 0.0          | 1113         | 205          | 0            | 0            |
| Inbound Project Traffic % Outbound Project Traffic % 2024 Project Traffic | 50%          | 0              | 0            | 0            | 0              | 50%<br>39    | 0            | 0            | D            | 50%<br>105   | 0            | 50%<br>104   |
| 2024 Build Traffic Volumes  | 38           | 1,163          | -11          | fa2 d        | 1,568          | 39           | 63           | 0            | 1111         | 105          | 0            | 104          |
| PM PEAK HOUR<br>4:46 PM - 8:45 PM   | EBL          | EBT            | EBR          | WBL          | WBT            | WBR          | NBL          | NBT          | NBR          | SBL          | SBT          | SBI          |
| 2021 Existing Traffic Volumes   | <b>第0</b> 图  | 1,659          | 48 7         | 10           | 1,321          | 0            | 21           | 0            | 1.6          | 0            | 275 O 31. 1  | 0            |
| Years to Buildout<br>Yearly Growth Rate                                   | 3<br>4%      | 3<br>4%        | 3<br>4%      | 3            | 3<br>4%        | 3<br>4%      | 3<br>4%      | 3<br>4%      | 3<br>4%      | 3<br>4%      | 3<br>4%      | 3<br>4%      |
| Sackground Traffic  | 1 0          | 187            | 6            | 1 1          | 159            | 0            | 3            | 0            | 1            | 0            | 0            | 0            |
| 2024 No Bulld Traffic Volumes   | 4.0          | 1,746          | 54           | -11          | 1,480          | 0            | 24           | 0            | 6            | 0            | 0            | 0            |
| Inbound Project Traffic % Outbound Project Traffic % 2024 Project Traffic | 50%          | 0              | 0            | 0            | 0              | 50%          | 0            | 0            | 0            | 50%<br>68    | 0            | 50%          |
| 2024 Build Traffic Volumes  | 112          | 1,746          | 64           | -11          | 1,480          | 112          | 24           | 0            | 6            | 68           | 0            | 68           |

### Appendix D ANALYSIS WORKSHEETS: 2021 EXISTING CONDITIONS

| Intersection           |                 | 911         |                | (8.79)                      |          |           |  |
|------------------------|-----------------|-------------|----------------|-----------------------------|----------|-----------|--|
| Int Delay, s/veh       | 0,6             |             |                |                             |          |           | -0.000   |
| Movement               | EBT             | EBR         | WBL            | WBT                         | NBL      | NBR       | -  |
| Lane Configurations    | 44              | #           |                | 41                          | ሻ        | 1         |  |
| Traffic Vol, veh/h     | 1038            | 10          | 2              | 1400                        | 47       | 10        |  |
| Future Vol, veh/h      | 1038            | 10          | 2              | 1400                        | 47       | 10        |  |
| Conflicting Peds, #/hr | 0               | 0           | 0              | 0                           | 0        | 0         |  |
| Sign Control           | Free            | Free        | Free           | Free                        | Stop     | Stop      |  |
| RT Channelized         | -               | None        | - 6-           | None                        | - 73     | None      |  |
| Storage Length         | 10.65           | 250         |                |                             | 100      | 0         | . II. est  |
| Veh in Median Storage, |                 | £15         |                | 0                           | 2        | 10.       | 18 18  |
| Grade, %               | 0               | -           | -              | 0                           | 0        | •         |  |
| Peak Hour Factor       | 93              | 93          | 93             | 93                          | 93       | 93        |  |
| Heavy Vehicles, %      | 4               | 4           | 2              | 2                           | 2        | 2         |  |
| Mymt Flow              | 1116            | 11          | 2              | 1505                        | 51       | 11        |  |
|                        |                 |             |                |                             |          |           |  |
| Major/Minor N          | lajori          | A TOTAL     | Major2         | 25                          | Minor    | 100       | THE PERSON   |
| Conflicting Flow All   | 0               |             | 1127           |                             | 1873     | 558       |  |
| Stage 1                | No.             |             |                | Sept 1                      | 1116     | -         | 1546   |
| Stage 2                |                 |             |                | Pill S                      | 757      |           |  |
| Critical Hdwy          | edit*           |             | 4.14           |                             | 6.84     | 6.94      | 1.42   |
| Critical Hdwy Stg 1    |                 |             |                |                             | 5.84     | -         | - CARLES   |
| Critical Howy Stg 2    | Miller T        |             |                |                             | 5.84     |           |  |
| Follow-up Hdwy         | -               | -           | 2.22           | · ·                         | 3.52     | 3.32      |  |
| Pot Cap-1 Maneuver     | 136             |             | 616            | NA PE                       | 64       | 473       | To All I   |
| Stage 1                | -               | - post Care |                | MALAUNA C                   | 275      |           | P. P. A.D. F.  |
| Stage 2                |                 |             |                |                             | 424      |           | 120  |
| Platoon blocked, %     | e in the second | The Charles | and the passes | ALC: NAME OF TAXABLE PARTY. |          | Service d | Semilaria de la compansión de la compans |
| Mov Cap-1 Maneuver     | TO STATE        |             | 616            |                             | 63       | 473       |  |
| Mov Cap-2 Maneuver     | Mary State      | CARLON      | -              | MEX IDEA                    | 224      | -         |  |
| Stage 1                | ANT             | Sept.       | n dies -       | Sec.                        | 275      | 1000      |  |
| Stage 2                | -               |             | LL BANCLET     | and the same of             | 416      | MEN TOWN  |  |
|                        |                 |             |                |                             | N. Park  |           |  |
| Assessed               | Eb              |             | (AA)           |                             | Alfa     | -         |  |
| Approach               | EB              |             | WB             |                             | NB       |           |  |
| HCM Control Delay, s   | 0               |             | 0.1            |                             | 23.4     |           | To what  |
| HCM LOS                | 14.8            |             | No.            | 2014                        | С        |           |  |
|                        | 1210            | and the     |                | 90.50                       | STATE OF | 426       | FILE   |
| Minor Lane/Major Mymt  | No.             | NBLn1       | NBLn2          | EBT                         | EBR      | WBL       | WBT  |
| Capacity (veh/h)       |                 | 224         | 473            |                             |          | 616       | KI S   |
| HCM Lane V/C Ratio     |                 | 0.226       | 0.023          |                             |          | 0.003     |  |
| HCM Control Delay (s)  |                 | 25.7        | 12.8           |                             | 404      | 10.9      | 0.1  |
| HCM Lane LOS           |                 | D           | В              | -                           | -        | В         | A  |
| HCM 95th %tile Q(veh)  | Lie In          | 0.8         | 0.1            | 245                         | A 788    | 0         |  |

| ntersection            | Sec. S.         | resolution.  | 100               |             | 100    | 4000                   |                 |
|------------------------|-----------------|--|-------------------|-------------|--------|------------------------|-----------------|
| Int Delay, s/veh       | 0.6             | 5000   | Vicinity (        |             | 160    |                        |                 |
| Movement               | EBT             | EBR  | WBL               | WBT         | NBL    | NBR                    | ur Cont         |
| Lane Configurations    | 44              | 7  |                   | 41          | ۲      | 7                      |                 |
| Traffic Vol, veh/h     | 1559            | 48   | 10                | 1321        | 21     | 5                      |                 |
| Future Vol, veh/h      | 1559            | 48   | 10                | 1321        | 21     | 5                      |                 |
| Conflicting Peds, #/hr | 0               | 0  | 0                 | 0           | 0      | 0                      |                 |
| Sign Control           | Free            | Free   | Free              | Free        | Stop   | Stop                   |                 |
| RT Channelized         | SEA.            | None   |                   | None        |        | None                   |                 |
| Storage Length         | •               | 250  |                   |             | 100    | 0                      |                 |
| Veh in Median Storage  | # 0             |  |                   | 0           | 2      |                        |                 |
| Grade, %               | 0               |  |                   | 0           | 0      | -                      |                 |
| Peak Hour Factor       | 98              | 98   | 98                | 98          | 98     | 98                     |                 |
| Heavy Vehicles, %      | 2               | 2  | 2                 | 2           | 2      | 2                      |                 |
| Mymt Flow              | 1591            | 49   | 10                | 1348        | 21     | 5                      |                 |
|                        |                 |  |                   |             |        |                        |                 |
| Major/Minor            | Vajor1          |  | Major2            |             | dinor1 | N VESTI                | 300)            |
| Conflicting Flow All   | 0               |  | 1640              |             | 2285   | 796                    |                 |
| Stage 1                |                 | panis.   |                   | HE ST       | 1591   | <b>EXIT</b>            | Guin.           |
| Stage 2                |                 | _  | _                 | -           | 694    | -                      | and the same of |
| Critical Howy          |                 | 61.50x   | 4.14              | A           | 6.84   | 6.94                   | Taries I        |
| Critical Hdwy Stg 1    |                 | -  |                   | -           | 5.84   |                        |                 |
| Critical Howy Stg 2    |                 | STATE OF   |                   |             | 5.84   |                        |                 |
| Follow-up Hdwy         |                 |  | 2.22              |             | 3.52   | 3.32                   |                 |
| Pot Cap-1 Maneuver     |                 |  | 391               |             | 33     | 330                    |                 |
| Stage 1                |                 |  |                   |             | 153    |                        |                 |
| Stage 2                | THE P           |  |                   | 600         | 457    |                        | 1015            |
| Platoon blocked, %     |                 |  | Charles of the co |             |        | AUTOMA                 |                 |
| Mov Cap-1 Maneuver     | 75/4            |  | 391               |             | 30     | 330                    | MUS.            |
| Mov Cap-2 Maneuver     | -               | -  |                   | -           | 137    |                        |                 |
| Stage 1                | adut •          | ALC:   | SAC.              | Alger -     | 153    | acar.                  |                 |
| Stage 2                |                 |  | •                 | •           | 410    | -                      |                 |
| SHOP THE RESERVE       |                 | No.  |                   |             | T Real | THE REAL PROPERTY.     | 100             |
| Approach               | EB              |  | WB                | TO SHARE    | NB     | NAME OF TAXABLE PARTY. | Ri dinasa       |
| HCM Control Delay, s   | 0               |  | 0.8               |             | 32.3   |                        | La contraction  |
| HCM LOS                | U               | EMPL   | V.0               |             |        |                        |                 |
| HUM LUS                | NAME OF TAXABLE | UKLO   | and the same      | Charles and | D      |                        | N.B. II J       |
|                        | CHETCH          | STATE OF THE PARTY |                   | netric      |        |                        |                 |
| Minor Lane/Major Mym   | t               | NBLn1  |                   | EBT         | EBR    |                        | WBT             |
| Capacity (veh/h)       | a. 11           | 137  | 330               | Divisi-     |        | 391                    | •               |
| HCM Lane V/C Ratio     | 1772            |  | 0.015             |             |        | 0.026                  | •               |
| HCM Control Delay (s)  | 100             | 36.1   | 16.1              |             | MAN.   | 14.5                   | 0.7             |
| HCM Lane LOS           |                 | E  | C                 | ar and      | -      | В                      | Α               |
| HCM 95th %tile Q(veh)  |                 | 0.5  | 0                 |             | 91327  | 0.1                    | HIER TH         |

### Appendix E ANALYSIS WORKSHEETS: 2024 NO BUILD CONDITIONS

| ntersection            | 49   |             | e Atlimits    | A Village  | 45,900 | out HE         |                                 |
|------------------------|--|-------------|---------------|--|--------|----------------|---------------------------------|
| Int Delay, s/veh       | 0.8  |             |               |  |        |                |                                 |
| Movement               | EBT  | EBR         | WBL           | WBT  | NBL    | NBR            |                                 |
| Lane Configurations    | 44   | 7           | 1100          | 44   | 7      | 7              |                                 |
| Traffic Vol, veh/h     | 1163   | 11          | 2             | 1568   | 53     | EE 118         | -                               |
| Future Vol, veh/h      | 1163   | 11          | 2             | 1568   | 53     | 11             | and the second                  |
| Conflicting Peds, #/hr |  | 0           | 0             | 0  | 0      | 0              | CIS SERVICE                     |
| Sign Control           | Free   | Free        | Free          | Free   | Stop   | Stop           |                                 |
| RT Channelized         |  |             | FIGE.         | None   | Stop - | the Management |                                 |
| Storage Length         | -  | 250         | E SHIP OF     | INVIEC   | 100    | 140419         | THE PARTY                       |
| Veh in Median Storag   | e.# 0  | 200         |               | 0  | 2      | 0              | and an experience               |
| Grade, %               | 0, # 0   |             |               | 0  | 0      |                |                                 |
| Peak Hour Factor       | 93   | 93          | 93            | 93   | 93     | 93             |                                 |
|                        |  |             | 2             |  |        |                |                                 |
| Heavy Vehicles, %      | 4054   | 4           |               | 1000   | 2      | 2              | PAGE NAME OF PERSONS ASSESSMENT |
| Mymt Flow              | 1251   | 12          | 2             | 1686   | 57     | 12             |                                 |
| Major/Minor            | Majori   |             | Major2        | Try of   | Minor1 |                | 1410/01 27                      |
| Conflicting Flow All   | 0  |             | 1263          | with the same of t | 2098   | 626            |                                 |
| Stage 1                | 2000   |             | 1200          | Chart !  | 1251   | - DAM -        | ALC: N                          |
| Stage 2                |  |             | or, which the | -  | 847    | THE COLUMN     | - Marie Control                 |
| Critical Hdwy          |  | auto-       | 4.14          | MAN T  | 6.84   | 6.94           | Name of                         |
| Critical Hdwy Stg 1    |  |             | 7,17          | SURES IN   | 5.84   | 0.04           | and the same                    |
| Critical Howy Stg 2    |  |             | 815 (P)       | MART   | 5.84   |                | CO STATE                        |
| Follow-up Hdwy         | Marine A.  | LUBER !     | 2.22          | AND CHARLES  | 3.52   | 3.32           | the learning                    |
| Pot Cap-1 Maneuver     |  | aughter .   | 546           | STATE OF THE PARTY | ~ 45   | 427            | NAME OF TAXABLE PARTY.          |
| Stage 1                | State  | 100         | J40           | MICEL  | 233    | Manage 1 Pri   |                                 |
|                        |  |             | ALL PRESTOR   |  | 381    | THE STATE OF   | Scotlan Library                 |
| Stage 2                | •  | S 14 .      | E Black       | •  | 301    |                |                                 |
| Platoon blocked, %     | ALC: VIEW  |             | E40           | -  | 40     | 100            | a management in                 |
| Mov Cap-1 Maneuver     |  | Yelling     | 546           |  | ~42    | 427            |                                 |
| Mov Cap-2 Maneuver     |  |             | •             |  | 188    | -              |                                 |
| Stage 1                |  |             | All the said  | Mary Jan 1   | 233    | A Sella        |                                 |
| Stage 2                |  |             |               | •  | 359    |                |                                 |
|                        |  |             |               |  | R SWI  |                |                                 |
| Approach               | EB   | September 1 | WB            |  | NB     | Garage I       |                                 |
| HCM Control Delay, a   | The state of the s | HILITAR     | 0.3           | BO PE  | 29,1   |                |                                 |
| HCM LOS                | -  |             | 0.0           |  | D      |                |                                 |
| district markets       | 99100  |             |               |  |        | BAT.           |                                 |
| Minor Lane/Major Mv    | nt i   | NBLn11      | NBLn2         | EBT  | EBR    | WBL            | Wet                             |
| Capacity (veh/h)       |  | 188         | 427           |  |        | 546            |                                 |
| HCM Lane V/C Ratio     |  | 0.303       |               |  | -      | 0.004          |                                 |
| HCM Control Delay (s   | )  | 32.3        | 13.7          | 44.7   | SEAVE. | 11.6           | 0.3                             |
| HCM Lane LOS           |  | D           | 8             | A STATE OF   | -      | В              | A                               |
| HCM 95th %tile Q(vel   | 1)   | 1.2         | 0.1           | AVE S  |        | 0              | 194                             |
| Notes                  | 20,000   |             |               | . Health   |        | -              |                                 |
| ~: Volume exceeds ca   |  | 100000      |               | eeds 30  |        | +: Com         |                                 |

| ntersection            | SSIEZ               | - Maria                |                      |         | ST. True                                | CATTERIA | Name of the least        |
|------------------------|---------------------|------------------------|----------------------|---------|---|----------|--------------------------|
| Int Delay, s/veh       | 1,5                 |                        | 1                    |         | 10                                      |          |                          |
| Movement               | EBT                 | EBR                    | WBL                  | WBT     | NBL                                     | NBR      |                          |
| Lane Configurations    | 44                  | 7                      |                      | 414     | *                                       | 1        |                          |
| Traffic Vol, veh/h     | 1746                | 54                     | 11                   | 1480    | 24                                      | 6        |                          |
| Future Vol, veh/h      | 1746                | 54                     | 11                   | 1480    | 24                                      | 6        |                          |
| Conflicting Peds, #/hr |                     | 0                      | 0                    | 0       | 0                                       | 0        |                          |
| Sign Control           | Free                | Free                   | Free                 | Free    | Stop                                    | Stop     |                          |
| RT Channelized         | 1100                |                        |                      | None    |   | None     | 1 100                    |
| Storage Length         |                     | 250                    | -                    | 1 10110 | 100                                     | 0        |                          |
| Veh in Median Storag   | e,# 0               | ned:                   | 16.75                | 0       | 2                                       |          | To the same              |
| Grade, %               | 0, 11               | NAME OF TAXABLE PARTY. | A COLUMN             | 0       | 0                                       |          |                          |
| Peak Hour Factor       | 95                  | 95                     | 95                   | 95      | 95                                      | 95       | WII ROL                  |
| Heavy Vehicles, %      | 2                   | 2                      | 2                    | 2       | 2                                       | 2        | and it                   |
| Mynt Flow              | 1838                | 57                     | 12                   | 1558    | 25                                      | 6        | III SALA                 |
| MAIII LION             | 1030                | 0/                     | 12                   | 1000    | 25                                      | 0        |                          |
| Major/Minor            | Majorf              |                        | Major2               | n Earl  | Vinor                                   | 75550    | NETTIN                   |
| Conflicting Flow All   | 0                   | 0                      | 1895                 | 0       |   | 919      |                          |
| Stage 1                | ET HE               |                        |                      |         | 1838                                    | 010      | 50                       |
| Stage 2                |                     |                        |                      |         | 803                                     |          |                          |
| Critical Hdwy          |                     | May 1                  | 4.14                 | aur.    | 6.84                                    | 6.94     | TELEVISION OF THE PERSON |
| Critical Howy Stg 1    | SELECTION OF STREET |                        | 4.14                 |         | 5.84                                    | 0.54     |                          |
| Critical Howy Stg 2    | RESERVE OF          | SXIV-1                 |                      |         | 5.84                                    | REGIFTS  | Service .                |
| Follow-up Hdwy         |                     | arcast                 | 2.22                 |         | 3.52                                    | 3.32     | 9 F 2 F 3                |
| Pot Cap-1 Maneuver     | NUESTS              | 37,1140                | 311                  |         | ~ 19                                    | 273      | A CONTRACTOR             |
|                        |                     |                        | 311                  | •       |   | 213      |                          |
| Stage 1                |                     | WG III                 | M. Stell Steller Co. | -       | 112                                     |          | mercen or                |
| Stage 2                | Can Ca              |                        | •                    | •       | 401                                     |          |                          |
| Platoon blocked, %     | -                   | -                      |                      |         |   |          |                          |
| Mov Cap-1 Maneuver     |                     |                        | 311                  | -       | ~ 14                                    | 273      |                          |
| Mov Cap-2 Maneuver     |                     | -                      | 10                   | •       | 98                                      |          |                          |
| Stage 1                | SHOUL               | SIDK-                  | Asird-               | 1804    | 112                                     |          | E. See                   |
| Stage 2                |                     | -                      | -                    | -       | 286                                     | -500     |                          |
|                        |                     |                        |                      |         | 17.03                                   | Arrest . |                          |
| Approach               | EB                  |                        | WB                   |         | NB                                      | No.      | 101                      |
| HCM Control Delay, s   | 0                   |                        | 2.5                  |         | 46.9                                    |          |                          |
| HCM LOS                |                     |                        |                      |         | E                                       |          |                          |
|                        | at a                |                        |                      | 100     |   |          |                          |
| Minor Lane/Major Myn   | nt I                | VBLn1                  |                      | EBT     | EBR                                     |          | WBT                      |
| Capacity (veh/h)       |                     | 98                     | 273                  |         |   | 311      |                          |
| HCM Lane V/C Ratio     |                     | 0.258                  |                      |         | HINDE OF                                | 0.037    |                          |
| HCM Control Delay (s   |                     | 54                     | 18.5                 | and I   | ALC:                                    | 17       | 2.4                      |
| HCM Lane LOS           |                     | F                      | C                    |         | 111111111111111111111111111111111111111 | С        | Α                        |
| HCM 95th %tite Q(veh   |                     | 0.9                    | 0.1                  | 15      | \$2 <b>4.</b> 7                         | 0.1      |                          |
| Notes                  |                     | 3000                   | 101                  | A ST    | -                                       |          |                          |
| ~: Volume exceeds ca   | -                   | ASSESSED BY            | lay exc              |         |   | : Comp   | -                        |

### Appendix F ANALYSIS WORKSHEETS: 2024 BUILD CONDITIONS

| Int Delay, s/veh                  | 14.5     |  |                    |   |         |  |         |                    |             |                |         |                  |  |
|-----------------------------------|----------|--|--------------------|---|---------|--|---------|--------------------|-------------|----------------|---------|------------------|--|
| Movement                          | EBL      | EBT  | EBR                | WBL                                     | WBT     | WBR  | NBL     | NBT                | NBR         | SBL            | SBT     | SBR              |  |
| Lane Configurations               | ኘ        | TO SHARE SHOWING   | 7                  |   | 44      | 7  | ħ       |                    | 1           |                | न       | 1                |  |
| Traffic Vol, veh/h                | 38       | 1163   |                    | 2                                       | 1568    | 39   | 53      | 0                  | 11          | 105            | 0       | 104              | 9511211190   |
| Future Vol., veh/h                | 38       | 1163   | 11                 | 2                                       | 1568    | 39   | 53      | 0                  | 11          | 105            | 0       | 104              |  |
| Conflicting Peds, #/hr            | 0        | 0  | 0                  | 0                                       | 0       | 0  | 0       | 0                  | 0           | 0              | 0       | 0                | EAFTER ST  |
| Sign Control                      | Free     | Free   | Free               | Free                                    | Free    | Free   | Stop    | Stop               | Stop        | Stop           | Stop    | Stop             | STREET, STREET |
| RT Channelized                    |          |  | None               | EAST-1                                  |         | None   | Old P   | Otop               | None        | Ctop           | Otop    | None             |  |
| Storage Length                    | 200      | OCCUPATION AND ADDRESS OF THE PARTY OF THE P | 250                |   | _       | 100  | 100     | -                  | 0           |                |         | 100              | A STATE OF THE PARTY OF  |
| Veh in Median Storage             |          | 0  | 200                |   | 0       | 100  | 214412  | 2                  | SINP!       | ale-           | 2       | 100              |  |
| Grade, %                          | 1 !!     | 0  |                    | 171111111111111111111111111111111111111 | 0       |  |         | 0                  | THE PERSONS | And the second | 0       | CORPORA AN       |  |
| Peak Hour Factor                  | 93       | 93   | 93                 | 93                                      | 93      | 93   | 93      | 93                 | 93          | 93             | 93      | 93               | STATE OF THE PARTY OF  |
| Heavy Vehicles, %                 | 2        | 4  | 4                  | 2                                       | 2       | 2  | 2       | 2                  | 2           | 2              | 2       | 2                |  |
| Mynt Flow                         | 41       | 1251   | 12                 | 2                                       | 1686    | 42   | 57      | 0                  | 12          | 113            | 0       | 112              | 2078   |
| MAINT LOW                         |          | 1201   | 12                 | - Table 4                               | 1000    | 42   | 01      | U                  | 12          | 113            | U       | HZ               |  |
| Major/Minor                       | Majori   | N ISENT  | 2011               | Major2                                  | 071 -31 | ET SPIN  | Minor1  | ALL VA             |             | Vinor2         | E I     |                  |  |
| Conflicting Flow All              | 1728     | 0  | 0                  | 1263                                    | 0       | 0  | 2180    |                    | 626         | 2398           | 3035    | 843              |  |
| Stage 1                           | 1120     |  | SOLID PLY          | 1200                                    |         | de la constitución de la constit | 1333    | THE REAL PROPERTY. | 020         | 1690           | 1690    | 045              | NEW YORK   |
| Stage 2                           | ALC: UNI | NAME OF  | -                  |   |         |  | 847     |                    |             | 708            | 1345    | CHILD SELVE      |  |
| Critical Hdwy                     | 4.14     | UTOY!  | LES AT             | 4.14                                    |         |  | 7.54    | alite I            | 6.94        | 7.54           | 6.54    | 6,94             |  |
| Critical Hdwy Stg 1               | 7.17     | Name of the  | Carrier .          | 4.14                                    | 400     | -  | 6.54    | Oliver.            | 0.94        | 6.54           | 5.54    |                  |  |
| Critical Howy Stg 2               | 1000     | organic  | THE SHAPE          |   |         |  | 6.54    | suite:             |             | 6.54           | 5.54    |                  | HYMA ZAROPA  |
| Follow-up Hdwy                    | 2.22     | STREET,  | Malan.             | 2.22                                    |         |  | 3.52    | A TRUE             | 3.32        | The same of    |         |                  |  |
|                                   | 361      | MERINE   | MINISTER PROPERTY. | 546                                     | RIGHTS  | LOSS FOR THE   | ~ 26    | -                  |             | 3.52           | 4.02    | 3.32             | Name of Street   |
| Pot Cap-1 Maneuver                | 301      | But .  |                    | 040                                     | KE .    |  |         | 0                  | 427         | ~ 17           | 13      | 307              | ALDERSON.  |
| Stage 1                           |          |  | COURSE DES         | -                                       | reeness | CONTRACTOR OF THE PARTY OF THE  | 162     | 0                  | Carconne    | - 97           | 148     | orchident (Color | PERSONAL VARIABLE  |
| Stage 2                           |          | -  | 60 il              | •                                       |         |  | 323     | 0                  |             | 392            | 218     |                  | V-10-10-10-10-10-10-10-10-10-10-10-10-10-  |
| Platoon blocked, %                | 004      |  |                    |   | -       | tro-company  |         | vetelurence        |             | 200            |         |                  | Mile Sent Printer Controller   |
| Mov Cap-1 Maneuver                | 361      |  |                    | 546                                     |         |  | ~ 14    | •                  | 427         | ~ 14           | 10      | 307              |  |
| Mov Cap-2 Maneuver                |          | -  | -                  | -                                       | •       | •  | 95      |                    | •           | ~ 79           | 101     | •                |  |
| Stage 1                           | WAL.     |  | Mark.              | 45%                                     | -       |  | 144     | 434                | -           | ~ 86           | 133     |                  |  |
| Stage 2                           | -        | -  | -                  | •                                       |         | -  | 184     |                    |             | 338            | 193     | -                |  |
| Allera de Caración de la companyo |          |  |                    | SHUM                                    |         |  |         |                    | NO.         |                | A STATE | MAN AT           |  |
| Approach                          | EB       |  |                    | WB                                      |         | Mile .   | NB      | 1000               | MILES.      | SB             |         |                  |  |
| HCM Control Delay, s              | 0.5      |  |                    | 0.6                                     |         |  | 75.5    | 13, 11             | TO SHEET    | 184.3          |         | NAME OF STREET   | WELL THE   |
| HCM LOS                           |          |  |                    |   |         |  | F       |                    |             | F              |         |                  |  |
|                                   |          | uni e  | 101                |   | 222     |  | Na bell | Tabe F             | 31/80-27    |                |         | MARKET           | MARKET !   |
| Minor Lane/Major Mvm              |          | NBLn1  |                    | EBL                                     | EBT     | EBR  | WBL     | WBT                | WBR         |                | -       |                  |  |
| Capacity (veh/h)                  |          | 95   | 427                | 361                                     |         |  | 546     | AFT.               |             | 79             | 307     |                  |  |
| HCM Lane V/C Ratio                |          |  | 0.028              |   |         | 47   | 0.004   | -                  |             | 1.429          |         |                  |  |
| HCM Control Delay (s)             |          | 88.3   | 13.7               | 16.2                                    | 4       | ma.  | 11.6    | 0.6                | -\$         | 343.7          | 23.3    |                  |  |
| HCM Lane LOS                      |          | F  | В                  | C                                       | •       | ALLEY COM  | В       | Α                  | -           | F              | C       |                  |  |
| HCM 95th %tile Q(veh)             |          | 2.8  | 0.1                | 0.4                                     | 10 × 1  |  | 0       | * N                |             | 9              | 1.6     |                  |  |
| Notes                             | 9=018    | W.   | AVAL               | -                                       | ETS     | 500  | - 1000  | A Pile             | 1           | 90.00          | Ser. C  | de pleas         | te file  |
| ~: Volume exceeds car             | nait.    | t.D.   | alay exc           | and- or                                 | V/-     | +: Com   |         | Mos D              | Sage        | P. AP          | mal     | olume in p       | latana   |

| Int Delay, s/veh   | 64.2   |               |  |                   |              |                        |          |                |                |        |                   |                       |  |
|--|--------|---------------|--|-------------------|--------------|------------------------|----------|----------------|----------------|--------|-------------------|-----------------------|--|
| Movement   | EBL    | EBT           | EBR  | WBL               | WBT          | WBR                    | NBL      | NBT            | NBR            | SBL    | SBT               | SBR                   | No. of Contract of |
| Lane Configurations  | 7      | 44            | 7  |                   | 44           | 7                      | 7        |                | 7              |        | 4                 | 1                     |  |
| Traffic Vol. veh/h   | 112    |               | 54   | 11                | 1480         | 112                    | 24       | 0              | 6              | 68     | 0                 | 68                    |  |
| Future Vol, veh/h  | 112    | 1746          | 54   | 11                | 1480         | 112                    | 24       | 0              | 6              | 68     | 0                 | 68                    | THE PERSON NAMED IN COLUMN TWO   |
| Conflicting Peds, #/hr   | 0      |               | 0  | 0                 | 0            | 0                      | 0        | O              | Ö              | 0      | 0                 | 0                     | Elizabeth Company  |
| Sign Control   | Free   | Free          | Free   | Free              | Free         | Free                   | Stop     | Stop           | Stop           | Stop   | Stop              | Stop                  | ing solding manage   |
| RT Channelized   | 1100   | 1100          | None   | 1100              | 1100         | None                   | Olop     | Otop           | None           | Olop   | otop              | None                  |  |
| Storage Length   | 200    |               | 250  |                   |              | 100                    | 100      |                | 0              |        |                   | 100                   |  |
| Veh in Median Storage  |        | 0             | 200  |                   | 0            | 100                    | 100      | 2              |                |        | 2                 | 100                   |  |
| Grade, %   | . 11   | 0             |  |                   | 0            |                        | Section. | 0              |                |        | 0                 | I SOUTH BALL          |  |
| Peak Hour Factor   | 95     | 95            | 95   | 95                | 95           | 95                     | 05       | 95             |                | T or   | 95                | OF I                  | Name and Publisher   |
|  |        | 2             | 2  | 2                 |              |                        | 95       | -              | 95             | 95     |                   | 95                    |  |
| Heavy Vehicles, %  | 2      |               |  |                   | 2            | 2                      | 2        | 2              | 2              | 2      | 2                 | 2                     |  |
| Mymt Flow  | 118    | 1838          | 57   | 12                | 1558         | 118                    | 25       | 0              | 6              | 72     | 0                 | 72                    |  |
| Major/Minor I  | dajorT |               | 7  | Major2            |              |                        | Minorf   | Total S        |                | Minor2 |                   |                       |  |
| Conflicting Flow All   | 1676   | 0             | 0  | 1895              | 0            | 0                      | 2877     |                | 919            | 2737   | 3713              | 779                   |  |
| Stage 1  | 1010   |               | 0  | 1090              | U            | 0                      | 2074     | - Division and | 919            | 1582   | 1582              | ARI DOWNSON           | Contract of the same   |
| The second secon | ALC: N |               | P. John J.   |                   |              | 90 9 1                 |          | 100            |                |        | The second second |                       |  |
| Stage 2  | 4.14   | Table 1       | COLUMN TO SERVICE STATE OF THE PERSON NAMED IN COLUMN TO SERVICE STATE OF THE PERSON NAMED STATE OF THE PERSON NAMED STATE OF THE PERSON NAMED STATE OF THE PERSON NAM | 10144             | Value of the | SEE COO                | 803      | •              | 0.04           | 1155   | 2131              | 0.04                  | - Contract  |
| Critical Howy  |        | MARIE .       |  | 4.14              | -            |                        | 7.54     |                | 6.94           | 7.54   | 6.54              | 6.94                  |  |
| Critical Hdwy Stg 1  |        | •             |  |                   | -            | -                      | 6.54     | -              |                | 6.54   | 5.54              |                       |  |
| Critical Hdwy Stg 2  |        |               |  | 1536              |              |                        | 6.54     |                |                | 6.54   | 5.54              | 636                   |  |
| Follow-up Hdwy   | 2.22   | -             | -  | 2.22              | -            | -                      | 3.52     |                | 3.32           | 3.52   | 4.02              | 3.32                  |  |
| Pot Cap-1 Maneuver   | 379    | THE STATE OF  | <b>技能是</b>   | 311               |              |                        | ~7       | 0              | 273            | ~ 10   | 4                 | 339                   |  |
| Stage 1  | -      | -             | -  | -                 | •            | •                      | 55       | 0              | -              | 114    | 167               | -                     |  |
| Stage 2  |        |               | -  |                   |              | -                      | 343      | 0              | •              | 209    | 88                |                       |  |
| Platoon blocked, %   |        | -             | -  |                   | -            | -                      |          |                |                |        |                   |                       |  |
| Mov Cap-1 Maneuver   | 379    |               |  | 311               |              | X 1-1                  | ~2       |                | 273            | ~3     | 1                 | 339                   |  |
| Mov Cap-2 Maneuver   |        |               |  | -                 | -            | -                      | - 2      | -              |                | ~ 62   | 32                |                       |  |
| Stage 1  | las.   | 43/70 s.      | Ascent.  | MAL.              | 0-14X -1     | 1                      | 38       | SEE .          | Sec. (*)       | 79     | 52                | E Bride               | Surfragulation de  |
| Stage 2  | -      | -             |  | Contract Contract | -            |                        | 84       | e- no billion  | Charles of the | 141    | 61                | Digital Physical Pro- | -40-25-07-24-22-00-2   |
| THE STATE OF THE STATE   | ri e   |               |  |                   |              |                        | WALLS.   |                |                |        |                   | NV A                  |  |
| Approach   | EB     | Will.         | BIAL   | WB                | la la        | 90.0                   | NB       | 201            | JEV.           | SB     | UNAWA SE          | - 6                   |  |
| HCM Control Delay, s   | 1.1    | y men         |  | 5.5               | au n         | \$ (                   | 847.7    |                | F ELLY         | 146.7  |                   |                       |  |
| HCM LOS  |        |               |  |                   |              |                        | F        |                |                | F      |                   |                       |  |
|  |        | NINI - Z      | UDI -  | PAI               | PAR          | PAR.                   | TARK.    | I LIE          | Wine !         | ABL Z  | 861 7             | 1000                  |  |
| Minor Lane/Major Mvm   |        | NBLn11        |  | EBL               | EBT          | EBR                    | _        |                | WBR            |        |                   | -                     |  |
| Capacity (veh/h)   | 47.31  | 2             | 273  | 379               | -            | -                      | 311      | 27 E           | -              | 62     | 339               |                       |  |
| ICM Lane V/C Ratio   |        | 12.632        |  |                   |              |                        | 0.037    | 24 2           | 20736          | 1.154  | 0.211             |                       |  |
| HCM Control Delay (s)  | 100    | \$ 8555       | 18.5   | 18.7              |              | 40                     | 17       | 5.8            |                | 275    | 18.4              | A rest                |  |
| HCM Lane LOS   |        | F             | C  | C                 |              | -                      | C        | Α              |                | F      | C                 |                       |  |
| HCM 95th %tile Q(veh)  | S. A.  | 4.9           | 0.1  | 1.3               |              |                        | 0.1      | 821            |                | 5.8    | 0.8               |                       | HAVE AND DE  |
| Votes  |        | United Street | 2 33   | PER SE            | -            | NAME OF TAXABLE PARTY. | 2000     |                |                |        |                   |                       |  |

### Appendix G ANALYSIS WORKSHEETS: 2024 BUILD CONDITIONS W/ PROPOSED IMPROVEMENTS

| • | _  |     |    | •- |    | •   |
|---|----|-----|----|----|----|-----|
|   | Δħ | A P | ٠. | y. | He | HIT |

|  | <b>A</b>       | <b>→</b> | •                | 1  | <b>—</b> | •             | 4                                       | <b>†</b>  | -               | 1                      | +             | 1              |
|--|----------------|----------|------------------|--|----------|---------------|---|-----------|-----------------|------------------------|---------------|----------------|
| Movement   | EBL            | EBT      | EBR              | WBL  | WBT      | WBR           | NBL                                     | NBT       | NBR             | SBL                    | SBT           | SBF            |
| Lane Configurations  | 7              | <b>*</b> | 7                |  | 44       | 7             |   | र्न       | 7               |                        | स             |                |
| Traffic Volume (veh/h)   | 38             | 1163     | 11               | 2  | 1568     | 39            | 53                                      | 0         | 11              | 105                    | 0             | 104            |
| Future Volume (veh/h)  | 38             | 1163     | 11               | 2  | 1568     | 39            | 53                                      | 0         | 11              | 105                    | 0             | 104            |
| Number   | 5              | 2        | 12               | 1  | 6        | 16            | 3                                       | 8         | 18              | 7                      | 4             | 14             |
| Initial Q (Qb), veh  | 0              | 0        | 0                | 0  | 0        | 0             | 0                                       | 0         | 0               | 0                      | 0             | (              |
| Ped-Bike Adj(A_pbT)  | 1.00           | N. W.    | 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           |
| Adj Sat Flow, veh/h/ln   | 1863           | 1827     | 1827             | 1900   | 1863     | 1863          | 1900                                    | 1863      | 1863            | 1900                   | 1863          | 1863           |
| Adj Flow Rate, veh/h   | 41             | 1251     | 12               | 2  | 1686     | 42            | 57                                      | 0         | 12              | 113                    | 0             | 112            |
| Adj No. of Lanes   | Marie 12       | 2        | 201              | 0  | 2        |               | 0                                       | 5054      |                 | 0                      | 1             | MAK            |
| Peak Hour Factor   | 0.93           | 0.93     | 0.93             | 0.93   | 0.93     | 0.93          | 0.93                                    | 0.93      | 0.93            | 0.93                   | 0.93          | 0.93           |
| Percent Heavy Veh, %   | 2              | 4        | 4                | 2  | 2        | 2             | 2                                       | 2         | 2               | 2                      | 2             | 1              |
| Cap, veh/h   | 194            | 2225     | 995              | 48   | 1884     | 859           | 96                                      | 0         | 379             | 96                     | 0             | 379            |
| Arrive On Green  | 0.04           | 0.64     | 0.64             | 0.54   | 0.54     | 0.54          | 0.24                                    | 0.00      | 0.24            | 0.24                   | 0.00          | 0.24           |
| Sat Flow, veh/h  | 1774           | 3471     | 1553             | 1  | 3471     | 1583          | 0                                       | 0         | 1583            | 0                      | 0             | 1583           |
| Grp Volume(v), veh/h   | 41             | 1251     | 12               | 905  | 783      | 42            | 57                                      | 0         | 12              | 113                    | 0             | 112            |
| Grp Sat Flow(s), veh/h/ln  | 1774           | 1736     | 1553             | 1861   | 1610     | 1583          | 0                                       | 0         | 1583            | 0                      | 0             | 1583           |
| Q Serve(g_s), s  | 0.7            | 15.2     | 0.2              | 0.0  | 32.5     | 0.9           | 0.0                                     | 0.0       | 0.4             | 0.0                    | 0.0           | 4.4            |
| Cycle Q Clear(g_c), s  | 0.7            | 15.2     | 0.2              | 32.5   | 32.5     | 0.9           | 18.0                                    | 0.0       | 0.4             | 18.0                   | 0.0           | 4.4            |
| Prop In Lane   | 1.00           | TANKE .  | 1.00             | 0.00   | 02.0     | 1.00          | 1.00                                    | 0.0       | 1.00            | 1.00                   | 0.0           | 1.00           |
| Lane Grp Cap(c), veh/h   | 194            | 2225     | 995              | 1058   | 874      | 859           | 96                                      | 0         | 379             | 96                     | 0             | 379            |
| V/C Ratio(X)   | 0.21           | 0.56     | 0.01             | 0.86   | 0.90     | 0.05          | 0.60                                    | 0.00      | 0.03            | 1.18                   | 0.00          | 0.30           |
| Avail Cap(c_a), veh/h  | 245            | 2447     | 1095             | 1124   | 932      | 916           | 96                                      | 0.00      | 379             | 96                     | 0.00          | 379            |
| 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           | 1.00     | 1.00             | 1.00   | 1.00     | 1.00          | 1.00                                    | 0.00      | 1.00            | 1.00                   | 0.00          | 1.00           |
| Uniform Delay (d), s/veh   | 15.2           | 7.6      | 4.9              | 15.3   | 15.3     | 8.1           | 37.6                                    | 0.0       | 21.9            | 37.6                   | 0.0           | 23,4           |
| Incr Delay (d2), s/veh   | 0.5            | 0.2      | 0.0              | 6.4  | 10.8     | 0.0           | 9.6                                     | 0.0       | 0.0             | 148.3                  | 0.0           | 0.4            |
| Initial Q Delay(d3),s/veh  | 0.0            | 0.2      | 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   | 0.5            | 7.2      | 0.0              | 18.2   | 16.7     | 0.4           | 1.4                                     | 0.0       | 0.0             | 5.9                    | 0.0           |                |
| LnGrp Delay(d),s/veh   | 15.7           | 7.8      | 4.9              | 21.7   | 26.1     | 8.1           | 47.2                                    | 0.0       | 21.9            | 185.9                  |               | 1.9            |
| LnGrp LOS  | B              | 7.0<br>A | 4.8<br>A         | Z1.7   | Z0.1     | Α             | 41.2<br>D                               | 0.0       | 21.9<br>C       | 100.9<br>F             | 0.0           | 23.8           |
| Approach Vol. veh/h  | D              |          | M M              |  |          | eraniriosophi | - U                                     | - 00      | C               | densi pore re          | 005           | C              |
| to the state of th | S. IFAR.       | 1304     |                  |  | 1730     | Property.     |   | 69        | <b>CONTRACT</b> |                        | 225           |                |
| Approach Delay, s/veh  |                | 8.0      |                  | A STATE OF THE STA | 23.3     |               |   | 42.8      | No Francisco    | and the second         | 105.2         |                |
| Approach LOS   |                | A        | SERVE !          |  | C        |               | MARIE !                                 | D         | MANAGE THE      |                        | F             |                |
| Timer  | . 1            | 2        | 3                | 4  | . 5      | 6             | 7                                       | 8         |                 | -APICO                 | NIE.          | J. State       |
| Assigned Phs   | AND VO         | 2        | E & E & E        | 4  | 5        | 6             | 7 12 E                                  | 8         |                 | 277 8720               | ORES PSY      | Winter.        |
| Phs Duration (G+Y+Rc), s   | MAX-1000-100-1 | 52.7     |                  | 22.5   | 7.4      | 45.3          | NEW THURSDAY PARKET                     | 22.5      | no ser contra   | NAME OF TAXABLE PARTY. | Carried Carps |                |
| Change Period (Y+Rc), s  | AST N          | 4.5      | ALTIBOT !        | 4.5  | 4.5      | 4.5           |   | 4.5       | PER S           |                        | Sea United    |                |
| Max Green Setting (Gmax), s  |                | 53.0     | - Anna di real l | 18.0   | 5.0      | 43.5          | 110000000000000000000000000000000000000 | 18.0      | -               | or makes, 2            |               |                |
| Max Q Clear Time (g_c+l1), s   |                | 17.2     |                  | 20.0   | 2.7      | 34.5          |   | 20.0      |                 |                        |               |                |
| Green Ext Time (p_c), s  |                | 10.0     |                  | 0.0  | 0.0      | 6.3           | Maria Carago                            | 0.0       |                 |                        |               | (A DESCRIPTION |
| Intersection Summary   |                |          |                  |  |          |               |   | No.       |                 | 1100                   |               |                |
| HCM 2010 Ctrl Delay  |                |          | 23.3             |  |          |               |   |           |                 |                        |               | -              |
| HCM 2010 LOS   | OF BUILDING    |          | C                | STITLE ST  |          |               | 1000                                    | 1 T S 1 S | STEELS.         | NAME OF STREET         |               |                |

|                              |            | -  | *      | -                                     | <b>—</b> | •          | 1   | <b>†</b>   | -          | -           | 1                        | 1            |
|------------------------------|------------|--|--------|---------------------------------------|----------|------------|---|------------|------------|-------------|--------------------------|--------------|
| Movement                     | EBL        | EBT  | EBR    | WBL                                   | WBT      | WBR        | NBL   | NBT        | NBR        | SBL         | SBT                      | SBI          |
| Lane Configurations          | 7          | 44   | 74     |                                       | 44       |            |   | भ          | 7          |             | न                        | 7            |
| Traffic Volume (veh/h)       | 112        | 1746   | 54     | 11                                    | 1480     | 112        | 24  | 0          | 6          | 68          | Ö                        | 61           |
| Future Volume (veh/h)        | 112        | 1746   | 54     | 11                                    | 1480     | 112        | 24  | 0          | 6          | 68          | 0                        | 61           |
| Number                       | 5          | 2  | 12     | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 6        | 16         | 3   | 8          | 18         | 7           | 4                        | 14           |
| Initial Q (Qb), veh          | 0          | 0  | 0      | 0                                     | 0        | 0          | 0   | 0          | 0          | 0           | 0                        | (            |
| Ped-Bike Adj(A_pbT)          | 1.00       |  | 1.00   | 1.00                                  | - 15-57  | 1.00       | 1.00  | 42 75      | 1.00       | 1.00        | STATE OF                 | 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         |
| Adj Sat Flow, veh/h/ln       | 1863       | 1863   | 1863   | 1900                                  | 1863     | 1900       | 1900  | 1863       | 1863       | 1900        | 1863                     | 1863         |
| Adj Flow Rate, veh/h         | 122        | 1838   | 57     | 12                                    | 1558     | 122        | 25  | 0          | 6          | 74          | 0                        | 74           |
| Adj No. of Lanes             | 1          | 2  | 100    | 0                                     | 2        | 0          | 0   | STATE OF   | 12         | 0           | 10 MIN                   | ME           |
| Peak Hour Factor             | 0.92       | 0.95   | 0.95   | 0.95                                  | 0.95     | 0.92       | 0.95  | 0.92       | 0.95       | 0.92        | 0.92                     | 0.92         |
| Percent Heavy Veh, %         | 2          | 2  | 2      | 2                                     | 2        | 2          | 2   | 2          | 2          | 2           | 2                        | 2            |
| Cap, veh/h                   | 225        | 2312   | 1034   | 51                                    | 1716     | 134        | 93  | 0          | 366        | 93          | 0                        | 366          |
| Arrive On Green              | 0.06       | 0.65   | 0.65   | 0.54                                  | 0.54     | 0.54       | 0.23  | 0.00       | 0.23       | 0.23        | 0.00                     | 0.23         |
| Sat Flow, veh/h              | 1774       | 3539   | 1583   | 8                                     | 3204     | 250        | 0   | 0          | 1583       | 0.20        | 0.00                     | 1583         |
| Grp Volume(v), veh/h         | 122        | 1838   | 57     | 886                                   | 0        | 806        | 25  | 0          | 6          | 74          | 0                        | 74           |
| Grp Sat Flow(s), veh/h/lin   | 1774       | 1770   | 1583   | 1810                                  | 0        | 1651       | 0   | 0          | 1583       | 0           | 0                        | 1583         |
| Q Serve(q_s), s              | 2.2        | 29.2   | 1.0    | 5.9                                   | 0.0      | 34.5       | 0.0   | 0.0        | 0.2        | 0.0         | 0.0                      | 2.9          |
| Cycle Q Clear(g_c), s        | 2.2        | 29.2   | 1.0    | 33.7                                  | 0.0      | 34.5       | 18.0  | 0.0        | 0.2        | 18.0        | 0.0                      | 2.9          |
| Prop In Lane                 | 1.00       | 20.2   | 1.00   | 0.01                                  | 0.0      | 0.15       | 1.00  | 0.0        | 1.00       | 1.00        | 0.0                      | 1.00         |
| Lane Grp Cap(c), veh/h       | 225        | 2312   | 1034   | 1017                                  | 0        | 884        | 93  | 0          | 366        | 93          | 0                        | 366          |
| V/C Ratio(X)                 | 0.54       | 0.80   | 0.06   | 0.87                                  | 0.00     | 0.91       | 0.27  | 0.00       | 0.02       | 0.80        | 0.00                     | 0.20         |
| Avail Cap(c_a), veh/h        | 233        | 2410   | 1078   | 1056                                  | 0.00     | 923        | 93  | 0.00       | 366        | 93          | 0.00                     | 366          |
| 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       | 1.00   | 1.00   | 1.00                                  | 0.00     | 1.00       | 1.00  | 0.00       | 1.00       | 1.00        | 0.00                     |              |
| Uniform Delay (d), s/veh     | 17.5       | 9.7  | 4.9    | 16.0                                  | 0.0      | 16.4       | 38.9  | 0.00       | 23.1       | 38.9        |                          | 1.00         |
| Incr Delay (d2), s/veh       | 2.3        | 1.9  | 0.0    | 7.9                                   | 0.0      | 12.8       | 1.5   | N. Griphia |            |             | 0.0                      | 24.1         |
| Initial Q Delay(d3),s/veh    | 0.0        | 0.0  | 0.0    | 0.0                                   | 0.0      | 0.0        | 0.0   | 0.0        | 0.0        | 37.7<br>0.0 | 0.0                      | 0.3          |
| %ile BackOfQ(50%),veh/in     | 1.6        | 14.6   | 0.4    | 18.9                                  | 0.0      | 18.6       | 0.6   | 0.0        |            |             | 0.0                      | 0.0          |
| LnGrp Delay(d),s/veh         | 19.8       | 11,6   | 4.9    | 23,9                                  | 0.0      | 29.2       |   |            | 0.1        | 2.5         | 0.0                      | 1.3          |
| LinGrip LOS                  | 18.0<br>B  | B  |        | 23,8<br>C                             | U,U      |            | 40.5<br>D   | 0.0        | 23.1       | 76.6        | 0.0                      | 24.4         |
|                              | D          |  | A      | U                                     | 4000     | С          | U   | 0.4        | С          | E           |                          |              |
| Approach Vol, veh/h          | 279.250    | 2017   |        |                                       | 1692     | East, Carl |   | 31         |            |             | 148                      |              |
| Approach Delay, s/veh        |            | 11.9   |        |                                       | 26.4     |            | CONTRACTOR OF THE PARTY OF THE | 37.1       |            |             | 50.5                     |              |
| Approach LOS                 | Market St. | 8  | THE R. | AND LA                                | С        |            | N. BURE   | D          | PARTY      | ALUX.       | D                        | 3,21         |
| Timer                        |            | 2  | 3      | 4                                     | 5        | 6          | 7   | 8          | YO RED     |             | NUMBER OF STREET         | THE STATE OF |
| Assigned Phs                 |            | 2  |        | 4                                     | 5        | 6          |   | 8          | DOC T      |             | THE SALE                 |              |
| Phs Duration (G+Y+Rc), s     |            | 55.3   |        | 22.5                                  | 9.1      | 46.2       |   | 22.5       |            |             |                          |              |
| Change Period (Y+Rc), s      |            | 4.5  |        | 4.5                                   | 4.5      | 4.5        |   | 4.5        |            | 100         | 751                      |              |
| Max Green Setting (Gmax), s  |            | 53.0   |        | 18.0                                  | 5.0      | 43.5       |   | 18.0       |            |             |                          |              |
| Max Q Clear Time (g_c+l1), s |            | 31.2   | U HILL | 20.0                                  | 4.2      | 36.5       |   | 20.0       |            |             |                          |              |
| Green Ext Time (p_c), s      |            | 13.7   |        | 0.0                                   | 0.0      | 5.2        |   | 0.0        |            |             | Constitution of the last | Ch Service   |
| ntersection Summary          | 27/12      |  | 10000  | zalim mez                             | SI EASE  | S Lps      |   | 7          | New or     | ségn S      | FIRST                    | 11-11        |
| HCM 2010 Ctrl Delay          |            |  | 19.9   |                                       |          |            |   |            |            |             |                          |              |
| HCM 2010 LOS                 |            | VALUE OF THE PARTY | В      | SEAN 62 :                             | No.      |            | A TABLE   | The same   | F. 154 176 | WELL S      | the same                 |              |

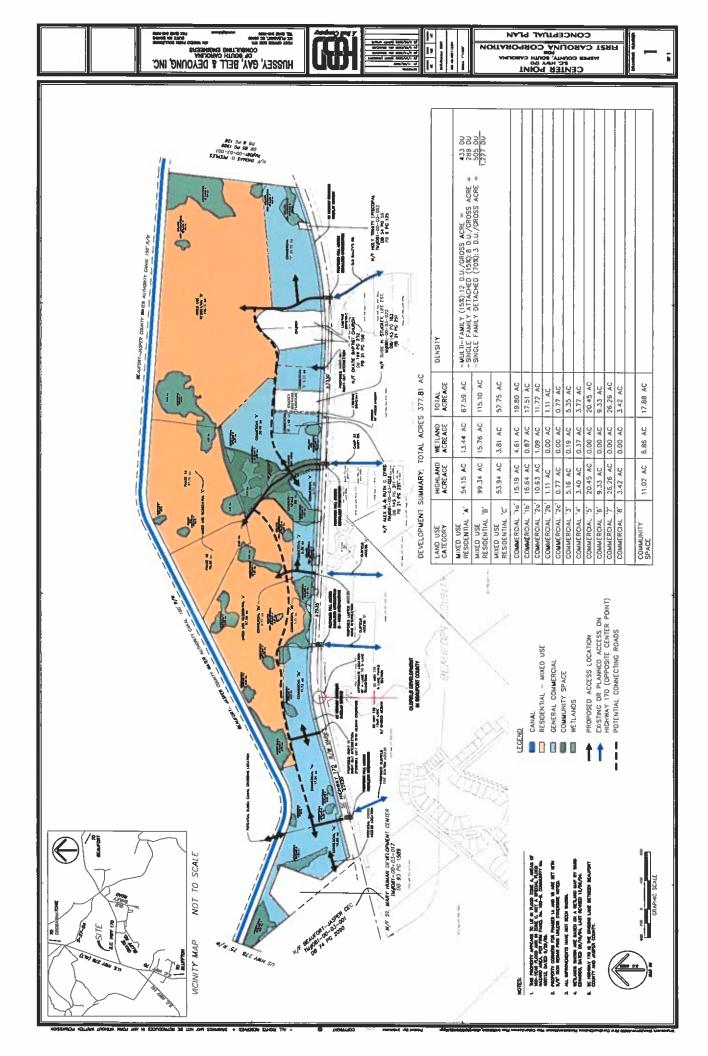


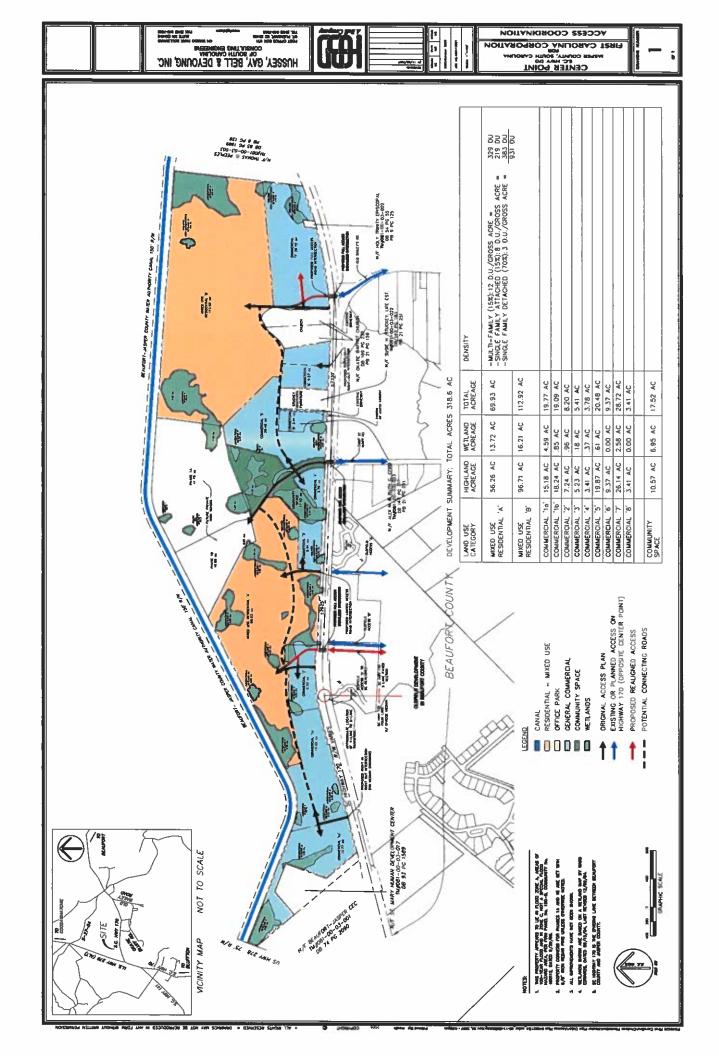
### Appendix H TURN LANE ANALYSIS WORKSHEETS



|                                      |   |                         | Study Area Information   |  |                         |  |  |  |
|--------------------------------------|---|-------------------------|--|--|-------------------------|--|--|--|
| County                               | Beaufort Co   | unh.                    | ) Date   | 8/10/2021  | -                       |  |  |  |
| T Engineering District               | }   | witty                   |  | : Claudia Thompson   |                         |  |  |  |
| Analysis Year                        | -   |                         | -  | Agency Stantec Consulting Services   |                         |  |  |  |
| A-A                                  | 00 470101   | At - 10 - 1 - 1 - 1 - 1 |  |  |                         |  |  |  |
| Intersection:<br>Left Turn Movement: | THE RESERVE AND ADDRESS OF THE PARTY OF THE |                         | Meadow Road/Project Driveway   | F)   |                         |  |  |  |
| Right Turn Movement:                 |   |                         | (3)  |  |                         |  |  |  |
| ragic rum movement.                  | ***************************************   | rogiti-Terri Laria      | The state of the s |  |                         |  |  |  |
| Posted Speed Limit:                  | 55  | mph                     | Median   | Divided  |                         |  |  |  |
| # of Approach Lanes:                 | 2   |                         | Urban or Rural   | Ru   | ral                     |  |  |  |
|                                      |   | Volur                   | e Information & Calculations   |  |                         |  |  |  |
|                                      |   | Left                    | um Lana Volume Calculationa  |  | Land State of           |  |  |  |
|                                      |   | Volume (vph)            |  | S_9-330 10 March   | A SHAPPING PARKET       |  |  |  |
| Movemen                              | it  | AM PM                   |  | <u> </u>   | AM PM                   |  |  |  |
| profession agreed                    | Left  | 39 112                  | 1  | Advancing Volume:  | 1,213 1,912             |  |  |  |
| Advancing                            | Through   | 1,163 1,748             | 1  | Opposing Volume  | 1,609 1,603             |  |  |  |
|                                      | Right   | 11 54                   |  | Left Turn Volume.  | 39 112                  |  |  |  |
|                                      | Left  | 2 11                    | ]  | 23   |                         |  |  |  |
| Opposing                             | Through   | 1,568 1,480             |  |  | 2.0                     |  |  |  |
|                                      | Right   | 39 112                  | % Left Turns   | in Advancing Volume.   | 3,2% 5,9%               |  |  |  |
| -                                    |   | Plaht                   | um Lane Volume Calculations  | CONTRACTOR OF THE PARTY OF   |                         |  |  |  |
|                                      |   | rugin                   |  | Market State of the State of th | manufacture and         |  |  |  |
| Movemen                              | t -   | Volume (vph)            | Adjustment   | to Right Turn Volume <sup>1</sup>  | Include? No             |  |  |  |
|                                      |   | AM PM                   |  |  |                         |  |  |  |
|                                      | Left  | 2 11                    | -  |  | AM PM                   |  |  |  |
| Advancing                            | Through<br>Right  | 1,568 1,480<br>39 112   | -  | Advancing Volume:  | 1,609 1,603             |  |  |  |
|                                      | ragin   | 30 1 112                | 4  | Right Turn Volume:   | 39 112                  |  |  |  |
|                                      |   |                         | urn Lane Warrant Met?  |  |                         |  |  |  |
| Land Control                         | eft Turn Las  | e Warrant               | MANUFACTURE CONTROL OF THE PARTY OF THE PART | light Turn Lane Warra  | nt a least and a        |  |  |  |
| Applicable War                       | rant Chart  | Fig 9.5-D               | Ann  | licable Warrant Chart:   | Fig 9.5-B               |  |  |  |
|                                      | t Satisfied   | Yes                     | 1     <sup>(1)</sup>   | Warrant Satisfied:   | Yes                     |  |  |  |
|                                      |   |                         |  |  |                         |  |  |  |
|                                      |   | Reco                    | nmneded Turn Lane Length   |  |                         |  |  |  |
| Advancii                             | ng Approach   | Truck% 2%               | Advanc   | ing Approach Truck%:   | 2%                      |  |  |  |
| CALLE A SE                           | Left Turn   | Lane                    |  | Right Turn Lane  | date in the same        |  |  |  |
|                                      | Storage Le  | ngth (ft). 20           | ā n  | Storage Length   | 100 (                   |  |  |  |
|                                      | Taper Le  |                         | <b>-1</b> 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | Taper Length:  | 200 (1                  |  |  |  |
|                                      | al Left Turn I  |                         |  | Total Left Turn Lane:  | 300 ft                  |  |  |  |
| Tot                                  |   |                         | 11   |  |                         |  |  |  |
| Tot                                  |   |                         |  |  |                         |  |  |  |
|                                      | lanes if the t-   | imina valumes son       | reater than 300 vehicles nor how A   | teattic analysis will be see   | nigad if the triming    |  |  |  |
|                                      | n lanes if the to   | urning volumes are      | realer than 300 vehicles per hour. A   | traffic analysis will be req   | uired if the turning vo |  |  |  |

Source SCDOT Roadway Design Manual (2021), SCDOT Access and Roadside Management Standards (2008), and TRB Highway Research Record 211, Volume Warrants for Left Turn Storage Lanes at Unsignalized Grade Intersections.





## AGENDA ITEM: XI-C

Ordinance item C

### STATE OF SOUTH CAROLINA JASPER COUNTY

| ORDINANCE | #2022 |
|-----------|-------|
|-----------|-------|

### AN ORDINANCE OF JASPER COUNTY COUNCIL

To amend the Center Point Development Agreement to add two tracts of land consisting of approximately 57.75 acres, bearing Jasper County Tax Map Numbers 081-00-03-030 and 081-00-03-031, to make certain text amendments, extend the Term, and matters related thereto.

WHEREAS, The Center Point Development Agreement was approved by Jasper County Council on August 18, 2008, and is recorded in the Office of the Register of Deeds for Jasper County in Book 691 at Page 172; and

WHEREAS, The Center Point Development Agreement incorporated by reference the Center Point Planned Development District Zoning, both being adopted by Jasper County to permit and encourage flexibility in the development of land in order to promote its most appropriate use; and to do so in a manner that will enhance public health, safety, morals, and general welfare, while promoting the certainty of the regulations governing development and the provision of necessary infrastructure as provided for by the South Carolina Local Government Development Act, Section 6-31-10, et. seq., of the Code of Laws of South Carolina, 1976, as amended; and

WHEREAS, Jasper County has received a request from the owner to amend the Center Point Planned Development District to add two tracts of land consisting of approximately 57.75 acres, bearing Jasper County Tax Map Number 081-00-03-030 and 081-00-03-031, to make certain text amendments, concept plan revisions, and matter related thereto; and

WHEREAS, it appears these two tracts of land were intended to be included in the plan of development for the area surrounding these properties, and may have been inadvertently omitted when the location of a proposed school was moved from these parcels to another area actually included in the Development Agreement and Planned Development District; and

WHEREAS, in order to amend the zoning, development standards and other matters included in Ordinance Number 2022-\_\_\_\_\_\_, it is necessary to

amend the Center Point Development Agreement to allow for the incorporation of the amended Planned Development District Zoning referenced above: and

WHEREAS, the Owner of the Property has requested that the Term of the Development Agreement be extended for a period of five years from the Effective Date of this Ordinance, based upon the occurrence of both certain national and global economic downturns and the effects of the COVID-19 pandemic; and

WHEREAS, the above mentioned property was duly posted, with two public hearings properly noticed and held by the Jasper County Council as set forth below; and

**NOW, THEREFORE, BE IT ORDAINED**, by the Jasper County Council, duly assembled and with authority of same, that the above premises be incorporated by reference; and

- 1. The First Amendment to the Development Agreement be adopted as stated above, and that the Chair of the Jasper County Council be authorized to execute the First Amendment on behalf of the County, with the County Administrator and County Attorney authorized to make such minor typographical or grammatical changes as they may determine may be desirable. Jasper County council finds the amended Development Agreement to be in accordance with the statutory requirements of the state;
- 2. This ordinance shall take effect upon approval by Council.

SIGNATURES ON FOLLOWING PAGE

|  | Ms. Barbara B. Clark<br>Chairwoman |
|--|------------------------------------|
|  | ATTEST:                            |
|  | Wanda Simmons<br>Clerk to Council  |
| ORDINANCE: # 2022  |                                    |
| First Reading: April 4, 2022 Public Hearing: Second Public Hearing Second Reading: Third Reading: Adopted: |                                    |
|  |                                    |
| Reviewed for form and draftsmanship by the Jasp  | per County Attorney.               |
| David Tedder   | Date                               |

This instrument prepared by:

Kevin E. Dukes Harvey & Battey, P.A. P.O. Drawer 1107 Beaufort, South Carolina 29901

### FIRST AMENDMENT TO DEVELOPMENT AGREEMENT

### **CENTER POINT**

| This FIRST AMENDMENT TO THE                   | DEVELOPMENT AGREEMENT FOR CENTER                 |
|---|--|
| POINT, made and entered into as of            | , 2022 ("Amendment") by First Carolina           |
| Corporation of SC, landowner ("Owner") and    | Jasper County Council, as governmental authority |
| for Jasper County, South Carolina ("County"). |  |

### RECITALS

- A. The parties entered into that certain DEVELOPMENT AGREEMENT for CENTER POINT dated August 18, 2008, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Volume 691 at Page 172 (the "Development Agreement") for the purpose of outlining agreed upon development for a certain tract of property described in the Development Agreement and located along highway 170 in Jasper County, South Carolina.
- B. In addition to the Development Agreement, the parties entered into a Planned Development District of even date, a copy of which was recorded in the office of the ROD for Jasper County in Volume 691 at Page 226 (the "PDD").
- C. The Development Agreement did not contain certain property located along the northern boundary of the Property, as that term is defined in the Development Agreement, which was designated for the future development of John Paul II Catholic School (the "School").
- D. In 2012 the School and Owner decided to relocate the School to the western portion of the Property shown and described as WESTERN PORTION OF TRACT B, containing 70.66 acres, more or less, on that certain play prepared by Surveying Consultants, dated February 24, 2012, and recorded in the office of the ROD for Jasper County in Plat Volume 32 at Page 484. The new School site is located, and the School was constructed, within the Property covered by the Development Agreement and PDD.
- E. After the relocation of the School, the parties did not amend the Development Agreement and PDD to incorporated the previous site into the Development Agreement and PDD. The parties now wish to amend the Development Agreement and PDD to include the following property into the Development Agreement and PDD, to wit:

ALL those certain pieces, parcels or lots of land shown and described as PHASE 1A and PHASE 1B, containing 41.75 and 16

acres respectively, on that certain plat titled PHASES 1A &1B by Ward Edwards, Inc. and dated December 7, 2004, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Plat Volume 27 at Page 436 (the "Supplemental Property").

F. Pursuant to Section XVI of the Development Agreement, modifications and amendments may be made upon written agreement of Owner and County.

### **AMENDMENT**

NOW, THEREFORE, the parties, by and through their undersigned officers, do hereby declare that effective this \_\_\_\_ day of \_\_\_\_\_\_, 2022, the Development Agreement shall hereby be amended as follows:

1. EXHIBIT A, and accordingly the defined terms "Center Point PDD" and "Property" under Section II, shall be amended to add the following real property, to wit:

AND ALSO, ALL those certain pieces, parcels or lots of land shown and described as PHASE 1A and PHASE 1B, containing 41.75 and 16 acres respectively, on that certain plat titled PHASES 1A &1B by Ward Edwards, Inc. and dated December 7, 2004, a copy of which is recorded in the office of the Register of Deeds for Jasper County, South Carolina in Plat Volume 27 at Page 436.

Jasper County Tax Parcel IDs: 081-00-03-030 and 081-00-03-031

Except as set forth above, the Owner and County have not further supplemented, modified or amended the Development Agreement, and the Development Agreement is in full force and effect as of the date hereof. In the event of any conflict between the provisions of the Development Agreement and those of this Amendment, the provisions of this Amendment shall govern.

### WITNESS the following signature pursuant to due authority.

| Witnesses:   | JASPER COUNTY, SOUTH CAROLINA  |
|--|--|
|  | By:<br>Its:  |
| STATE OF SOUTH CAROLINA  |  |
| CITY/COUNTY OF JASPER, to wit:   | ACKNOWLEDGMENT   |
| I hereby certify that  Jasper County Council, whose name i acknowledged the same before me in my | s signed to the foregoing instrument or writing, has jurisdiction aforesaid. |
| GIVEN under my hand this   | lay of, 2022.  |
| My commission expires:   | •  |
|  | Notary Public  |
| [SEAL]   |  |

### WITNESS the following signature pursuant to due authority.

[SEAL]

| Witnesses:   | IKST CAROLINA CORPORATION OF SC  |
|--|--|
|  | By: Its: Manager   |
| STATE OF SOUTH CAROLINA CITY/COUNTY OF JASPER, to wit:   | ACKNOWLEDGMENT   |
| I hereby certify that John Trask,<br>name is signed to the foregoing instru-<br>my jurisdiction aforesaid. | III, as Manager of First Carolina Corporation of SC, whose ment or writing, has acknowledged the same before me in |
| GIVEN under my hand this  My commission expires:   |  |
| •  | Notary Public  |
|  | • • • •  |