AMENDED
City Hall
80 Broad Street
June 21, 2016
5:00 p.m.
(**Item L-5 has been added and Item L-2 has been included.**)

CITY COUNCIL

A. Roll Call

B. Invocation – Councilmember Waring

C. Pledge of Allegiance

D. Presentations and Recognitions

1. Presentation of the City flag from the Charleston Antarctic Expedition

E. Public Hearings

1. Approval to submit the 2016 Edward Byrne Memorial grant application to OJP (FY16 Allocation: $21,387) for Automated License Plate Readers (ALPR's). The ALPR cost is $25,898. A match of $4,511 will be budgeted for FY 2017.

2. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 28 F Street (Peninsula) (0.11 acre) (TMS# 463-16-03-048) (Council District 4), be rezoned from Diverse Residential (DR-1) classification to Diverse Residential (DR-2F) classification.

3. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that a portion of 3201 Maybank Highway (Johns Island) (approximately 1.50 acres) (TMS #313-00-00-248) (Council District 5), be rezoned from Light Industrial (LI) classification to General Business (GB) classification.

4. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 7 Wesley Drive (Old Windermere – West Ashley) (0.26 acre) (TMS #421-06-00-110) (Council District 11), be rezoned so as to be included in the Savannah Highway Overlay Zone (SH) classification. ***(Planning Commission recommended disapproval; ¾ vote of City Council required)***

5. An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Article 2, Part 3, Table of Permitted Uses to Establish Permitted Uses for microbreweries and fresh fruits and vegetables in the "GB, UC, MU-2, MU-2/WH", "LI", "HI", "GP" and "UP" districts, and to establish conditional uses for microbreweries and fresh fruits and vegetables in the "BP" district, to wit:

6. An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Section 54-347 to change the landscape buffer requirements for properties on the peninsula of Charleston

F. Act on Public Hearing Matters

G. Approval of City Council Minutes:

1. May 24, 2016

H. Citizens Participation Period

I. Petitions and Communications:

1. Introduction of the City's Poet Laureate, Marcus Amaker

2. Appointment of West Ashley Revitalization Commission Members

3. a. Hotel Study Final Report

b. An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Section 54-220 Accommodations Overlay Zone, by inserting language to preserve Mixed-Use Districts; to prohibit the displacement of housing by Accommodations; prohibit the displacement or reduction of office space by Accommodations; prohibit the displacement of more than 25 percent of ground floor, store front retail space by Accommodations uses on streets with ground floor, store front retail as a dominant use; prohibit an overconcentration of Accommodations units within areas on the peninsula designated "a-1" on the Accommodations Overlay Zoning Map; amend revised subsection b. 1. (g) by deleting wording regarding pedestrian activity and transit system usage and inserting language regarding the location and design of guest drop off and pick up areas; and amend revised subsection b. 1. (h) 15 to require more information on parking and public transit provisions for employees

J. Council Committee Reports:

1. Committee on Public Safety: (Meeting was held on Tuesday, June 14, 2016 at 5:00 p.m.)

a. An ordinance to amend the Code of the City of Charleston, South Carolina, Chapter 17, Article 8, Section 135 to extend the 90 Day Pilot Program allowing for certain establishments that allow for the on-premise consumption of alcohol, beer, or wine to remain open until 3 a.m.

b. Updates:

-- Chief Karen Brack, Fire Department
-- Chief Greg Mullen, Police Department
-- Mark Wilbert, Emergency Management Director

Give first reading to the following bill coming from Public Safety:

An ordinance to amend the Code of the City of Charleston, South Carolina, Chapter 17, Article 8, Section 135 to extend the 90 Day Pilot Program allowing for certain establishments that allow for the on-premise consumption of alcohol, beer, or wine to remain open until 3 a.m.

2. Committee on Public Works and Utilities: (Meeting was held on Tuesday, June 21, 2016 at 3:00 p.m.)

(Acceptance and Dedication of Rights-of-Way and Easements

a. Daniel Island Parcel E Phase 2C - Acceptance and dedication of Fish Tale Road (50-foot right-of-way), a portion of Lesesne Street (50-foot right-of-way), a portion of black Powder Lane (50-foot right-of-way), a portion of Brailsford Street (50-foot right-of-way), and Daniel Island Parcel E Bridge Deck (30-foot right-of-way). All infrastructure is complete.

i. Title to Real Estate
ii. Affidavit for Taxable or Exempt Transfers
iii. Plat (3)
iv. Exclusive Storm Water Drainage Easement (6)

b. Abandonment of a 65-foot drainage easement on Lot 1B1 Daniel Island Subdivision TMS #275-00-00-260. Acceptance of two new 24-foot exclusive storm water drainage easements as noted on a plat entitled "A Final Subdivision and Property Line Adjustment Plat of TMS 275-00-00-260 – Daniel Island – Fairchild Street Owned by DIEC II, LLC Located in the City of Charleston, Berkeley County, South Carolina".

i. Plat
ii. Abandonment of Easement
iii. Exclusive Storm Water Drainage Easements (2)

c. Wambaw Multi-Purpose Buildings – Acceptance and dedication of a new exclusive 10-foot stormwater drainage easement as noted on a plat entitled " Final Subdivision Plat for Beresford Hall Commerce Park, City of Charleston, Berkeley County, South Carolina" (TMS 271-04-03-006).

a. Exclusive Storm Water Drainage Easement
b. Plat

3. Committee on Traffic and Transportation: (Meeting was held on Tuesday, June 21, 2016 at 3:30 p.m.)

i. Application for Original Certificate of Public Convenience and Necessity:

-- Basic Black Limo, LLC (Limo)
-- Comfort Limo, LLC (Limo)
-- Michael Johnson, DBA Affordable Transit (Taxi)
-- Alian Transportation LLC (Taxi)
-- Nathaniel Frasier (Taxi)

4. Committee on Ways and Means:

(Bids and Purchases

(Police Department: Approval to submit the 2016 Edward Byrne Memorial grant application to OJP (FY16 Allocation: $21,387) for Automated License Plate Readers (ALPR's). The ALPR cost is $25,898. A match of $4,511 will be budgeted for FY 2017. *(See City Council Agenda, Public Hearings – Agenda Item, E-1)*

(Office of Cultural Affairs: Approval to accept a grant from SCPRT in the amount of $4,500 for the 2016 MOJA Arts Festival. A City match in the amount of $13,636.36 is required. The match will come from A-Tax funds.

(Parks: Approval to submit the Keep America Beautiful Grant application for recycling bins for use in Public Spaces. Due to time constraints, this grant was submitted on June 10, 2016. No City match is required.

(Public Service: Approval of a lump sum work authorization #2 in the amount of $94,300 under existing Master Agreement for Professional Services with URS for conversion of existing stormwater asset/inventory from hard files into GIS geodatabase. Drainage funds will be used to fund this contract.

(Public Service: Approval of a lump sum work authorization #3 in the amount of $100,000 under existing Master Agreement for Professional Services with URS for providing third party Stormwater Pollution Prevention Plan (SWPPP) Inspections to meet compliance requirements of the City's MS4 Discharge Permit. Drainage funds will be used to fund this contract.

(Public Service: Approval for B&C Land Development to provide construction services in the amount of $66,211 for the #7 Nashmor Drainage Project.

(An ordinance authorizing the Mayor to execute on behalf of the City an Amendment of Restrictive Covenants with the American College of the Building Arts to amend the Restrictive Covenants pertaining to property located at 649 Meeting Street, commonly known as the Trolley Barn, to include all documents as contemplated by the Amendment to effectuate its terms. ***(Additional documents to be placed on Committee Members' and Councilmembers' desks)***

(Request approval of the Mayor to execute the attached Ground Lease between Bon Secours-St. Francis Xavier Hospital, Inc. and the City, where the City will lease 7.5 acres of land for the purpose of constructing a Senior Center to include a 16,000 sq. ft. building, parking lot, and related improvements.

(Request approval of the Mayor to execute the attached Lease and Management Agreement for the Louis Waring, Jr. West Ashley Senior Center whereby upon completion of construction, Roper St. Francis Healthcare will sublease and manage the Louis Waring, Jr. West Ashley Senior Center (2095 Henry Tecklenburg Drive; TMS: 351-01-00-035, 351-01-00-021, 351-01-00-022, 351-01-00-023, 351-01-00-040)

(Request after-the-fact approval for the Facilities Use Agreement with the Mother

Emanuel AME Church whereby the City provides the Church access to the Civic Design Center for an artwork exhibit as part of the anniversary commemoration (85 Calhoun Street; TMS: 458-01-01-085)

(Request approval of the Mayor to execute the attached Special Use Permit whereby the National Park service agrees to permit the City of Charleston's use of Liberty Square for the annual First Day Festival occurring on August 14, 2016 (Liberty Square Park, Concord Street)

(Authorize the Mayor and City Council to execute the documents necessary to transfer 13 Boyers Court and 342 North Nassau Street to JJR Development, LLC for the sum of $70,000 [13 Boyers Court $40,000 and 342 North Nassau Street $30,000] for the development of 5 affordable houses for persons earning up to 80 percent of the area median income (342 North Nassau Street; 13 Boyers Court; TMS: 463-12-02-070; 459-01-01-046/047/048) [Ordinance]

(Request authorization of the Mayor to execute the attached Lease Agreement between the City of Charleston and Atlantic Housing Management. (1900 Hazelwood Drive; TMS: 351-06-00-122)

(Consider the following annexations:

-- 5 Tovey Road (TMS# 418-10-00-012) 0.17 acre, West Ashley (District 9)

Give first reading to the following bills coming from Ways and Means:

An ordinance authorizing the Mayor to execute on behalf of the City an Amendment of Restrictive Covenants with the American College of the Building Arts to amend the Restrictive Covenants pertaining to property located at 649 Meeting Street, commonly known as the Trolley Barn, to include all documents as contemplated by the Amendment to effectuate its terms.

An ordinance authorizing the Mayor to execute the necessary documents to enter into that certain Transfer Agreement between the City of Charleston and JJR Development, LLC, for the transfer of 13 Boyers Court bearing TMS No.: 463-12-02-070 and 342 North Nassau Street bearing TMS Nos.: 459-01-01-046, 459-01-01-047, 459-01-01-048 for the development of affordable housing, said Transfer Agreement being marked as Exhibit A, attached hereto and incorporated by reference herein.

An ordinance to provide for the annexation of property known as 5 Tovey Road (0.17 acre) (TMS# 418-10-00-012), West Ashley, Charleston County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 9.

K. Bills up for Second Reading:

1. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 2066 Vestry Drive (Church Creek - West Ashley) (0.28 acre) (TMS #355-14-00-022) (Council District 2), annexed into the City of Charleston April 12, 2016 (#2016-048), be zoned Single-Family Residential (SR-1)*

classification.

2. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 2048 Vestry Drive (Church Creek - West Ashley) (0.33 acre) (TMS #355-14-00-095) (Council District 2), annexed into the City of Charleston April 26, 2016 (#2016-053), be zoned Single-Family Residential (SR-1) classification.*

3. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 1436 Battle Ground Road (Fort Lamar - James Island) (0.34 acre) (TMS #431-06-00-099) (Council District 12), annexed into the City of Charleston April 26, 2016 (#2016-052), be zoned Single-Family Residential (SR-1) classification.*

4. *An ordinance to amend Chapter 17 of the Code of the City of Charleston, South Carolina, to modify the City's Palmetto Artisan Rules to coincide with recent/simultaneous Palmetto Artisan Program changes.*

5. *An ordinance to provide for the annexation of property known as 1211 Camellia Road (0.14 acre) (TMS# 351-12-00-050), West Ashley, Charleston County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 9.*

6. *An ordinance to provide for the annexation of property known as 1643 Sulgrave Road (0.30 acre) (TMS# 354-02-00-043), West Ashley, Charleston County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 2.*

7. *An ordinance to provide for the annexation of property known as Savannah Highway (16.01 acres) (TMS# 286-00-00-033), West Ashley, Charleston County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 5. (DEFERRED)*

8. *An ordinance to provide for the annexation of property known as Clements Ferry Road (19.02 acres) (a portion of TMS# 271-00-01-031), Cainhoy, Berkeley County, to the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 1. (DEFERRED)*

9. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that Clements Ferry Road (Cainhoy) (approximately 19.02 acres) (a portion of TMS #271-00-01-031) (Council District 1), be zoned General Business (GB) classification. (DEFERRED)*

10. *An ordinance to provide for the annexation of property known as 2319 Savannah Highway (1.06 acres) (TMS# 310-06-00-114), West Ashley, Charleston County, to*

the City of Charleston, shown within the area annexed upon a map attached hereto and make it part of District 7. (DEFERRED)

11. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 2319 Savannah Highway (West Ashley) (approximately 1.06 acres) (TMS #310-06-00-114) (Council District 7), be zoned General Business (GB) classification.* ***(AS AMENDED)*** *(DEFERRED)*

12. *An ordinance to provide for the annexation of property known as Savannah Highway (1.49 acres) (TMS# 350-05-00-039; 350-05-00-040 and 350-05-00-160), West Ashley, Charleston County, to the City of Charleston, and includes all public rights-of-way shown within the area annexed upon a map attached hereto and make it part of District 7. (DEFERRED)*

13. *An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that Savannah Highway (West Ashley) (approximately 1.49 acres) (TMS #350-05-00-039, 040 and 160) (Council District 7), be zoned General Business (GB) classification. (DEFERRED FOR PUBLIC HEARING)*

14. *An ordinance to amend Section 54-943(c) of the Code of the City of Charleston (Zoning Ordinance) to modify the vote required of City Council in the event a matter is disapproved by the Planning Commission or when a petition in opposition to a matter signed by owners of twenty percent of the area of lots subject to the matter, or of those immediately adjacent on the sides and rear or directly opposite thereto is presented to Council to sixty (60%) percent of the members of Council present and voting.* ***(Planning Commission recommended disapproval; requires ¾ vote of City Council)*** *(DEFERRED FOR PUBLIC HEARING)*

L. Bills up for First Reading

1. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that property located on Maybank Highway at Promenade Vista Street (James Island) (approximately 10.57 acres) (TMS #424-00-00-001) (Council District 6), be rezoned from Gathering Place (GP) classification to Planned Unit Development (PUD) classification.

2. An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) to add a new Overlay Zoning district to be known as the Gateway Overlay Zone, add regulations to authorize specific land uses, building heights and lot occupancy requirements in the Gateway Overlay Zone, and change the Zone Map, which is part thereof, so that certain properties bearing the following Charleston County Tax Map Numbers, to wit: TMS# 457-07-01-029 and 457-07-01-061 (310 Broad Street) be included within the Gateway Overlay Zone. **(AS AMENDED)**

3. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that a portion of 176 Concord Street (Peninsula) (5.039 acres) (TMS #459-00-00-009) (Council District 1), be rezoned from 50/25 Old City Height District classification to 56/30v Old City Height District classification.

4. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 186 Concord Street (Peninsula) (1.493 acres) (TMS #459-00-00-0091) (Council District 1), be rezoned from 50/25 Old City Height District classification to 56/30v Old City Height District classification.

5. An ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Section 54-208.1 Bed and Breakfasts not located within the Old and Historic District, to clarify where Bed and Breakfasts are permitted in areas outside the Old and Historic District

6. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that property located off North Westchester Road (West Ashley) (2.225 acres) (TMS #309-15-00-070) (Council District 7), be rezoned from Light Industrial (LI) classification to General Business (GB) classification. *(DEFERRED)*

7. An ordinance to amend provisions of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Part 12 – Gathering Place to change district name and specific details within, by amending Article 2, Part 3, Table of Permitted Uses to change district name, by amending Sec. 54-301, Table 3.1: Height, Area and Setback Regulations adding a new row, by amending Sec. 54-201, Base Zoning Districts to change district name, by amending Article 2, Part 11, Sec. 54-268 designation of Design Review District, Review Authority, Scope of Authority and Exemptions to change district name, by amending Article 3, Part 8, Sec. 54-347 landscape buffer requirements to change district name. *(DEFERRED)*

8. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that 61 Cannon Street (Cannonborough-Elliottborough - Peninsula) (0.38 acre) (TMS #460-12-01-008) (Council District 4), be rezoned from Limited Business (LB) classification to Mixed-Use Workforce Housing (MU-1/WH) classification. ***(Planning Commission recommends disapproval; requires ¾ vote of Council.)*** *(DEFERRED)*

9. An ordinance to amend the Code of the City of Charleston, South Carolina, Chapter 21, Section 115 to provide regulations for the operation of unmanned aerial vehicles. *(DEFERRED)*

10. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that property located on Murraywood Road

(Johns Island) (approximately 1.80 acres) (a portion of TMS #312-00-00-026) (Council District 5), be rezoned from Single-Family Residential (SR-1) classification to Single and Two Family Residential (STR) classification. *(TO BE WITHDRAWN)*

11. An ordinance to amend the Zoning Ordinance of the City of Charleston by changing the Zone Map, which is a part thereof, so that property located on Savannah Highway (West Ashley) (16.01 acres) (TMS #286-00-00-033) (Council District 5), be zoned General Business (GB) classification. *(DEFERRED)*

M. Miscellaneous Business:

1. The next regular meeting of City Council will be July 19, 2016 at 5:00 p.m. at Gaillard Center, Ballroom 3, 95 Calhoun Street.

PUBLIC HEARING

The public is hereby advised that the City Council of Charleston will hold a public hearing Tuesday, June 21, 2016, beginning at 5:00 p.m. at City Hall, 80 Broad Street, on the request that the Zoning Ordinance of the City of Charleston be changed in the following respects:

GRANT AWARD

1. To submit a 2016 Justice Assistance Grant application for the amount of $21,387 of the projected cost of $25,898. The proposed use is for the purchase of Automated License Plate Readers (ALPR's). The City of Charleston Police Department will provide a match of $4,511 to cover the total project cost. The complete grant application is available for the public to view in the Clerk of Council's Office.

REZONINGS

1. To rezone 28 F Street (*Peninsula*) (0.11 acre) (TMS# 463-16-03-048) from Diverse Residential (DR-1) classification to Diverse Residential (DR-2F) classification.
2. To rezone 3201 Maybank Highway (*Johns Island*) (Approx. 1.50 acres) (A Portion of TMS# 313-00-00-248) from Light Industrial (LI) classification to General Business (GB) classification.
3. To rezone 7 Wesley Drive (*Old Windermere – West Ashley*) (0.26 acre) (TMS# 421-06-00-110) to be included in the Savannah Highway Overlay Zone (SH) classification. **Planning Commission recommends denial.**

ORDINANCE AMENDMENTS

1. To amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) by amending Article 2, Part 3, Table of Permitted Uses to establish permitted uses for microbreweries and fresh fruits and vegetables in the "GB, UC, MU-2, MU-2/WH", "LI", "HI", "GP" and "UP" districts, and to establish conditional uses for microbreweries and fresh fruits and vegetables in the "BP" district, to wit:
2. To amend Chapter 54 of the Code of Charleston (Zoning Ordinance) 54-347 to change the Landscape Buffer Requirements for properties on the Peninsula of Charleston.

VANESSA TURNER MAYBANK
Clerk of Council

In accordance with the Americans with Disabilities Act, people who need alternative formats, ASL (American Sign Language) Interpretation or other accommodation please contact Janet Schumacher at (843) 577-1389 or email to schumacherj@charleston-sc.gov three business days prior to the meeting.

Please insert as a Display Ad in the Post Courier on Sunday, June 5, 2016. Charge account PC103190. **Blanket PO# PR160071**

Please insert in the Chronicle as a Display Ad on Wednesday, June 8, 2016.
Please provide an affidavit of publication for all public hearings. PR Number

CITY OF CHARLESTON
PLANNING COMMISSION MEETING REPORT

MEETING OF MAY 18, 2016

A meeting of the City of Charleston Planning Commission was held at **5:00 p.m., on Wednesday, May 18, 2016** in the Public Meeting Room, 1st Floor, 2 George St. The following applications were considered:

REZONINGS

1. **124 Spring St (Peninsula) TMS# 4601102027** – 0.597 ac. Request rezoning from Limited Business (LB) and Diverse Residential (DR-2F) to Planned Unit Development (PUD).

   DEFERRED BY APPLICANT

2. **28 F St (Peninsula) TMS# 4631603048** – 0.11 ac. Request rezoning from Diverse Residential (DR-1) to Diverse Residential (DR-2F).

   RECOMMENDED APPROVAL

3. **3201 Maybank Hwy (Johns Island) TMS# 3130000248 (a portion)** – approx. 1.50 ac. Request rezoning from Light Industrial (LI) to General Business (GB).

   RECOMMENDED APPROVAL

4. **7 Wesley Dr (Old Windermere – West Ashley) TMS# 4210600110** – 0.26 ac. Request rezoning to be included in the Savannah Highway Overlay Zone (SH).

   RECOMMENDED DISAPPROVAL

SUBDIVISION

1. **Sanders Road Townhomes (West Ashley) TMS# 2860000001** – 22.3 ac. 113 lots. Request subdivision concept plan approval. Zoned Diverse Residential (DR-9).

   DEFERRED BY APPLICANT

ZONINGS

1. **1897 Sam Rittenberg Blvd (West Ashley) TMS# 3511400078** – 0.33 ac. Request zoning of General Business (GB). Zoned Community Commercial (CC) in Charleston County.

   RECOMMENDED APPROVAL

2. **1715 W Avalon Cir (Orange Grove Estates - West Ashley) TMS# 3521300116** – 0.48 ac. Request zoning of Single & Two Family Residential (STR). Zoned Single-Family Residential (R-4) in Charleston County.

   RECOMMENDED APPROVAL

ORDINANCE AMENDMENTS

1. To amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) **by amending Article 2, Part 3, Table of Permitted Uses to establish permitted uses for microbreweries and fresh fruits and vegetables in the "GB, UC, MU-2, MU-2/WH", "LI", "HI", "GP" and "UP" districts, and to establish conditional uses for microbreweries and fresh fruits and vegetables in the "BP" district, to wit:**

   RECOMMENDED APPROVAL

2. To amend Chapter 54 of the Code of Charleston (Zoning Ordinance) **54-347 to change the Landscape Buffer Requirements for properties on the Peninsula of Charleston.**

RECOMMENDED APPROVAL

REPORT OF THE TECHNICAL REVIEW COMMITTEE

Over the past month, the following subdivision projects were submitted to the TRC for review and approval. The findings of the TRC shall be presented to the Planning Commission. Items approved by the TRC comply with all applicable regulations and standards of the City of Charleston.

Preliminary & Final Plats

1. **Parcel CC, Phase 4 (Daniel Island) TMS# 2770000116.** 7.9 ac. 26 lots. DI-R. Final subdivision plat pending approval.
2. **Lawton Park, Phase 2 (James Island) TMS# 4260900136.** 2.8 ac. 10 lots. SR-1. Final subdivision plat pending approval.
3. **West Ashley Circle (West Ashley) TMS# 3010000048.** 12.9 ac. 1 lot. GB. Final subdivision plat pending approval.
4. **The Crossings at West Ashley (West Ashley) TMS# 3090000003.** 6.1 ac. 1 lot. PUD. Final subdivision plat pending approval.
5. **Ashley Park, Phase 5 (West Ashley) TMS# 3060000132.** 9.6 ac. 50 lots. DR-9. Preliminary subdivision plat pending approval.
6. **Maybank Village, Phases 2A & 2B (Johns Island) TMS# 3130000054, 056, 057.** 35.2 ac. 108 lots. SR-6. Preliminary subdivision plat pending approval.
7. **Magnolia, Phase 2 (Peninsula – Silver Hill) TMS# 4640000025, 026, 028, 029, 035, 039, 040.** 35.6 ac. R/W. PUD. Preliminary subdivision plat under review.
8. **Maybank Village, Phase 2A (Johns Island) TMS# 3130000056.** 1.5 ac. 8 lots. SR-6. Final subdivision plat under review.
9. **Oak Bluff, Phase 1B (Cainhoy) TMS# 2630002003.** 3.3 ac. 19 lots. SR-1. Preliminary subdivision plat pending approval.

Road Construction Plans

1. **Ashley Park, Phase 5 (West Ashley) TMS# 3060000132.** 9.6 ac. 50 lots. DR-9. Road construction plans under review.
2. **Maybank Village, Phases 2A & 2B (Johns Island) TMS# 3130000054, 056, 057.** 35.2 ac. 108 lots. SR-6. Road construction plans pending approval.
3. **Woodbury Park (Johns Island) TMS# 3130000048-050.** 52.9 ac. 48 lots. SR-1. Road construction plans under review.
4. **WestEdge Infrastructure, Phase 1 (Peninsula – Westside) TMS# 4600000014, 021, 4601002004, 019, 020, 023.** 7.4 ac. R/W. MU-2/WH. Road construction plans under review.
5. **West Ashley Senior Center (West Ashley) TMS# 3510100021-023, 035, 040, 3090000028.** 1.0 ac. 2 lots. GB. Road construction plans under review.
6. **Ashley Pointe, Phase 1 (West Ashley) TMS# 2860000444.** 84.1 ac. 60 lots. SR-6. Road construction plans under review.
7. **Oak Bluff, Phase 1B (Cainhoy) TMS# 2630002003.** 3.3 ac. 19 lots. SR-1. Road construction plans pending approval.

Individuals with questions concerning the above items should contact the Department of Planning, Preservation and Sustainability at (843) 724-3765. Files containing information pertinent to the above applications are available for public review at the City of Charleston Zoning Office, 2 George St, Third Floor, during regular working hours, 8:30 a.m. to 5:00 p.m., daily except Saturdays, Sundays, and holidays. Additional information on these cases may also be obtained by visiting www.charleston-sc.gov/pc.

In accordance with the Americans with Disabilities Act, people who need alternative formats, ASL (American Sign Language) Interpretation or other accommodation please contact Janet Schumacher at (843) 577-1389 or email to schumacherj@charleston-sc.gov three business days prior to the meeting.

E-1

Edward Byrne Memorial JAG Program
FY16 Local Solicitation: Northbridge ALPR System
Applicant: City of Charleston, SC
CFDA: 16.738

Project Abstract

Expansion of Charleston Police Department ALPR Systems

Through the use of 2016 Edward Byrne Memorial JAG funding, the **Charleston Police Department (CPD)** seeks to expand upon previous Automated License Plate Reader (ALPR) installations by supporting the **Northbridge ALPR Project.** The Department currently maintains 3 ALPR installations on 3 major roadways. The FY16 Byrne JAG Grant application for **$25,898** is intended to build upon existing capabilities and to equip a highly trafficked exit point of the City of Charleston.

An Automated License Plate Reader (ALPR) is a proven police technology tool used to focus a variety of criminal investigations. By automatically capturing and reading images of vehicle license plates, ALPR's correlate crimes with suspects fleeing the scene into neighboring jurisdictions. With today's emphasis on 21st Century policing, ALPR's provide an important purpose. The photographic evidence that ALPR's provide supports testimonies in court, correlates activities with possible suspects, and bolsters requests for mutual aid when fighting multijurisdictional crime.

The CPD's current ALPR systems seamlessly connect to the City's Municipal Emergency Operations Center (MEOC) and Police Headquarters. Federal and state law enforcement can access the ALPR photos through the SLED portal. Therefore, this add-on would improve upon services for a multitude of federal, state, and local operations.

This 12-month project would fund a 3-camera ALPR System installation on the "Northbridge," or the Northbound lanes of the Cosgrove Bridge-SC Highway 7. The 1 site installation would cover 3 lanes of traffic headed out of the CPD jurisdiction towards I-26 East/West. The primary grant activities for this project will be procuring and installing the camera system, and tracking the effects of ALPR's in operation.

Project Identifiers

1. AUTOTHEFT
2. COMPUTER SOFTWARE/HARDWARE
3. ELECTRONICMONITORING
4. EQUIPMENT -- VIDEO/AUDIO
5. LICENSE PLATE READERS
6. ORGANIZEDCRIME
7. WHITECOLLARCRIME
8. REPEATOFFENDER
9. SURVEILLANCE
10. VEHICLE TAG MONITORING

Program Narrative
Edward Byrne Memorial JAG Program
FY16 Local Solicitation: Northbridge ALPR System
Applicant: City of Charleston, SC
CFDA: 16.738

Introduction

The Edward Byrne Memorial JAG program allows Law Enforcement Agencies (LEA's) the opportunity to more consciously and systematically advance the use of police technology in justice practices. As one of the largest law enforcement agencies in South Carolina, the Charleston Police Department (CPD) is leading South Carolina in 21st century policing. From 2009-2012, the CPD installed ALPR systems in highly trafficked roadways leading to the Port of Charleston. In 2014, the CPD began its body-worn camera program, currently in its completion stages. Finally, the CPD employs hotspot policing methods using ArcGIS for its weekly COMSTAT meetings. In conclusion, the department acquires, installs, and consistently employs technology that would aid in the interdiction of criminal activity. *This application requests funding to expand the preexisting ALPR network. The objective is to install a 3-camera system on the outbound lanes of the "Northbridge," or Cosgrove Bridge/US Highway 7 in order to better interdict criminal suspects exiting the City's jurisdiction.*

City of Charleston

There are an estimated 133,579 residents living within the corporate limits of the City of Charleston [See: City Roadway Map]. The Charleston Metropolitan Statistical Area (MSA), comprising Charleston, Berkeley, and Dorchester Counties (Tricounty area), has a population of over 712,000. The City of Charleston Police Department's (CPD) jurisdiction covers 131 square miles of territory in Charleston and Berkeley counties. Residents of the Tri-county area commute to the City of Charleston for work, business, recreation, and worship on a regular basis. Additionally, *Conde Nast* and *Travel & Leisure* magazines have named the City of Charleston the #1 destination for the past 3 years. The distinction has contributed to increased overall growth. Charleston is now 1 of 3 fastest growing metropolitan areas on the Atlantic coast.

Statement of the Problem

The City of Charleston Police has taken great lengths to address crime. In fact, from 2010-2013, Chief Gregory Mullen has reduced the rate of violent crime by 75% [See: Violent Crime Summary]. Despite this success, the characteristics of the city are changing and therefore, the types of crime that officers face. The growth in commerce and urban density has attracted a theft and financial crime element. This places additional demand on the department when insuring public safety of Charlestonians and visitors.

From 2010-2013, the City population increased by 30%. Charleston has also grown geographically. From 2010-2015, the City annexed 1,629.81 acres of land, according to City-produced "Fast-Facts" Reports. Much of the growth occurs in large West Ashley area of the City. This land, which lies west of the Ashley River, also sees the most criminal activity in the jurisdiction. The City has 3 ALPR installations but, lacks an installation in the West Ashley area

(see chart below) on the exit point to Interstate 26. The size and demographic growth of West Ashley demands additional surveillance tools.

	City of Charleston Police Department-Active ALPR Systems			
Installation	Location	One Lane	Two Lanes	Three Lanes
1	**East Bay Street**			
2	**US-17**			
3	**I-526**			

The heavily trafficked roads and burgeoning commercial activity have attracted a criminal element to the area [See: Team 4 Compstat Crimes]. The total number of robberies in 2015 was 90. Twenty-seven offenses or 30% occurred in West Ashley. The total number of aggravated assaults in 2015 was 162. Over 37 % occurred in West Ashley. Finally, West Ashley experienced over 40% of nonviolent crimes in Charleston, e.g. burglary, Motor Vehicle Theft, and Theft from a Motor Vehicle. The high rate of incidents for these crimes demonstrates the issues that West Ashley citizens face.

Crime analyst reports indicate that the majority of these offenders have addresses associated outside the City limits. By placing ALPR technology to monitor the exit point of West Ashley onto the interstate or neighboring North Charleston, the Department could insure swifter interdiction of offenders fleeing into neighboring municipalities. Moreover, the time-stamped photo of a suspect's license plate is prime evidence used to support the issuance of warrants and the activation of mutual aid requests. In conclusion, an investment in Automated License Plate Readers would assist in these criminal investigations for West Ashley and support security for all citizens in Charleston.

Project Design & Implementation

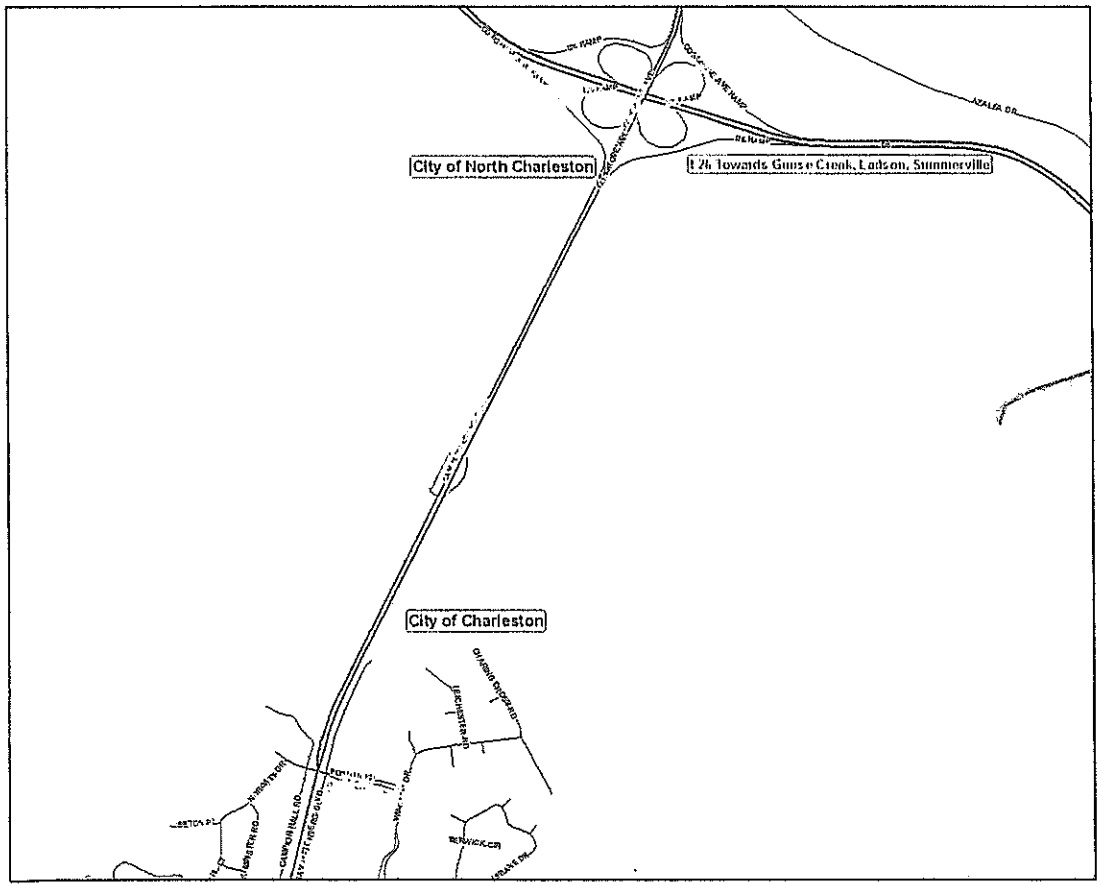
The CPD proposes the Northbridge ALPR Project to address the geographical gaps in coverage, the criminal activity in the West Ashley area, and the need for special event monitoring. ALPR's provide real time data that will be available to the Crime Analysis Unit, incident command (IOC or other), and partner when needed. *The Northbridge ALPR Project would acquire, install, and connect a system on 3 lanes exiting the West Ashley boundary of the City of Charleston.*

The ALPR technology currently used by the CPD enhances the Department's ability to covertly collect license plate data pertaining to ongoing criminal investigations and expand our current investigative abilities. The CPD would acquire an ALPR system that is compatible with its other installations (NDI) [See: Product Description]. Its current vendor is the same company

currently used by the South Carolina Interagency Operations Center (SCIOC). NDI offers a system approach where information is processed in the field. However, their technology also allows images to be centrally stored and shared with other authorized ALPR users and through a secure interface managed by the State Law Enforcement Division (SLED). Therefore, ALPR data can be accessed by SLED for state investigations, at Project SEAHAWK's IOC during the annual Cooper River Bridge run, as well as any other law enforcement agency with access to the SLED web portal. If awarded, this technology has proven interoperability.

The 3-camera ALPR system would be installed on the Northbound lanes of Highway-7 on the Cosgrove bridge (see below). This large roadway is the closest exit point to I-26 towards neighboring Berkeley and Dorchester counties. It also crosses the boundary between the City of Charleston and the City of North Charleston [See: Police Team Map]. The units will be deployed in the City of Charleston to allow the Charleston Police Department to identify potential threats to the public and/or critical infrastructure. The units will be used to monitor traffic egressing the City and a very high-risk area of the Charleston MSA.

"Northbridge"
Cosgrove Bridge/US Highway 7/Sam Rittenburg Blvd



ALPR's would support investigations in the West Ashley area. In cases of a domestic violence homicide, the ALPR image could inform the investigators if and when the offender attempted to leave town. In Charleston's recent case of credit card skimmers, images of the license plate at taken at several gas stations could be matched with ALPR results. The system would also be pertinent in the interdiction of bank robbery and auto-theft, an on-going issue in West Ashley. Currently, one ALPR system is installed on I-526, the only other upper-West Ashley exit to the interstate. By installing a system on the Northbridge, the CPD could address the possibility of offenders fleeing in opposite direction. In sum, this equipment will greatly enhance the recovery capabilities during incidents by providing real time information and mitigating gaps in areas that are do not currently have camera coverage.

Capabilities & Competencies

City of Charleston Police Department
The CPD has been accredited by CALEA (Commission on Accreditation of Law Enforcement Agencies) since 1991. The Department strives to maintain the highest level of professionalism as it serves and protects the public. To this end the CPD works with various local, state, and federal organizations and agencies to reduce incidents or crime and fear of crime. Its jurisdiction falls within Charleston and Berkeley counties, and covers the majority of Charleston's historical and business districts. The CPD is one of the larger LEA's in South Carolina, with 458 sworn officers and 117 civilian administrators and analysts.

Lieutenant Peter Farrell
Technology Commander, Project Manager
Lieutenant Peter Farrell, who currently serves as the Crime Information Operations Center (CIOC) Commander, joined the Charleston Police Department full-time in 1995. He has served in many leadership roles, such as the Command Duty Officer and the Property Crimes Unit Commander in the Central Investigations Unit. Due to the increased dependence on justice-related technology, Lt. Farrell was appointed the CPD Technology Commander in March 2015. Immediately upon his appointment, Lt. Farrell formed the Technology Workgroup. This workgroup focuses on communication and interoperability of CPD technology, e.g. ALPR's, City CCTV, IRSA In-Car and BWC's. It consists of both officers and City IT representatives. Lt. Farrell is the CPD representative to IT and represents police technology budget and programmatic requests to the Chief of Police, Gregory Mullen.

Ann-Marie Quinn, M.P.A.
Grants Coordinator
All justice-related grants are managed with a Department-designated grants coordinator, charged with donor communications, asset management, progress reporting, and monitoring. The City of Charleston also employs a Grants Compliance Manager who oversees all federal and non-federal grant monies for the city, and who acts as an additional level of oversight for grant compliance. Finally, the City has designated a Senior Grants Accountant that tracts grant-related procurement and financial reporting.

Program Narrative
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Performance Measures & Data Collection

The City of Charleston Police Department understands the performance requirements for those applicants that receive funding. In order to demonstrate project and to measure success, the Project Manager will collect the following data, detailed below:

Objective	Performance Measures	Data Grantee Provides
Expand ALPR coverage.	ALPR system on the Northbridge is purchased and installed.	Procurement data on purchase [Copy of Purchase Order]. Grant reports certifying ALPR system is installed [Including Photo].
Increase the ability to covertly collect data pertaining to ongoing criminal investigations.	Testing and live access of ALPR image feed.	Grant reports certifying the Northbridge ALPR system is functional.
Improved coverage for all law enforcement agencies in Charleston.	Number of agencies notified.	Copy of internal memo to partner agencies on new capabilities.

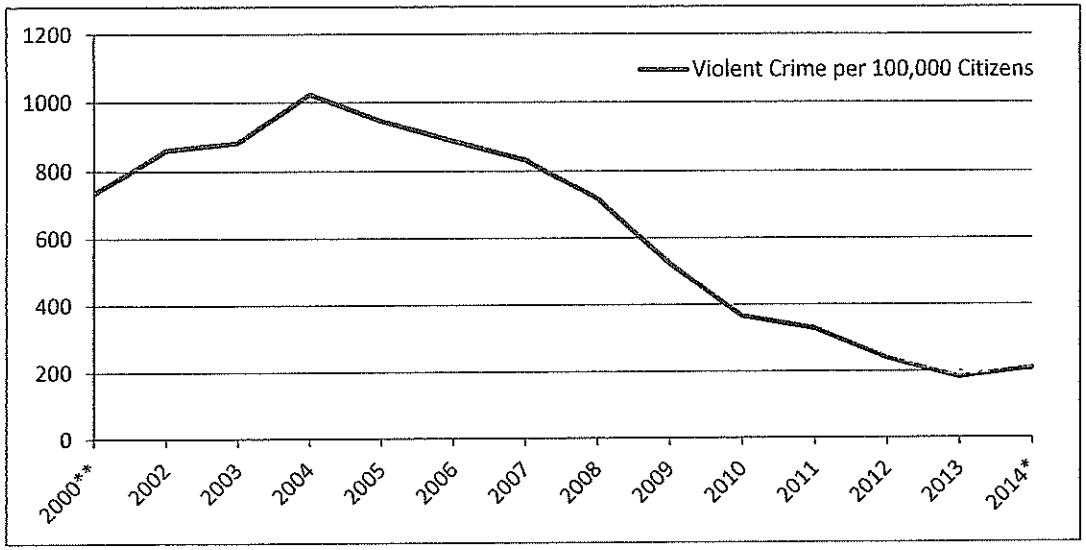
Program Narrative Addenda

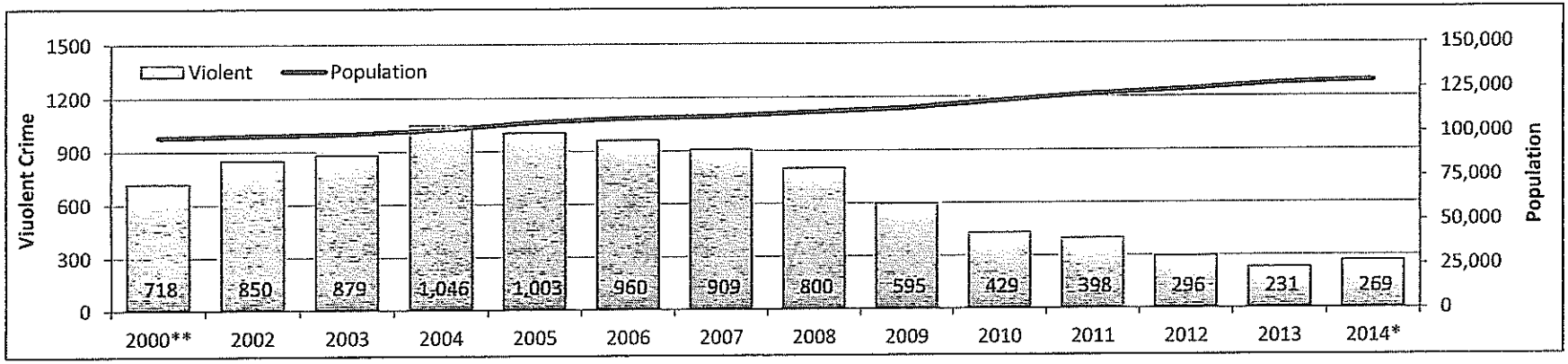
1. City Roadways Map
2. Violent Crime Summary
3. Team 4 Compstat Crimes
4. Product Description
5. Police Team Map

FBI Reported Violent Crime for the City of Charleston

Report Year 2001 - 2014

Year	Population	Violent	Per100k
2000**	97,879	718	733.6
2002	98,942	850	859.1
2003	99,756	879	881.2
2004	102,264	1,046	1,022.8
2005	106,307	1,003	943.5
2006	108,371	960	885.8
2007	109,382	909	831.0
2008	111,645	800	716.6
2009	113,681	595	523.4
2010	117,551	429	364.9
2011	121,481	398	327.6
2012	123,856	296	239.0
2013	127,206	231	181.6
2014*	128,700	269	209.0
Total		9,383	





** FBI UCR Table 8 does not provide accurate data for 2001 (listed as 386) so the 2000 total was used for this summary

* 2014 numbers are unofficial from RMS and are subject to further revision

* 2014 population estimate provided by City Finance

Team 4 Compstat Crimes

January 1, 2013 - December 31, 2015

Offense	2013	%*	2014	%*	2015	%*
Violent						
Aggravated Assault	49	*43%*	52	*35%*	60	*37%*
Homicide	4	*57%*	0	*0%*	2	*25%*
Robbery	27	*37%*	37	*46%*	27	*30%*
Sex Offense Forcible Rape	10	*33%*	6	*30%*	15	*43%*
Total Violent	90	*40%*	95	*37%*	104	*35%*
Nonviolent						
Burglary / Breaking and Entering	136	*43%*	119	*37%*	134	*40%*
Motor Vehicle Theft	86	*54%*	78	*45%*	109	*41%*
Theft from Motor Vehicle	204	*40%*	235	*41%*	264	*46%*
Total Nonviolent	426	*43%*	432	*41%*	507	*43%*
Total	**516**	***43%***	**527**	***40%***	**611**	***42%***

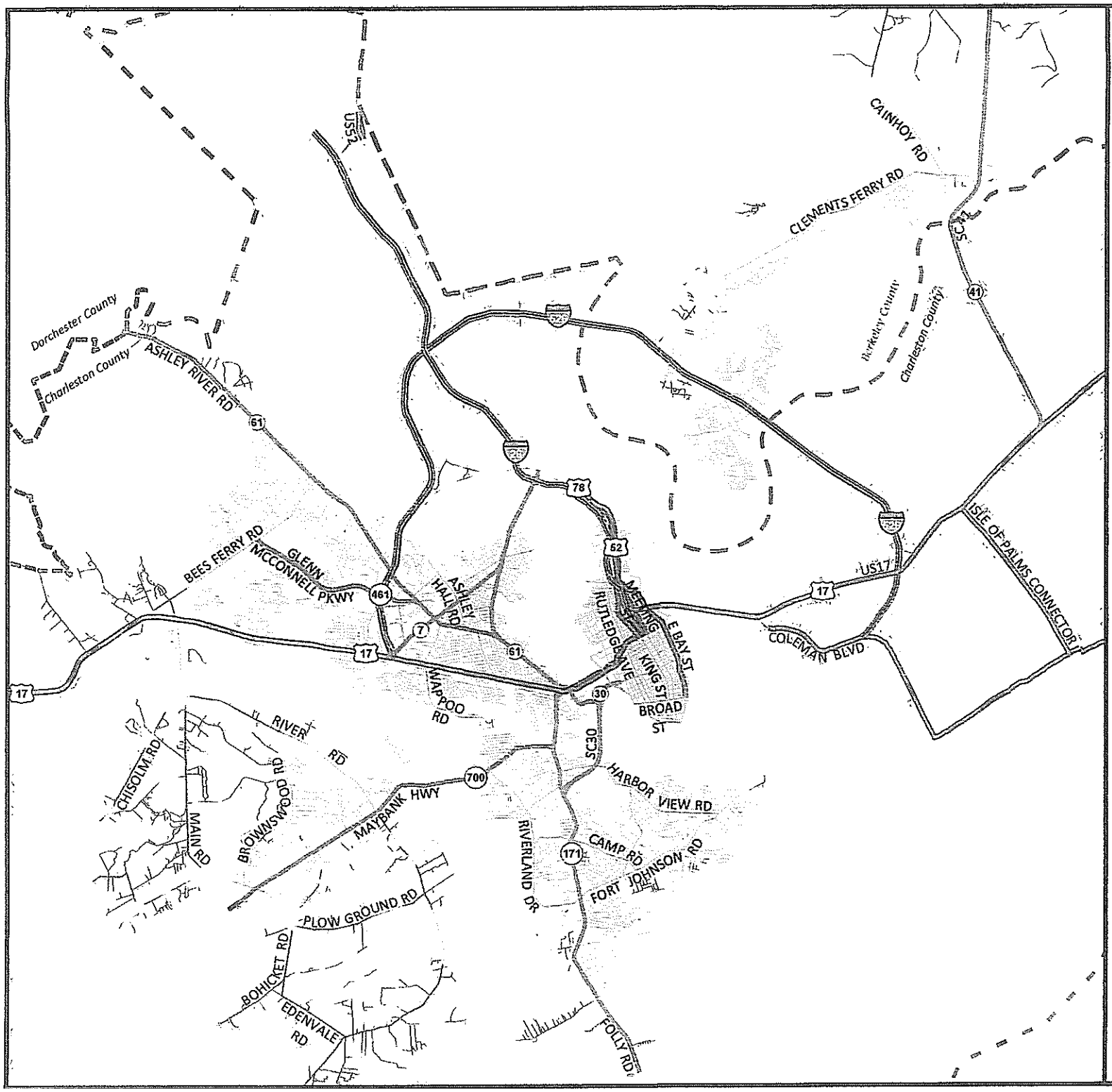
City Wide Compstat Crimes

January 1, 2013 - December 31, 2015

Offense	2013	2014	2015
Violent			
Aggravated Assault	115	150	162
Homicide	7	9	8
Robbery	73	81	90
Sex Offense Forcible Rape	30	20	35
Total Violent	225	260	295
Nonviolent			
Burglary / Breaking and Entering	316	324	339
Motor Vehicle Theft	158	174	269
Theft from Motor Vehicle	512	567	569
Total Nonviolent	986	1065	1177
Total	**1211**	**1325**	**1472**

*Percentage of T4 Offenses Compared to Overall City Offenses

Created by CIU (2152) June 6, 2016
Source: RMS Database, unfounded cases excluded



Corporate Limits
City of Charleston

- BCD County Boundaries
- Interstates
- US Highways
- State Highways
- Collector roads
- Streets
- Pedestrian street
- Charleston County streets
- Water
- City of Charleston

1 in = 2.84 miles

0 5,000 10,000 20,000 Feet

0 1 2 4 Miles

Important Disclaimer Notice

The City of Charleston makes no warranty, representation, or guaranty as to the content, sequence, accuracy, timeliness, or completeness of any information provided herein or derived from the mapping data for any reason. The City of Charleston explicity disclaims any representations and warranties, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. The user knowingly waives any and all claims for damages against any and all of the entities comprising the City of Charleston that may arise from the mapping data.

N W E S

Corporate Limits data current to 3/22/2016
Map created 4/26/2016

City of Charleston
Department of Information Technology
GIS Division
2 George St, Suite 2800
Charleston, SC 29401
www.charleston-sc.gov

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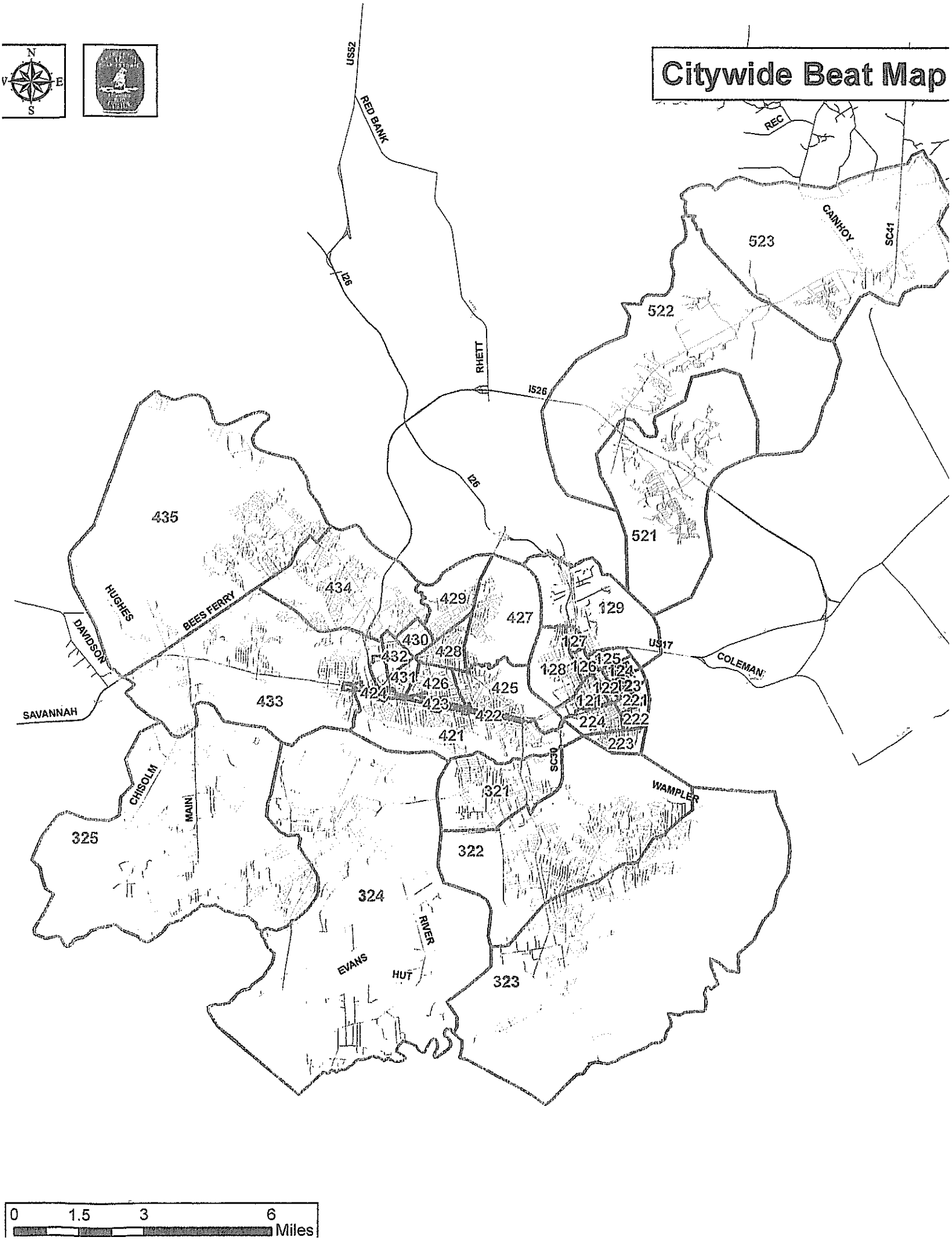
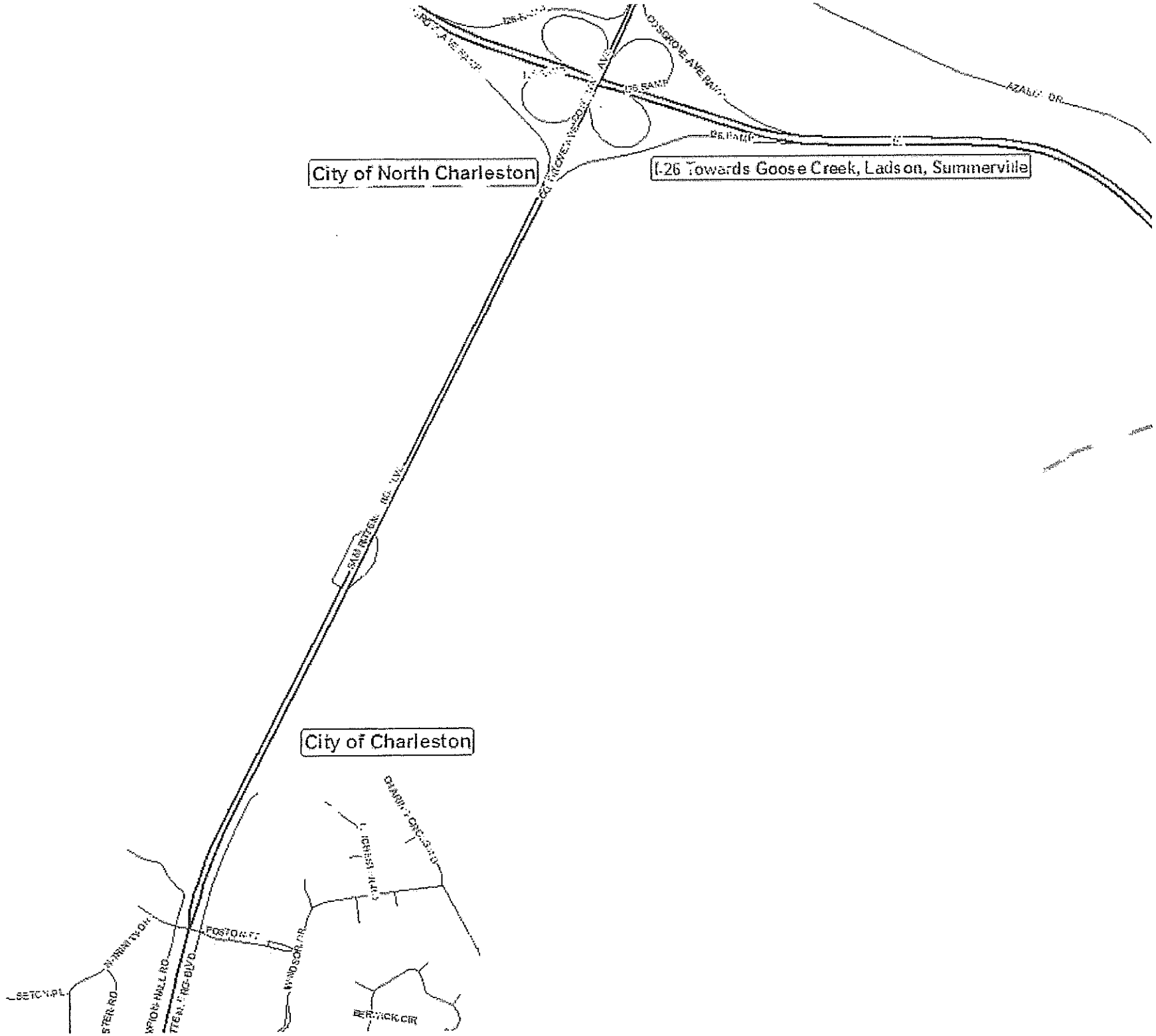
Citywide Beat Map




City of North Charleston
I-26 Towards Goose Creek, Ladson, Summerville
City of Charleston
DISCOVERY DR
DISCOVERY DR
DISCOVERY AVE
DISCOVERY AVE
I-26 RAMP
I-26 RAMP
AZALEA DR
SAN REMO DR
FOSTON ST
WINDSOR DR
BERWICK CIR

Edward Byrne Memorial JAG Program
FY16 Local Solicitation: Northbridge ALPR System
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Applicant Disclosure of Pending Applications

Federal or State Funding Agency	**Solicitation Name/Project Name**	**Name/Phone/Email for Point of Contact at Funding Agency**
South Carolina Department of Public Safety (SCDPS)	SCDPS 2016 Justice Assistance Grant/Criminal Domestic Violence Investigator (Continuation)	Bonnie Burns 803-896-8707 bonnieburns@scdps.gov
South Carolina Department of Public Safety (SCDPS)	SCDPS 2016 Justice Assistance Grant/Fingerprint Recovery Initiative (Forensic Equipment & Laboratory Supplies)	Bonnie Burns 803-896-8707 bonnieburns@scdps.gov
South Carolina Department of Public Safety (SCDPS)	SCDPS 2016 Highway Safety/Traffic Enforcement Program (2 Traffic Officers Salaries, Equipment, & Training)	Bonnie Burns 803-896-8707 bonnieburns@scdps.gov
South Carolina Department of Public Safety (SCDPS)	SCDPS 2016 VOCA /Elder Victim Advocate (Salary, supplies, & training)	Bonnie Burns 803-896-8707 bonnieburns@scdps.gov
South Carolina Department of Public Safety (SCDPS)	SCDPS 2016 VAWA/ Enhanced DNA Collection (Equipment & Training)	Bonnie Burns 803-896-8707 bonnieburns@scdps.gov
Department of Justice (DOJ) Office on Violence Against Women (OVW)	DOJ-OVW 2016 End Abuse In Later Life Grant Program/ Enhancing Knowledge & Services for Victims of Elder Abuse in Charleston, SC (Project Coordinator Salary, Training, Contractual Services, etc)	Program Office (202) 307-6026 OVW Elder Programs OVW.Elder@usdoj.gov
Department of Justice (DOJ) Bureau of Justice Assistance (BJA)	2016 Bulletproof Vest Partnership	BVP Help Desk 1-877-75-VESTS
Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA)	FY16 Port Security Grant Program: Port Security CBRNE Prevention, Protection, Response & Recovery (Equipment, Supplies & Training)	Matthew Patterson Program Analyst Port Security Grant Program DHS/FEMA/GPD/Preparedness Grants Division Office: (202) 786-0870 matthew.patterson@fema.dhs.gov
Department of Homeland Security (DHS) - South Carolina Law Enforcement Division (pass-through entity)	FY16 SLED-State Homeland Security Grant Program - CPD Dive Response Unit Category Enhancement Project (Equipment)	Chris Simpson csimpson@sled.sc.gov

Three Camera ALPR Total Project Budget

Proposed Location: Northbridge

A. **Personnel** None

B. **Fringe Benefits** None

C. **Travel**

Product	Item	Unit Price	Tax	Total
	Total			$ -

D. **Equipment**

Product	Item	Unit Price	Tax	Total
1	VeriPlate three Camera Static/Fixed LPR System using NDI's C320-810nm dual lens LPR camera (Color & IR) variable focal lenses and IR illumination.IP68 rated, FCC/CE approved, power supply, SCIV-four camera processor, with comms. and cellular modem	$ 23,868.75	$ 2,028.84	$ 25,898
3	C3-01-ALPR Cables in Custom Lengths from 5M to 20M (Prices/Lengths: $335./5M, $450./10M,$565./15M,$670./20M)	$ 335.00	$ 28.48	$ 1,090
3	Fixed Camera Mounting Brackets (Wall, Pole, etc)	$ 315.00	$ 26.78	$ 1,025
1	Web Based VISCE Software connected to SLED Server	$ 4,500.00	$ 382.50	No Charge
1	On-Site Engineering Services (Installation, Configuration and Commissioning $1,800/Day)	$ 1,800.00	$ 153.00	$ 1,953
1	Shipping and/or Freight to Agency	TBD	$ -	Included
1	Travel & Living Costs associated w/Installation, Configuration and Training	TBD	$ -	Included
1	1st Year Manufacturer Warranty Included at "No-Charge"	$ -	$ -	Included
	Subtotal			**$ 29,966**

E. **Supplies**

Product	Item
	None
	Total

F. **Construction**

Product	Item			
	None	$ -	$ -	$ -
	Total			**$ -**

G. **Contracts**

Product	Item			
1	Electrician	$ 1,400.00	$ 119.00	$ 1,519
12	Verizon Service (3 cameras)	$ 38.00	$ 3.23	$ 495
	Total			**$ 2,014**

H. **Other**

Product	Item
	None
	Total

GRAND TOTAL	Upgraded Annual Support Agreement; GOLD Support Agreement *Renewed Annually Starting Year 2* is 16% of Capital Investment or, $4,131.00	**1st Year Total** **$ 31,980**

2016 Grant Allocation		**$ 21,387**
2016 Byrne JAG Request		**$ 25,898**
2017 Overmatch		**$ 4,511**
2017 CPD Budget Request		**$ 6,083**

FY 16 Edward Byrne JAG
Grant Budget Narrative

A. **Personnel**

No personnel costs are requested with this application.

B. **Fringe Benefits**

No fringe benefits costs are requested with this application.

C. **Travel**

No travel is requested with this application.

D. **Equipment**

Automated License Plate Readers (ALPR) (3 Count) & Accessories

This installation includes 3-camera ALPR System with related power supply, camera processor, communication equipment and cellular modem. This is a fixed ALPR with zoom and illumination features that allow for optimal image capture in a variety of weather conditions. The latest editions feature technology that counteracts bright sunlight and blinding beams from vehicle headlights. The ALPR can capture license plate images from up to 150 feet away. Moreover, the ALPR is compatible with existing systems. The four-camera processor can store over 1 million images locally, and includes GPS coordinates and time stamps for every image.

E. **Supplies**

No supplies are requested with this application.

F. **Construction & Facilities**

No construction costs are requested with this application.

G. **Consultants/Contracts**

No consultants/contracts costs are requested with this application.

H. **Other Costs**

I. **Indirect Costs**

Budget Summary		
Category	Amount	
A. Personnel	$	-
B. Fringe Benefits	$	-
C. Travel	$	-
D. Equipment	$	25,898
E. Supplies	$	-
F. Construction	$	-
G. Consultants/Contracts	$	-
H. Other	$	-
Total Direct Costs	$	-
I. Indirect Costs	$	-
TOTAL PROJECT COSTS	**$**	**25,898**

Federal Share $ 21,387

Non-Federal Share $ 4,511

City of Charleston
SOUTH CAROLINA

POLICE DEPARTMENT

John J. Tecklenburg
Mayor

GREGORY G. MULLEN
Chief of Police

June 13, 2016

Bureau of Justice Assistance
Office of Justice Programs
810 Seventh Street, NW
Washington, DC 20531

RE: FY16 Edward Byrne Memorial JAG Program: Local Solicitation

This letter serves as an assurance that the City of Charleston Police Department (CPD) has reviewed its proposal to identify any research integrity issues (including all principal investigators and sub-recipients) and it has concluded that the design, collaborations and reporting of this federally funded project will not be biased by any personal or financial conflict of interest on the part of part of its staff, consultants, and/or sub-recipients responsible for the research and evaluation or on the part of the applicant organization.

The CPD believes that no potential personal or organizational conflicts of interest exist. The Information Technology Department will be working jointly with the CPD in developing video data transfer and storage in an effort to maintain data privacy and mutual accountability.

Specific processes and procedures are in place to identify potential personal or financial conflicts of interest on the part of CPD staff, consultants, and/or sub-recipients for this grant-funded project.

Firstly, grant proposals undergo a departmental and city level budget and compliance review process. Approved applications are then submitted for public review on the City Council Agenda. Once councilmembers have reviewed the application, it is allowed to be submitted to the granting agency for consideration.

Secondly, the City of Charleston Human Resources Department has established policies on employee ethics that cover conflicts of interest, questionable payments, and other forms of unethical conduct. In addition, the City allows for a formal grievance procedure for employees who have a complaint regarding unfair or unlawful action taken in violation of legal rights or privileges under City policies.

Respectfully,

Gregory Mullen, Chief of Police

180 LOCKWOOD BLVD., CHARLESTON, SOUTH CAROLINA 29403, 843-577-7434
AN EQUAL OPPORTUNITY EMPLOYER

U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS

Approved: OMB No. 1121-0329
Expires 12/31/2018

FINANCIAL MANAGEMENT AND SYSTEM OF INTERNAL CONTROLS QUESTIONNAIRE

The financial management system of each non-Federal entity must provide for the following

- Retention requirements for records
- Requests for transfer of records
- Methods for collection, transmission and storage of information
- Access to records
- Restrictions on public access to records

(1) Identification, in its accounts, of all Federal awards received and expended and the Federal programs under which they were received. Federal program and Federal award identification must include, as applicable, the CFDA title and number, Federal award identification number and year, name of the Federal agency, and name of the pass-through entity, if any.

(2) Accurate, current, and complete disclosure of the financial results of each Federal award or program.

(3) Records that identify adequately the source and application of funds for federally-funded activities. These records must contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, expenditures, income and interest and be supported by source documentation.

(4) Effective control over, and accountability for, all funds, property, and other assets. The non-Federal entity must adequately safeguard all assets and assure that they are used solely for authorized purposes

(5) Comparison of expenditures with budget amounts for each Federal award.

(6) Written procedures to document the receipt and disbursement of Federal funds including procedures to minimize the time elapsing between the transfer of funds from the United States Treasury or the pass-through entity and the disbursement by the non-Federal entity whether the payment is made by electronic funds transfer, or issuance or redemption of checks, warrants, or payment by other means

(7) Written procedures for determining the allowability of costs.

APPLICANT ORGANIZATIONAL INFORMATION

1. Name of Organization and Address: City of Charleston, South Carolina

80 Broad Street
Charleston, SC
29401-2901

2. Authorized Representative's Name and Title: John J. Tecklenburg, Mayor

3. Phone: 843 - 724 - 3737 ext.	4. Fax: 843 - 720 - 3827	5. Email: tecklenburgj@charleston

6. Year Established:	7. Employer Identification Number (EIN):	8. DUNS Number:
1783	57 - 6000226	77 - 99 - 786

9. Type of Organization:

☐ State ☒ Municipality ☐ Non-Profit ☐ Higher Education ☐ Tribal ☐ For-Profit ☐ Other

AUDIT INFORMATION

An audit is conducted using generally accepted auditing standards (GAAS) or Generally Accepted Governmental Auditing Standards (GAGAS) and results in an audit report with an opinion.

10. The organization has had the undergone the following types of audit(s)(Please check all that apply):

☒ OMB A-133 Single Audit ☐ Financial Statement Audit ☐ Defense Contract Agency Audit (DCAA)

☐ None

☐ Programmatic Audit & Agency:_____

☐ Other Audit & Agency:_____

11. Fiscal Year of Last Audit: 2014	Name of Audit Agency/Firm: Elliott Davis, LLC

AUDITOR'S OPINION:

12. On the most recent audit, what was the auditor's opinion?

☒ Unqualified Opinion ☐ Qualified Opinion ☐ Disclaimer, Going Concern or Adverse Opinions

Please enter the number of findings: None
Please enter the amount of questioned costs: $ 0

Were material weaknesses noted in either the Financial Statement or Single Audit? ☐ Yes ☒ No

ACCOUNTING SYSTEM

13. Which of the following best describes your accounting system:
☐ Manual ☐ Automated ☒ Combination

14. Does the accounting system identify the receipt and expenditure of program funds separately for each grant?	☒ Yes ☐ No ☐ Not Sure
15. Does the accounting system provide for the recording of expenditures for each grant/contract by budget cost categories shown in the approved budget?	☒ Yes ☐ No ☐ Not Sure
16. Does your accounting system have the capability to document the recording of cost sharing or match for each grant? Can you determine if documentation is available to support recorded match or cost share?	☒ Yes ☐ No ☐ Not Sure
17. Are time distribution records maintained for each employee that specifically identify effort charged to a particular grant or cost objective?	☒ Yes ☐ No ☐ Not Sure
18. Does the accounting/financial system include budgetary controls to preclude incurring obligations or costs in excess of total funds available or by budget cost category (e.g. Personnel, Travel, etc.)?	☒ Yes ☐ No ☐ Not Sure
19. Is the organization familiar with the existing Federal regulation and guidelines containing the Cost Principles and procedures for the determination and allowance of costs in connection with Federal grants?	☒ Yes ☐ No ☐ Not Sure

PROPERTY STANDARDS, PROCUREMENT STANDARDS, AND TRAVEL POLICIES

PROPERTY STANDARDS	
20. Does your property management system(s) provide for maintaining: (1) a description of the equipment; (2) an identification number; (3) source of the property, including the award number; (4) where title vests; (5) acquisition date; (6) federal share of property cost; (7) location and condition of the property; (8) acquisition cost; & (9) ultimate disposition information?	☒ Yes ☐ No ☐ Not Sure
PROCUREMENT STANDARDS	
21. Does your organization maintain written procurement procedures which (1) avoid unnecessary purchases; (2) provide an analysis of lease and purchase alternatives; and (3) provide a process for soliciting goods and services?	☒ Yes ☐ No ☐ Not Sure
22. Does your procurement system provide for the conduct to determine selection on a competitive basis and documentation of cost or price analysis for each procurement action?	☒ Yes ☐ No ☐ Not Sure
23. Does your procurement system include provisions for checking the "Excluded Parties List" system for suspended or debarred sub-grantees and contractors, prior to award? https://www.sam.gov/	☒ Yes ☐ No ☐ Not Sure
TRAVEL POLICY	
24. Does your organization: (a) maintain a standard travel policy? ☒ Yes ☐ No (b) adhere to the Federal Travel Regulation? (FTR) ☒ Yes ☐ No	
SUBRECIPIENT MANAGEMENT AND MONITORING	
25. (For Pass-through entities only). Does your organization have controls in place to monitor activities of subrecipients, as necessary, to determine that Federal awards are used for authorized purposes in compliance with laws, regulations, and the provisions of the award and that performance goals are achieved (2 CFR200)?	☒ Yes ☐ No ☐ Not Sure ☐ N/A (Your organization does not make subawards.)

STANDARDS FOR FINANCIAL MANAGEMENT SYSTEMS AND APPLICANT CERTIFICATION

I certify that the above information is complete and correct to the best of my knowledge. This document must be certified by the organization's Authorized Representative, Executive Director, Chief Financial Officer, Chairman of the Board of Directors, or similar position.

Name: Amy K. Wharton Amy K. Wharton	Date: 6/13/2016
Title: ☐ Executive Director ☐ Chief Financial Officer ☐ Chairman ☒ Other: Interim CFO	
Phone: 843 - 579 - 7596 ext.	

E-2

Ratification
Number_____

AN ORDINANCE

TO AMEND THE ZONING ORDINANCE OF THE CITY OF CHARLESTON BY CHANGING THE ZONE MAP, WHICH IS A PART THEREOF, SO THAT 28 F STREET (PENINSULA) (0.11 ACRE) (TMS #463-16-03-048) (COUNCIL DISTRICT 4), BE REZONED FROM DIVERSE RESIDENTIAL (DR-1) CLASSIFICATION TO DIVERSE RESIDENTIAL (DR-2F) CLASSIFICATION.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That the Zoning Ordinance of the City of Charleston be, and the same hereby is amended, by changing the zone map thereof so as to rezone the property described in Section 2 hereof by changing the zoning designation from Diverse Residential (DR-1) classification to Diverse Residential (DR-2F) classification.

Section 2. The property to be rezoned is described as follows:

28 F Street (Peninsula) (0.11 acre) (TMS #463-16-03-048)

Section 3. This ordinance shall become effective upon ratification.

Ratified in City Council this _____day of _____ in the Year of Our Lord _____, in the _____ Year of Independence of the United States of America.

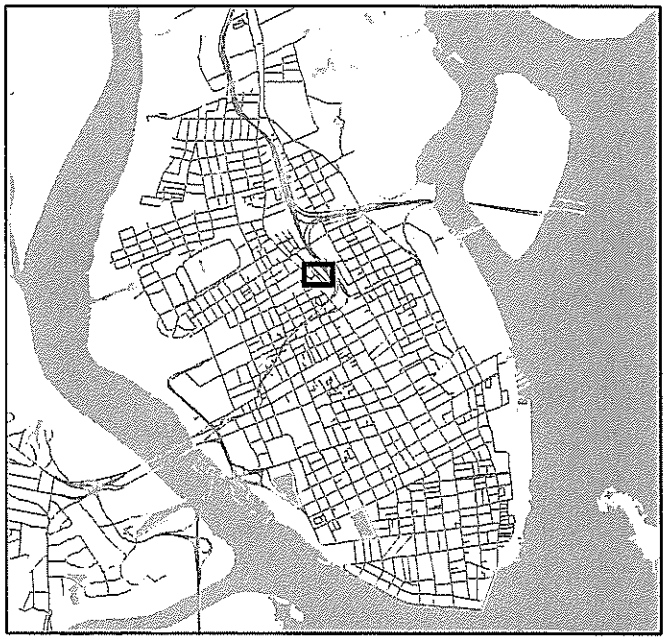
By: _____
John J. Tecklenburg
Mayor, City of Charleston

Attest: _____
Vanessa Turner Maybank
Clerk of Council

City of Charleston

Planning Commission
May 18, 2016

Area



Rezoning 2

28 F St (Peninsula)

TMS# 4631603048

0.11 ac.

Request rezoning from Diverse Residential (DR-1) to Diverse Residential (DR-2F).

Owner: Sam Pisasale

Location

N

E-3

Ratification
Number_____

AN ORDINANCE

TO AMEND THE ZONING ORDINANCE OF THE CITY OF CHARLESTON BY CHANGING THE ZONE MAP, WHICH IS A PART THEREOF, SO THAT A PORTION OF 3201 MAYBANK HIGHWAY (JOHNS ISLAND) (APPROXIMATELY 1.50 ACRES) (TMS #313-00-00-248) (COUNCIL DISTRICT 5), BE REZONED FROM LIGHT INDUSTRIAL (LI) CLASSIFICATION TO GENERAL BUSINESS (GB) CLASSIFICATION.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That the Zoning Ordinance of the City of Charleston be, and the same hereby is amended, by changing the zone map thereof so as to rezone the property described in Section 2 hereof by changing the zoning designation from Light Industrial (LI) classification to General Business (GB) classification.

Section 2. The property to be rezoned is described as follows:

a portion of 3201 Maybank Highway (Johns Island) (approximately 1.50 acres) (TMS #313-00-00-248)

Section 3. This ordinance shall become effective upon ratification.

Ratified in City Council this _____day of _____ in the Year of Our Lord _____, in the _____ Year of Independence of the United States of America.

By: _____
John J. Tecklenburg
Mayor, City of Charleston

Attest: _____
Vanessa Turner Maybank
Clerk of Council

City of Charleston

Planning Commission
May 18, 2016

Rezoning 3

3201 Maybank Hwy (Johns Island)

TMS# 3130000248 (a portion)

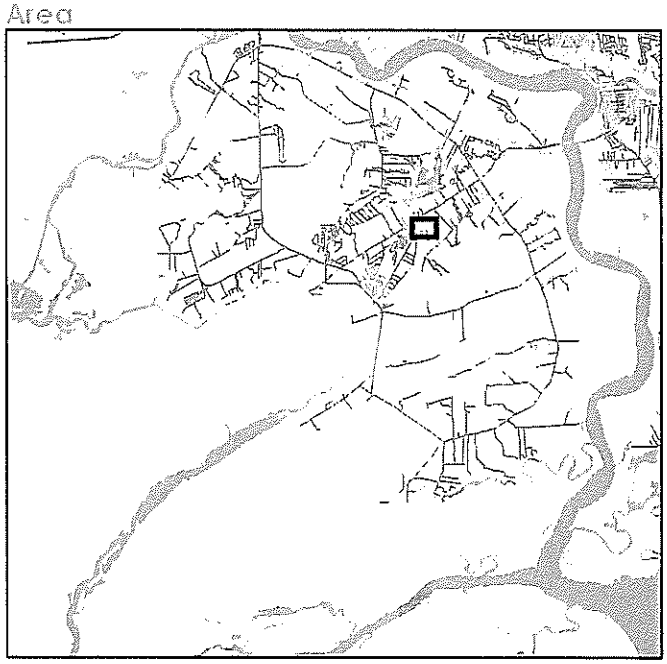
approx. 1.50 ac.

Request rezoning from Light Industrial (LI) to General Business (GB).

Owner: Tidelands Bank

Applicant: The Primesouth Group LLC

Area



Location

E-4

Ratification
Number_____

AN ORDINANCE

TO AMEND THE ZONING ORDINANCE OF THE CITY OF CHARLESTON BY CHANGING THE ZONE MAP, WHICH IS A PART THEREOF, SO THAT 7 WESLEY DRIVE (OLD WINDERMERE – WEST ASHLEY) (0.26 ACRE) (TMS #421-06-00-110) (COUNCIL DISTRICT 11), BE REZONED SO AS TO BE INCLUDED IN THE SAVANNAH HIGHWAY OVERLAY ZONE (SH) CLASSIFICATION.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That the Zoning Ordinance of the City of Charleston be, and the same hereby is amended, by changing the zone map thereof so as to rezone the property described in Section 2 hereof by changing the zoning designation to be included in the Savannah Highway Overlay Zone (SH) classification.

Section 2. The property to be rezoned is described as follows:

7 Wesley Drive (Old Windermere – West Ashley) (0.26 acre) (TMS #421-06-00-110)

Section 3. This ordinance shall become effective upon ratification.

Ratified in City Council this _____day of _____ in the Year of Our Lord _____, in the _____ Year of Independence of the United States of America.

By: _____
John J. Tecklenburg
Mayor, City of Charleston

Attest: _____
Vanessa Turner Maybank
Clerk of Council

City of Charleston

Planning Commission
May 18, 2016

Area

Rezoning 4.

7 Wesley Dr (Old Windermere – West Ashley)

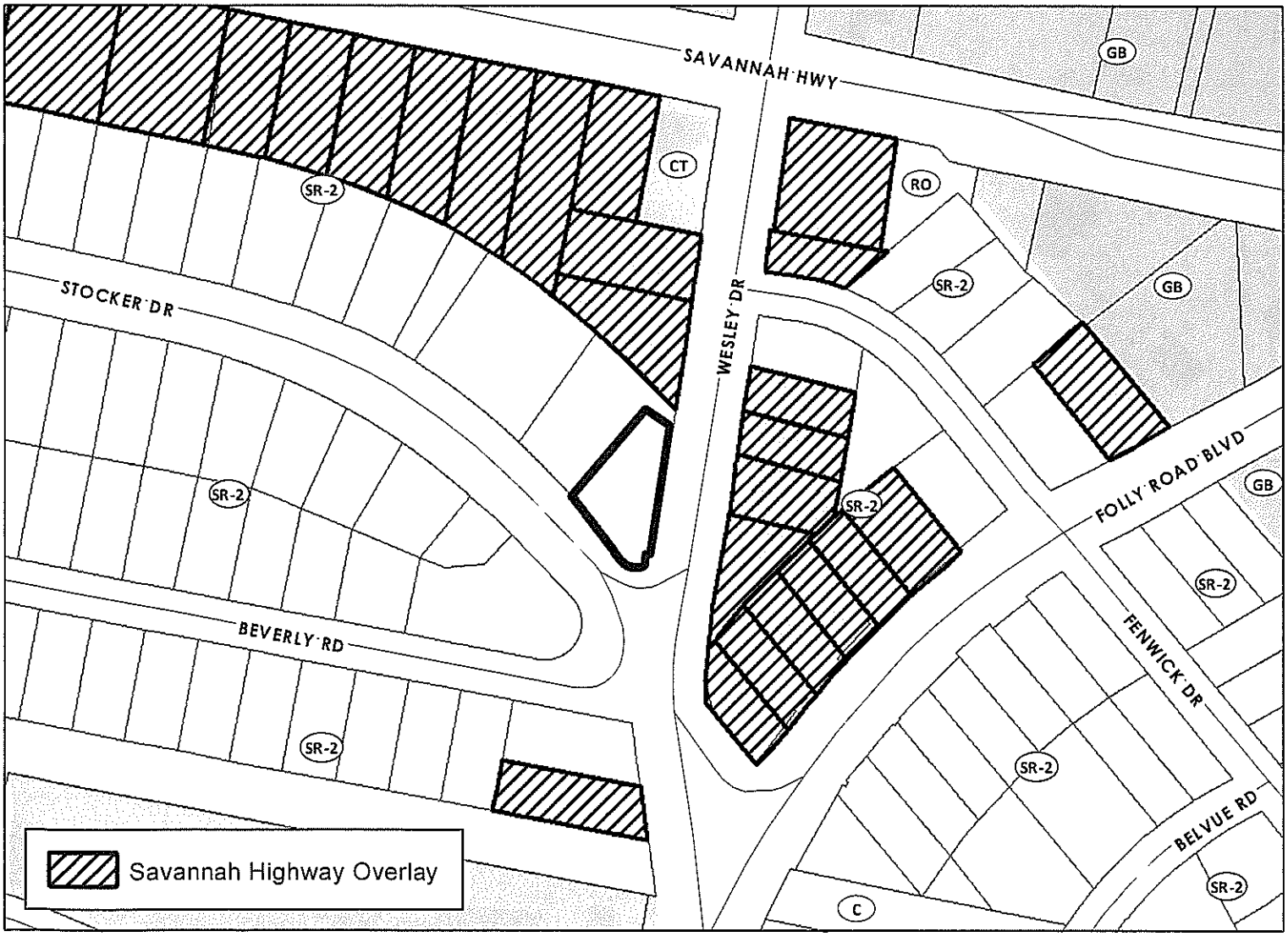
TMS# 4210600110

0.26 ac.

Request rezoning to be included in the Savannah Highway Overlay Zone (SH). Zoned Single-Family Residential (SR-2).

Owner: Jeff Harbit

Location



N

E-5

Ratification
Number_____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY AMENDING ARTICLE 2, PART 3, TABLE OF PERMITTED USES TO ESTABLISH PERMITTED USES FOR MICROBREWERIES AND FRESH FRUITS AND VEGETABLES IN THE "GB, UC, MU-2, MU-2/WH", "LI", "HI", "GP" AND "UP" DISTRICTS, AND TO ESTABLISH CONDITIONAL USES FOR MICROBREWERIES AND FRESH FRUITS AND VEGETABLES IN THE "BP" DISTRICT, TO WIT:

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. Article 2, Part 3, Table of Permitted Uses of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting "●" within the principle use row titled "20.1 Microbreweries" in the following columns: "GB, UC, MU-2, MU-2/WH", "LI", "HI", and "GP".

Section 2. Article 2, Part 3, Table of Permitted Uses of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting "‡" within the principle use row titled "20.1 Microbreweries" in the following columns: "BP".

Section 3. Article 2, Part 3, Table of Permitted Uses of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting "54-207, b." after the principle use row titled "20.1 Microbreweries", so it reads as follows: "20.1 Microbreweries 54-207, b."

Section 4. Article 2, Part 3, Table of Permitted Uses of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting "●" within the principle use row titled "5148 Fresh fruits and vegetables" in the following columns: "GB, UC, MU-2, MU-2/WH", "LI", "HI", "GP" and "UP".

Section 5. Article 2, Part 3, Table of Permitted Uses of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting "‡" within the principle use row titled "5148 Fresh fruits and vegetables" in the following columns: "BP".

Section 6. Article 2, Part 3, Table of Permitted Uses of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting "54-207, b." after the principle use row titled "5148 Fresh fruits and vegetables", so it reads as follows: "5148 Fresh fruits and vegetables 54-207, b."

Section 7. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____ day of
_____ in the Year of Our Lord, 2016,
and in the ____th Year of the Independence of
the United States of America

_____
John J. Tecklenburg
Mayor, City of Charleston

ATTEST: _____
Vanessa Turner Maybank
Clerk of Council

E-6

Ratification
Number_____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY AMENDING SECTION 54-347 TO CHANGE THE LANDSCAPE BUFFER REQUIREMENTS FOR PROPERTIES ON THE PENINSULA OF CHARLESTON

BE IT ORDAINED BY THE MAYOR AND COUNCIL MEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. Sec. 54-347 Landscape Buffer Requirements, of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended to read as follows (new text in **bold** and deleted text with ~~strikethrough~~):

"d. Exceptions.

1. All properties located **within the City limits** on the peninsula of Charleston ~~lying south of Mount Pleasant Street, and the extension thereof across the entire peninsula,~~ shall not require installation of landscape buffers along street frontages; and landscape buffers required pursuant to Table 3.5: Schedule of Required Buffers, to separate and screen incompatible uses, shall only be required to consist of a landscaping area with a minimum width of five (5) feet in which a wall of at least six (6) feet in height is placed and one (1) recommended non-deciduous tree is planted for each twenty-five (25) feet linear feet of landscaping area. **For the purposes of this Section, "peninsula" shall mean the area of the City of Charleston bounded by the Cooper River to the east, the Ashley River to the west and south, and the Charleston City Limits to the north."**

Section 2. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____day of
_____ in the Year of Our Lord 2016,
in the ___ Year of Independence of the United States of America.

By: _____
John J. Tecklenburg
Mayor, City of Charleston

Attest: _____
Vanessa Turner Maybank
Clerk of Council

I2.)

City of Charleston

JOHN J. TECKLENBURG
MAYOR

MEMORANDUM

TO: City Council Members

FROM: John J. Tecklenburg, Mayor

DATE: June 15, 2016

RE: West Ashley Revitalization Commission

In May of 2016, Charleston City Council voted to form the West Ashley Revitalization Commission. The West Ashley Revitalization Commission shall work to assure the long-term economic stability of West Ashley by revitalizing the unique character of the district and supporting values that assure West Ashley is a great place to live, work, play, invest and do business.

The Commission shall consist of nineteen (19) voting members, one (1) of whom shall be the Mayor; three (3) members of the City Council who represent a district or portion thereof in West Ashley appointed by the Mayor; one (1) member who shall be a representative from the St. Andrews Public Service District appointed by the Mayor; one (1) member who shall be a representative of Charleston County Council appointed by the Mayor; and the remaining 13 (thirteen) members who shall be representatives from the City of Charleston and nominees(s) submitted by each Councilmember and the Mayor, to be appointed by City Council and the Mayor. The Chairperson shall also be appointed by the Mayor and approved by City Council.

As a result, I offer to City Council the following members of the West Ashley Revitalization Commission for your approval consideration:

Council Member Peter Shahid, Chairman	*City Council Member*
Mayor John J. Tecklenburg, Mayor	*Mayor*
Council Member Marvin Wagner	*City Council Member*
Council Member Rodney Williams	*City Council Member*
Anne Frances Bleecker	*CM Shahid Appointment*
Colleen Condon	*Chas County Council District 7 Rep*
John deStephano	*St Andrews PSD Representative*

Mike Duck	*CM Riegel Appointment*
Harry Gregorie	*Mayor Tecklenburg Appointment*
Diane Hamilton	*CM Lewis Appointment*
Donna Jacobs	*CM Wagener Appointment*
Dinos Liollio	*CM Wilson Appointment*
Carmen Nash	*CM Moody Appointment*
Jim Palassis	*Multiple CM Appointment*
Anthony Vandross	*CM Waring Appointment*
Harold Washington	*CM Gregorie Appointment*
Irene Whaley	*CM Williams Appointment*
Gary White, Sr.	*CM White Appointment*
Katie Zimmerman	*CM Seekings Appointment*

The members of the Commission shall serve for terms of three (3) years or until their successors have been appointed and qualified and shall have the following powers and duties:

- Be charged with the duties of establishing goals, policies and procedures for the implementation of revitalization efforts in West Ashley on behalf of the City.
- Initiate a major study of needs of West Ashley and aid in the procurement of the necessary funds for such study.
- Study and recommend financial and organizational techniques to effectuate the revitalization of West Ashley by the joint efforts of public and private entities.
- Seek out and recommend early action improvements for West Ashley.
- Assist private businesses in improvements in conjunction with the West Ashley revitalization efforts.
- Assist the business community and the City work together in most cooperative and supportive manner possible.
- Seek funds and resources from private and public sources to promote and market West Ashley.
- In its discretion, create committees to participate in the planning or effectuation of the West Ashley revitalization efforts; provided, however, that any such councils or committees shall require the approval of the Mayor and the Commission.

At last, the Commission shall establish a regular time and place of meeting. For purposes of Commission action, a quorum of the West Ashley Revitalization Commission shall consist of 10 voting members of the Commission in attendance.

I3(b)

Ratification
Number_____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY AMENDING SECTION 54-220 ACCOMMODATIONS OVERLAY ZONE, BY INSERTING LANGUAGE TO PRESERVE MIXED-USE DISTRICTS; PROHIBIT THE DISPLACEMENT OF HOUSING BY ACCOMMODATIONS; PROHIBIT THE DISPLACEMENT OR REDUCTION OF OFFICE SPACE BY ACCOMMODATIONS; PROHIBIT THE DISPLACEMENT OF MORE THAN 25 PERCENT OF GROUND FLOOR, STORE FRONT RETAIL SPACE BY ACCOMMODATIONS USES ON STREETS WITH GROUND FLOOR, STORE FRONT RETAIL AS A DOMINANT USE; PROHIBIT AN OVERCONCENTRATION OF ACCOMMODATIONS UNITS WITHIN AREAS ON THE PENINSULA DESIGNATED "A-1" ON THE ACCOMMODATIONS OVERLAY ZONING MAP; AMEND REVISED SUBSECTION B. 1. (G) BY DELETING WORDING REGARDING PEDESTRIAN ACTIVITY AND TRANSIT SYSTEM USAGE AND INSERTING LANGUAGE REGARDING THE LOCATION AND DESIGN OF GUEST DROP OFF AND PICK UP AREAS; AND AMEND REVISED SUBSECTION B. 1. (H) 15 TO REQUIRE MORE INFORMATION ON PARKING AND PUBLIC TRANSIT PROVISIONS FOR EMPLOYEES

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That Section 54-220 of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by deleting text shown below with a ~~strikethrough~~ and adding text shown below with a double-underline:

"Sec. 54-220. - Accommodations overlay zone.

a. Intent. The A Overlay Zone is intended to identify those areas within the City limits where accommodation uses are allowed. Accommodation uses are prohibited except within the A Overlay Zone, with the exception of bed and breakfasts that are approved in accordance with the provisions of Section 54-208 or 54-208.1, and short term rentals that are approved

in accordance with the provisions of Section 54-227. The City places a high value on the preservation of the character of its residential neighborhoods and its mixed-use districts. Potential negative impacts affecting residential neighborhoods shall be avoided or minimized to the greatest extent possible. Contiguous adjoining

b. Permitted uses. In any Accommodation overlay zoning district, land may be used and buildings or structures may be erected, altered or used for any purpose allowed by the underlying zoning district as listed in Article 2: Part 3, ~~and the following uses subject to~~ the approval of the Board of Zoning Appeals:

1. Accommodation uses. The Board of Zoning Appeals may permit accommodation uses as an exception where it finds that:

(a) ~~the elimination of~~ housing units ~~by the proposed facility~~ will not ~~adversely affect the existing housing stock~~ be displaced;

(b) office space will not be reduced or displaced;

(c) the facility will not displace more than 25% of the linear frontage of existing ground floor storefront retail space on streets with retail store fronts as a dominant use;

(d) the location of the facility will not significantly increase automobile traffic on streets within residential neighborhoods;

(e) the total square footage of interior and exterior floor area for restaurant and bar space in the proposed facility, including restaurant/bar patron use areas, bar areas,

kitchen, storage, and bathroom facilities, shall not exceed 12 percent of the total interior, conditioned floor area in the facility, except that each facility shall be permitted to exempt from the calculation of total restaurant floor area one interior, ground floor restaurant tenant space if the total tenant space does not exceed 2,000 square feet, the restaurant tenant does not serve alcoholic beverages, and the exempt restaurant tenant space is clearly labeled with these restrictions on the floor plans submitted with the application for this zoning special exception;

(f) the proposed use is otherwise in character with the immediate neighborhood and, if located within the area designated "A-1" on the Accommodations Overlay zoning map, will not be located on a property that adjoins another property with an existing accommodations use or a vested approval for an accommodations use and will not share any facilities, including back of the house facilities, with any other accommodations use;

(g) the location and design of the proposed ~~facility~~ guest drop off and pick up area(s) ~~will facilitate pedestrian activity and encourage transit system usage within the peninsula~~ is safe and appropriate; and

(h) in making these findings, the Board of Zoning Appeals shall consider the following information to be provided by the applicant in site plans, floor plans, building elevations, and a detailed written assessment report to be submitted with the application:

(1) the ~~number of existing~~ presence of housing units on the property or the presence of units on the property that were occupied as housing units within the last 5 years ~~to be displaced by type of unit (rental or owner occupied; single family, duplex or multi family; occupied or unoccupied), by income range and by physical condition (sound, deficient, deteriorated or dilapidated)~~;

~~(2) the effect of the displacement on the total available housing stock and on the housing stock of a particular type and income range in the service area;~~

(2) the presence of office space on the property or the presence of spaces on the property that were occupied as office spaces within the last 5 years;

(3) the linear frontage of existing groundfloor storefront retail space on the property on streets with groundfloor retail strorefront spaces as a dominant use;

(4) the location and design of guest drop off and pick up areas for the facility,

(5) the number of vehicle trips generated by the facility and the traffic circulation pattern serving the facility and efforts made to minimize traffic impacts;

(6) the distance of the main entrance and parking entrance of the facility from a road classified as an arterial or collector road;

(7) the development pattern and predominant land uses within five hundred feet (500') of the facility and, for a facility to be located on a property within the area designated "A-1" on the Accommodations Overlay zoning map, the presence of existing or vested accommodations uses on an adjoining property;

(8) the proximity of residential neighborhoods to the facility;

(9) the accessory uses proposed for the facility in terms of the size, impact on parking, and impact on traffic generation;

(10) the demonstrated provision of off-street parking at the rate of two spaces that meet the design requirements of Sec. 54-318 for each three sleeping units;

(11) the presence of industrial uses and uses which use, store, or produce toxic or hazardous materials in quantities in excess of those specified by the EPA listing of toxic and hazardous materials, within five hundred feet (500') of the facility;

(12) the commitment to environmental sustainability and recycling;

(13) the distance of the facility from major tourist attractions;

(14) the distance of the facility from existing or planned transit facilities;

(15) the long term provision of on- or off-site parking for employees who drive vehicles to work, including an estimate of the number of employees that will

drive to work during the maximum shift and the location of parking spaces to be provided; and the demonstrated provision of free transit passes or other incentives to encourage employee use of public transportation;

(16) the location of the proposed facility will contribute to the creation of a diverse mixed-use community;

(17) the number of rooms in the facility; provided however that the number of rooms in a facility shall not exceed 50 in areas designated "A-1" on the zoning map; 180 in areas designated "A-2" on the zoning map; 225 in areas designated "A-3" on the zoning map; 100 in areas designated "A-4" on the zoning map; 150 in areas designated "A-5" on the zoning map; and 69 in areas designated "A-6" on the zoning map; and further provided that within the portion of the area designated "A-1" bounded by King Street on the west, Meeting Street on the east, Mary Street on the south and Line Street on the north, the number of rooms in a facility may exceed 50 if the facility is a full-service hotel that provides 20,000 or more square feet of meeting and conference space, and an on-site restaurant that serves breakfast, lunch and dinner seven days a week;

(18) the provision of shuttle bus services to and from the historic district by facilities with more than 50 rooms located outside the area designated "A-1" through "A-6" on the zoning map ~~and not served by public transit~~;

(19) the commitment to make affirmative, good faith efforts to see that construction and procurement opportunities are available to DBEs (disadvantaged business enterprise) and WBEs (women business enterprise) as outlined in Section 2-267 (D)(1), (2), and (3) of the Code of the City of Charleston;

(20) the commitment to make affirmative, good faith efforts to hire personnel, representative of the population of the Charleston community, at all employment levels. "

Section 2. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____ day of
_____ in the Year of Our Lord, 2016,
and in the _____ Year of the Independence of
the United States of America

_____
John J. Tecklenburg, Mayor

ATTEST: _____
Vanessa Turner Maybank, Clerk of Council

J1(a)

Ratification
Number_____

AN ORDINANCE

TO AMEND THE CODE OF THE CITY OF CHARLESTON, SOUTH CAROLINA, CHAPTER 17, ARTICLE 8, SECTION 135 TO EXTEND THE 90 DAY PILOT PROGRAM ALLOWING FOR CERTAIN ESTABLISHMENTS THAT ALLOW FOR THE ON-PREMISE CONSUMPTION OF ALCOHOL, BEER, OR WINE TO REMAIN OPEN UNTIL 3 A.M.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS IN CITY COUNCIL ASSEMBLED:

Section 1. Chapter 17, Section 135 of the Code of the City of Charleston is hereby amended by adding thereto the following underlined provisions, which shall read as follows:

"Sec. 17-135. **SOFT CLOSING PILOT PROGRAM.**

1. Findings.

Whereas, on October 14, 2014, City Council enacted Ordinance No. 2014 -36, imposing a moratorium on the opening of new establishments that sell alcohol, beer or wine for on-premise consumption after midnight in certain areas of the Peninsula.

Whereas, one purpose of the moratorium was to allow the issue of an over concentration of such establishments to be studied.

Whereas, City Council appointed a committee of citizens to study the issue and provide a report to Council as to its recommendations.

Whereas, the committee consisted of representatives from the food and beverage industry, neighborhoods and the daytime business sector.

Whereas, the committee met on a monthly basis, and at the City Council meeting held on July 21, 2015, presented its report to City Council.

Whereas, one recommendation of the report was to test, for a period of 90 days, the concept of a "soft closing", whereby establishments selling alcohol, beer or wine for on-premise consumption in the study area would be given the opportunity to remain open until 3:00 a.m., to measure if allowing patrons to remain on the premises of the affected establishment an extra hour would curb noise and traffic issues related to having patrons of all such establishments vacate the affected establishments by 2 a.m., and weigh the effects of a soft closing as it relates to noise and traffic and the effect on public safety operations.

Whereas, the trial period ordinance was enacted on September 8, 2015 and the trial period ran from September 8, 2015 to December 7, 2015.

Whereas, after studying the 90 day trial period, it is now the committee's recommendation that a new six month trial period for the program be approved with the addition of certain rules and the revision of other rules related to the program.

Whereas, it is the intent of the City that the soft closing program offer a fair and reasonable opportunity for all interested establishments citywide to prepare and participate in the trial program for the maximum benefit of all.

2. Soft Closing Pilot Program and Rules.

a. Notwithstanding the provisions of Sec. 3-2 of the Code of the City of Charleston, for a period of 6 months from the ratification of this Ordinance, commercial establishments located within the City of Charleston which allow for on-premises consumption of alcohol, beer, ale, porter and/or wine may operate until 3 a.m., provided however, that at all times between 2 a.m. and 3 a.m. when the establishment is operating, the following requirements are met:

i. the house lights within the establishment shall be turned up to fifty percent of their highest level or fifty percent of the house lights within the establishment must be turned to their highest levels;

ii. the volume of any amplification devices, stereo systems. or like devices shall be turned down to a level that cannot be heard 25 feet from the perimeter of the property at any time for any length of time;

iii. all alcohol, beer, ale, porter and/or wine shall be removed from all tables and patron bars within the establishment;

iv. there shall be no sale or gift of any alcohol, beer, ale, porter and/or wine to any patron of the establishment;

v. there shall be no consumption or possession of alcohol, beer, ale, porter and/or wine by any patron of the establishment; and,

vi. Patrons shall be permitted to enter or re-enter the establishment, if the establishment has an operational kitchen with a nighttime menu that includes more than the sale of prepackaged foods, single snack packages, and individually wrapped food for consumption. The nighttime menu shall contain menu items that are prepared, cooked, and plated similarly to the establishment's normal daytime menu.

b. Commercial establishments for which this Ordinance applies may, between 2 a.m. and 3.m., provide or sell food and non-alcoholic beverages to its patrons.

c. Any commercial establishment desiring to participate in this trial program shall notify the Soft Closing Program Liaison of their desire to participate in the Soft Closing Trial Program at least seven business days in advance of the day it intends to begin operating after 2 a.m.

d. All commercial establishments to which this Ordinance applies are prohibited from operating between the hours of 3 a.m. and 6 a.m., Mondays through Saturdays.

Section 2. This Ordinance shall begin on August 1, 2016 and end on January 31, 2017 unless extended by the majority vote of City Council.

Section 3. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____ day of
_____ in the Year of Our Lord, 2016,
and in the ____th Year of the Independence of
the United States of America

_____
John Tecklenburg, Mayor

ATTEST: _____
Vanessa Turner Maybank, Clerk of Council

J2 a

STATE OF SOUTH CAROLINA)
COUNTY OF ~~CHARLESTON~~ BERKELEY) TITLE TO REAL ESTATE
CITY OF CHARLESTON)

KNOW ALL MEN BY THESE PRESENTS, that Daniel Island Associates L.L.C. ("Grantor") in the state aforesaid, for and in consideration of the sum of ONE AND 00/100 DOLLAR ($1.00), being the true consideration to it in hand paid at and before the sealing of these presents by the CITY OF CHARLESTON, the receipt whereof is hereby acknowledged, has granted, bargained, sold and released, and by these presents does grant, bargain, sell and release unto the said CITY OF CHARLESTON ("Grantee"), its successors and assigns, forever, the following described property which is granted, bargained, sold and released for the use of the public forever:

All the of the property underneath, above, and containing those certain streets, roads, drives, and cul-de-sacs situate, lying and being in the City of Charleston, County of Charleston, State of South Carolina, located in Daniel Island Parcel E, Phase 2C as shown and designated on a plat entitled "A Final Subdivision Plat of Daniel Island Master Plan Parcel E & Parcel E, Island H to Create Parcel E, Block F, Lots 19 through 24; Block L, Lot 4; Block M, Lots 5 through 10; Block O, Lots 1 and 2 & Parcel E, Island H, Block A, Lots 1 through 7, Daniel Island, City of Charleston, Berkeley County, South Carolina, prepared for Daniel Island Associates, LLC" prepared by Thomas & Hutton, dated Feb. 23, 2016, revised _____, and recorded in Plat Book _____ at Page _____ in the RMC Office for Berkeley County. Said property butting and bounding, measuring and containing, and having such courses and distances as are shown on said plat. Reference being had to the aforesaid plat for a full and complete description, being all of the said dimensions, a little more or a little less. Said streets being known as Lesesne Street (50'R/W), Brailsford Street (50' R/W), Black Powder Lane (50' R/W) and Fish Tale Road (50' R.W).

This being a portion of the property conveyed to Grantor herein by deed of the Daniel Island Residential Investments,LLC dated November 8, 1998 and recorded November 9, 1998 in Book 1478 at Page 286 in the RMC Office for Berkeley County, South Carolina.

Grantee's Mailing Address:

City of Charleston
Department of Public Service
Engineering Division
2 George Street
Suite 2100
Charleston, South Carolina 29401

TOGETHER with all and singular, the rights, members, hereditaments and appurtenances to the said premises belonging, or in anywise incident or appertaining.

TO HAVE AND TO HOLD, all and singular, the said premises before mentioned unto the CITY OF CHARLESTON, its successors and assigns forever.

AND we do hereby bind ourselves and our heirs, executors and administrators, to warrant and forever defend, all and singular, the said premises unto the said City of Charleston, heirs and assigns, against us and our heirs, and all persons whomsoever lawfully claiming, or to claim the same or any part thereof.

WITNESS our Hand(s) and Seal(s) this 4th day of March 2016.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

Jan Malloy
Witness Number One

Jan Malloy
Printed Name

Witness Number Two

JOHN ROBERT CALDWELL
Printed Name

Grantor Daniel Island Associates L.L.C.

By:

Matthew R. Sloan, its President
Printed Name

****

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHARLESTON)

PERSONALLY APPEARED before me the undersigned witness and made oath that (s)he saw the within named Daniel Island Associates L.L.C., by its duly authorized officer Matthew R. Sloan, sign, seal and as its act and deed, deliver the within written Deed, and that (s)he with the other witness witnessed the execution thereof.

Jan Malloy

SWORN to before me this 4th day of March, 2016

Maggie R. Dusbiber
NOTARY PUBLIC FOR SOUTH CAROLINA

MY COMMISSION EXPIRES: 10/16/24

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

STATE OF SOUTH CAROLINA)

COUNTY OF BERKELEY) AFFIDAVIT FOR TAXABLE OR EXEMPT TRANSFERS

PERSONALLY appeared before me the undersigned, who being duly sworn, deposes and says:

1. I have read the information on this affidavit and I understand such information.

2. The property was transferred by Daniel Island Associates L.L.C. to City of Charleston on _____.

3. Check one of the following: The deed is

   (A)_____ subject to the deed recording fee as a transfer for consideration paid or to be paid in money or money's worth.

   (B)_____ subject to the deed recording fee as a transfer between a corporation, a partnership, or other entity and a stockholder, partner, or owner of the entity, or is a transfer to a trust or as distribution to a trust beneficiary.

   (C)_✓_ exempt from the deed recording fee because (See Information section of affidavit): Deed to municipality/government (explanation required) (If exempt, please skip items 4-7, and go to item 8 of this affidavit.)

If exempt under exemption #14 as described in the Information section of this affidavit, did the agent and principal relationship exist at the time of the original sale and was the purpose of this relationship to purchase the realty?
Check Yes ____ or No ____

4. Check one of the following if either item 3(a) or item 3(b) above has been checked. (See Information section of this affidavit):

   (A)_____ The fee is computed on the consideration paid or to be paid in money or money's worth in the amount of _____

   (B)_____ The fee is computed on the fair market value of the realty which is _____.

   (C)_____ The fee is computed on the fair market value of the realty as established for property tax purposes which is _____.

5. Check YES ___ or NO ___ to the following: A lien or encumbrance existed on the land, tenement, or realty before the transfer and remained on the land, tenement, or realty after the transfer. If "YES," the amount of the outstanding balance of this lien or encumbrance is _____.

6. The deed recording fee is computed as follows:

   (A) Place the amount listed in item 4 above here: _____

   (B) Place the amount listed in item 5 above here: _____
   (If no amount is listed, place zero here.)

   (C) Subtract Line 6(b) from Line 6(a) and place the result here: _____

7. The deed recording fee is based on the amount listed on Line 6(c) above and the deed recording fee due is Exempt.

8. As required by Code Section '12-24-70, I state that I am a responsible person who was connected with the transaction as Agent of owner.

9. I understand that a person required to furnish this affidavit who willfully furnishes a false or fraudulent affidavit is guilty of a misdemeanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

Responsible Person Connected with the Transaction

Matthew R. Sloan
Print or Type Name Here

Sworn this 4th day of March 2016
Maggie R. Dusbiber
Notary Public for South Carolina
My Commission Expires: 10-16, 2024

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

MATCH LINE - SHEET 2

MATCH LINE - SHEET 1

BRAILSFORD STREET

BRAILSFORD STREET

FISH TALE ROAD

LEGEGNE STREET

BLACK POWDER LANE

PARCEL E PHASE 2B

REFERENCES

PLANNING USE ONLY

SITE

VICINITY MAP

The Daniel Island COMPANY

A FINAL SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

prepared for and owned by
DANIEL ISLAND ASSOCIATES LLC

THOMAS & HUTTON

SHEET 1 OF 3

SEE INSET
SHEET 3

MATCH LINE - SHEET 2
MATCH LINE - SHEET 1

BERESFORD CREEK

NOTES

PLANNING USE ONLY

ENGINEERING DIVISION
CITY OF CHARLESTON

REFERENCES

ACREAGE BREAKDOWN FOR PARCEL E, PHASE 2C

SITE

Daniel Island Parcel E

LOCATION MAP

The Daniel Island
COMPANY

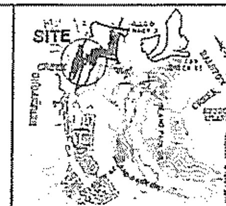
A FINAL SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

DANIEL ISLAND, CITY OF CHARLESTON
BERKELEY COUNTY, COUNTY OF CHARLESTON, SC

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LLC

THOMAS & HUTTON

PLANNING USE ONLY



PROJECT: Daniel Island, Parcel E, Ph 2C

VICINITY MAP

The Daniel Island
COMPANY

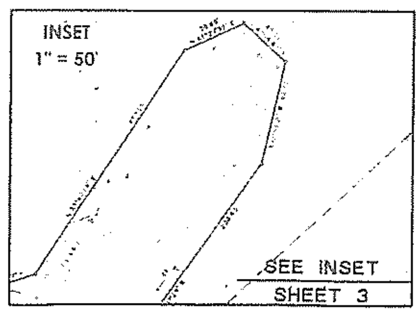
A FINAL SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

DANIEL ISLAND, CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LLC

THOMAS & HUTTON

682 Johnnie Dodds Blvd. Suite 100
PO Box 1522
Mt. Pleasant, SC 29465-1522
p 843.849.0200 f 843.849.0203



7/1/13

11/21/14

REFERENCES

NOTES

SHEET 3 OF 3

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENT**
COUNTY OF ~~CHARLESTON~~ BERKELEY	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this _____ day of _____, 20 16, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and Daniel Island Associates L.L.C. _____ (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining a storm water drainage pipe and appurtenances ("Storm Water System") across a portion of Daniel Island Parcel E Phase 2C _____ designated by Berkeley County tax map number 275-00-00-110 _____ and to accomplish this objective, the City must obtain an easement from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it an exclusive easement in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City a **NEW EXCLUSIVE** variable **– FOOT WIDE PERMANENT STORM DRAINAGE EASEMENT,** more fully shown on a plat entitled

" A Final Subdivision Plat of Daniel Island Master Plan Parcel E & Parcel E, Island H to Create Parcel E, Block F, Lots 19 through 24; Block L, Lot 4; Block M, Lots 5 through 10; Block O, Lots 1 and 2 & Parcel E, Island H, Block A, Lots 1 through 7, Daniel Island, City of Charleston, Berkeley County, South Carolina, prepared for Daniel Island Associates, LLC ",

prepared by Thomas & Hutton _____, dated Feb. 23, 2016 _____, executed by Phillip P. Gerard _____, on March 4, 2016 _____, and recorded in Plat Book _____ at page _____ in the R.M.C. Office for Berkeley County, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM DRAINAGE EASEMENT having such size, shape, location, and butting, and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive variable-Foot Wide Permanent Stormwater Drainage Easement for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. This Exclusive variable-Foot Wide Permanent Stormwater Drainage Easement shall be commercial in nature and shall run with the land.

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of the Exclusive variabl -Foot Wide Permanent Stormwater Drainage Easement during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

OWNER

Tom Malloy
Witness #1

Witness #2

Name: Daniel Island Associates L.L.C.
By: Matthew R. Sloan, its President
Date: March 4th, 2016

WITNESSES:

Witness #1

Witness #2

CITY OF CHARLESTON

By: Laura S. Cabiness
Its: Director of Public Service
Date: _____

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Matthew R. Sloan, as President sign, on behalf of, Daniel Island Associates L.L.C., the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Tam Malloy
Signature of Witness

SWORN to before me this
4th day of March, 2016.

Maggie R. Dusbiber
Notary Public for South Carolina
My Commission Expires: 10/16/24

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

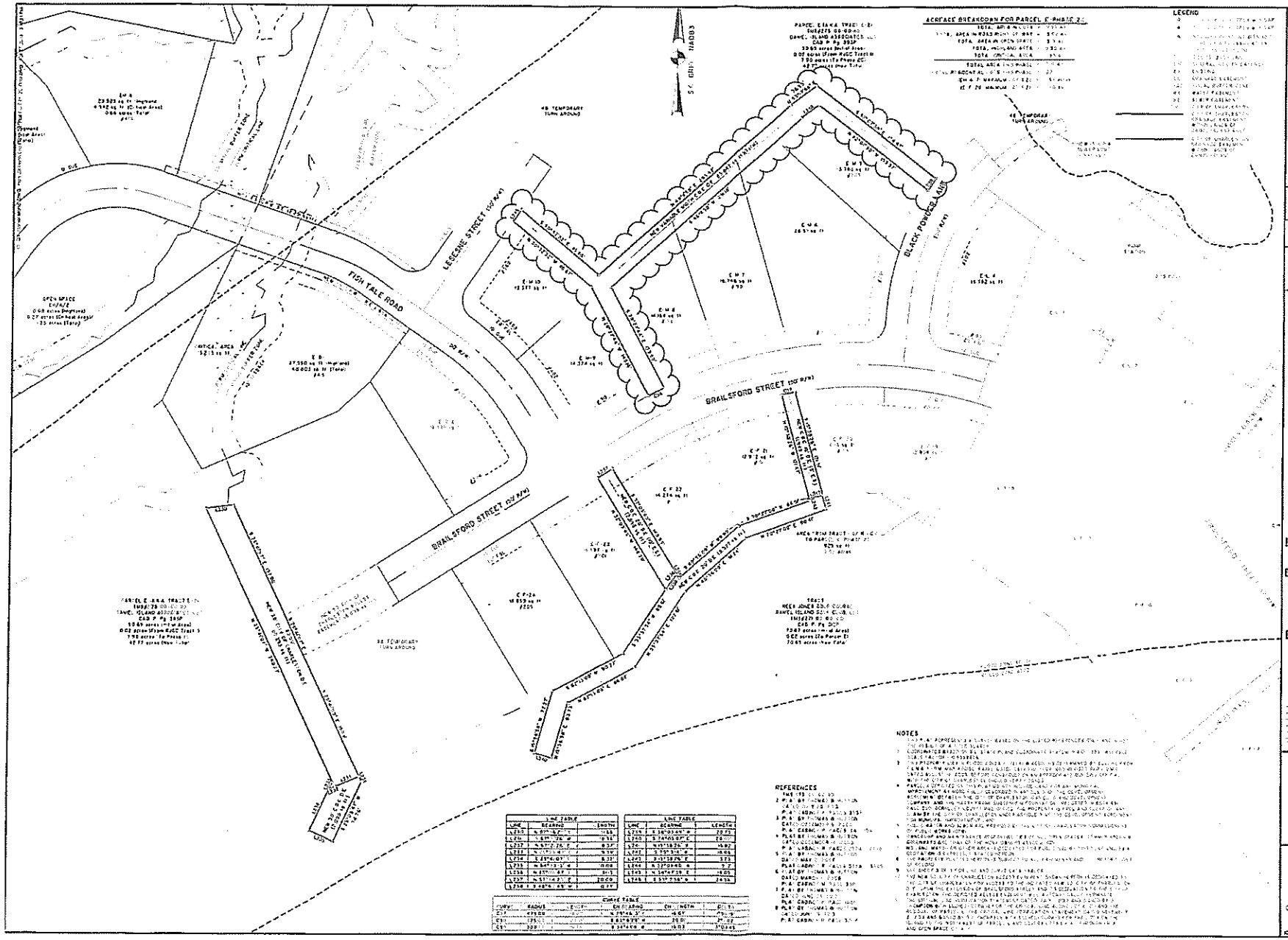
STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

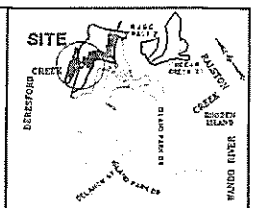
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of, _____, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20 16 .

_____
Notary Public for South Carolina
My Commission Expires: _____





PROJECT: Daniel Island Parcel E, Ph. 2C

VICINITY MAP

The Daniel Island COMPANY

EXHIBIT "A" SHOWING THE SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

DANIEL ISLAND, CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LLC

THOMAS & HUTTON
Engineering Surveying Planning & Environmental
652 Johnnie Dodds Blvd. Suite 100
PO Box 1522
Mt Pleasant SC 29465-1522
p 843 849 0200 f 843 849 0203
www.thomas-hutton.com

1 INCH = 50 FEET

DATE 02/23/16 | DRAWN PFC | REVIEWED YED

JOB # 2-777-2002 | SHEET 1 OF 1

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENT**
COUNTY OF CHARLESTON	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this _____ day of _____, 20____, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and Daniel Island Associates L.L.C. (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining a storm water drainage pipe and appurtenances ("Storm Water System") across a portion of Daniel Island Parcel E Phase 2C designated by Berkeley County tax map number 275-00-00-110 and to accomplish this objective, the City must obtain an easement from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it an exclusive easement in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City a **NEW EXCLUSIVE** 16 **– FOOT WIDE PERMANENT STORM DRAINAGE EASEMENT,** more fully shown on a plat entitled

" A final Subdivision Plat of Daniel Island Master Plan Parcel E & Parcel E Island H to Create Parcel E, Block F, Lots 19 through 24, Block L, Lot 4, Block M, Lots 5 through 10, Block O Lots 1 and 2 & Parcel E Island H Block A, Lots 1 through 7, Daniel Island, City of Charleston, Berkeley County, South Carolina, prepared for Daniel Island Associates, LLC" ",

prepared by Thomas & Hutton, dated February 23, 2016, executed by Phillip P. Gerard, on March 4, 2016, and recorded in Plat Book _____ at page _____ in the R.M.C. Office for Berkeley County, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM DRAINAGE EASEMENT having such size, shape, location, and butting, and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive 16 -Foot Wide Permanent Stormwater Drainage Easement for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. This Exclusive 16 -Foot Wide Permanent Stormwater Drainage Easement shall be commercial in nature and shall run with the land.

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of the Exclusive 16 -Foot Wide Permanent Stormwater Drainage Easement during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

OWNERS:
DANIEL ISLAND ASSOCIATES L.L.C.

By: _____
Matthew R. Sloan, Its President

Witness #1

Witness #2

Date: March 4th, 2016

WITNESSES:

Witness #1

Witness #2

CITY OF CHARLESTON

By: Laura S. Cabiness
Its: Director of Public Service
Date: _____

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Matthew R. Sloan, as President sign, on behalf of, Daniel Island Associates L.L.C., the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Jan Malloy
Signature of Witness

SWORN to before me this
5th day of March, 2016.

Maggie R. Dusbiber
Notary Public for South Carolina
My Commission Expires: 10/16/24

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

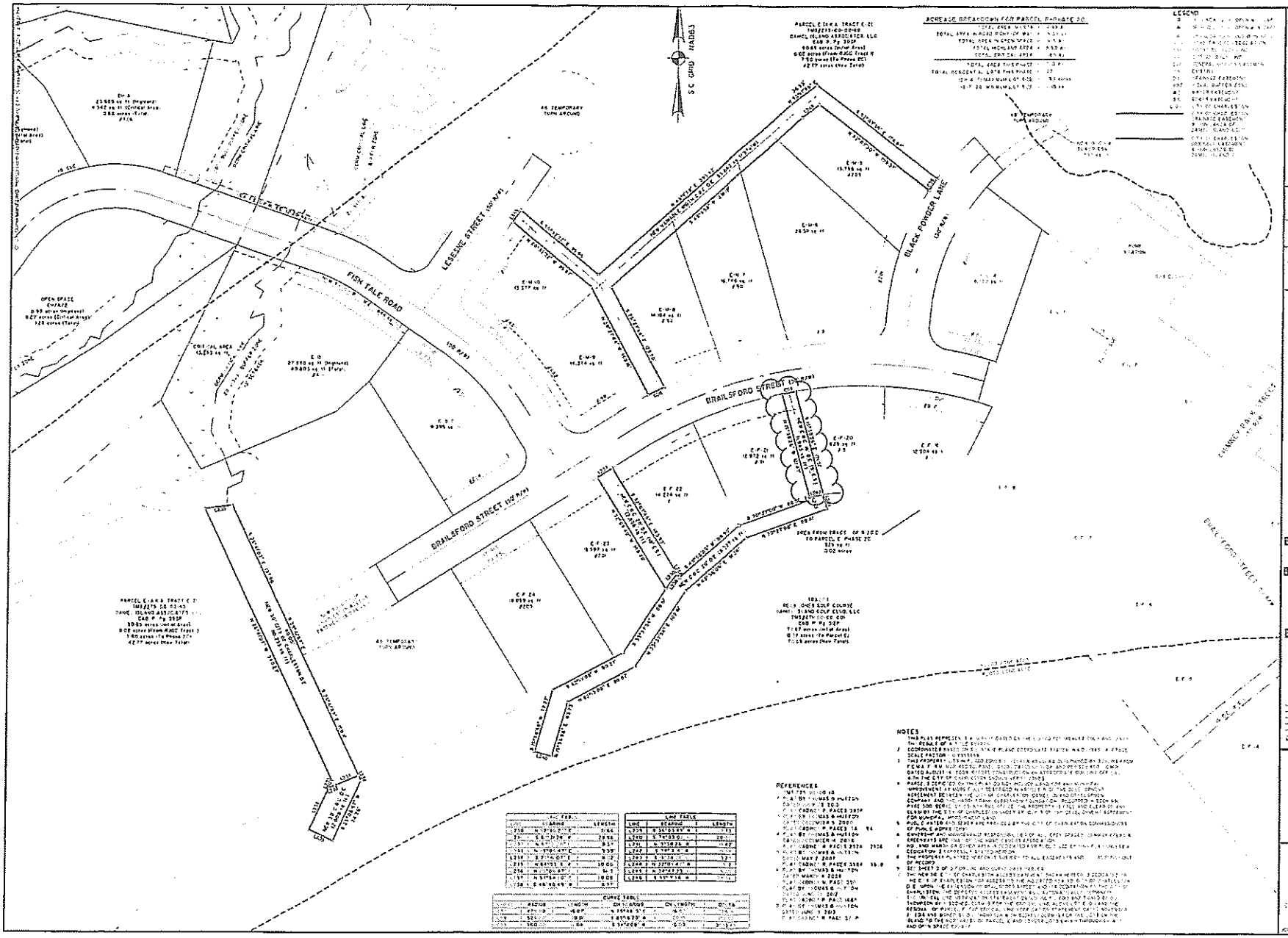
STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

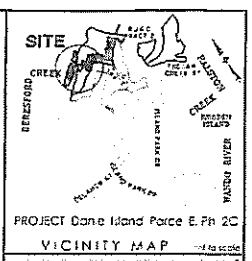
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of, _____, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20 16 .

_____
Notary Public for South Carolina
My Commission Expires: _____





PROJECT Daniel Island Parcel E Ph 2C

VICINITY MAP

The Daniel Island
COMPANY

EXHIBIT "A" SHOWING THE
SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

DANIEL ISLAND, CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LLC

THOMAS & HUTTON
Engineering | Surveying | Planning | GIS | Consulting
682 Johnnie Dodds Blvd., Suite 100
PO Box 1522
Mt. Pleasant, SC 29465-1522
p 843 849 0200 f 843 849 0203
www.thomas-hutton.com

50 0 50 100
HORIZ 1" = 50' FT

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENT**
COUNTY OF ~~CHARLESTON~~ BERKELEY	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this _____ day of _____, 20____, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and Daniel Island Associates L.L.C. (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining a storm water drainage pipe and appurtenances ("Storm Water System") across a portion of Daniel Island Parcel E Phase 2C designated by Berkeley County tax map number 275-00-00-110 and to accomplish this objective, the City must obtain an easement from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it an exclusive easement in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City a **NEW EXCLUSIVE** 20 **– FOOT WIDE PERMANENT STORM DRAINAGE EASEMENT,** more fully shown on a plat entitled

" A Final Subdivision Plat of Daniel Island Master Plan Parcel E & Parcel E, Island H to Create Parcel E, Block F, Lots 19 through 24; Block L, Lot 4, Block M, Lots 5 through 10; Block O, Lots 1 and 2 & Parcel E, Island H, Block A, Lots 1 through 7, Daniel Island, City of Charleston, Berkeley County, South Carolina, prepared for Daniel Island Associates, LLC ",

prepared by Thomas & Hutton, dated Feb. 23, 2016, executed by Phillip P. Gerard, on March 4, 2016, and recorded in Plat Book _____ at page _____ in the R.M.C. Office for Berkeley County, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM DRAINAGE EASEMENT having such size, shape, location, and butting, and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive 20 -Foot Wide Permanent Stormwater Drainage Easement for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. This Exclusive 20 -Foot Wide Permanent Stormwater Drainage Easement shall be commercial in nature and shall run with the land.

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of the Exclusive 20 -Foot Wide Permanent Stormwater Drainage Easement during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

OWNER:

Tom Malloy
Witness #1

Witness #2

DANIEL ISLAND ASSOCIATES L.L.C.

By: _____
Matthew R. Sloan, its President

Date: March 4th, 2016

WITNESSES:

_____
Witness #1

_____
Witness #2

CITY OF CHARLESTON

_____
By: Laura S. Cabiness
Its: Director of Public Service
Date: _____

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Matthew R. Sloan, as President sign, on behalf of, Daniel Island Associates L.L.C., the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Signature of Witness

SWORN to before me this
4th day of March, 2016.

Notary Public for South Carolina
My Commission Expires: 10/16/24

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

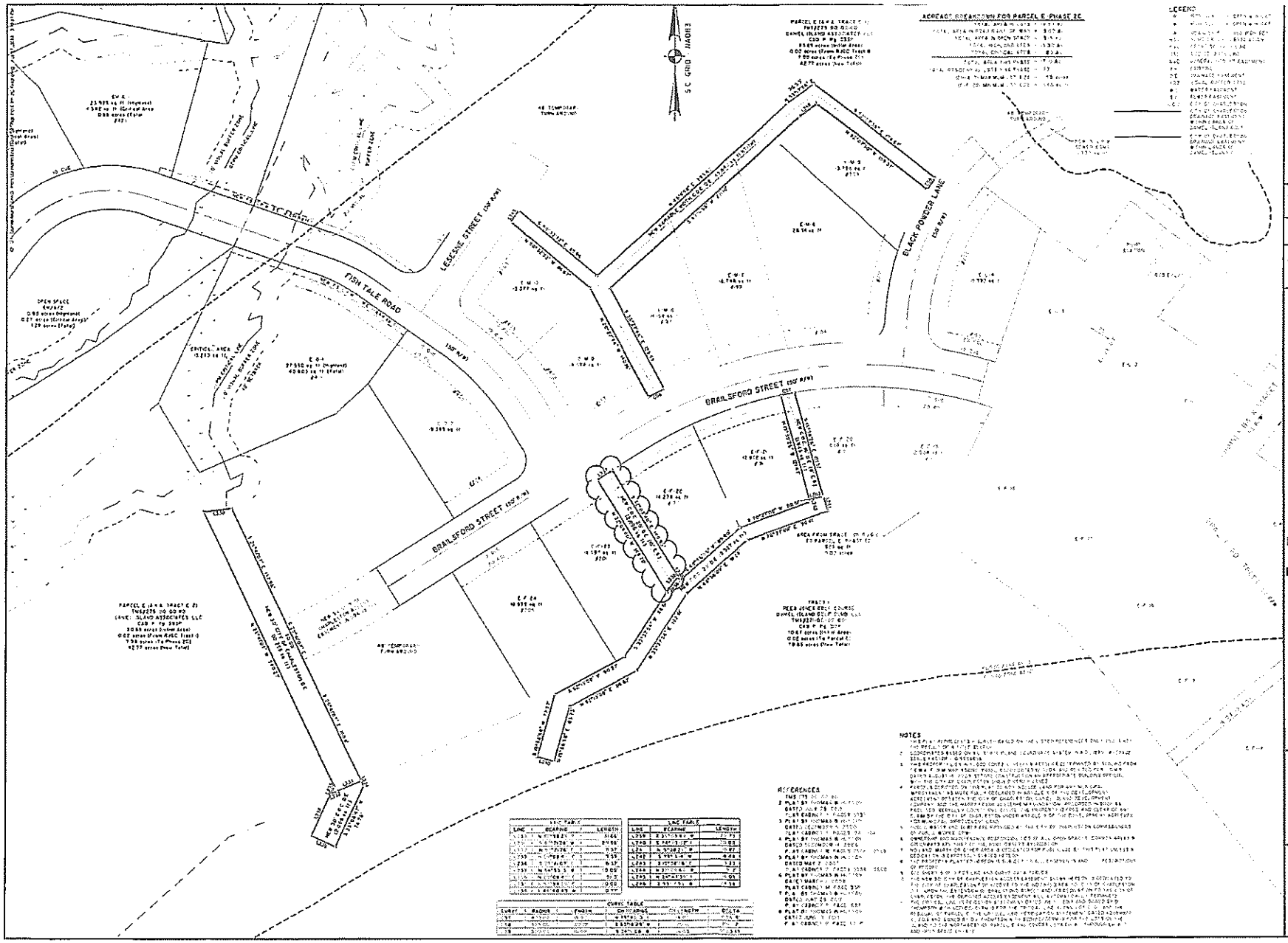
STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

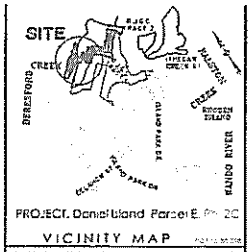
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of, _____, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20 16 .

_____
Notary Public for South Carolina
My Commission Expires: _____





PROJECT: Daniel Island Parcel E, Ph. 2C

VICINITY MAP

The Daniel Island
COMPANY

EXHIBIT "A" SHOWING THE SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

DANIEL ISLAND, CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LLC

THOMAS & HUTTON
Engineering | Surveying | Planning
652 Johnnie Dodds Blvd. Suite 100
P.O. Box 1522
Mt. Pleasant, SC 29465-1522
p 843.849.0200 f 843.849.0205

SCALE: 1" = 50'

DATE: 7-20-2007

SHEET 1 OF 1

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENT**
COUNTY OF ~~CHARLESTON~~ BERKELEY	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this _____ day of _____, 20 16, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and Daniel Island Golf Club, LLC (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining a storm water drainage pipe and appurtenances ("Storm Water System") across a portion of Daniel Island Parcel E Phase 2C and Tract 1, Rees Jones Golf Course designated by Berkeley County tax map number 271-00-00-001 and to accomplish this objective, the City must obtain an easement from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it an exclusive easement in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City a **NEW EXCLUSIVE 20 – FOOT WIDE PERMANENT STORM DRAINAGE EASEMENT,** more fully shown on a plat entitled

" A Final Subdivision Plat of Daniel Island Master Plan Parcel E & Parcel E, Island H to Create Parcel E, Block F, Lots 19 through 24, Block L, Lot 4, Block M Lots 5 through 10, Block O Lots 1 and 2 & Parcel E, Island H, Block A, Lots 1 through 7, Daniel Island, City of Charleston, Berkeley County, South Carolina, prepared for Daniel Island Associates, LLC ",

prepared by Thomas & Huton dated February 23, 2016, executed by Phillip P. Gerard, on March 4, 2016, and recorded in Plat Book _____ at page _____ in the R.M.C. Office for Berkeley County, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM DRAINAGE EASEMENT having such size, shape, location, and butting, and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive 20-Foot Wide Permanent Stormwater Drainage Easement for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. This Exclusive 20-Foot Wide Permanent Stormwater Drainage Easement shall be commercial in nature and shall run with the land.

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of the Exclusive 120 -Foot Wide Permanent Stormwater Drainage Easement during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

OWNER Daniel Island Golf Club, LLC
By: _____
Name: Matthew R. Sloan, its President

Tom Malloy
Witness #1

Date: March 9th, 2016

Witness #2

WITNESSES:

CITY OF CHARLESTON

Witness #1

By: Laura S. Cabiness
Its: Director of Public Service
Date: _____

Witness #2

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Matthew R. Sloan, as President sign, on behalf of, Daniel Island Golf Club, LLC, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Jan Malloy
Signature of Witness

SWORN to before me this
4th day of March, 2016.

Notary Public for South Carolina
My Commission Expires: 10/16/24

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

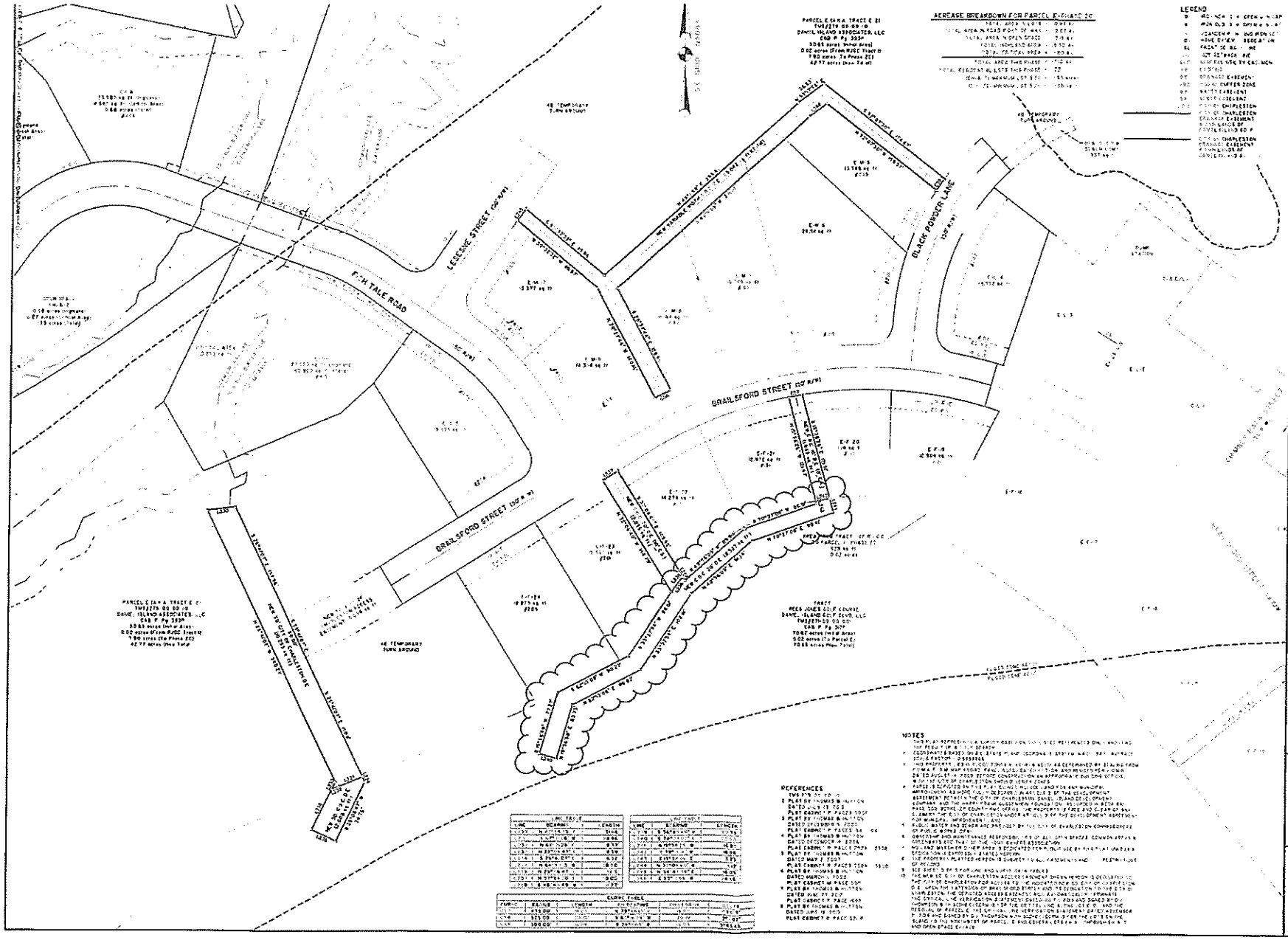
STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

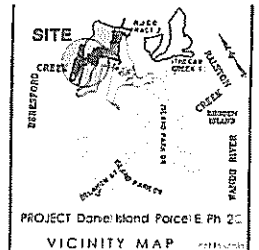
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of, _____, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20_____.

_____
Notary Public for South Carolina
My Commission Expires: _____





PROJECT Daniel Island Parcel E Ph 2C

VICINITY MAP

The Daniel Island
COMPANY

EXHIBIT "A" SHOWING THE SUBDIVISION PLAT OF

DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H

TO CREATE

PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

DANIEL ISLAND, CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LLC

THOMAS & HUTTON
Engineering | Surveying | Planning | Consulting
652 Johnnie Dodds Blvd. Suite 100
PO Box 1522
Mt Pleasant SC 29465-1522
p 843 849 0200 f 843 849 0203
www.thomasandhutton.com

SHEET 1 OF 1

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENT**
COUNTY OF ~~XXXXXXXXXXXX~~ BERKELEY	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this _____ day of _____, 20 16, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and Daniel Island Golf Club, LLC (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining a storm water drainage pipe and appurtenances ("Storm Water System") across a portion of Daniel Island Parcel E Phase 2C designated by Berkeley County tax map number 271-00-00-001 and to accomplish this objective, the City must obtain an easement from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it an exclusive easement in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City a **NEW EXCLUSIVE** 30 **– FOOT WIDE PERMANENT STORM DRAINAGE EASEMENT,** more fully shown on a plat entitled

" A Final Subdivision Plat of Daniel Island Master Plan Parcel E & Parcel E, Island H to Create Parcel E, Block F, Lots 19 through 24; Block L, Lot 4; Block M Lots 5 through 10; Block O, Lots 1 and 2 & Parcel E, Island H, Block A, Lots 1 through 7, Daniel Island, City of Charleston, Berkeley County, South Carolina, prepared for Daniel Island Associates, LLC ",

prepared by Thomas & Hutton, dated Feb. 23, 2016, executed by Phillip P. Gerard, on March 4, 2016, and recorded in Plat Book _____ at page _____ in the R.M.C. Office for Berkeley County, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM DRAINAGE EASEMENT having such size, shape, location, and butting, and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive 30 -Foot Wide Permanent Stormwater Drainage Easement for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. This Exclusive 30 -Foot Wide Permanent Stormwater Drainage Easement shall be commercial in nature and shall run with the land.

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of the Exclusive 30 -Foot Wide Permanent Stormwater Drainage Easement during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

OWNER Daniel Island Golf Club, LLC
By: _____
Name: Matthew R. Sloan, its President

Tam Malloy
Witness #1

Witness #2

Date: March 4th, 2016

WITNESSES:

Witness #1

Witness #2

CITY OF CHARLESTON

By: Laura S. Cabiness
Its: Director of Public Service
Date: _____

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Matthew R. Sloan, as President sign, on behalf of, Daniel Island Golf Club, LLC, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Signature of Witness

SWORN to before me this
4th day of March, 2016.

Notary Public for South Carolina
My Commission Expires: 10/16/24

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

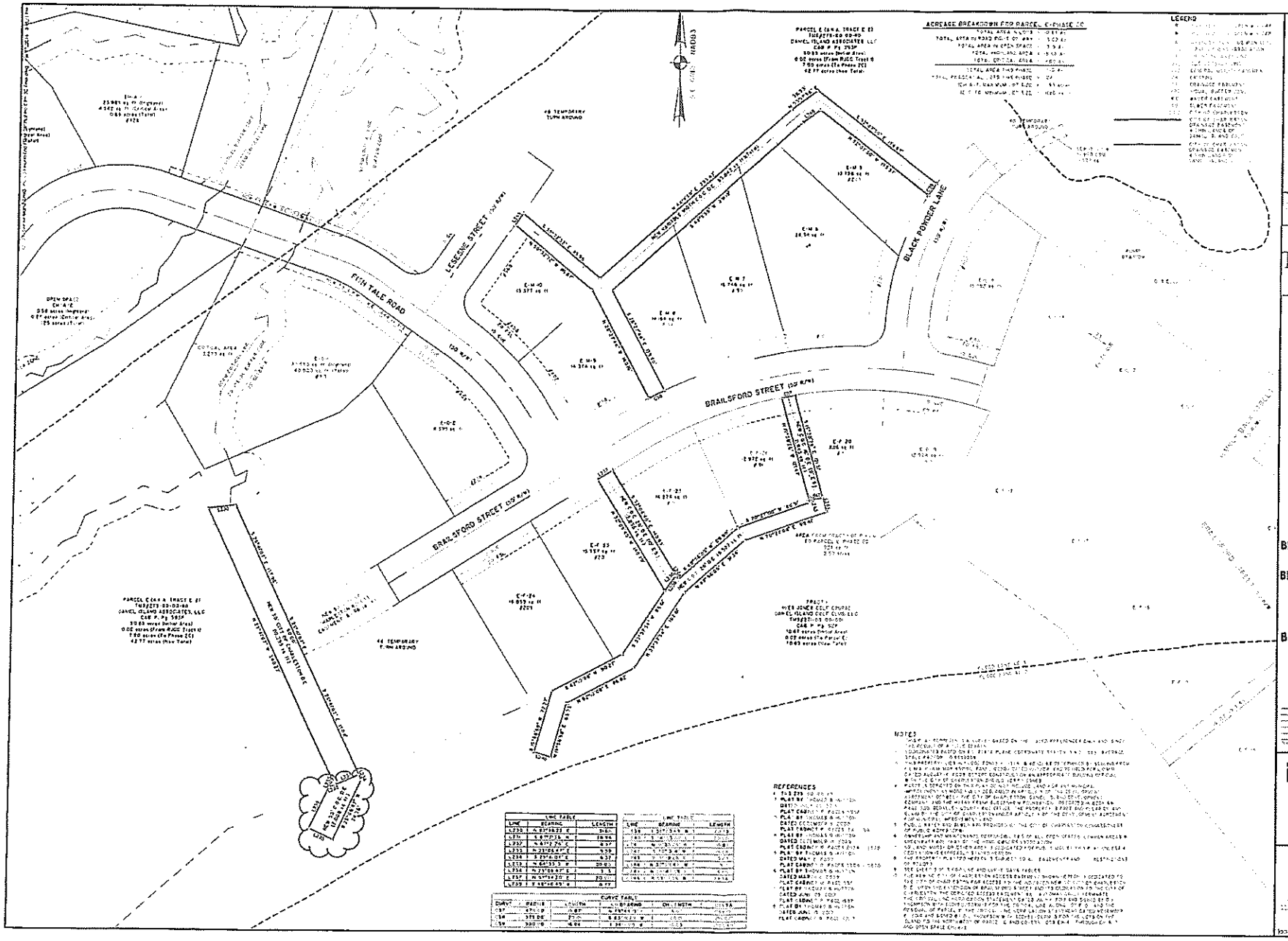
STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

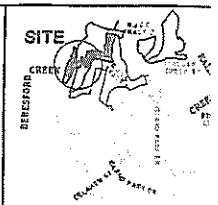
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of, _____, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20____.

_____
Notary Public for South Carolina
My Commission Expires: _____





PROJECT: Dane Island Parcel E, ...

VICINITY MAP

The Daniel Isla

COMPANY

EXHIBIT "A" SHOWING THE SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUG

DANIEL ISLAND CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LL

THOMAS & HUTTO
Engineering | Surveying | Planning

652 Johnnie Dodds Blvd. Suite 100
P.O. Box 1522
Mt. Pleasant, SC 29465-1522
p 843.849.0200 f 843.849.0203
www.thomasandhutto.com

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENT**
COUNTY OF ~~CHARLESTON~~ BERKELEY	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this _____ day of _____, 20 16, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and Daniel Island Associates L.L.C. (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining a storm water drainage pipe and appurtenances ("Storm Water System") across a portion of ~~Daniel Island Parcel E Phase~~ 2C designated by Berkeley County tax map number 275-00-00-110 and to accomplish this objective, the City must obtain an easement from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it an exclusive easement in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City a **NEW EXCLUSIVE** 30 **– FOOT WIDE PERMANENT STORM DRAINAGE EASEMENT,** more fully shown on a plat entitled

" A Final Subdivision Plat of Daniel Island Master Plan Parcel E & Parcel E, Island H to Create Parcel E, Block F, Lots 19 through 24; Block L, Lot 4; Block M, Lots 5 through 10; Block O, Lots 1 and 2 & Parcel E, Island H, Block A, Lots 1 through 7, Daniel Island, City of Charleston, Berkeley County, South Carolina, prepared for Daniel Island Associates, LLC ",

prepared by Thomas & Hutton, dated Feb. 23, 2016, executed by Phillip P. Gerard, on March 4, 2016, and recorded in Plat Book _____ at page _____ in the R.M.C. Office for Berkeley County, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM DRAINAGE EASEMENT having such size, shape, location, and butting, and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive 30 -Foot Wide Permanent Stormwater Drainage Easement for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. This Exclusive 30 -Foot Wide Permanent Stormwater Drainage Easement shall be commercial in nature and shall run with the land.

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of the Exclusive 30 -Foot Wide Permanent Stormwater Drainage Easement during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

OWNERS:
DANIEL ISLAND ASSOCIATES L.L.C.

By: _____
Matthew R. Sloan, Its President

Witness #1

Witness #2

Date: March 4th, 2016

WITNESSES:

Witness #1

Witness #2

CITY OF CHARLESTON

By: Laura S. Cabiness
Its: Director of Public Service
Date: _____

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Matthew R. Sloan, as President sign, on behalf of, Daniel Island Associates L.L.C., the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Jan Malloy
Signature of Witness

SWORN to before me this
4th day of March, 20 16.

Maggie R. Dusbiber
Notary Public for South Carolina
My Commission Expires: 10/16/24

MAGGIE R. DUSBIBER
MY COMMISSION
EXPIRES
10/16/2024
NOTARY PUBLIC
SOUTH CAROLINA

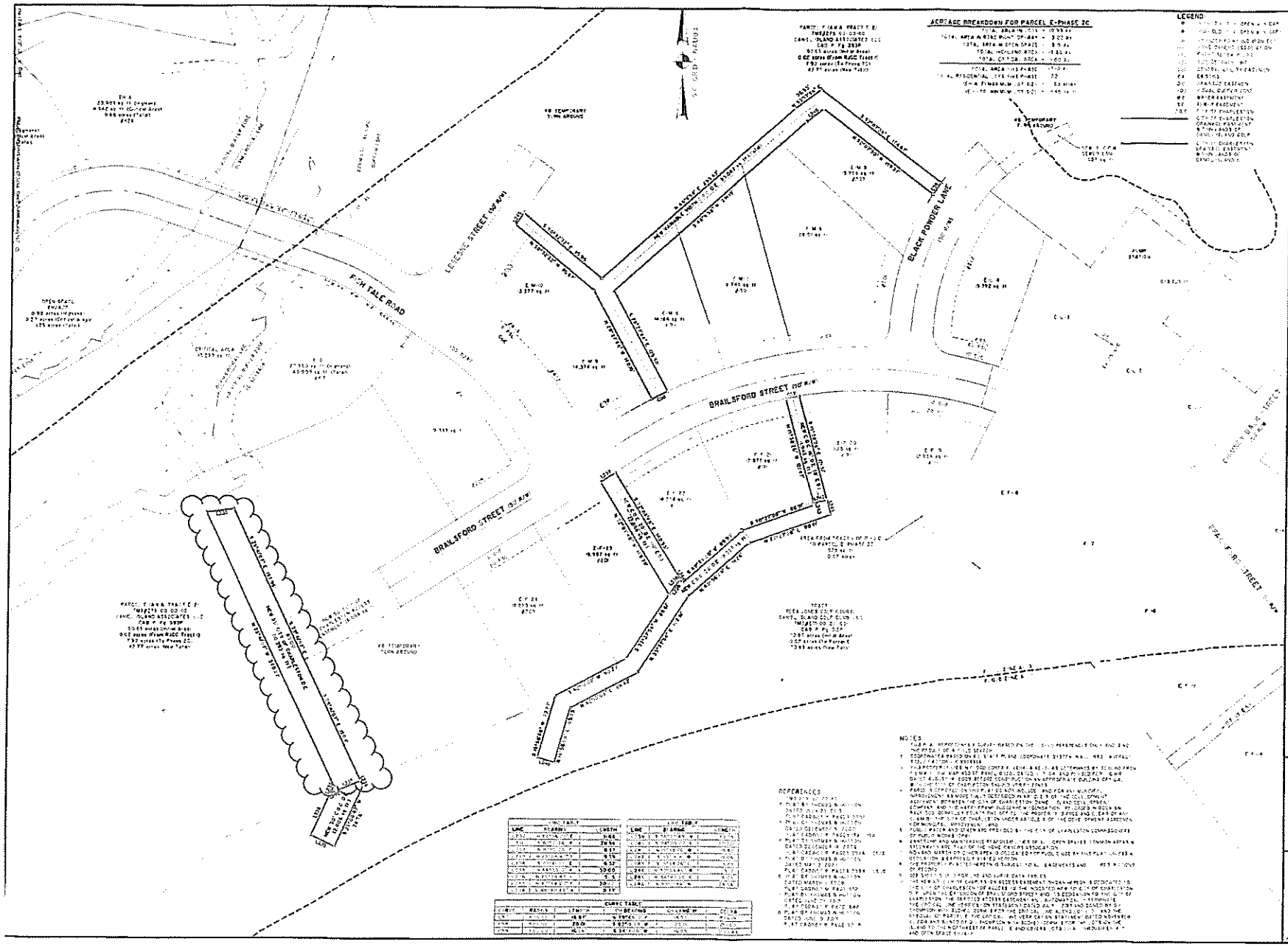
STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

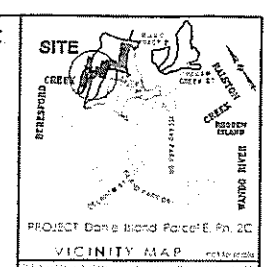
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of, _____, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20 16 .

_____
Notary Public for South Carolina
My Commission Expires: _____





PROJECT Daniel Island Parcel E, Ph. 2C

VICINITY MAP

The Daniel Island
COMPANY

EXHIBIT "A" SHOWING THE SUBDIVISION PLAT OF
DANIEL ISLAND
MASTER PLAN PARCEL E
& PARCEL E, ISLAND H
TO CREATE
PARCEL E,
BLOCK F, LOTS 19 THROUGH 24
BLOCK L, LOT 4,
BLOCK M, LOTS 5 THROUGH 10,
BLOCK O, LOTS 1 AND 2
&
PARCEL E, ISLAND H
BLOCK A, LOTS 1 THROUGH 7

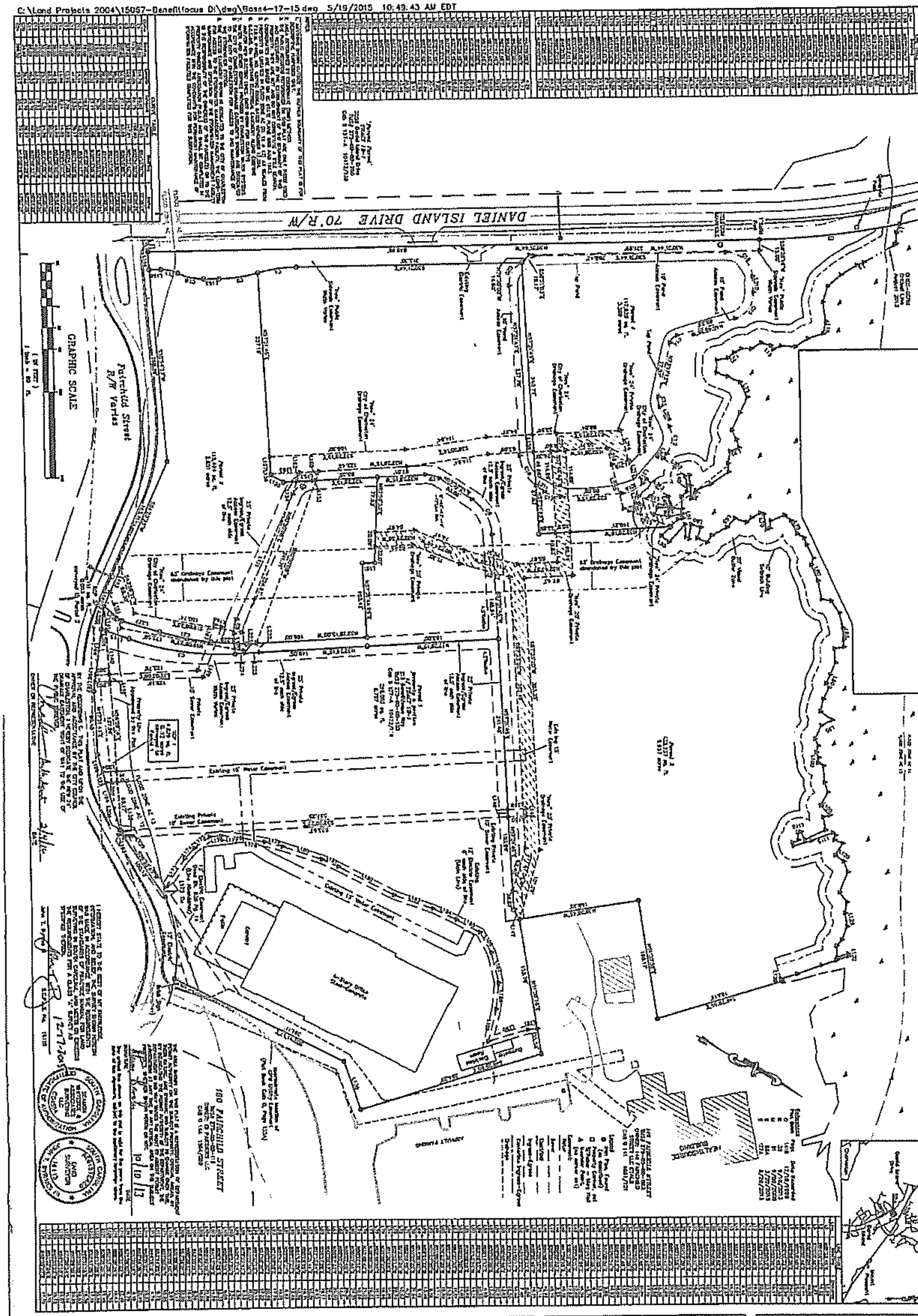
DANIEL ISLAND, CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

prepared for and owned by
DANIEL ISLAND ASSOCIATES, LLC

THOMAS & HUTTON
Engineering Surveying Planning Water Consulting
682 Johnnie Dodds Blvd. Suite 100
PO Box 1522
Mt Pleasant SC 29465-1522
p 843.849.0200 f 843.849.0203
www.thomasandhutton.com

SHEET 1 OF 1

C:\Land Projects 2004\15067-Benefitfocus DI\dwg\Base4-17-15.dwg 5/19/2015 10:49:43 AM EDT



DATE: April 27, 2015
DRAWING: RCG
CHECK: JTB
CO: JCS
JOB: 15067
DWG: Base4-17-15
SHEET 1 OF 1

A FINAL SUBDIVISION AND PROPERTY LINE ADJUSTMENT PLAT OF
TMS 275-00-00-260 - DANIEL ISLAND - FAIRCHILD STREET
OWNED BY DIEC II LLC
LOCATED IN THE CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA

SWA surveying LLC
1035-B Jenkins Road
Charleston, SC 29407
(843) 795-9330

NO.	DATE	DESCRIPTION	BY
1	7-12-15	Revised per TRC Comments	RCG
2	9-30-15	Revised per TRC Comments	RCG
3	10-02-15	Revised per TRC Comments	RCG
4	11-10-15	Revised per TRC Comments	RCG
5	11-23-15	Revised dedication statement	RCG
6	12-07-15	Revised per TRC Comments	RCG
7	12-17-15	Revised Tract 3 / Access Esmt	RCG

J2 b

STATE OF SOUTH CAROLINA) ABANDONMENT OF EASEMENT
COUNTY OF BERKELEY)

This Abandonment of Easement ("***Abandonment***") is entered into this ____day of _____, 20____, by and between the City of Charleston, a Municipal corporation organized and existing pursuant to the laws of the State of South Carolina ("***City***"), and DIEC II, LLC ("***Owner***").

WHEREAS, Owner is the owner of Lot 1B1, Daniel Island, Subdivision, Berkeley County, South Carolina, designated as TMS No. 275-00-00-260 (the "***Property***"); and

WHEREAS, there currently exists on the Property a 65' Drainage Easement as shown on a plat recorded in Book 1715, at Pages 322-323, in the RMC Office for Berkeley County, South Carolina ("***Old Easement***"); and

WHEREAS, Owner has requested that the City release and abandon the Old Easement; and

WHEREAS, the City is mindful to grant such request and desires to release and abandon the Old Easement, as more particularly described on Exhibit "A" attached hereto and shown on the Plat (as defined below); and

WHEREAS, upon the abandonment of the Old Easement, the owner of the real property which is subject to the Old Easement, has acknowledged on behalf of himself, his heirs and assigns, his sole and complete responsibility for the condition of the portion of the Old Easement as is currently exists and may exist in the future and has further agreed to hold the City, its officers, and agents and employees harmless from any and all claims concerning the Old Easement being hereby abandoned.

NOW THEREFORE, the City has abandoned the Old Easement hereinafter described and the drainage facilities located therein. The Old Easement and facilities hereby abandoned are located on that certain parcel of land in the County of Berkeley and State of South Carolina, and is more particularly described on Exhibit "A" attached hereto and shown on a plat entitled "A FINAL SUBDIVISION AND PROPERTY LINE ADJUSTMENT PLAT OF TMS 275-00-00-260 – DANIEL ISLAND – FAIRCHILD STREET OWNED BY DIEC II LLC LOCATED IN THE CITY OF CHARLESTON BERKELEY COUNTY, SOUTH CAROLINA" prepared by SWA Surveying, LLC, dated 4/27/15, Revision (7) 12/17/15 and recorded in Plat Book _____, at Page _____ in the RMC Office for Berkeley County, South Carolina (herein the "***Plat***"). No portion of the Old Easement is abandoned except as specifically described on Exhibit "A," and shown on the Plat, as "65' DRAINAGE EASEMENT ABANDONED BY THIS PLAT".

WITNESSES:

Witness #1

Witness #2

OWNER:

DIEC II, LLC

By:

Print Name: Chad S. Colman

Its: Authorized Agent

Dated: December 11, 2015

WITNESSES:

Witness #1

Witness #2

CITY OF CHARLESTON

By:

Print Name:

Its:

Dated:

STATE OF SOUTH CAROLINA)
) PROBATE
COUNTY OF BERKELEY)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign the within Abandonment of Portion of Easement, and seal said Abandonment of Portion of Easement, and as its act and deed, deliver the same, and the (s)he with the other witness named, witnessed the execution thereof.

_____
Witness #1

SWORN to before me this
_____ day of August, 2014.

_____(SEAL)
Notary Public for South Carolina
My Commission Expires: _____

STATE OF SOUTH CAROLINA)
) PROBATE
COUNTY OF BERKELEY)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____, _____, sign on behalf of CITY OF CHARLESTON, the within Abandonment of Portion of Easement, and seal said Abandonment of Portion of Easement, and as its act and deed, deliver the same, and the (s)he with the other witness named, witnessed the execution thereof.

_____
Witness #1

SWORN to before me this
_____ day of _____, 2014.

_____(SEAL)
Notary Public for South Carolina
My Commission Expires: _____

EXHIBIT "A"

ALL THAT CERTAIN piece, parcel or tract of land located in ____ Subdivision, City of Charleston, County of Berkeley, State of South Carolina, shown and designated as "65' DRAINAGE EASEMENT ABANDONED BY THIS PLAT" on that certain plat entitled "A FINAL SUBDIVISION AND PROPERTY LINE ADJUSTMENT PLAT OF TMS 275-00-00-260 – DANIEL ISLAND – FAIRCHILD STREET OWNED BY DIEC II LLC LOCATED IN THE CITY OF CHARLESTON BERKELEY COUNTY, SOUTH CAROLINA" prepared by SWA Surveying, LLC, dated _____ and recorded in Plat Book _____, at Page _____ in the RMC Office for Berkeley County, South Carolina.

STATE OF SOUTH CAROLINA)
COUNTY OF BERKELEY) DRAINAGE EASEMENT

WHEREAS, the City of Charleston, Charleston County, South Carolina, (the "City") is desirous of improving the drainage conditions in certain sections of Daniel Island, Berkeley County, South Carolina, located within the City, commonly known as the Daniel Island Office Park; and

WHEREAS, in order to accomplish the improvement to the drainage conditions referenced above, the City must obtain the below-described drainage easement (the "Drainage Easement") permitting the maintenance of a drainage system through said sections of Daniel Island as more fully described below; and

WHEREAS, the undersigned owner of the burdened real property (the "Grantor") is desirous of cooperating with the City and is minded to grant unto it the Drainage Easement in and over the Grantor's property.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the improvements to the drainage conditions, the Grantor has remised, released and forever quit-claimed, and by these Presents does remise, release and forever quit-claim unto the City a Drainage Easement over the drainage easement area entitled "New 65' Drainage Easement" as shown on the plat entitled "Final Subdivision Plat of a Portion of Fairchild Street Owned by The Daniel Island Company and a 65' Drainage Easement Through the Property of Healthsource South Carolina, Inc., City of Charleston, Berkeley County, S.C." dated January 18, 1999 and duly recorded in the RMC Office for Berkeley County in Plat Cabinet 0, Page 94-C (the "Plat").

The Drainage Easement having such size, shape, location, buttings and boundings as shown on the Plat, reference to which is hereby made for a more complete description thereof.

Provided, however, the City shall not be responsible for aquatic growth control or for normal cleaning or for general maintenance which shall be the responsibility of the Grantor, its successors and assigns.

And to the end that the same may be properly maintained for drainage, the City shall at all times have the right of ingress and egress to the land affected by the Drainage Easement.

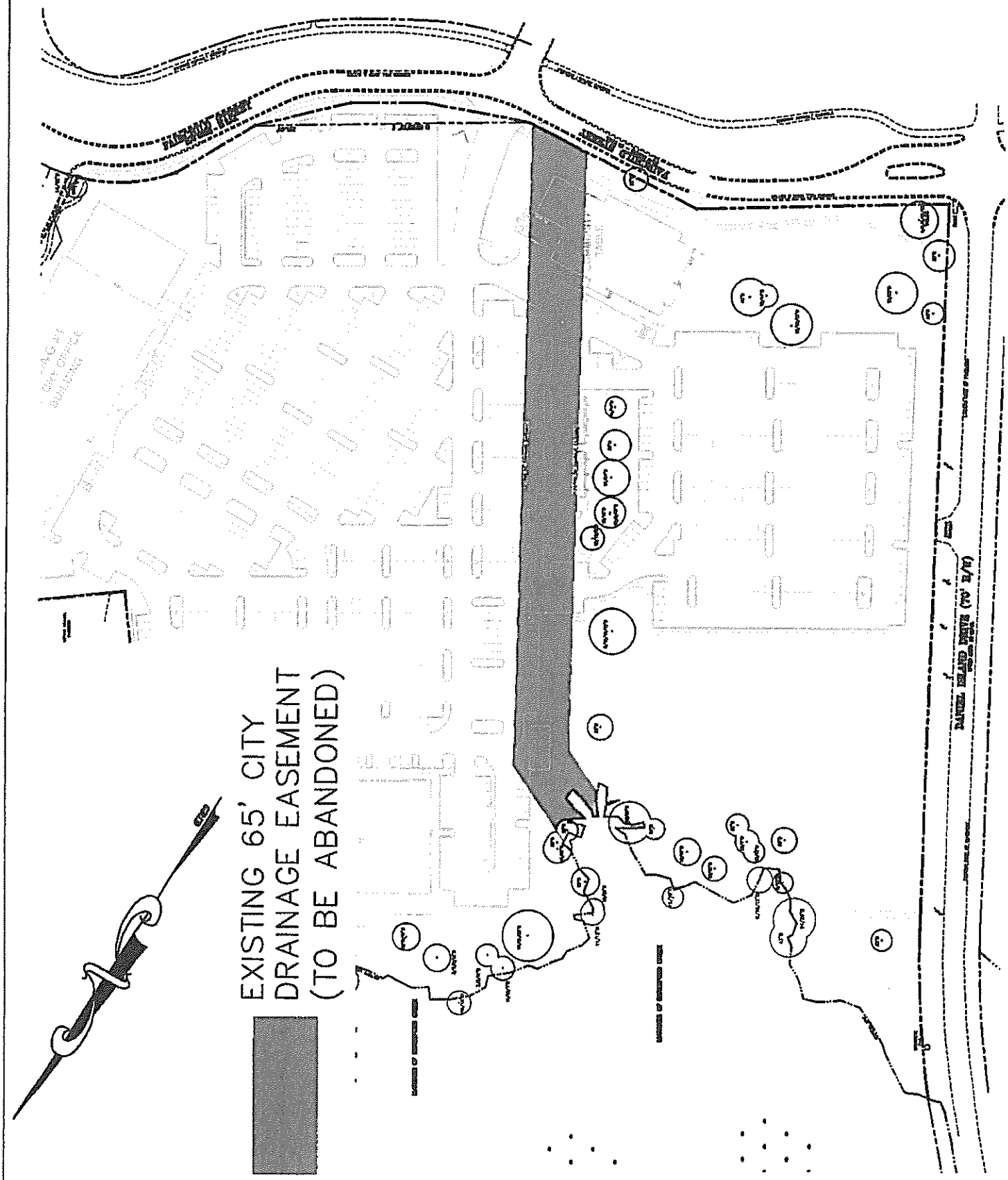
The City has no obligation to repair, replace or to compensate to the Grantor for trees, plants, grass, shrubs and other elements damaged or destroyed within the Drainage Easement during the course of its activities.

Grantor reserves the right in its sole discretion and at its expense, to convert the Drainage Easement from an open field system to a pipe system in which case the width of the Drainage

MVA:3388

FILED, RECORDED, INDEXED
08/11/1999 12:10:54PM
Rec Fee: 10.00 St Fee: 0.00
Co Fee: 0.00 Pages: 2
Issued to: BUIST FIRM
Register of Deeds Berkeley Co. SC
Cynthia B. Forte

2



DESIGNED:	T.M.D.
DRAWN:	T.M.D.
CHECKED:	T.M.D.
JOB NUMBER:	2013-096
DATE:	JANUARY 15, 2016
SCALE:	1" = 150'

PROJECT X

EASEMENT ABANDONMENT EXHIBIT

CITY OF CHARLESTON, SOUTH CAROLINA

CIVIL & STRUCTURAL
ENGINEERING
LAND SURVEYING
4930 RIVERS AVENUE
NORTH CHARLESTON, S.C.
29406
PHONE (843) 308-0800
FAX (843) 308-0806

EMPIRE
ENGINEERING, LLC

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENTS**
COUNTY OF CHARLESTON	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this _____ day of _____20_____, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and DIEC II, LLC _____ (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining storm water drainage ditches and appurtenances ("Storm Water System") across a portion of Parcels 2 - 4 200 & 225 Benefitfocus Way designated by Berkeley County tax map number 275-00-00-260 and to accomplish this objective, the City must obtain certain easements from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it Two exclusive storm water drainage easements in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City Two **NEW EXCLUSIVE 24 -FOOT WIDE PERMANENT STORM WATER DRAINAGE EASEMENTS,** more fully shown on a plat entitled

" A FINAL SUBDIVISION AND PROPERTY LINE ADJUSTMENT PLAT OF TMS 275-00-00-260 - DANIEL ISLAND - FAIRCHILD STREET OWNED BY DIEC II, LLC LOCATED IN THE CITY OF CHARLESTON, BERKELEY COUNTY, SOUTH CAROLINA

"

prepared by SWA Surveying dated 4/27/15 (Rev 12/17/15), executed by John Byrnes, on December 17, 2015, and recorded in Plat Book _____ at page _____ in the RMC Office for Berkeley, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM WATER DRAINAGE EASEMENTS having such size, shape, location, and butting and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive 24 -Foot Wide Permanent Stormwater Drainage Easements for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. These

Exclusive 24 -Foot Wide Permanent Stormwater Drainage Easements shall be commercial in nature and shall run with the land.

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of these Exclusive 24 -Foot Wide Permanent Stormwater Drainage Easements during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

WITNESSES:

_____
Witness #1

_____
Witness #2

CITY OF CHARLESTON

_____
By: Laura Cabiness
Its: Public Service Director
Date:_____

WITNESSES

William Fishburn
Witness #1

Caitlin Fner
Witness #2

OWNER: DIEC II, LLC

Charles Authorized Agent
Name:

Date: 2/26/16

STATE OF SOUTH CAROLINA)
) **PROBATE**
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Chad S. Colman sign, on behalf of DIEC II, LLC, the within Exclusive Permanent Stormwater Drainage Easements, and seal said Exclusive Permanent Stormwater Drainage Easements, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Claire Silwanowicz
Signature of Witness

SWORN to before me this
26 day of February, 2016.

CLAIRE SILWANOWICZ
My Commission Expires
August 27, 2025

Notary Public for South Carolina
My Commission Expires: 8/27/2025

STATE OF SOUTH CAROLINA)
) **PROBATE**
COUNTY OF CHARLESTON)

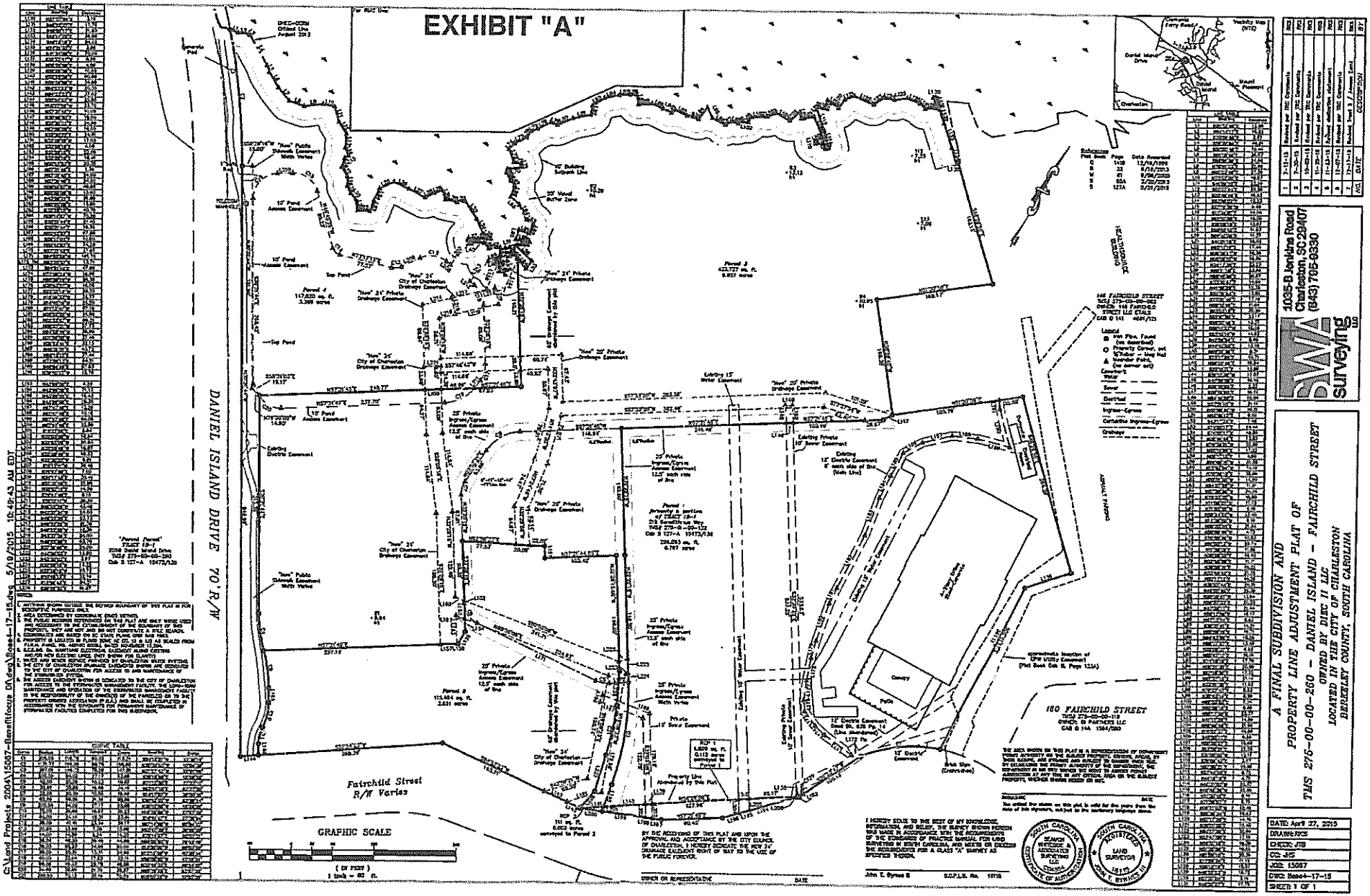
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of the City of Charleston the within Exclusive Permanent Stormwater Drainage Easements, and seal said Exclusive Permanent Stormwater Drainage Easements, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20___.

_____
Notary Public for South Carolina
My Commission Expires: _____

EXHIBIT "A"


DANIEL ISLAND DRIVE 70' R/W
Fairfield Street R/W Varies
GRAPHIC SCALE
1 inch = 60 ft.
160 FAIRCHILD STREET
146 FAIRCHILD STREET
Surveying LLC
1035-B Jenkins Road
Charleston, SC 29407
(843) 769-6330
A FINAL SUBDIVISION AND PROPERTY LINE ADJUSTMENT PLAT OF
TMS 275-00-00-260 - DANIEL ISLAND - FAIRCHILD STREET
OWNED BY DIEC II LLC
LOCATED IN THE CITY OF CHARLESTON
BERKELEY COUNTY, SOUTH CAROLINA
DATE: April 27, 2015
DRAWN: RCS
CHECKED: JHB
CD: JHS
JOB: 15087
DWG: Base4-17-15
SHEET: 1 OF 1

J2c

STATE OF SOUTH CAROLINA	)	**EXCLUSIVE STORM**
	)	**WATER DRAINAGE**
	)	**EASEMENT**
COUNTY OF ~~CHARLESTON~~ BERKELEY	)	**CITY OF CHARLESTON**

This Agreement is made and entered into this 4th day of May, 2016, by and between the City of Charleston, a Municipal Corporation organized and existing pursuant to the laws of the State of South Carolina (herein the "City"), and 2029 Wambaw Creek, LLC (herein the "Owner").

WHEREAS, THE CITY OF CHARLESTON, is desirous of maintaining a storm water drainage pipe and appurtenances ("Storm Water System") across a portion of 2029 Wambaw Creek Road; Lot 6 designated by Berkeley County tax map number 271-04-03-006 and to accomplish this objective, the City must obtain an easement from the Owner permitting the maintenance of the Storm Water System through a portion of the Owner's property as hereinafter described; and

WHEREAS, the undersigned Owner of the property is desirous of cooperating with the City and is minded to grant unto it an exclusive easement in and to the property necessary therefor.

NOW, THEREFORE, in consideration of the foregoing and the benefits to be derived by the drainage improvements to the property, the Owner has granted, bargained, sold, released and conveyed by these present and does grant, bargain, sell, release and convey unto the City a **NEW EXCLUSIVE 10 – FOOT WIDE PERMANENT STORM DRAINAGE EASEMENT,** more fully shown on a plat entitled
" Final Subdivision Plat For Beresford Hall Commerce Park, City of Charleston, Berkeley County, South Carolina"

".

prepared by Empire Engineering, LLC, dated May 30th, 2005, executed by Clifton Clements, on May 30th, 2005, and recorded in Plat Book Q at page 387A in the R.M.C. Office for Berkeley County, South Carolina (herein the "Plat"). A copy of said plat is attached heretofore as "Exhibit A" and incorporated herein.

SAID EXCLUSIVE STORM DRAINAGE EASEMENT having such size, shape, location, and butting, and bounding as shown on said Plat, reference to which is hereby made for a more complete description.

The City shall at all times have the right of ingress and egress to the land affected by the said Exclusive 10-Foot Wide Permanent Stormwater Drainage Easement for purposes of periodic inspection, maintenance, repair and replacement of the Stormwater System. This Exclusive 10-Foot Wide Permanent Stormwater Drainage Easement shall be commercial in nature and shall run with the land.

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named Edward G. Oswald sign, on behalf of, 2029 Wambaw Creek, LLC, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

Signature of Witness

SWORN to before me this
4th day of May, 2016.

Notary Public for South Carolina
My Commission Expires: 8-13-25

STEFANIE NIKOLE STEELEY
NOTARY PUBLIC
SOUTH CAROLINA
Exp. August 13, 2025

The City has no obligation to repair, replace or to compensate the Owners for trees, plants, grass, shrubs or other elements damaged or destroyed within the confines of the Exclusive 10 -Foot Wide Permanent Stormwater Drainage Easement during the conduct of its allowable activities as described above.

TO HAVE AND TO HOLD, all and singular, the said before mentioned unto the said CITY OF CHARLESTON, its successors and assigns, against us and our heirs and assigns, and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, the parties have set the Hands and Seals the day and year above written.

Witness #1	OWNER Name: Edward Oswald EDWARD G. OSWALD
Witness #2	Date: 4 May 2016

WITNESSES:	CITY OF CHARLESTON
Witness #1	By: Laura S. Cabiness Its: Director of Public Service
Witness #2	Date:

STATE OF SOUTH CAROLINA) **PROBATE**
)
COUNTY OF CHARLESTON)

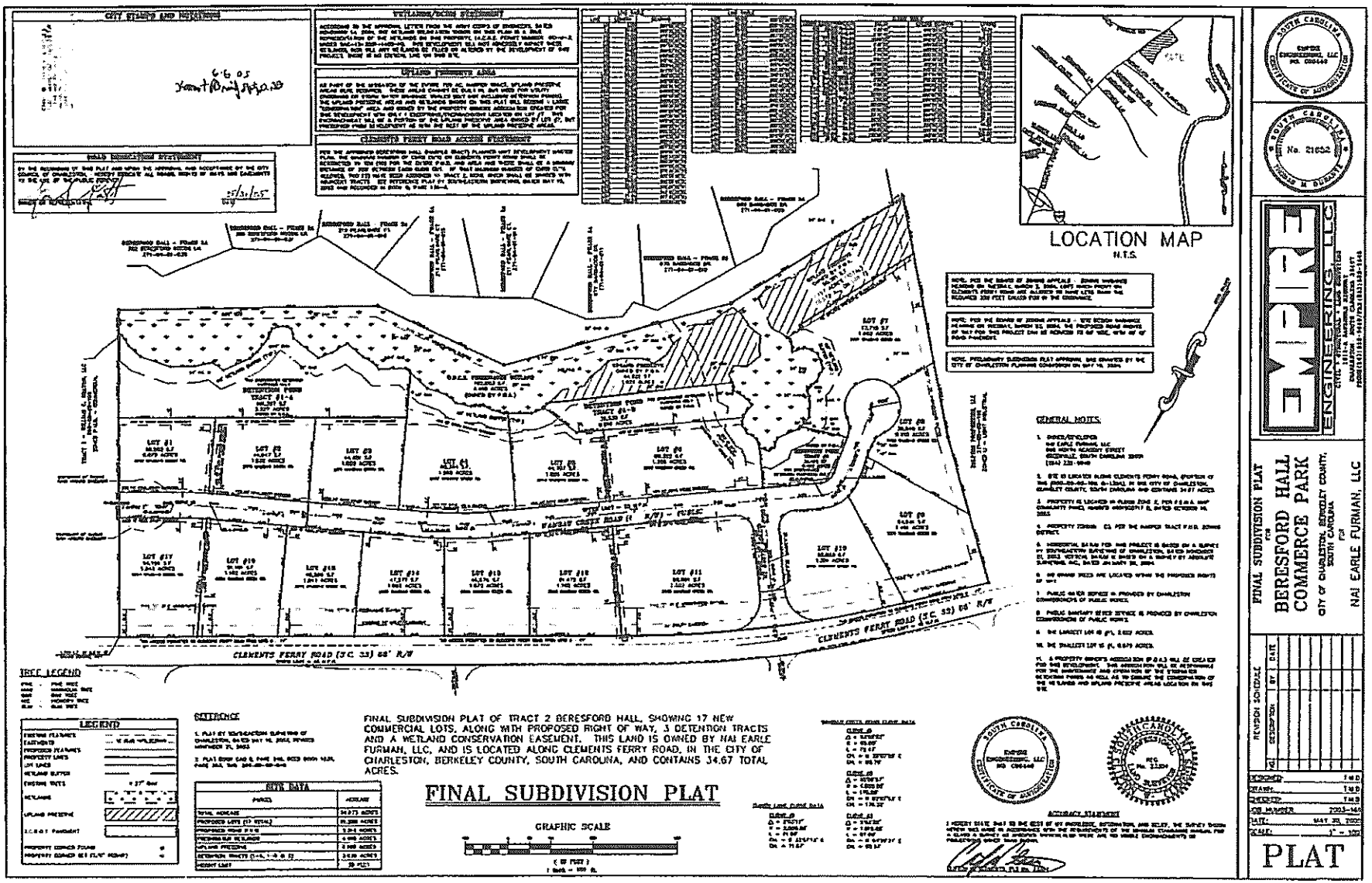
PERSONALLY appeared before me the above named witness, who, on oath, says that (s)he saw the within named _____ sign, on behalf of, _____, the within Exclusive Permanent Stormwater Drainage Easement, and seal said Exclusive Permanent Stormwater Drainage Easement, and as its act and deed, deliver the same, and that (s)he with the other witness named, witnessed the execution thereof.

_____
Signature of Witness

SWORN to before me this
_____ day of _____, 20_____.

_____
Notary Public for South Carolina
My Commission Expires: _____

Exhibit "A"


LOCATION MAP
N.T.S.
GENERAL NOTES
LEGEND
TREE LEGEND
REFERENCE
FINAL SUBDIVISION PLAT OF TRACT 2 BERESFORD HALL, SHOWING 17 NEW COMMERCIAL LOTS, ALONG WITH PROPOSED RIGHT OF WAY, 3 DETENTION TRACTS AND A WETLAND CONSERVATION EASEMENT. THIS LAND IS OWNED BY NAI EARLE FURMAN, LLC, AND IS LOCATED ALONG CLEMENTS FERRY ROAD, IN THE CITY OF CHARLESTON, BERKELEY COUNTY, SOUTH CAROLINA, AND CONTAINS 34.67 TOTAL ACRES.
FINAL SUBDIVISION PLAT
GRAPHIC SCALE
ACCURACY STATEMENT
CLEMENTS FERRY ROAD (S.C. 33) 66' R/W
WANDO CREEK ROAD (P.V.T. PUBLIC) R/W
EMPIRE ENGINEERING, LLC
FINAL SUBDIVISION PLAT FOR BERESFORD HALL COMMERCE PARK
CITY OF CHARLESTON, BERKELEY COUNTY, SOUTH CAROLINA
FOR
NAI EARLE FURMAN, LLC
REVISION SCHEDULE
DESIGNED: TMB
DRAWN: TMB
CHECKED: TMB
JOB NUMBER: 2003-145
DATE: MAY 30, 2003
SCALE: 1" = 100'
PLAT

L1.

Ratification
Number_____

AN ORDINANCE

TO AMEND THE ZONING ORDINANCE OF THE CITY OF CHARLESTON BY CHANGING THE ZONE MAP, WHICH IS A PART THEREOF, SO THAT PROPERTY LOCATED ON MAYBANK HIGHWAY AT PROMENADE VISTA STREET (JAMES ISLAND) (APPROXIMATELY 10.57 ACRES) (TMS #424-00-00-001) (COUNCIL DISTRICT 6), BE REZONED FROM GATHERING PLACE (GP) CLASSIFICATION TO PLANNED UNIT DEVELOPMENT (PUD) CLASSIFICATION.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That the Zoning Ordinance of the City of Charleston be, and the same hereby is amended, by changing the zone map thereof so as to rezone the property described in Section 2 hereof by changing the zoning designation from Gathering Place (GP) classification to Planned Unit Development (PUD) classification.

Section 2. The property to be rezoned is described as follows:

property located on Maybank Highway at Promenade Vista Street (James Island) (approximately 10.57 acres) (TMS #424-00-00-001)

Section 3. This ordinance shall become effective upon ratification.

Ratified in City Council this _____day of _____ in the Year of Our Lord _____, in the _____ Year of Independence of the United States of America.

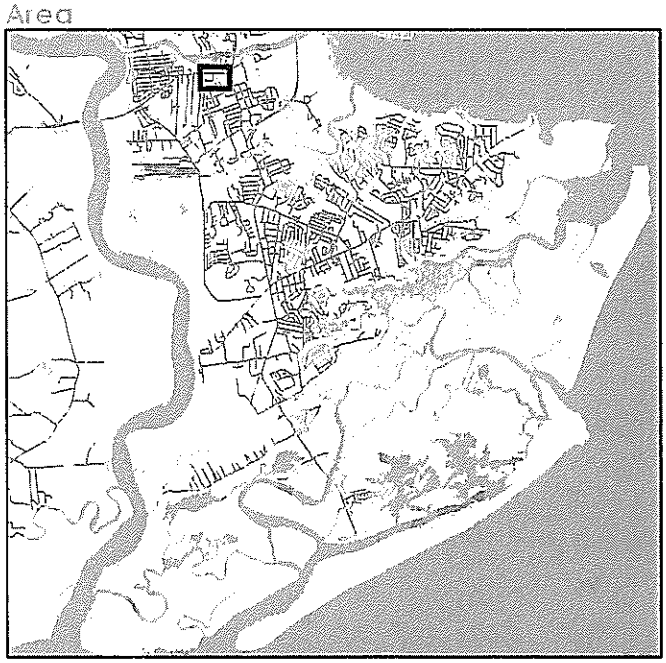
By: _____
John J. Tecklenburg
Mayor, City of Charleston

Attest: _____
Vanessa Turner Maybank
Clerk of Council

City of Charleston

City Council
June 21, 2016

Area



Rezoning

Maybank Hwy at Promenade Vista St

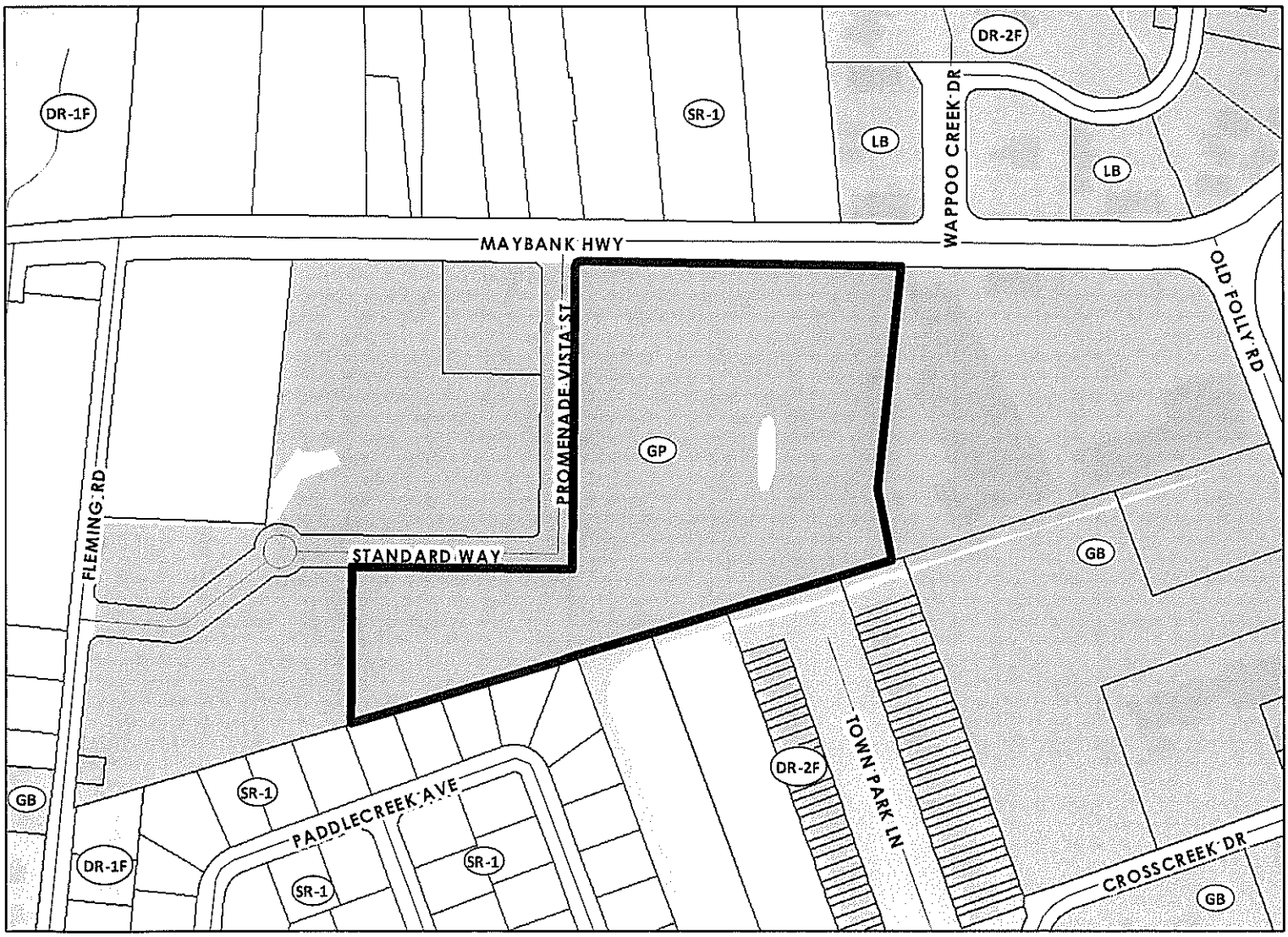
TMS# 4240000001

approximately 10.57 ac.

Request rezoning from Gathering Place (GP) to Planned Unit Development (PUD)

Owner: CPC James Island, LLC
Appllicant: Hellman Yates & Tisdale, PA

Location



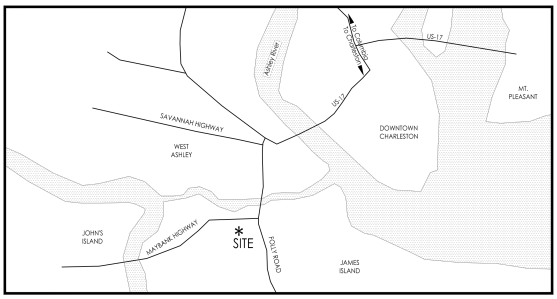
N

DEVELOPMENT GUIDELINES

FOR THE

MAYBANK PLANNED UNIT DEVELOPMENT

James Island, City of Charleston, South Carolina



City Project ID # _____

Approved _____, 2016

Prepared for:

CORE PROPERTY CAPITAL

AND

CPC James Island, LLC
3060 Peachtree Road
Suite 220
Atlanta, GA 30305
(Owner)

Prepared by:

HELLMAN YATES & TISDALE
ATTORNEYS AND COUNSELORS AT LAW

HELLMAN YATES & TISDALE, PA
105 BROAD STREET, THIRD FLOOR
CHARLESTON, SOUTH CAROLINA 29401
843 266-9099

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   1.2. Project Location, Location Map, Aerial View, and Description 1
   1.3. Land Use Summary 2
   1.4. Zoning Districts 2
   1.5. Open Space 4
   1.6. Buffers and Landscaping 5
   1.7. Tree Summary 6
   1.8. Right of Ways 6
   1.9. Drainage Basin Analysis 6

2. TAX MAP

3. LETTERS OF COORDINATION
   3.1. SCE&G
   3.2. Charleston Water System
   3.3. AT&T
   3.4. James Island PSD

4. APPENDIX
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   4.2. Survey with Trees
   4.3. Master Plan
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      4.3.2 Zoning District
      4.3.3 Open Space

5. TRAFFIC IMPACT ANALYSIS

1.1 Relationship to the Zoning Ordinance

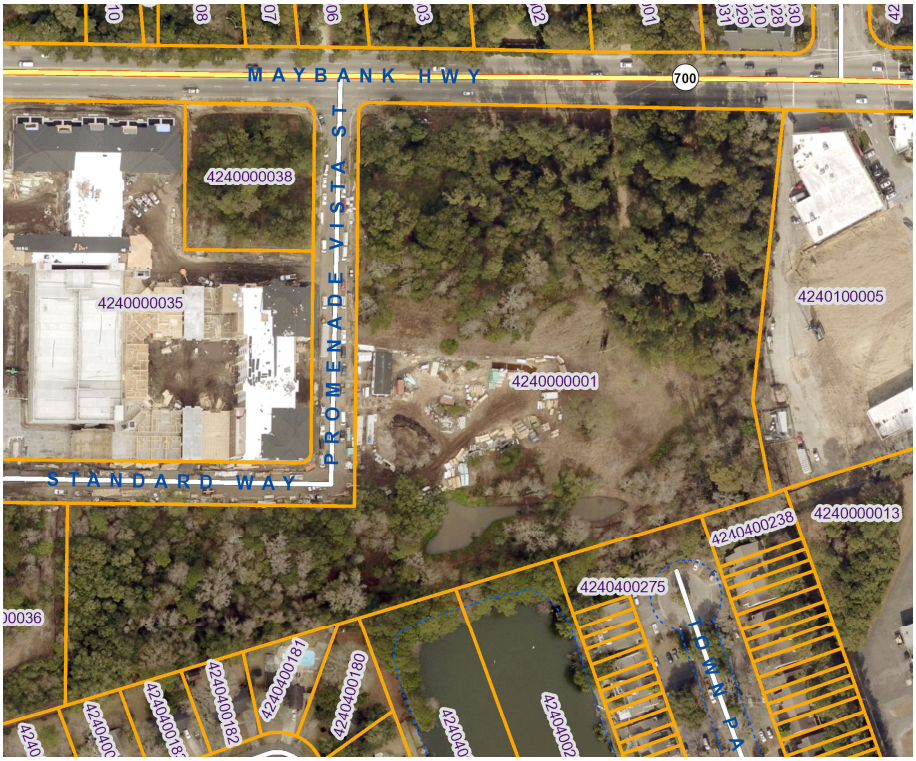
The Development Guidelines and Land Use Plan for the Maybank Planned Unit Development (PUD), attached hereto and made a part hereof, are part of the PUD Master Plan application submitted in accordance with the Zoning Ordinance of the City of Charleston, Article 2, Part 7 Sections 54-250, et seq. The Zoning Ordinance of the City of Charleston is incorporated herein by reference, except as amended herein.

No person shall erect or alter any building, structure, or sign on any tract of land or use any tract of land within the Maybank PUD except in conformance with these guidelines and regulations. Unless modified herein, definitions of terms used in the Maybank PUD Development Guidelines shall follow definitions listed in the Zoning Ordinance of the City of Charleston, as amended from time to time. Administration and enforcement of the adopted Maybank PUD Master Plan shall follow Article 9 of the Zoning Ordinance of the City of Charleston.

The Maybank PUD Master Plan was approved by Charleston City Council on _____ Ordinance Number_____.

1.2 Project Location, Location Map, and Description

The project site is located within the limits of the City of Charleston, South Carolina with a tax map number of 424-00-00-001. The project site consists of approximately 10.57 gross acres and is located on Maybank Highway and Promenade Vista Street as shown below.



1.3 Land Use Summary

The purpose of the Planned Unit Development District is to provide for the development of a planned integrated community which incorporates residential and certain commercial uses which primarily serve the inhabitants of the district and adjacent developments. This project meets the requirements for a Planned Unit Development by providing several different uses which are listed below:

Residential – The residential component of this development will allow for two different types of apartment and condominium type multi-family residential uses. These two types allow for differing heights and configurations to preserve the comparable street frontage heights along Maybank Highway while increasing building heights in the central portion of the development to preserve the natural character of the rear of the site.

Commercial - The commercial component of this development will allow for uses permitted in the City of Charleston Zoning Ordinance General Business, GB District unless specifically prohibited in Section 1.4.3.4., herein. Commercial uses are permitted in designated first floor areas of the residential districts.

Conservation and Usable Open Space – The conservation and usable open space component of this development will allow for the preservation of the natural character of the rear of the site and the retention of trees in use-restricted conservation designated areas in accordance with recorded covenants, while usable open space designated areas will allow for open green space areas usable by residents, guests, and commercial use patrons.

Having three different uses for this development meets the standards set for a Planned Unit Development.

The proposed land use is as follows:
(All acreages are approximate and subject to change)

Gross Land Area	10.57 Ac.
Conservation Open Space incluing Tree Save Area	3.28 Ac.
Salt Water Marsh	0.00 Ac.
Wetlands	0.00 Ac.
Combined Salt/Fresh Water Wetlands	0.00 Ac.
Minimum Dwelling Units	272 DU
Maximum Dwelling Units	279 DU
Net Developable Land	10.57 Ac.

1.4 Zoning Districts and Design

1.4.1 Residential Multi-Family 3 Story District

1. The Residential Multi-Family 3 Story district is identified in the areas depicted as Building 1000 and Building 2000 in the Master Plan and is intended to allow high density residential development that permits allowable commercial uses in designated areas.
2. Any structure shall be three (3) stories in height, not to exceed a maximum of fifty-five (55′) feet as measured from the average curb on Maybank Highway adjacent to the project site to the nearest building eave in the district, and no less than would be necessary to allow for at least a nine (9′) ceiling at each story using conventional construction materials.
3. There shall be no setback requirements or maximum lot occupancy requirements.
4. There shall be a parking requirement of 1.4 spaces per dwelling unit, a portion (no more than 20%) of which may be compact spaces. No off street loading shall be required.
5. The total of all conditioned space in the Residential Multi-Family 3 Story district and the Residential Multi-Family 4 Story district shall be at least 251,000 rentable square feet (measured from the conditioned interiors of rentable units).

1.4.2 Residential Multi-Family 4 Story District

1. The Residential Multi-Family 4 Story district is identified in the areas depicted as Building 3000 and Building 4000 in the Master Plan and is intended to allow high density residential development that permits allowable commercial uses in designated areas.
2. Any structure shall be four (4) stories in height, not to exceed a maximum of sixty (60′) feet as measured from the average curb on Maybank Highway adjacent to the project site to the nearest building eave in the district, and no less than would be necessary to allow for at least a nine (9′) ceiling at each story using conventional construction materials.
3. There shall be no setback requirements or maximum lot occupancy requirements.
4. There shall be a parking requirement of 1.4 spaces per dwelling unit, a portion (no more than 20% of which) may be compact spaces. No off street loading shall be required.
5. The total of all conditioned space in the Residential Multi-Family 3 Story district and the Residential Multi-Family 4 Story district shall be at least 251,000 rentable square feet (measured from the conditioned interiors of rentable units).

1.4.3 Commercial District

1. The Commercial District is designed to serve and enhance residential areas by providing a zoning district or overlay, as applicable, to allow for commercial uses in designated areas on first (ground) floors within residential districts. It is the intent to provide a zoning classification that will provide for those commercial uses which are compatible with and that compliment adjoining residential districts. Leasing and amenity uses shall be deemed commercial uses.
2. There shall be no setback requirements or maximum lot occupancy requirements, provided that a maximum of 5,000 square feet of the Commercial District shall exist in the Residential Multi-Family 3 Story District and 6,500 square feet of the Commercial District shall exist in the Residential Multi-Family 4 Story District. In no event shall the total commercial development exceed 7,500 square feet. Residential uses remain permitted uses in areas that are depicted as permitting commercial uses in residential areas.
3. There shall not be a parking requirement for commercial development. Off street loading and commercial parking shall be permitted in existing parking spaces.
4. The following uses, permitted under the City of Charleston's GB zoning district, shall be prohibited in the Commercial District: Agricultural Production; Agricultural Services; Fishing, Hunting and Trapping; Mining; Mini-Warehouse and Self Storage; Stables; Mobile Home Dealers; Automotive Dealers and Gasoline Service Stations; Cemeteries; Short-term Lender; Camps and Trailering Parks; Crematories; Equipment Rental and Leasing Services; and Automotive Repair, Services, and Garages.

1.4.4 Conservation Open Space District

The Conservation Open Space District will be used to preserve and enhance the natural character and existing landscape in accordance with existing recorded covenants. This will allow for reduced impact to the proliferation of grand trees while taking advantage of the topography and other existing site features. Conservation Open Space designated areas shall be limited in use and protected to conserve and maintain forested and scenic areas. The existing stormwater pond use shall be permitted in the Conservation Open Space District. Improvements, linear utilities and connections (such as stormwater pipes), new and modified outfall structures and drainage are permitted to be made to the existing stormwater pond. However no new stormwater ponds nor increases in the boundaries of the existing stormwater pond shall be permitted. The Conservation Open Space District shall not require parking. The Conservation Open Space District shall not be subdivided out of the parent parcel.

1.4.5 Usable Open Space District

Usable Open Space District is designed to have usable open space that allow for open green space areas usable for development gatherings and events for the use

of residents, guests, and commercial use patrons. The Usable Open Space District shall not require parking.

1.4.6 Design Requirements

Approval of any exterior improvements or changes to any development shall be submitted to the administrative officer for her or his approval.

1.5 Open Space

20% of the gross project acreage must be set aside as permanent open space ("Required Open Space"). Of this Required Open Space, 25% must be set aside as active use open land (Usable Open Space District). The purpose of this section is to describe the characteristics of open space land and uses allowed within permanent open space.

Open spaces designated on the Master Plan or identified during Site Plan approval shall be improved or conveyed as the development is developed. Potential uses of the Conservation Open Space District and Usable Open Space District are listed within this section.

The developers/owner shall be responsible for the maintenance of the open space. This may be transferred by means of the establishment of a homeowners association or neighborhood regime.

OPEN SPACE REQUIREMENT

2.114 acres of open space is required within the Planned Unit Development districts. Actual open space provided is as shown in the Appendix.

Usable Open Space District (Outdoor spaces that are planned, designed and managed for ecological, recreational, cultural, and aesthetic purposes)	0.529 ac.
Conservation Open Space District	1.59 ac.
Total Open Space Required	2.114 ac.

1.6 Buffers and Landscaping

Buffers within the Planned Unit Development District shall be as follows:

1. Maybank Highway – 0′ or none required.
2. Promenade Vista – Perimeter Vehicular per Ordinance Section 54-343.
3. East Side: 10′ Type B Buffer with the same plant material requirement as a typical 15′ type B Buffer).
4. Buffer along Residential DR-2F and SR-1: Undisturbed 25' with ability to augment with additional plant material and is part of the tree save area under recorded covenants.

Buffer areas should be preserved and protected during the construction process and existing vegetation should be augmented with new plant material as necessary to provide a consistent sense of spatial separation and effectively screen different land uses, zoning designations or roads visually.

Landscaping requirements for parking areas and parking lots shall meet the following requirements: Parking lot landscape islands shall be provided at a rate of one (1) landscape island for every ten (10) parking spaces. Each parking row shall terminate with landscape islands and no more than twelve (12) parking spaces shall be permitted in a continuous row without being interrupted by a landscape island.

All projects affected by the landscape and screening requirements shall submit a plan for review and approval by the Zoning Division. The plan shall be consistent with the requirements outlined in the City of Charleston Zoning Ordinance. Buffers shall not be required between the different Districts in the PUD. Buffer areas, where applicable and specifically depicted on exhibits hereto, shall be included in the Open Space calculations.

1.7 Tree Summary

All developments within the Planned Unit Development District, except as set forth herein, shall adhere to Article 16 of the City of Charleston Zoning Ordinance. The variance granted on December 7, 2011, that permitted the removal of certain trees shall be incorporated herein as a right. Any trees located outside of areas depicted as Tree Save Areas or Open Space may be removed.

1.8 Right of Ways and Sidewalks

Public Right of Ways, if any, shall meet Street Design Requirements and Standards in the City of Charleston zoning code in Sec. 54-821. Sidewalks along Maybank Highway shall be eight (8') feet wide and shall include tree wells as approved by the administrative office and SCE&G. Sidewalks along Promenade Vista Way shall be four (4') feet wide.

1.9 Drainage Basin Analysis

Maybank PUD will be developed within the current stormwater management guidelines of the City of Charleston and South Carolina Department of Health and Environmental Control for water quality and quantity. Water quality and quantity is of the utmost importance.

The land contains no wetlands or critical area. The majority of the land is graded or wooded. The proposed project will include a drainage plan in accordance with the City requirements. The proposed drainage for the development will generally maintain the existing drainage pattern and may use a series of drainage boxes, pipes, swales, existing ponds, and undergound detention. Conceptual stormwater management designs may call for the use of underground detention and drainage systems, submerged or otherwise, interfacing with existing facilities on the property to meet the City of Charleston Stormwater Design manual.

2. Tax Map.

MAYBANK HWY
700
PROMENADE VISTA ST
STANDARD WAY
4240000038
4240000035
4240000001
4240100005
4240000013
4240400238
4240400275
TOWN PA
4240400181
4240400182
4240400180

3. LETTERS OF COORDINATION
   A. SCE&G

September 9, 2015

Chip Dillard
Core Property Capital
3060 Peachtree Road
Suite 220
Atlanta, GA 30305

Re: TMS# 424-00-00-001 Charleston County, SC

Dear Mr. Dillard:

This letter will verify that South Carolina Electric and Gas Company has sufficient electric and natural gas capacity to serve the referenced parcel above. Electric and gas service will be provided in accordance with SCE&G's General Terms and Conditions, other documents on file with the South Carolina Public Service Commission, and the Company's standard operating policies and procedures.

Please contact me at 843-576-8447 if you have any questions or if I may be of assistance.

Sincerely,

Steven M. Morillo
Customer Service Engineering

B. CHARLESTON WATER SYSTEM

Charleston Water System

PO Box B
Charleston, SC 29402
103 St. Philip Street (29403)

(843) 727-6800
www.charlestonwater.com

Board of Commissioners
Thomas B. Pritchard, Chairman
David E. Rivers, Vice Chairman
William E. Koopman, Jr., Commissioner
Mayor Joseph P. Riley, Jr. (Ex-Officio)
Councilmember Dean C. Riegel (Ex-Officio)

Officers
Kin Hill, P.E., Chief Executive Officer
Dorothy Harrison, Chief Administrative Officer
Wesley Ropp, CMA, Chief Financial Officer
Andy Fairey, Chief Operating Officer
Mark Cline, P.E., Capital Projects Officer

7/14/2015

Mr. Josh Lilly
Stantec
4969 Centre Pointe Dr., Ste. 200
North Charleston, SC 29418

Re: Water Availability to TMS #424-00-00-001 to serve 417 residential units & 22,500 sf commercial unit

Dear Mr. Lilly,

This letter is to certify our willingness and ability to provide water to the above referenced site in Charleston County, South Carolina. We currently have a 10" water main in the right-of-way of Maybank Hwy. and a four inch water main in the right-of-way of Fleming Rd. that your property may be served from. Please be advised that it will be necessary to connect the proposed mains into both existing mains according to Charleston Water System policy. This review does not supplant any other review as required by governing authorities and municipalities. It will of course be a developer responsibility to ensure there are adequate pressures and quantities on this line to serve this site with domestic water/fire flow and not negatively impact the existing developments. Please be advised any extensions or modification to the infrastructure as well as any additional fire protection will be a developer expense. All fees and costs associated with providing water service to this site will be a developer expense. This letter does not reserve capacity in the Charleston Water System infrastructure and it is incumbent upon the developer or his agent to confirm the availability herein granted past 12 months of this correspondence.

The Charleston Water System certifies the availability of service only insofar as its rights allow. Should access to our existing main/mains be denied by appropriate governing authorities, the Charleston Water System will have no other option than to deny service.

Please contact James Island PSD with wastewater service issues.

This letter is not to be construed as a letter of acceptance for operation and maintenance from the Department of Health and Environmental Control.

If there are any questions pertaining to this letter, please do not hesitate to call on me at (843) 727-6870.

Sincerely,

Cheryl L. Boyle
Engineering Assistant
Charleston Water System
cc: file

This is an "uncontrolled" copy of a controlled document.

C. AT&T

at&t

385 Meeting St Suite 322
Charleston, SC 29403

Tel: 843-722-5066
Fax: 843-722-5270

September 09, 2015

ATTN: Mr. Chip Dillard
Core Property Capital
3060 Peachtree Road
Suite 220
Atlanta, Georgia 30305

Re: Will Serve Letter – Verification of Available AT&T Services For:

Maybank Highway Multi-Family
1815 Maybank Hwy
Charleston, SC 29412

Dear Mr. Dillard

This is to verify that AT&T Southeast will provide underground voice, data, & video services to the planned development known as Maybank Highway Multi-family, 1815 Maybank Hwy, in Charleston, SC 29412 located within TMS #'s 424-00-00-001. Service to this project will be provided as a mixed use development, both commercial & residential.

The provisioning of this service is contingent upon receiving approved plans of the development with addresses approved by the 911 service center, granted utility easements either inside equipment room with controlled environment or a 10' X 10' site for a cabinet, handholes & cables, and proper lead time to design and install the services. Installation of these services will begin after the Power Company has completed installation of their facilities, the right of way is cleared of all obstacles, and the right of way has been graded to within six inches of final grade.

Plans should be submitted to AT&T, Attn: Mike Caruso 3246 Fortune Dr , N. Charleston, SC 29418 or email PDF file to mc0761@att.com. We would appreciate your acknowledgement of receipt of this letter and your approval of the above conditions. Please indicate your approval by signing this letter and returning in it to me either by mail or by fax to (843)-760-0163

Should you have any question or concerns, please contact me at (843) 552-3997.

Sincerely, Mike Caruso

Mike Caruso MGR-OSP Plng & Engrg Design

Approval:_____

D. JAMES ISLAND PSD

Wastewater Superintendent
David Hoffman

Maintenance and Operations
Supervisor
Jeff Cohen

Wastewater Department
James Island Public Service District

July 27, 2015

Stantec
Attn: Joshua Lilly, P.E.
4969 Centre Pointe Drive, Ste. 200
North Charleston, SC 29418

Re: TMS# 424-00-00-001
0 Maybank Hwy

Dear Mr. Lilly:

The James Island Public Service District (District) **does** have sewer service provided to the above referenced property. This property is in the City of Charleston. Any property that will be subdivided into 3 or more lots is considered a development. We will need to see a full set of engineering drawings of the proposed development for review and approval.

Please visit the District's web site at www.jipsd.org to view our Design, Guidelines and Standards. If you have any questions or need additional information, please call me at the District office at 843-762-5258.

Sincerely,

David J. Hoffman, Jr.
Wastewater Superintendent

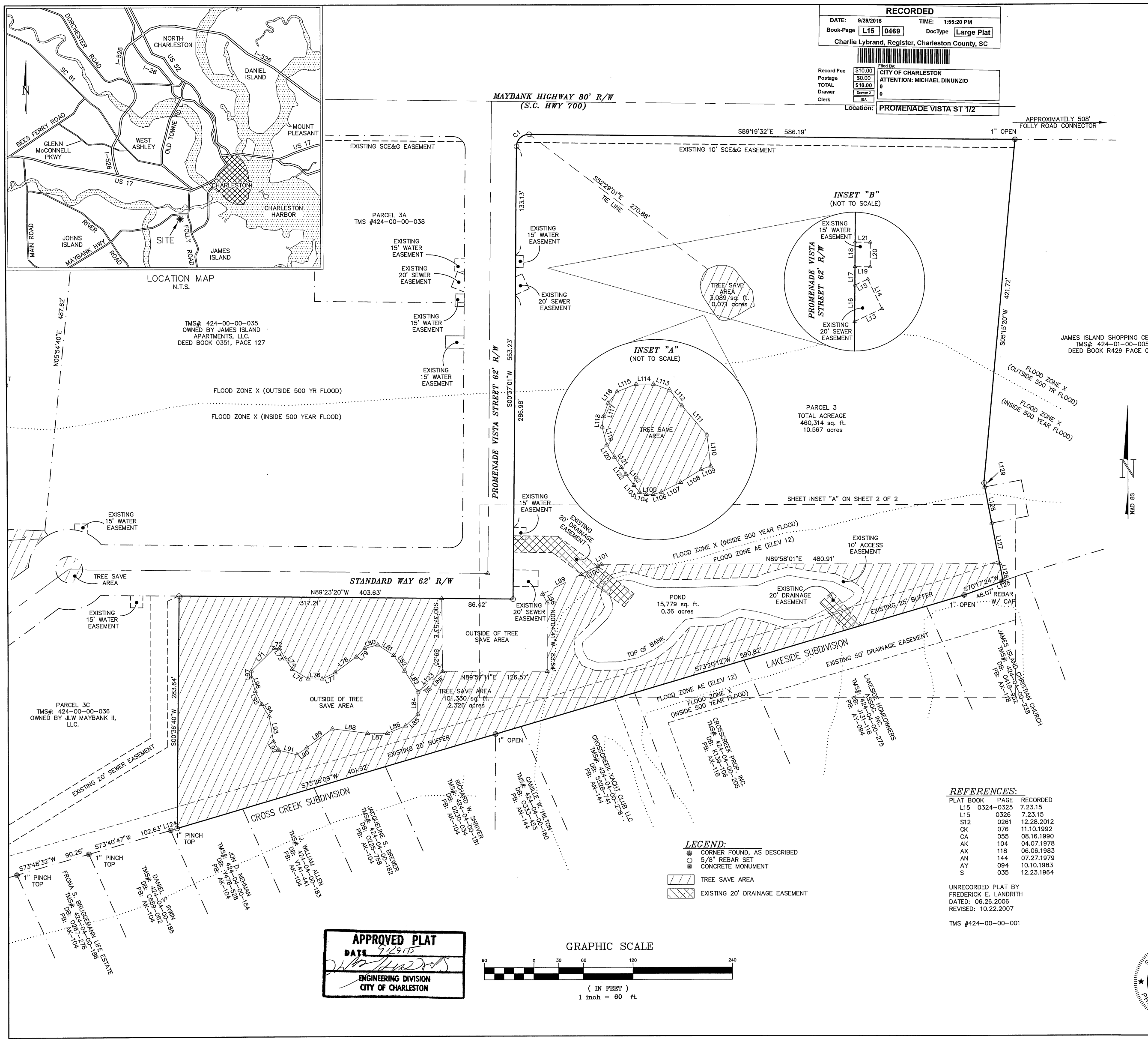
c: Chris Seabolt, Fire Chief via email
Customer Service Department via email

Please note: **This letter expires six (6) months from date of issuance**

1739 Signal Point Road / P.O. Box 12140
Charleston, SC 29422-2140
(843) 762-5258 / fax (843) 762-5252
www.jipsd.org

4 APPENDIX

4.1 SURVEY



RECORDED

DATE: 9/29/2015 TIME: 1:55:20 PM

Book-Page L15 0469 DocType Large Plat

Charlie Lybrand, Register, Charleston County, SC

Record Fee	$10.00
Postage	$0.00
TOTAL	$10.00
Drawer	Drawer 2
Clerk	JBA

Filed By:
CITY OF CHARLESTON
ATTENTION: MICHAEL DINUNZIO
0
0

Location: PROMENADE VISTA ST 1/2

APPROVED PLAT
DATE 9/29/15
ENGINEERING DIVISION
CITY OF CHARLESTON

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 89°23'32" W	29.91'
L2	S 00°36'28" W	20.00'
L3	S 89°23'32" E	29.91'
L4	N 00°37'01" E	15.50'
L5	N 00°37'01" E	20.00'
L6	N 00°37'01" E	21.83'
L7	N 00°37'01" E	15.09'
L8	N 00°37'01" E	4.91'
L9	N 00°37'01" E	10.09'
L10	S 89°27'17" E	14.94'
L11	S 00°32'43" W	15.00'
L12	S 89°27'17" E	14.92'
L13	N 64°50'24" E	18.31'
L14	N 25°09'36" W	20.00'
L15	S 64°50'24" W	8.65'
L16	N 00°37'01" E	22.21'
L17	N 00°39'59" E	11.27'
L18	N 00°36'28" E	15.00'
L19	S 89°27'17" E	9.16'
L20	S 00°32'43" W	15.00'
L21	S 89°27'17" E	9.14'
L22	S 39°55'07" W	2.13'
L23	S 39°55'07" W	13.40'
L24	S 14°40'30" W	7.17'
L25	S 14°40'30" W	6.80'
L26	S 18°21'45" E	15.22'
L27	S 30°02'43" W	9.21'
L28	S 45°35'11" W	45.20'
L29	S 04°20'49" E	17.25'
L30	S 30°00'38" E	16.75'
L31	S 69°42'19" E	17.22'
L32	N 89°04'26" E	29.41'
L33	N 77°51'33" E	26.05'
L34	N 64°16'32" E	23.34'
L35	N 52°31'40" E	22.19'
L36	N 41°20'51" E	30.94'
L37	S 86°56'17" W	38.62'
L38	S 66°08'40" W	24.07'
L39	N 79°56'01" W	28.22'
L40	S 72°40'12" E	27.61'
L41	N 89°34'40" E	28.68'
L42	N 61°51'28" E	31.64'
L43	N 61°51'28" E	0.39'
L44	N 68°48'29" E	20.91'
L45	N 41°24'29" W	25.96'
L46	N 73°20'12" E	22.02'
L47	S 41°24'29" E	24.06'
L48	S 41°24'29" E	21.12'
L49	S 48°35'31" W	20.00'
L50	S 41°24'29" E	28.43'
L51	N 68°48'29" E	0.76'
L52	N 54°48'50" E	17.33'
L53	N 19°15'39" E	14.05'
L54	N 51°29'16" W	13.29'
L55	N 64°21'09" W	26.75'
L56	N 83°23'20" W	31.25'
L57	N 79°45'51" W	26.53'
L58	S 74°00'04" W	29.16'
L59	S 66°39'07" W	11.69'
L60	S 88°15'09" W	84.25'
L61	N 89°19'40" W	36.38'
L62	N 73°41'36" W	27.30'
L63	N 82°06'19" W	14.42'
L64	S 74°33'23" W	13.84'
L65	S 52°31'22" E	36.18'

LINE TABLE		
LINE	BEARING	DISTANCE
L66	S 37°28'38" W	20.00'
L67	S 52°31'22" E	33.97'
L68	S 52°31'22" E	31.19'
L69	S 52°31'22" E	43.78'
L70	N 52°31'22" W	59.94'
L71	S 45°06'31" W	38.98'
L72	N 89°53'29" W	6.22'
L73	N 28°57'44" W	14.55'
L74	N 33°35'57" W	15.29'
L75	N 58°12'25" W	22.60'
L76	N 89°53'29" W	16.97'
L77	S 63°58'37" W	17.32'
L78	S 53°03'46" W	31.89'
L79	S 45°06'31" W	14.79'
L80	S 74°51'48" W	16.12'
L81	N 56°24'49" W	23.05'
L82	N 34°33'38" W	23.36'
L83	N 32°01'17" W	30.03'
L84	N 00°06'31" E	26.98'
L85	N 45°06'31" E	20.59'
L86	N 67°48'57" E	23.84'
L87	S 89°53'29" E	24.04'
L88	S 82°40'38" E	42.75'
L89	N 53°25'27" E	38.79'
L90	N 54°35'20" E	14.59'
L91	S 75°31'09" E	22.77'
L92	S 30°38'37" E	12.17'
L93	S 09°21'36" E	30.94'
L94	S 31°01'51" E	17.50'
L95	S 26°04'05" E	17.95'
L96	S 15°45'07" E	17.04'
L97	S 00°06'31" W	8.33'
L98	N 27°01'28" W	12.01'
L99	N 62°58'32" E	52.60'
L100	N 62°58'32" E	22.16'
L101	N 62°58'32" E	4.93'
L102	S 35°39'48" E	8.48'
L103	S 38°34'11" E	5.29'
L104	S 71°28'04" E	4.35'
L105	S 89°53'29" E	4.13'
L106	N 74°35'40" E	5.14'
L107	N 62°28'42" E	13.05'
L108	N 58°14'06" E	14.59'
L109	N 69°16'01" E	6.19'
L110	N 06°30'33" W	19.11'
L111	N 40°08'48" W	23.43'
L112	N 37°33'27" W	12.17'
L113	N 69°31'38" W	10.28'
L114	N 89°53'29" W	10.46'
L115	S 68°05'08" W	12.47'
L116	S 38°47'13" W	8.81'
L117	S 18°33'18" W	8.70'
L118	S 07°32'42" W	6.38'
L119	S 13°56'12" E	11.34'
L120	S 32°06'15" E	8.78'
L121	S 33°01'13" E	7.56'
L122	S 33°35'57" E	4.96'
L123	S 50°12'58" W	39.01'
L124	S 73°28'09" W	8.36'
L125	S 70°17'24" W	1.70'
L126	S 10°46'19" E	21.75'
L127	S 10°46'19" E	50.49'
L128	S 10°46'19" E	45.00'
L129	S 11°28'19" E	4.88'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	15.00'	23.58'	15.02'	21.22'	S 45°38'44" W	90°03'27"

REFERENCES:

PLAT BOOK	PAGE	RECORDED
L15	0324–0325	7.23.15
L15	0326	7.23.15
S12	0261	12.28.2012
CK	076	11.10.1992
CA	055	08.16.1990
AK	104	04.07.1978
AX	118	06.06.1983
AN	144	07.27.1979
AY	094	10.10.1983
S	035	12.23.1964

UNRECORDED PLAT BY
FREDERICK E. LANDRITH
DATED: 06.26.2006
REVISED: 10.22.2007

TMS #424–00–00–001

LEGEND:

- CORNER FOUND, AS DESCRIBED
- 5/8" REBAR SET
- CONCRETE MONUMENT
- TREE SAVE AREA
- EXISTING 20' DRAINAGE EASEMENT

NOTES:

1. ANYTHING SHOWN OUTSIDE THE DEFINED BOUNDARY OF THIS PLAT IS FOR DESCRIPTIVE PURPOSES ONLY.
2. AREA DETERMINED BY COORDINATE (DMD) METHOD.
3. THE PUBLIC RECORDS REFERENCED ON THIS PLAT ARE ONLY THOSE USED AND NECESSARY FOR THE ESTABLISHMENT OF THE BOUNDARY OF THIS PROPERTY. THEY ARE NOT AND DO NOT CONSTITUTE A TITLE SEARCH.
4. PROPERTY IS LOCATED IN FLOOD ZONE X (OUTSIDE THE 500 YEAR FLOOD PLAIN) AND FLOOD ZONE X SHADED (INSIDE THE 500 YEAR FLOOD PLAIN) AS SCALED FROM F.I.R.M. PANEL NO. 45019C0513J. REVISED NOVEMBER 17, 2004.
5. BEARINGS ARE BASED ON SOUTH CAROLINA STATE PLANE NAD 83. (DISTANCES ARE GROUND DISTANCES)
6. BUILDING SETBACKS SHOULD BE CONFIRMED BY THE CITY OF CHARLESTON BEFORE ANY DESIGN OR CONSTRUCTION.
7. TREE SAVE AREAS ARE REQUIRED TO BE PRESERVED PER CONDITIONS BY BZA ON 12/7/2011.
8. THE HATCHED DRAINAGE EASEMENTS SHOWN WERE DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE CITY OF CHARLESTON FOR ACCESS TO AND MAINTENANCE OF THE STORMWATER SYSTEM.
9. THE SEWER EASEMENTS SHOWN WERE DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE JAMES ISLAND PUBLIC SERVICE DISTRICT FOR THE PURPOSE OF OPERATION AND MAINTENANCE OF GRAVITY SEWER MAINS.
10. THE WATER EASEMENTS SHOWN WERE DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE JAMES ISLAND PUBLIC SERVICE DISTRICT FOR THE PURPOSE OF OPERATION AND MAINTENANCE OF WATER MAINS.
11. THE ACCESS EASEMENT SHOWN WAS DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE CITY OF CHARLESTON FOR ACCESS TO THE STORMWATER MANAGEMENT FACILITY.THE LONG–TERM MAINTENANCE AND OPERATION OF THE STORMWATER MANAGEMENT FACILITY IS THE RESPONSIBILIY OF THE OWNER(S) OF THE PARCEL(S) AND SHALL BE COMPLETED IN ACCORDANCE WITH THE COVENANTS FOR PERMANENT MAINTENANCE OF STORMWATER FACILITIES COMPLETED FOR THIS SUBDIVISION.
12. EASEMENTS MAY EXIST, WHICH WERE NOT NOTED IN THE REFERENCED PLATS, AND ARE OUTSIDE THE KNOWLEDGE OF THIS SURVEYOR.

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR No.28597 PHILIP R. BRYAN JR.

SOUTH CAROLINA SEAMON WHITESIDE & ASSOCIATES SURVEYING LLC C04554 CERTIFICATE OF AUTHORIZATION

I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN.

PHILIP R. BRYAN, JR. S.C.P.L.S. No. 28597

NO.	DATE	DESCRIPTION	BY
1)	9.11.15	REVISED PER HARTMAN SIMONS & WOOD LLP COMMENTS	JKB
2)	9.28.15	REVISED PER CITY OF CHARLESTON COMMENTS	JKB

SWA surveying LLC
1035-B Jenkins Road
Charleston, SC 29407
(843) 795-9330

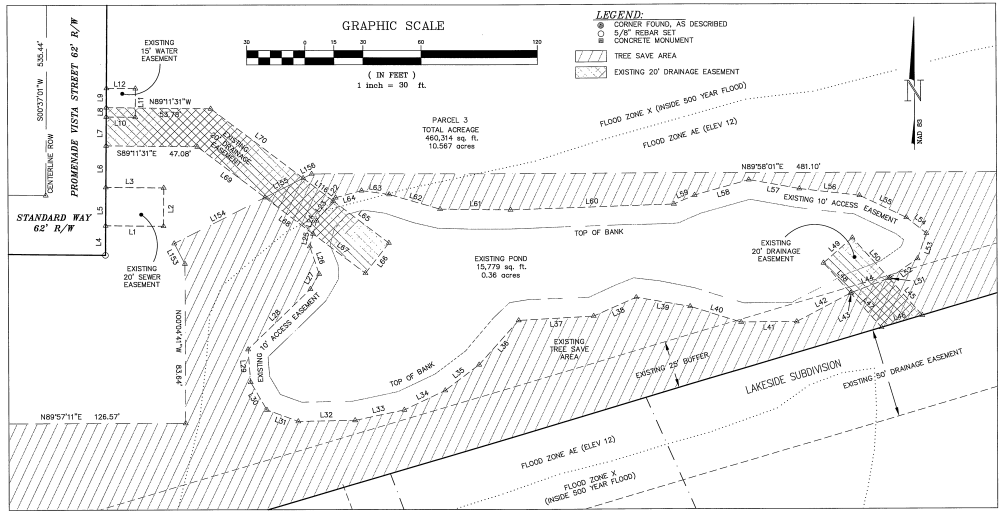
A BOUNDARY SURVEY OF
TMS #424–00–00–001
PARCEL 3
OWNED BY JLW MAYBANK II, LLC.
LOCATED IN THE CITY OF CHARLESTON
CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 9/08/2015
DRAWN: JKB
CHECK: PRB
CC: JP
JOB: 12280
DWG: P3 boundary.dwg
SHEET: 1 OF 2

RECORDED			
DATE: 9/28/2015		TIME: 1:56:33 PM	
Book-Page	L16 / 0470	DocType	Large Plat
Charlie Lybrand, Register, Charleston County, SC			

		First Party:
Record Fee	$10.00	CITY OF CHARLESTON
Postage	$0.00	ATTENTION: MICHAEL DINUNZIO
TOTAL	$10.00	0
Drawer	Drawer 2	0
Clerk	RA	

Location: PROMENADE VISTA ST 2/2



INSET "A"
SCALE: 1"=30'

LINE TABLE		
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L1	N 89°23'32" W	29.91'
L2	S 00°36'28" W	20.00'
L3	S 89°23'32" E	29.91'
L4	N 00°37'01" E	15.50'
L5	N 00°37'01" E	20.00'
L6	N 00°37'01" E	21.83'
L7	N 00°37'01" E	15.09'
L8	N 00°37'01" E	4.91'
L9	N 00°37'01" E	10.09'
L10	S 89°27'17" E	14.94'
L11	S 00°32'43" W	15.00'
L12	S 89°27'17" E	14.92'
L13	N 64°50'24" E	18.31'
L14	N 25°09'36" W	20.00'
L15	S 64°50'24" W	8.65'
L16	N 00°37'01" E	22.21'
L17	N 00°39'59" E	11.27'
L18	N 00°36'28" E	15.00'
L19	S 89°27'17" E	9.16'
L20	S 00°32'43" W	15.00'
L21	S 89°27'17" E	9.14'
L22	S 39°55'07" W	2.13'
L23	S 39°55'07" W	13.40'
L24	S 14°40'30" W	7.17'
L25	S 14°40'30" W	6.80'
L26	S 18°21'45" E	15.22'
L27	S 30°02'43" W	9.21'
L28	S 45°35'11" W	45.20'
L29	S 04°20'49" E	17.25'
L30	S 30°00'38" E	16.75'
L31	S 69°42'19" E	17.22'
L32	N 89°04'28" E	29.41'
L33	N 77°51'33" E	28.05'
L34	N 64°16'32" E	23.34'
L35	N 52°31'40" E	22.19'
L36	N 41°20'51" E	30.94'
L37	S 86°56'17" W	38.62'
L38	S 66°56'40" W	24.07'
L39	N 79°56'01" W	28.22'
L40	S 72°40'12" E	27.61'
L41	N 89°34'40" E	28.68'
L42	N 61°51'28" E	31.64'
L43	N 61°51'28" E	0.39'
L44	N 68°48'29" E	20.91'
L45	N 41°24'29" W	25.96'
L46	N 73°26'12" E	22.02'
L47	S 41°24'29" E	24.06'
L48	S 41°24'29" E	21.12'
L49	S 48°35'31" W	20.00'
L50	S 41°24'29" E	28.43'
L51	N 68°48'29" E	0.76'
L52	N 54°48'50" E	17.33'
L53	N 19°15'39" E	14.05'
L54	N 31°29'16" W	13.28'
L55	N 64°21'09" W	26.75'
L56	N 83°23'20" W	31.25'
L57	N 79°45'51" W	26.53'
L58	S 74°00'04" W	29.16'
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L63	N 82°06'19" W	14.42'
L64	S 74°33'23" W	13.84'
L65	S 52°31'22" E	38.18'

LINE TABLE		
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L73	N 28°57'44" W	14.55'
L74	N 33°35'57" W	15.29'
L75	N 58°12'25" W	22.60'
L76	N 89°53'29" W	16.97'
L77	S 83°58'37" W	17.32'
L78	S 53°03'46" W	31.89'
L79	S 45°06'31" W	14.79'
L80	S 74°51'48" W	16.12'
L81	N 56°24'49" W	23.05'
L82	N 34°33'38" W	23.36'
L83	N 32°01'17" W	30.03'
L84	N 00°06'31" E	26.98'
L85	N 45°06'31" E	20.59'
L86	N 67°48'57" E	23.84'
L87	S 89°53'29" E	24.04'
L88	S 82°40'38" E	42.75'
L89	N 53°25'27" E	38.79'
L90	N 54°35'20" E	14.59'
L91	S 75°31'09" E	22.77'
L92	S 30°38'37" E	12.17'
L93	S 09°21'36" E	30.94'
L94	S 31°01'51" E	17.50'
L95	S 26°04'05" E	17.95'
L96	S 15°45'07" E	17.04'
L97	S 00°06'31" W	8.33'
L98	N 27°01'28" W	12.01'
L99	N 62°58'32" E	52.60'
L100	N 62°58'32" E	22.16'
L101	N 62°58'32" E	4.93'
L102	S 35°39'48" E	8.48'
L103	S 38°34'11" E	5.29'
L104	S 71°28'04" E	4.35'
L105	S 89°53'29" E	4.13'
L106	N 74°35'40" E	5.14'
L107	N 62°28'42" E	13.05'
L108	N 58°14'06" E	14.59'
L109	N 69°18'01" E	6.19'
L110	N 06°30'33" W	19.11'
L111	N 40°08'48" W	23.43'
L112	N 37°33'27" W	12.17'
L113	N 69°31'36" W	10.28'
L114	N 89°53'29" W	10.46'
L115	S 88°05'08" W	12.47'
L116	S 38°47'13" W	8.81'
L117	S 18°33'18" W	8.70'
L118	S 07°32'42" W	6.38'
L119	S 13°56'12" E	11.34'
L120	S 32°06'15" E	8.78'
L121	S 33°01'13" E	7.56'
L122	S 33°35'57" E	4.86'
L123	S 50°12'58" W	39.01'
L124	S 73°28'09" W	8.36'
L125	S 70°17'24" W	1.70'
L126	S 10°46'19" E	21.75'
L127	S 10°46'19" E	50.49'
L128	S 10°46'19" E	45.00'
L129	S 11°28'19" E	4.88'

NOTES:

1. ANYTHING SHOWN OUTSIDE THE DEFINED BOUNDARY OF THIS PLAT IS FOR DESCRIPTIVE PURPOSES ONLY.
2. AREA DETERMINED BY COORDINATE (DMD) METHOD.
3. THE PUBLIC RECORDS REFERENCED ON THIS PLAT ARE ONLY THOSE USED AND NECESSARY FOR THE ESTABLISHMENT OF THE BOUNDARY OF THIS PROPERTY. THEY ARE NOT AND DO NOT CONSTITUTE A TITLE SEARCH.
4. PROPERTY IS LOCATED IN FLOOD ZONE X (OUTSIDE THE 500 YEAR FLOOD PLAIN) AND FLOOD ZONE X SHADED (INSIDE THE 500 YEAR FLOOD PLAIN) AS SCALED FROM F.I.R.M. PANEL NO. 45019C0513J. REVISED NOVEMBER 17, 2004.
5. BEARINGS ARE BASED ON SOUTH CAROLINA STATE PLANE NAD 83. (DISTANCES ARE GROUND DISTANCES).
6. BUILDING SETBACKS SHOULD BE CONFIRMED BY THE CITY OF CHARLESTON BEFORE ANY DESIGN OR CONSTRUCTION.
7. TREE SAVE AREAS ARE REQUIRED TO BE PRESERVED PER CONDITIONS BY BZA ON 12/7/2011.
8. THE HATCHED DRAINAGE EASEMENTS SHOWN WERE DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE CITY OF CHARLESTON FOR ACCESS TO AND MAINTENANCE OF THE STORMWATER SYSTEM.
9. THE SEWER EASEMENTS SHOWN WERE DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE JAMES ISLAND PUBLIC SERVICE DISTRICT FOR THE PURPOSE OF OPERATION AND MAINTENANCE OF GRAVITY SEWER MAINS.
10. THE WATER EASEMENTS SHOWN WERE DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE JAMES ISLAND PUBLIC SERVICE DISTRICT FOR THE PURPOSE OF OPERATION AND MAINTENANCE OF WATER MAINS.
11. THE ACCESS EASEMENT SHOWN WAS DEDICATED BY THAT CERTAIN PLAT RECORDED IN PLAT BOOK L15, PAGES 324–326 TO THE CITY OF CHARLESTON FOR ACCESS TO THE STORMWATER MANAGEMENT FACILITY.THE LONG–TERM MAINTENANCE AND OPERATION OF THE STORMWATER MANAGEMENT FACILITY IS THE RESPONSIBILIY OF THE OWNER(S) OF THE PARCEL(S) AND SHALL BE COMPLETED IN ACCORDANCE WITH THE COVENANTS FOR PERMANENT MAINTENANCE OF STORMWATER FACILITIES COMPLETED FOR THIS SUBDIVISION.
12. EASEMENTS MAY EXIST, WHICH WERE NOT NOTED IN THE REFERENCED PLATS, AND ARE OUTSIDE THE KNOWLEDGE OF THIS SURVEYOR.

REFERENCES:

PLAT BOOK	PAGE	RECORDED
L15	0324–0325	7.23.15
L15	0326	7.23.15
S12	0261	12.28.2012
CK	076	11.10.1992
CA	055	08.16.1990
AK	104	04.07.1978
AX	118	08.06.1983
AN	144	07.27.1979
AY	094	10.10.1983
S	035	12.23.1964

UNRECORDED PLAT BY
FREDERICK E. LANDRITH
DATED: 06.26.2006
REVISED: 10.22.2007

TMS #424–00–00–001

APPROVED PLAT
DATE 9-15-15
ENGINEERING DIVISION
CITY OF CHARLESTON

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR No.28597 PHILIP R. BRYAN JR.

SOUTH CAROLINA SEAMON WHITESIDE & ASSOCIATES SURVEYING LLC C04556 CERTIFICATE OF AUTHORIZATION

I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "A" SURVEY AS SPECIFIED THEREIN.

PHILIP R. BRYAN, JR. S.C.P.L.S. No. 28597

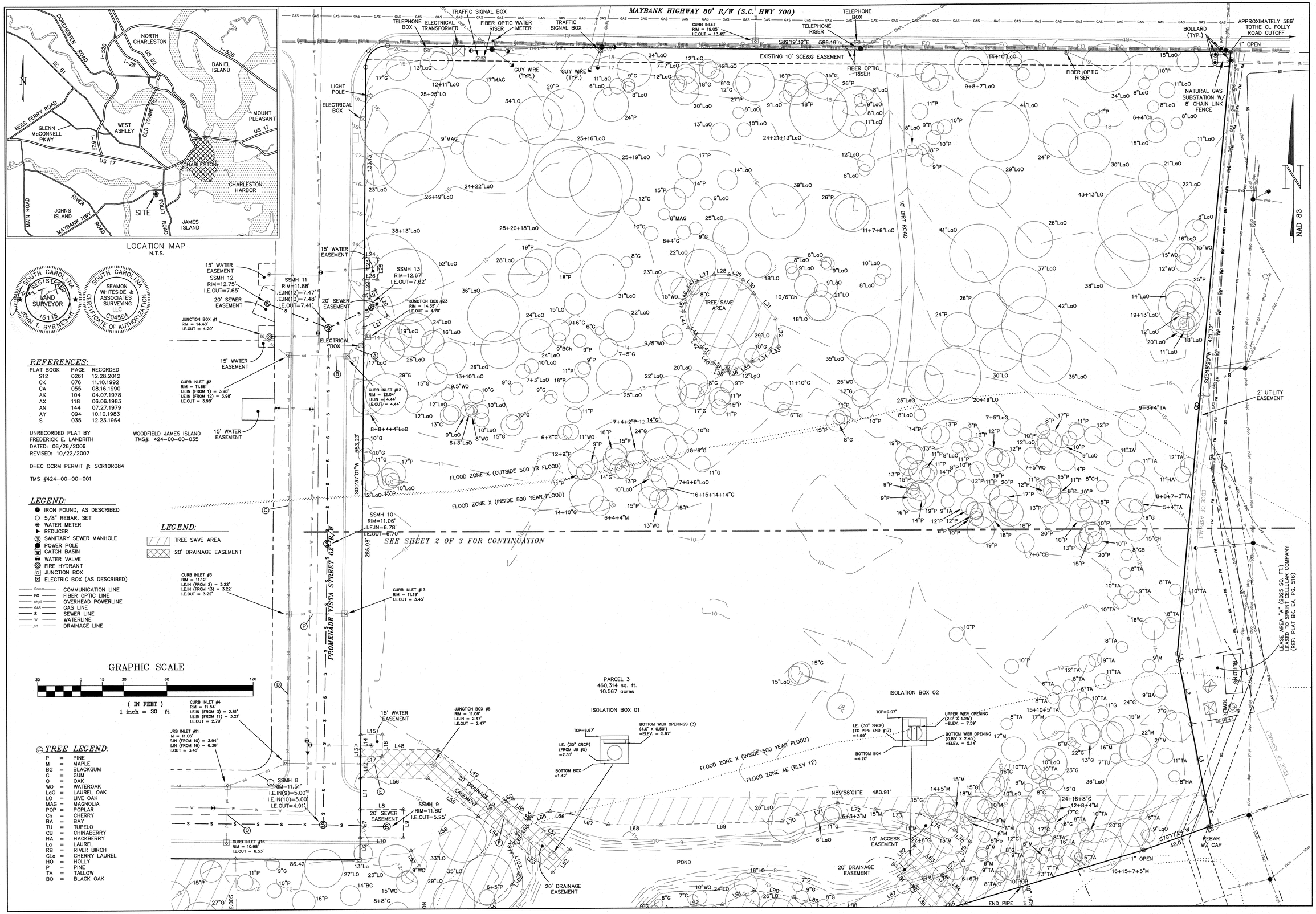
NO.	DATE	DESCRIPTION	BY
1)	9.11.15	REVISED PER HARTMAN SIMONS & WOOD LLP COMMENTS	JKB
2)	9.28.15	REVISED PER CITY OF CHARLESTON COMMENTS	JKB

1035-B Jenkins Road
Charleston, SC 29407
(843) 795-9330
SWA surveying LLC

A BOUNDARY SURVEY OF
TMS #424–00–00–001
PARCELS 3
OWNED BY JLW MAYBANK II, LLC.
LOCATED IN THE CITY OF CHARLESTON
CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 9/08/2015
DRAWN: JKB
CHECK: PRB
CC: JP
JOB: 12280
DWG: P3 boundary.dwg
SHEET: 2 OF 2

4.2 SURVEY WITH TREES



NO.	DATE	DESCRIPTION	BY

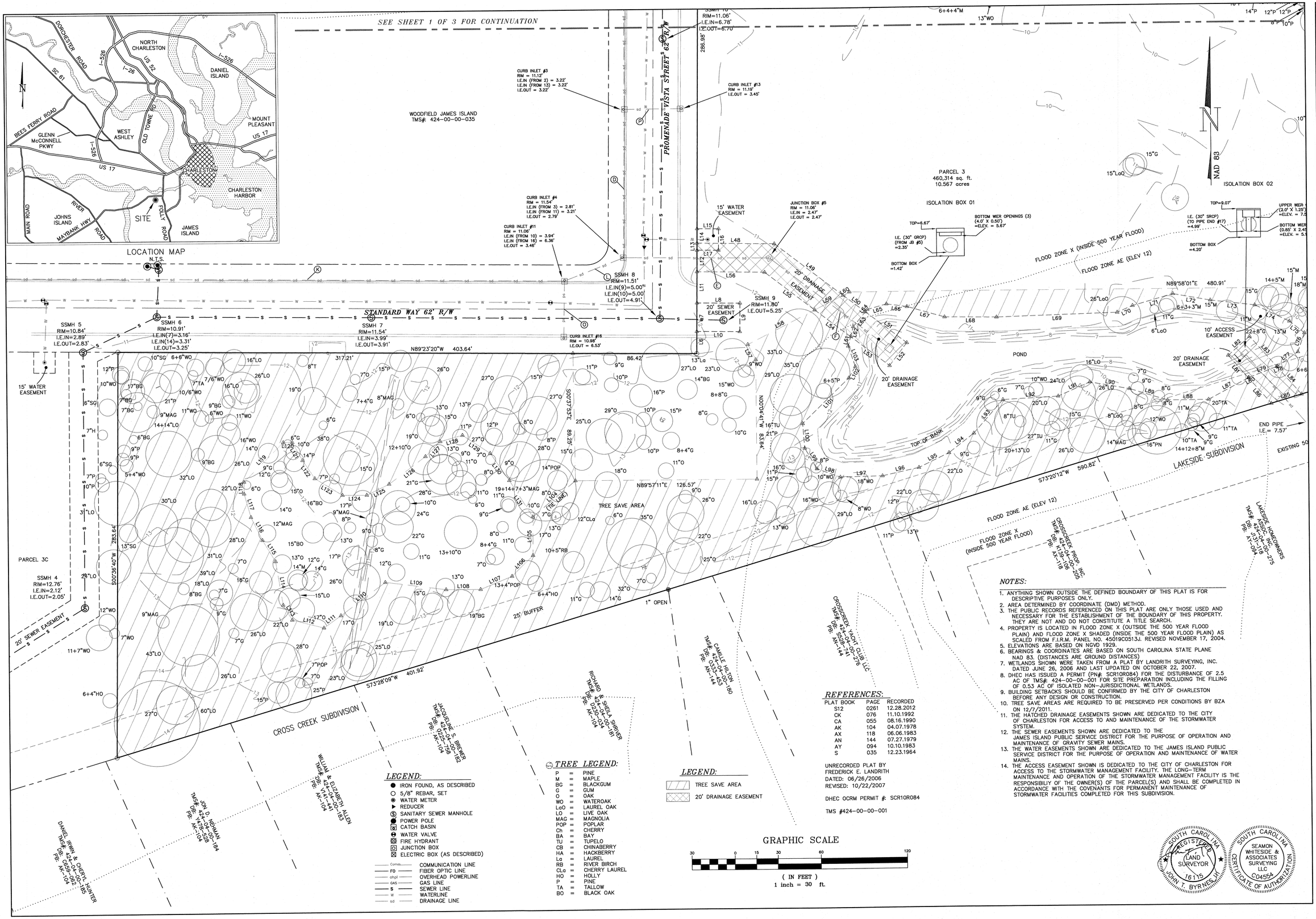
1035-B Jenkins Road
Charleston, SC 29407
(843) 795-9330
SWA surveying LLC

A TREE AND TOPOGRAPHICAL SURVEY OF PARCEL 3

TMS #424-00-00-001

OWNED BY JLW MAYBANK II, LLC.
LOCATED IN THE CITY OF CHARLESTON
CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 6/24/2015	
DRAWN: JKB	
CHECK: PRB	
CC: JP	
JOB: 15109	
DWG: TT.dwg	
SHEET: 1 OF 3	



LEGEND:

- ● IRON FOUND, AS DESCRIBED
- ○ 5/8" REBAR, SET
- ◉ WATER METER
- ▶ REDUCER
- Ⓢ SANITARY SEWER MANHOLE
- ● POWER POLE
- CATCH BASIN
- WATER VALVE
- FIRE HYDRANT
- JUNCTION BOX
- ELECTRIC BOX (AS DESCRIBED)
- Comm — COMMUNICATION LINE
- FO — FIBER OPTIC LINE
- ohpl — OVERHEAD POWERLINE
- GAS — GAS LINE
- S — SEWER LINE
- W — WATERLINE
- sd — DRAINAGE LINE

TREE LEGEND:

P	=	PINE
M	=	MAPLE
BG	=	BLACKGUM
G	=	GUM
O	=	OAK
WO	=	WATEROAK
LaO	=	LAUREL OAK
LO	=	LIVE OAK
MAG	=	MAGNOLIA
POP	=	POPLAR
Ch	=	CHERRY
BA	=	BAY
TU	=	TUPELO
CB	=	CHINABERRY
HA	=	HACKBERRY
La	=	LAUREL
RB	=	RIVER BIRCH
CLa	=	CHERRY LAUREL
HO	=	HOLLY
P	=	PINE
TA	=	TALLOW
BO	=	BLACK OAK

LEGEND:

- TREE SAVE AREA
- 20' DRAINAGE EASEMENT

REFERENCES:

PLAT BOOK	PAGE	RECORDED
S12	0261	12.28.2012
CK	076	11.10.1992
CA	055	08.16.1990
AK	104	04.07.1978
AX	118	06.06.1983
AN	144	07.27.1979
AY	094	10.10.1983
S	035	12.23.1964

UNRECORDED PLAT BY
FREDERICK E. LANDRITH
DATED: 06/26/2006
REVISED: 10/22/2007

DHEC OCRM PERMIT #: SCR10R084

TMS #424-00-00-001

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NOTES:

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5. ELEVATIONS ARE BASED ON NGVD 1929.
6. BEARINGS & COORDINATES ARE BASED ON SOUTH CAROLINA STATE PLANE NAD 83. (DISTANCES ARE GROUND DISTANCES)
7. WETLANDS SHOWN WERE TAKEN FROM A PLAT BY LANDRITH SURVEYING, INC. DATED JUNE 26, 2006 AND LAST UPDATED ON OCTOBER 22, 2007.
8. DHEC HAS ISSUED A PERMIT (PN#: SCR10R084) FOR THE DISTURBANCE OF 2.5 AC OF TMS#: 424-00-00-001 FOR SITE PREPARATION INCLUDING THE FILLING OF 0.53 AC OF ISOLATED NON-JURISDICTIONAL WETLANDS.
9. BUILDING SETBACKS SHOULD BE CONFIRMED BY THE CITY OF CHARLESTON BEFORE ANY DESIGN OR CONSTRUCTION.
10. TREE SAVE AREAS ARE REQUIRED TO BE PRESERVED PER CONDITIONS BY BZA ON 12/7/2011.
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12. THE SEWER EASEMENTS SHOWN ARE DEDICATED TO THE JAMES ISLAND PUBLIC SERVICE DISTRICT FOR THE PURPOSE OF OPERATION AND MAINTENANCE OF GRAVITY SEWER MAINS.
13. THE WATER EASEMENTS SHOWN ARE DEDICATED TO THE JAMES ISLAND PUBLIC SERVICE DISTRICT FOR THE PURPOSE OF OPERATION AND MAINTENANCE OF WATER MAINS.
14. THE ACCESS EASEMENT SHOWN IS DEDICATED TO THE CITY OF CHARLESTON FOR ACCESS TO THE STORMWATER MANAGEMENT FACILITY. THE LONG-TERM MAINTENANCE AND OPERATION OF THE STORMWATER MANAGEMENT FACILITY IS THE RESPONSIBILIY OF THE OWNER(S) OF THE PARCEL(S) AND SHALL BE COMPLETED IN ACCORDANCE WITH THE COVENANTS FOR PERMANENT MAINTENANCE OF STORMWATER FACILITIES COMPLETED FOR THIS SUBDIVISION.

SOUTH CAROLINA REGISTERED LAND SURVEYOR 16115 JOHN T. BYRNES, JR.

SOUTH CAROLINA SEAMON WHITESIDE & ASSOCIATES SURVEYING LLC C04554 CERTIFICATE OF AUTHORIZATION

NO.	DATE	DESCRIPTION	BY

SWA surveying LLC
1035-B Jenkins Road
Charleston, SC 29407
(843) 795-9330

A TREE AND TOPOGRAPHICAL SURVEY OF PARCEL 3

TMS #424-00-00-001

OWNED BY JLW MAYBANK II, LLC.
LOCATED IN THE CITY OF CHARLESTON
CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 6/24/2015	
DRAWN: JKB	
CHECK: PRB	
CC: JP	
JOB: 15109	
DWG: TT.dwg	
SHEET: 2 OF 3	

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 11°28'19" E	4.88'
L2	S 10°46'19" E	45.00'
L3	S 10°46'19" E	50.49'
L4	S 10°46'19" E	21.75'
L5	S 70°17'24" W	1.70'
L6	N 00°36'28" E	15.50'
L7	N 00°36'28" E	20.00'
L8	S 89°23'32" E	29.91'
L9	S 00°36'28" W	20.00'
L10	N 89°23'32" W	29.91'
L11	N 00°36'28" E	21.83'
L12	N 00°39'04" E	15.09'
L13	N 00°28'30" E	4.91'
L14	N 00°41'09" E	10.09'
L15	S 89°27'17" E	14.92'
L16	S 00°32'43" W	15.00'
L17	S 89°27'17" E	14.94'
L18	N 00°37'01" E	22.21'
L19	S 64°50'24" W	8.65'
L20	N 25°09'36" W	20.00'
L21	N 64°50'24" E	18.31'
L22	N 00°39'59" E	11.27'
L23	N 00°36'28" E	15.00'
L24	S 89°27'17" E	9.14'
L25	S 00°32'43" W	15.00'
L26	S 89°27'17" E	9.16'
L27	S 68°05'08" W	12.47'
L28	N 89°53'29" W	10.46'
L29	N 69°31'38" W	10.28'
L30	N 37°33'27" W	12.17'
L31	N 40°08'48" W	23.43'
L32	N 06°30'33" W	19.11'
L33	N 69°16'01" E	6.19'
L34	N 58°14'06" E	14.59'
L35	N 62°28'42" E	13.05'
L36	N 74°35'40" E	5.14'
L37	S 89°53'29" E	4.13'
L38	S 71°28'04" E	4.35'
L39	S 38°34'11" E	5.29'
L40	S 35°39'48" E	8.48'
L41	S 33°35'57" E	4.96'
L42	S 33°01'13" E	7.56'
L43	S 32°06'15" E	8.78'
L44	S 13°56'12" E	11.34'
L45	S 07°32'42" W	6.38'
L46	S 18°33'18" W	8.70'
L47	S 38°47'13" W	8.81'
L48	N 89°11'31" W	53.78'
L49	N 52°31'22" W	59.94'
L50	N 52°31'22" W	19.45'
L51	S 52°31'22" E	36.18'
L52	S 37°28'38" W	20.00'
L53	S 52°31'22" E	33.97'
L54	S 52°31'22" E	31.19'
L55	S 52°31'22" E	43.78'
L56	S 89°11'31" E	47.08'
L57	N 27°01'28" W	12.01'
L58	N 62°58'32" E	52.60'
L59	N 62°58'32" E	22.16'
L60	N 62°58'32" E	4.93'
L61	S 14°40'30" W	6.80'
L62	S 14°40'30" W	7.17'
L63	S 39°55'07" W	13.40'
L64	S 39°55'07" W	2.13'
L65	S 74°33'23" W	13.84'
L66	N 82°06'19" W	14.42'
L67	N 73°41'36" W	27.30'
L68	N 89°19'40" W	36.38'
L69	S 88°15'09" W	84.25'
L70	S 66°39'07" W	11.69'
L71	S 74°00'04" W	29.16'
L72	N 79°45'51" W	26.53'
L73	N 83°23'20" W	31.25'
L74	N 64°21'09" W	26.75'
L75	N 51°29'16" W	13.29'
L76	N 19°15'39" E	14.05'
L77	N 54°48'50" E	17.33'
L78	N 68°48'29" E	0.76'
L79	N 68°48'29" E	20.91'
L80	N 61°51'28" E	0.39'
L81	S 41°24'29" E	21.12'
L82	S 48°35'31" W	20.00'
L83	S 41°24'29" E	28.43'
L84	N 41°24'29" W	25.96'
L85	N 73°20'12" E	22.02'
L86	S 41°24'29" E	24.06'
L87	N 61°51'28" E	31.64'
L88	N 89°34'40" E	28.68'
L89	S 72°40'12" E	27.61'
L90	N 79°56'01" W	28.22'

LINE TABLE		
LINE	BEARING	DISTANCE
L91	S 66°08'40" W	24.07'
L92	S 86°56'17" W	38.62'
L93	N 41°20'51" E	30.94'
L94	N 52°31'40" E	22.19'
L95	N 64°16'32" E	23.34'
L96	N 77°51'33" E	26.05'
L97	N 89°04'26" E	29.41'
L98	S 69°42'19" E	17.22'
L99	S 30°00'38" E	16.75'
L100	S 04°20'49" E	17.25'
L101	S 45°35'11" W	45.20'
L102	S 30°02'43" W	9.21'
L103	S 18°21'45" E	15.22'
L104	S 50°12'58" W	39.01'
L105	N 00°06'31" E	26.98'
L106	N 45°06'31" E	20.59'
L107	N 67°48'57" E	23.84'
L108	S 89°53'29" E	24.04'
L109	S 82°40'38" E	42.75'
L110	N 53°25'27" E	38.79'
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L113	S 30°38'37" E	12.17'
L114	S 09°21'36" E	30.94'
L115	S 31°01'51" E	17.50'
L116	S 26°04'05" E	17.95'
L117	S 15°45'07" E	17.04'
L118	S 00°06'31" W	8.33'
L119	S 45°06'31" W	38.98'
L120	N 89°53'29" W	6.22'
L121	N 28°57'44" W	14.55'
L122	N 33°35'57" W	15.29'
L123	N 58°12'25" W	22.60'
L124	N 89°53'29" W	16.97'
L125	S 63°58'37" W	17.32'
L126	S 53°03'46" W	31.89'
L127	S 45°06'31" W	14.79'
L128	S 74°51'48" W	16.12'
L129	N 56°24'49" W	23.05'
L130	N 34°33'38" W	23.36'
L131	N 32°01'17" W	30.03'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	15.00'	23.58'	15.02'	21.22'	S 45°38'44" W	90°03'27"

DRAINAGE PIPE CHART				
PIPE	SIZE (IN.)	TYPE OF PIPE	LENGTH (FT.)	SLOPE (%)
A	24"	SRCP	18'	1.44%
B	24"	GRCP	43'	1.06%
C	24"	GRCP	180'	0.42%
D	24"	GRCP	103'	0.40%
E	30"	GRCP	103'	0.31%
F	30"	GRCP	105'	0.11%
K	24"	GRCP	390'	0.41%
L	24"	GRCP	39'	0.64%
O	18"	GRCP	45'	0.38%
P	18"	GRCP	43'	0.53%

NOTES:

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CK	076	11.10.1992
CA	055	08.16.1990
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AN	144	07.27.1979
AY	094	10.10.1983
S	035	12.23.1964

UNRECORDED PLAT BY
FREDERICK E. LANDRITH
DATED: 06/26/2006
REVISED: 10/22/2007

DHEC OCRM PERMIT #: SCR10R084

TMS #424-00-00-001

LEGEND:

- IRON FOUND, AS DESCRIBED
- 5/8" REBAR, SET
- WATER METER
- REDUCER
- SANITARY SEWER MANHOLE
- POWER POLE
- CATCH BASIN
- WATER VALVE
- FIRE HYDRANT
- JUNCTION BOX
- ELECTRIC BOX (AS DESCRIBED)
- COMMUNICATION LINE
- FIBER OPTIC LINE
- OVERHEAD POWERLINE
- GAS LINE
- SEWER LINE
- WATERLINE
- DRAINAGE LINE

TREE LEGEND:

P	=	PINE
M	=	MAPLE
BG	=	BLACKGUM
G	=	GUM
O	=	OAK
WO	=	WATEROAK
LaO	=	LAUREL OAK
LO	=	LIVE OAK
MAG	=	MAGNOLIA
POP	=	POPLAR
Ch	=	CHERRY
BA	=	BAY
TU	=	TUPELO
CB	=	CHINABERRY
HA	=	HACKBERRY
La	=	LAUREL
RB	=	RIVER BIRCH
CLa	=	CHERRY LAUREL
HO	=	HOLLY
P	=	PINE
TA	=	TALLOW
BO	=	BLACK OAK

SOUTH CAROLINA REGISTERED LAND SURVEYOR 16115 JOHN T. BYRNES, IV

SOUTH CAROLINA SEAMON WHITESIDE & ASSOCIATES SURVEYING LLC C04554 CERTIFICATE OF AUTHORIZATION

NO.	DATE	DESCRIPTION	BY

1035-B Jenkins Road
Charleston, SC 29407
(843) 795-9330
SWA surveying LLC

A TREE AND TOPOGRAPHICAL SURVEY OF PARCEL 3

TMS #424-00-00-001

OWNED BY JLW MAYBANK II, LLC.
LOCATED IN THE CITY OF CHARLESTON
CHARLESTON COUNTY, SOUTH CAROLINA

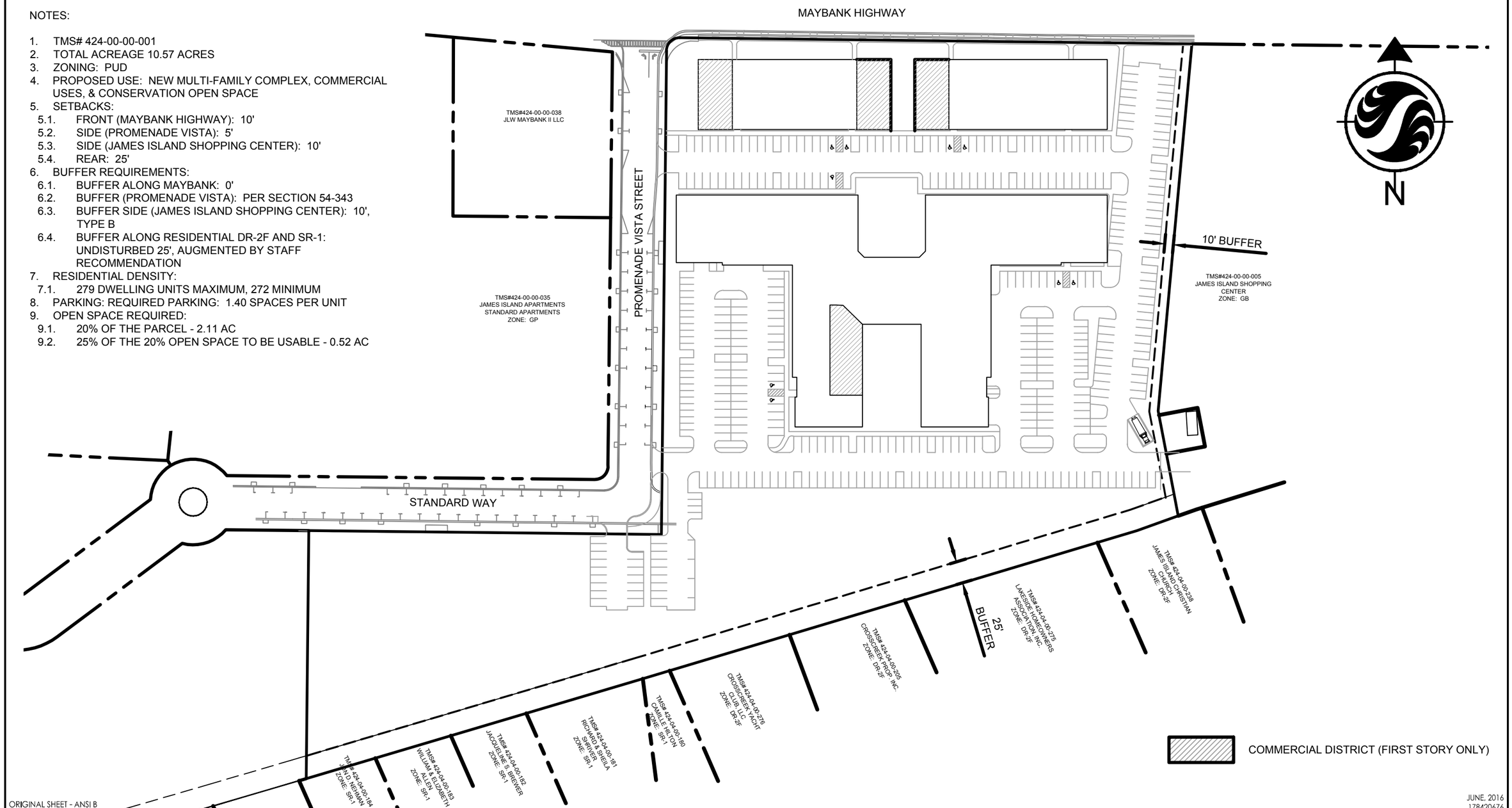
DATE: 6/24/2015
DRAWN: JKB
CHECK: PRB
CC: JP
JOB: 15109
DWG: TT.dwg
SHEET: 3 OF 3

4.3 MASTER PLAN

4.3.1 Conceptual Site Master Plan

NOTES:

1. TMS# 424-00-00-001
2. TOTAL ACREAGE 10.57 ACRES
3. ZONING: PUD
4. PROPOSED USE: NEW MULTI-FAMILY COMPLEX, COMMERCIAL USES, & CONSERVATION OPEN SPACE
5. SETBACKS:
   - 5.1. FRONT (MAYBANK HIGHWAY): 10'
   - 5.2. SIDE (PROMENADE VISTA): 5'
   - 5.3. SIDE (JAMES ISLAND SHOPPING CENTER): 10'
   - 5.4. REAR: 25'
6. BUFFER REQUIREMENTS:
   - 6.1. BUFFER ALONG MAYBANK: 0'
   - 6.2. BUFFER (PROMENADE VISTA): PER SECTION 54-343
   - 6.3. BUFFER SIDE (JAMES ISLAND SHOPPING CENTER): 10', TYPE B
   - 6.4. BUFFER ALONG RESIDENTIAL DR-2F AND SR-1: UNDISTURBED 25', AUGMENTED BY STAFF RECOMMENDATION
7. RESIDENTIAL DENSITY:
   - 7.1. 279 DWELLING UNITS MAXIMUM, 272 MINIMUM
8. PARKING: REQUIRED PARKING: 1.40 SPACES PER UNIT
9. OPEN SPACE REQUIRED:
   - 9.1. 20% OF THE PARCEL - 2.11 AC
   - 9.2. 25% OF THE 20% OPEN SPACE TO BE USABLE - 0.52 AC



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2016/06/10 10:03 AM By: Lilly, Josh

ORIGINAL SHEET - ANSI B

JUNE, 2016
178420676

Legend

Notes

Stantec

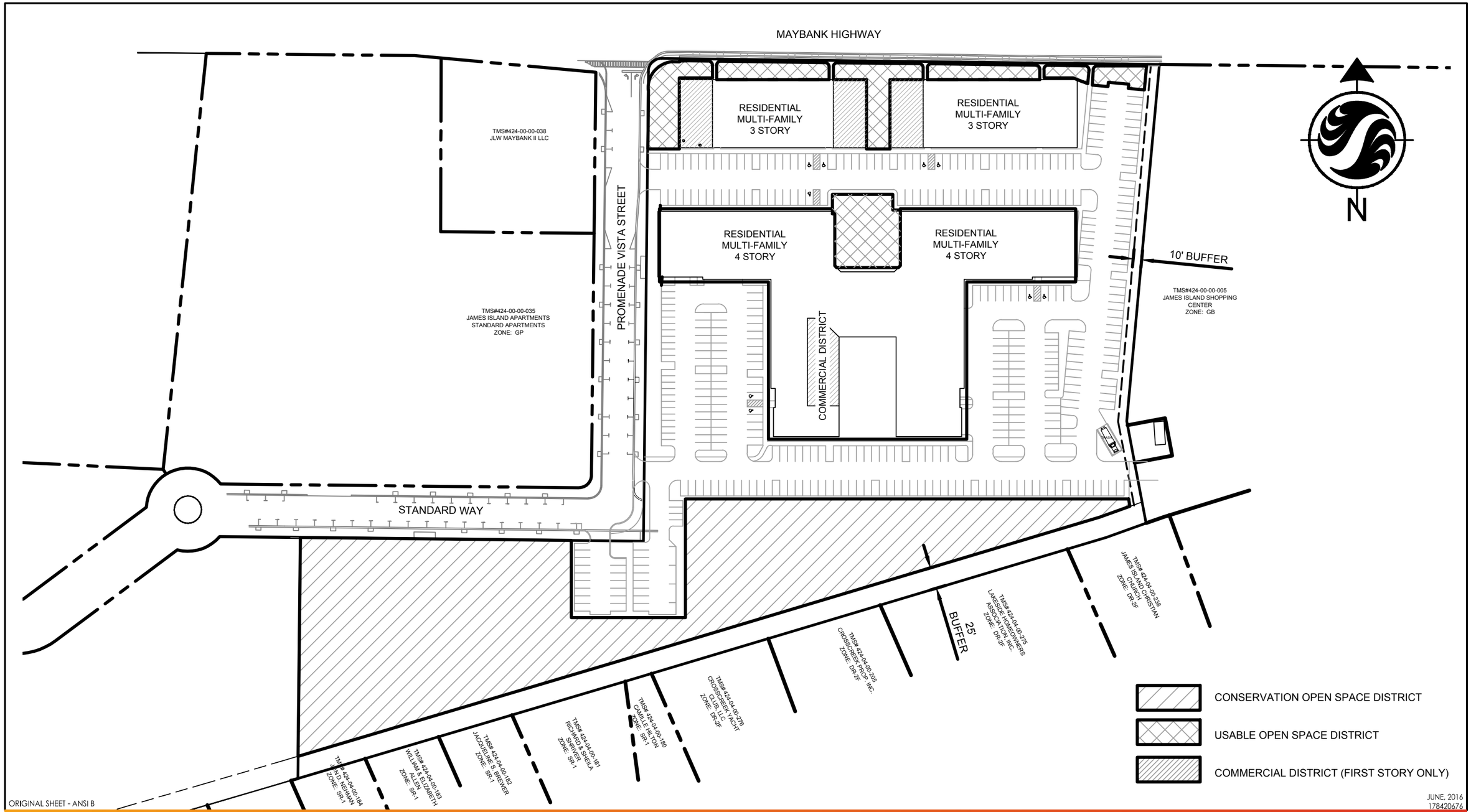
4969 Centre Pointe Dr, Suite 200
North Charleston, SC 29418

Client/Project
CORE PROPOERTY CAPITAL
MAYBANK MULTI-FAMILY
CITY OF CHARLESTON

Figure No.
1.0

Title
CONCEPTUAL SITE MASTER PLAN

4.3.2 Zoning District



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2016/06/10 10:03 AM By: Lilly, Josh

Legend

Notes

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North Charleston, SC 29418

Client/Project
CORE PROPOERTY CAPITAL
MAYBANK MULTI-FAMILY
CITY OF CHARLESTON

Figure No.
2.0

Title
ZONING DISTRICT EXHIBIT

4.3.3 Open Space

5. TRAFFIC IMPACT ANALYSIS

Traffic Impact Analysis. Because of the reduction in developable residential units and commercial space effectuated by the Maybank PUD as compared to the allowable density the Property's existing Gathering Place zoning permits, the Department of Traffic and Transportation and the Department of Planning, Preservation and Sustainability have determined, during the PUD Pre-Application Plan review, that the potential impact the Maybank PUD is anticipated to have substantially less impact on the existing transportation infrastructure than the entitled Gathering Place development would have. Technical Review Committee requirements for traffic impact studies for any modification to the Site Plan and Master Plan as to increases in the buildable density and uses shall still apply. A copy of the traffic impact analysis is attached hereto and incorporated herein by reference.

MAYBANK PLANNED DEVELOPMENT - TRAFFIC IMPACT ANALYSIS

Charleston, South Carolina

Prepared for:
Core Property Capital

Prepared by:
Stantec Consulting Services Inc.

June 2016

MAYBANK PLANNED DEVELOPMENT - TRAFFIC IMPACT ANALYSIS

Charleston, South Carolina

Prepared for:
Core Property Capital
3060 Peachtree Road, Suite 220
Atlanta, Georgia

Prepared by:
Stantec Consulting Services Inc.
4969 Centre Pointe Drive, Suite 200
North Charleston, South Carolina
Phone: (843) 740-7700
Fax: (843) 740-7707

June 2016
Project No. 178420676

SOUTH CAROLINA
LICENSED PROFESSIONAL ENGINEER
No. 32068
STUART W. DAY

6-14-16

Signature *Date*

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Executive Summary

A traffic impact analysis was conducted for the Maybank Planned Development in accordance with City of Charleston and SCDOT guidelines. The proposed Maybank Planned Development is located on the south side of SC 700/Maybank Highway between Fleming Road and Wappoo Creek Drive in the City of Charleston, South Carolina and is proposed to consist of 278 apartments and 7,500 square feet of retail.

Access to the development will be provided through one existing full access driveway along SC 700/Maybank Highway and one existing full access driveway along Fleming Road. These driveways will be shared with the adjacent development, The Standard.

The results of the signalized intersection analyses indicate that the study intersections (see page 1 for study intersections) currently operate and are expected to continue to operate at an acceptable LOS with consideration of the Maybank Planned Development, with one exception. The SC 700/Maybank Highway/Country Club Drive & SC 171/Folly Road intersection currently experiences LOS E conditions during the PM peak hour and is anticipated to experience LOS F conditions in the future, with or without the project. Project traffic is projected to be 1.8% of the total intersection traffic for the 2019 Build conditions. Due to the fact that the intersection is projected to operate at undesirable conditions and the minimal impact of the project traffic, no improvements are recommended at this time.

The results of the unsignalized intersection analyses show the SC 700/Maybank Highway approaches to the intersections with Fleming Road and the Project Driveway currently experience free-flow LOS A conditions and are expected to continue to experience free-flow LOS A conditions with the development of the project site. The northbound approach of the SC 700/Maybank Highway & Fleming Road intersection currently experiences LOS E conditions during the AM peak hour and is anticipated to experience LOS F conditions in the future with or without consideration of the Maybank Planned Development. The northbound approach of the SC 700/Maybank Highway & Project Driveway intersection is projected to experience undesirable delay in the future with the development of the project site. Future signalization of the SC 700/Maybank Highway & Fleming Road intersection would mitigate the undesirable condition at both intersections. Therefore, it is recommended that a signal warrant analysis be performed to determine if signal warrants would be met at the intersection of SC 700/Maybank Highway & Fleming Road upon completion of the Maybank Planned Development and The Standard.

Based on the *Highway Design Manual* considerations for the project driveways, exclusive ingress turn lanes along Fleming Road at the project driveway are not recommended at this time. The existing right-turn lane along SC 700/Maybank Highway will serve the eastbound right-turn movement at the project driveway and the existing two-way left-turn lane along SC 700/Maybank Highway will serve the westbound left-turn movement at the project driveway.

1.0 Introduction

The purpose of this report is to document a traffic impact analysis for the Maybank Planned Development in accordance with City of Charleston and SCDOT guidelines. This report summarizes the procedures and findings of the traffic impact analysis.

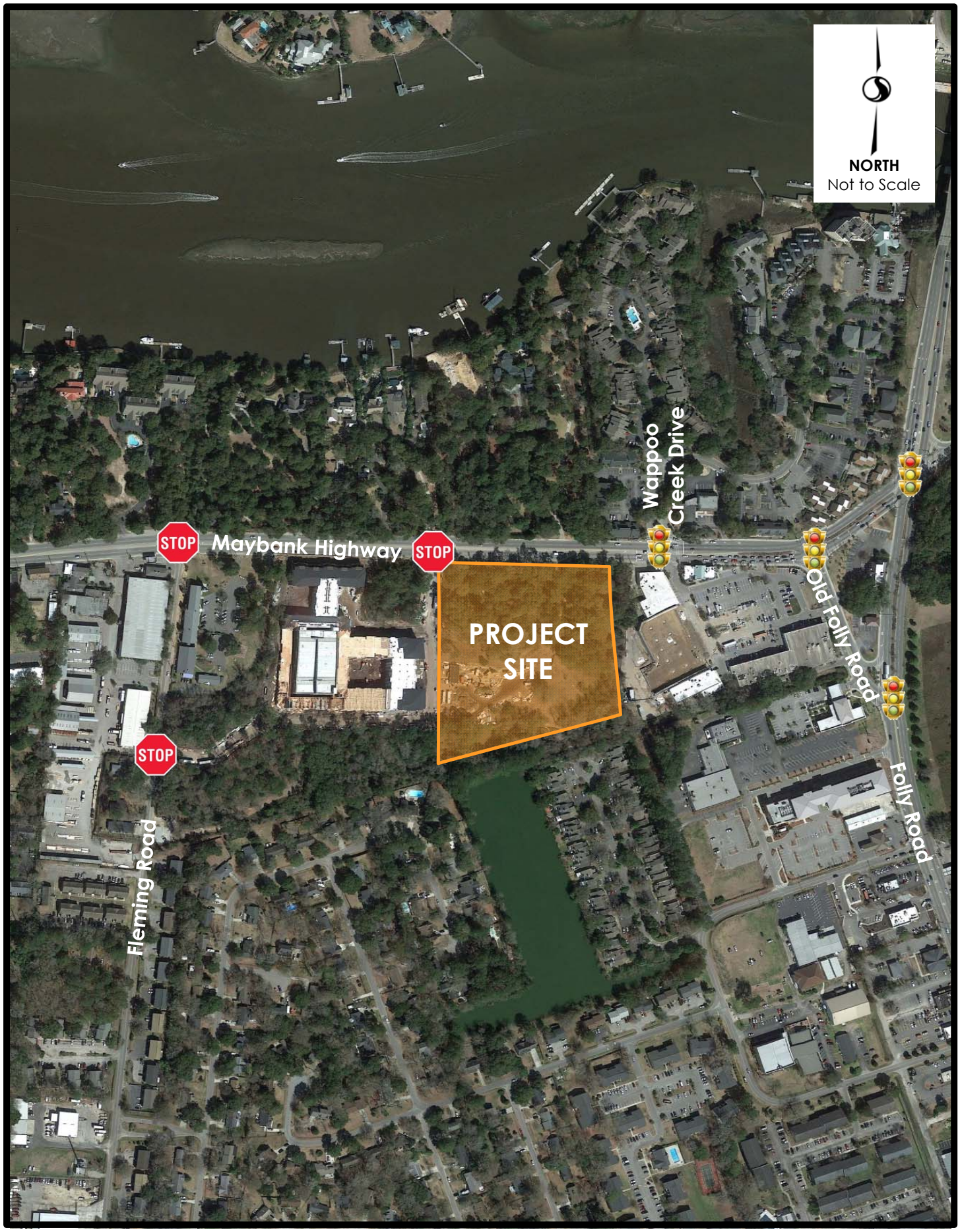
1.1 PROJECT BACKGROUND

The proposed Maybank Planned Development is located on the south side of SC 700/Maybank Highway between Fleming Road and Wappoo Creek Drive in the City of Charleston, South Carolina and is proposed to consist of 278 apartments and 7,500 square feet of retail. Access to the development will be provided through one existing full access driveway along SC 700/Maybank Highway and one existing full access driveway along Fleming Road. These driveways will be shared with the adjacent development, The Standard.

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. Based upon discussions with city staff, the extent of the existing roadway network to be studied consists of the five (5) intersections of:

1) SC 700/Maybank Highway & Fleming Road;
2) SC 700/Maybank Highway & Wappoo Creek Drive;
3) SC 700/Maybank Highway & Old Folly Road;
4) SC 700/Maybank Highway/Country Club Drive & SC 171/Folly Road; and
5) Old Folly Road & SC 171/Folly Road.

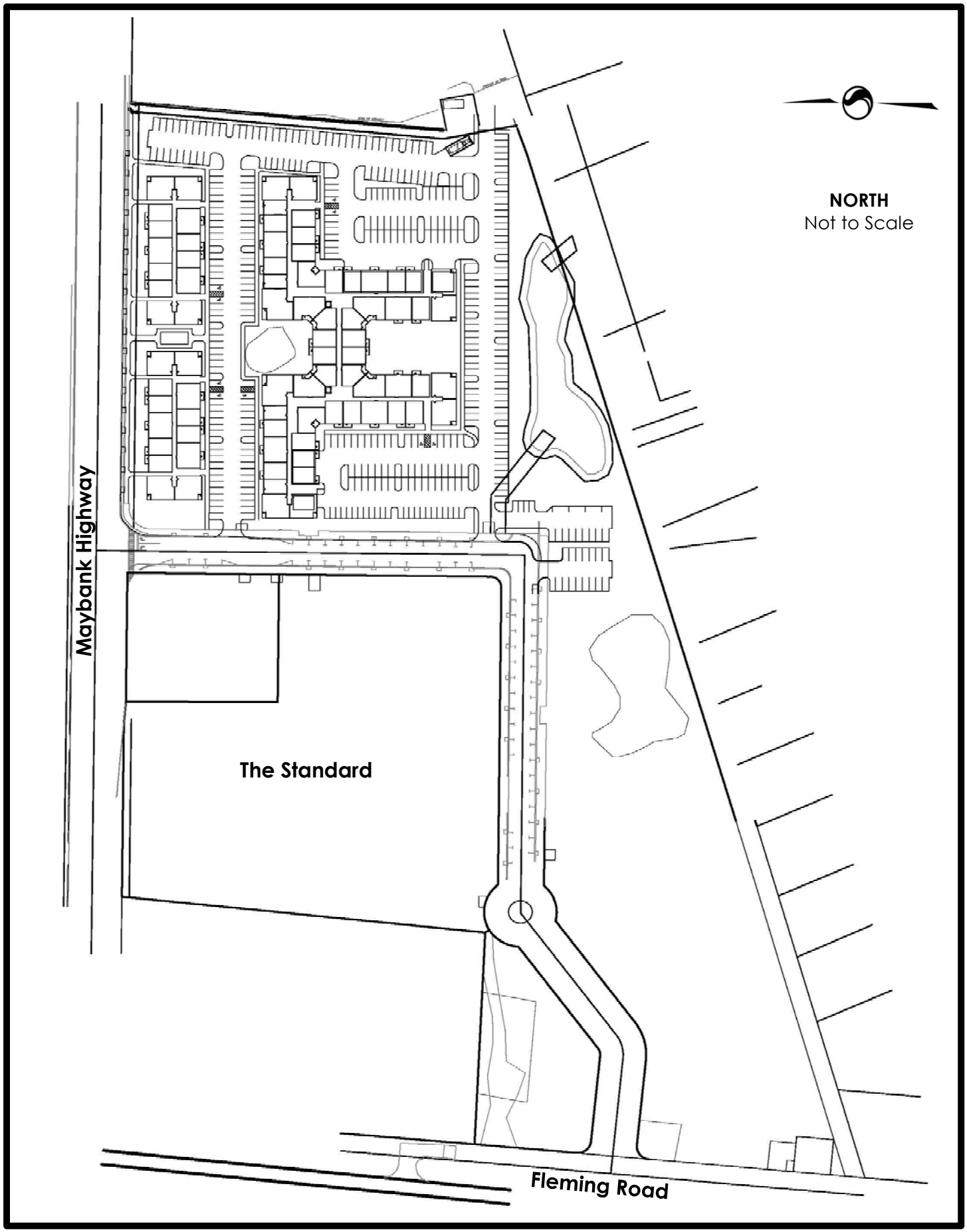
The buildout date for the proposed development is anticipated to be 2019; therefore, future-year 2019 conditions were analyzed as the Build scenario. Exhibit 1.1 illustrates the location of the project site, including the adjacent public roadway network, and Exhibit 1.2 illustrates a site plan of the proposed development.



Stantec

Maybank Residential Development - Traffic Impact Analysis

Exhibit 1.1 - Project Location Map - PAGE 2


NORTH
Not to Scale
Maybank Highway
The Standard
Fleming Road

1.2 EXISTING ROADWAY CONDITIONS

SC 700/Maybank Highway is a five-lane arterial, with a two-way left-turn lane, which primarily serves residential and commercial land uses. The posted speed limit is 40 mph and the 2015 AADT was 23,800 vpd. Based upon existing turning movement counts, the percentage of heavy vehicles along SC 700/Maybank Highway is 1%.

Fleming Road is a two-lane local road that primarily serves residential land uses. The posted speed limit is 35 mph and the 2015 AADT was 2,300 vpd.

Old Folly Road is a two-lane arterial, with turn lanes at the intersections with SC 700/Maybank Highway and SC 171/Folly Road, which serves commercial land uses. Based upon existing turning movement counts, the percentage of heavy vehicles along Old Folly Road is 1%.

SC 171/Folly Road is a five-lane arterial, with a two-way left-turn lane and turn lanes at the study intersections, which primarily serves commercial land uses. The posted speed limit is 40 mph and the 2015 AADT was 29,800 vpd. Based upon existing turning movement counts, the percentage of heavy vehicles along SC 171/Folly Road is less than 1%.

2.0 Driveway Spacing Review

Access to the development will be provided through one existing full access driveway along SC 700/Maybank Highway and one existing full access driveway along Fleming Road. These driveways will be shared with the adjacent development, The Standard.

Due to the fact that the project will access existing driveways, no additional improvements are recommended at this time.

3.0 Project Traffic

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the Maybank Planned Development. These trips were distributed and assigned throughout the study roadway network.

3.1 PROPOSED LAND USES

The Maybank Planned Development consists of 278 apartments and 7,500 square feet of retail. The project site is currently vacant.

3.2 TRIP GENERATION ESTIMATES

The trip generation potential for the development was estimated using information contained in ITE's *Trip Generation Manual*, 9th Edition (2012) reference. The estimates utilized land use code (LUC) 220 – Apartment and LUC 820 – Shopping Center and were developed for the weekday daily, the weekday AM peak hour of the adjacent street, and the weekday PM peak hour of the adjacent street time periods.

Due to the nature of the development, internal and pass-by capture was also considered in the trip generation estimates. Internal capture considers interaction between multiple uses in a development and was limited to 20%. Pass-by traffic is attracted from the existing traffic volumes on adjacent roadways and reduces the new trip impacts of a retail project site. Internal and pass-by capture traffic was estimated using information contained in ITE's *Trip Generation Handbook,* 3rd Edition (2014) reference.

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

Table 3.1 – Trip Generation Estimates

Land Use	ITE LUC	Scale	Daily	Weekday AM Peak Hour		Weekday PM Peak Hour	
				Enter	Exit	Enter	Exit
Apartment	220	278 DU	1,808	28	112	111	60
Shopping Center	820	7,500 sf	1,261	20	12	51	55
		Gross Trips:	3,069	48	124	162	115
		-Internal Capture:	-452	-2	-2	-19	-19
		-Pass-by Capture Trips:	-352	-5	-5	-15	-15
		New, External Trips:	**2,265**	**41**	**117**	**128**	**81**

3.3 MODAL SPLIT

The modal split is the percentage of trips using a particular mode of travel (such as vehicles, bicycles, walking, and telecommuting). With the proximity of the Maybank Planned site to other areas on James Island, there is a great opportunity to provide development within walking and bicycling distance to other

areas on James Island. Based upon the 2014 US Census Bureau data for the City of Charleston, approximately 77% of people drove alone to work, with 23% carpooling, walking, biking, or telecommuting.

Based upon the location of the project, it is expected that residents of the Maybank Planned Development would follow these percentages, reducing vehicle demand by 23%. However, in an effort to provide a conservative analysis, a modal split for carpooling, walking, biking, and telecommuting was not considered in the traffic analysis.

3.4 TRIP DISTRIBUTION & ASSIGNMENT

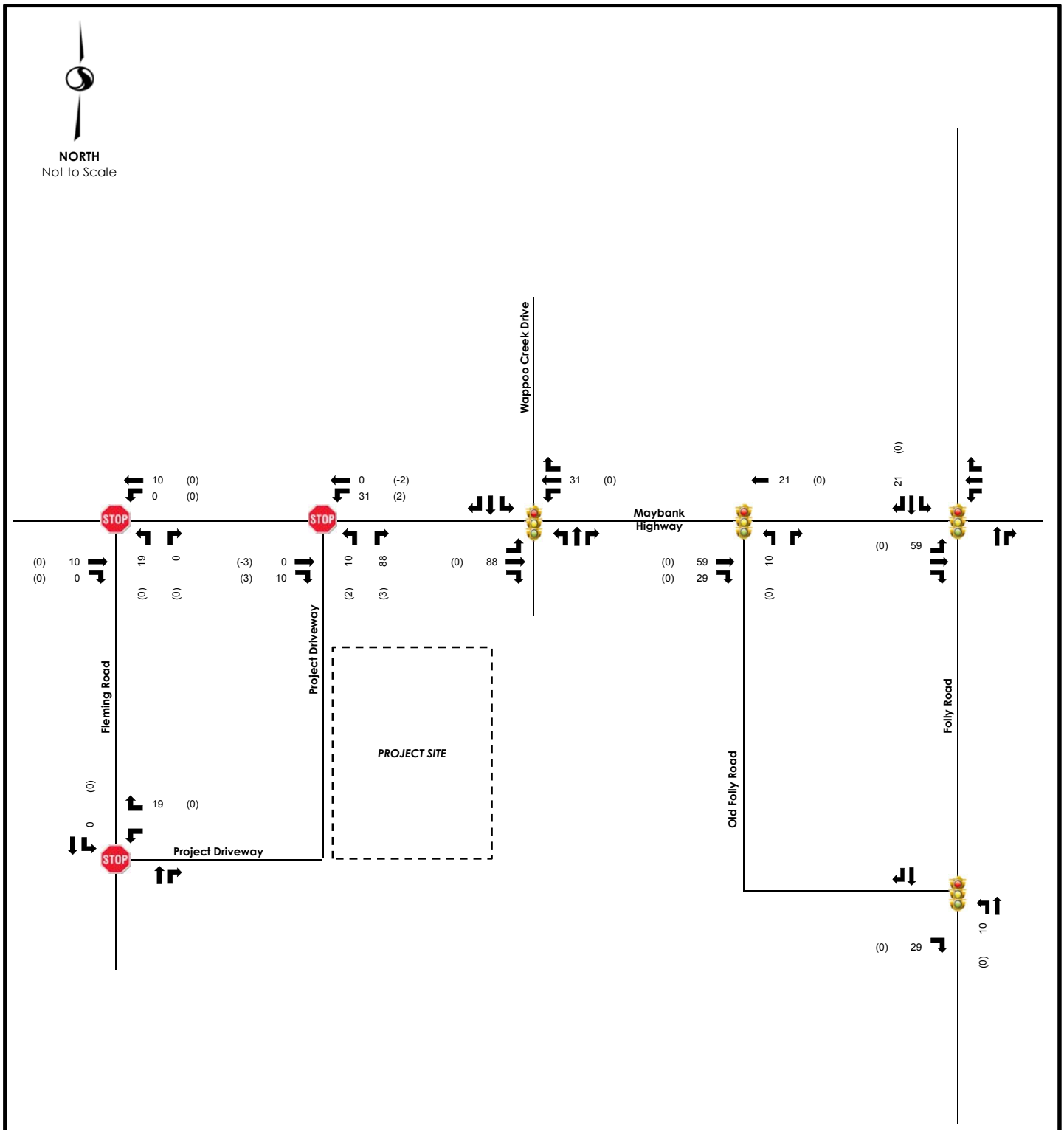
New external traffic expected to be generated by the Maybank Planned Development was distributed and assigned to the roadway network based upon existing travel patterns in the area. The general distribution of new project trips was assumed to be:

- 25% to/from the west via SC 700/Maybank Highway;
- 50% to/from the north via SC 171/Folly Road; and
- 25% to/from the south via SC 171/Folly Road.

Pass-by traffic expected to be generated by the Maybank Planned Development was distributed and assigned to the roadway network based upon existing travel patterns in the area. The general distribution of pass-by project trips was assumed to be:

- 50% to/from westbound SC 700/Maybank Highway; and
- 50% to/from eastbound SC 700/Maybank Highway.

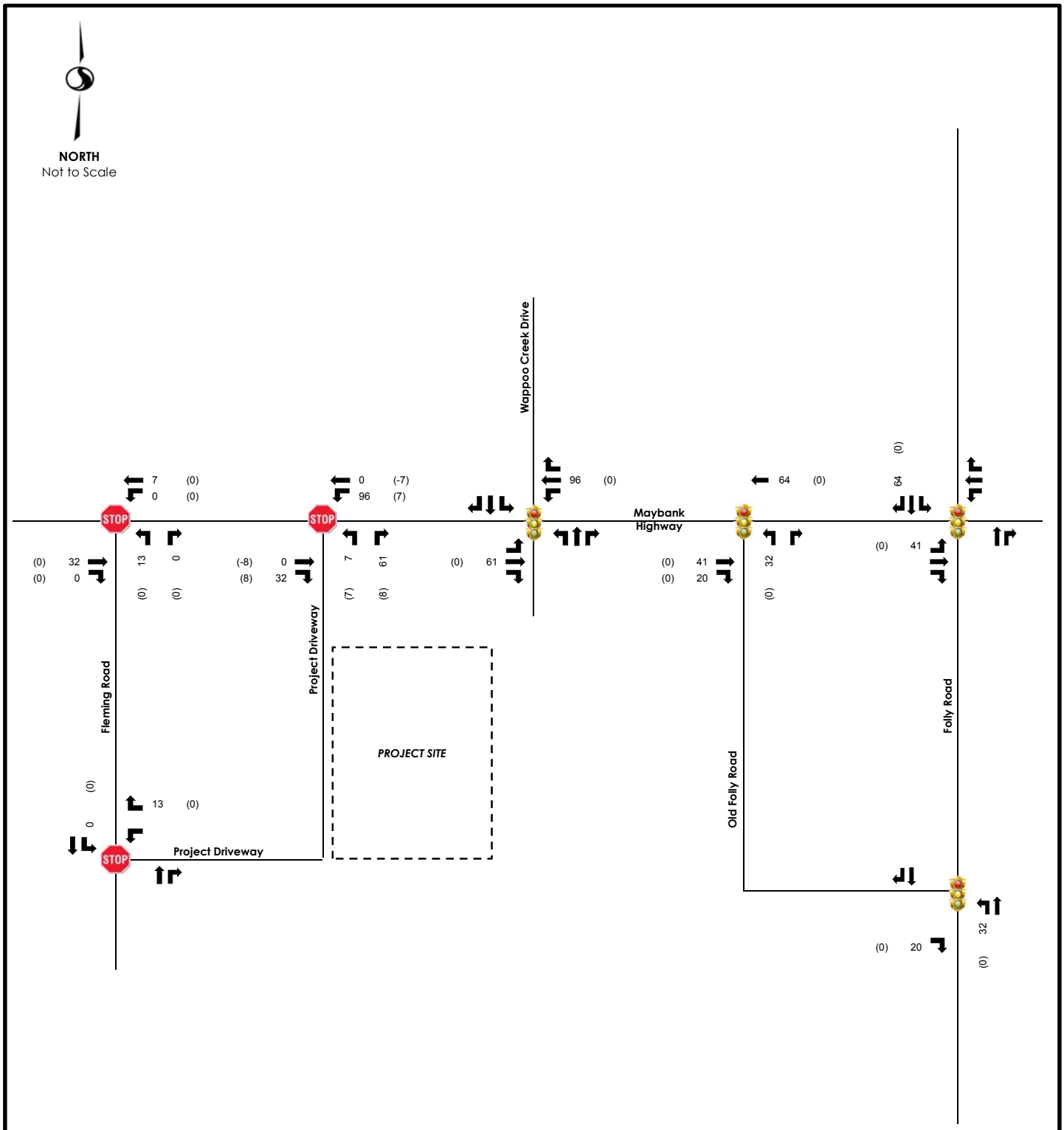
The assignment of project traffic, in terms of new and pass-by trips, is illustrated in Exhibit 3.1 for the AM peak hour and Exhibit 3.2 for the PM peak hour.



AM PEAK HOUR PROJECT TRAFFIC VOLUMES LEGEND

000 - AM Peak External Traffic Volumes

(000) - SM Peak Pass-by Traffic Volumes



PM PEAK HOUR PROJECT TRAFFIC VOLUMES LEGEND

000 - PM Peak External Traffic Volumes

(000) - PM Peak Pass-By Traffic Volumes

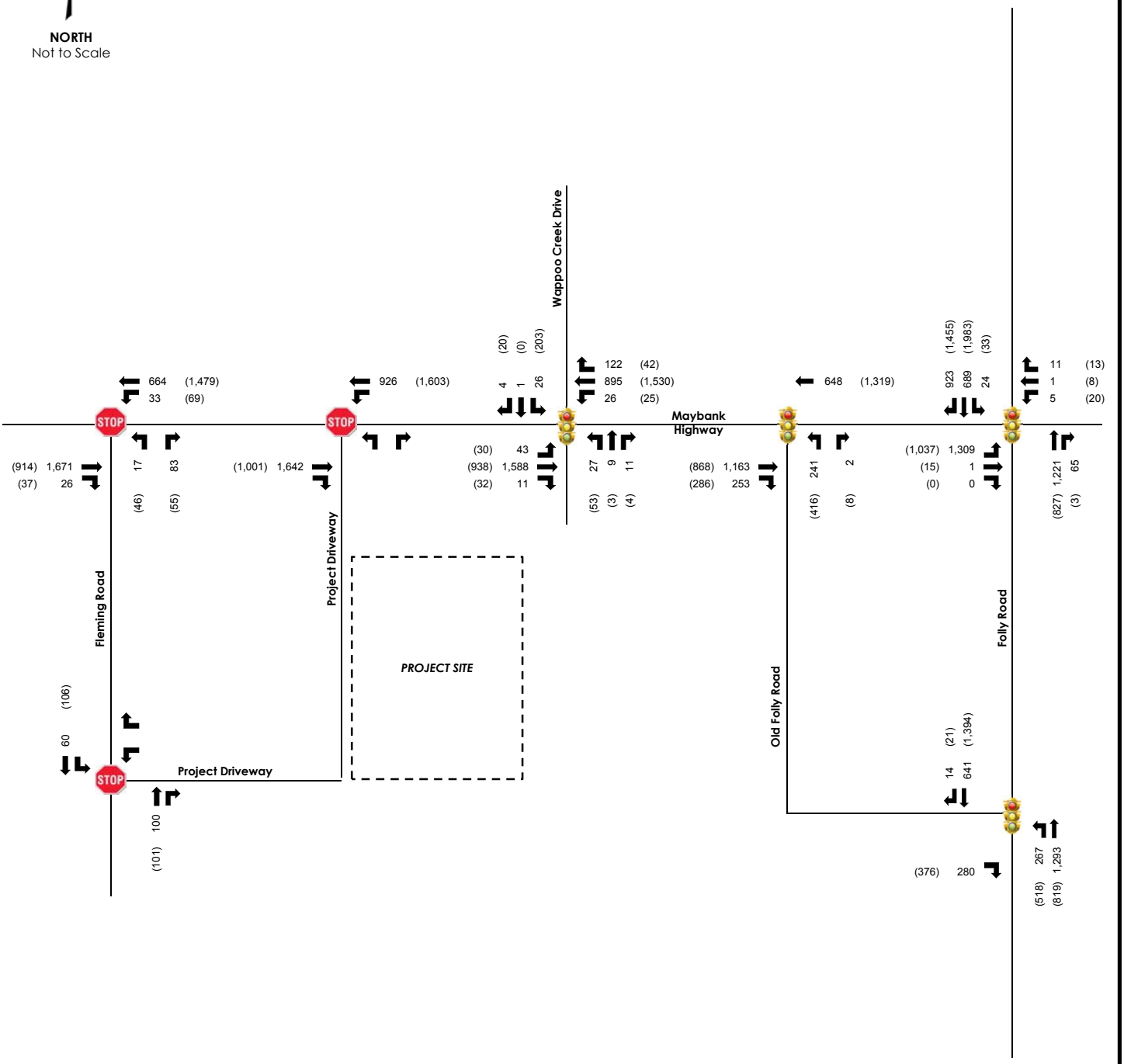
4.0 Traffic Volume Development

Existing 2015 traffic volumes were collected for use in the analysis and future-year traffic volumes were developed for projected 2016 and 2019 conditions. The future-year traffic volumes consisted of existing traffic volumes adjusted by an annual growth rate, traffic volumes from fully entitled development, and projected traffic volumes of the Maybank Planned Development.

4.1 EXISTING TRAFFIC VOLUMES

Vehicle turning movement counts were conducted during the weekday AM peak period (from 7:00 AM to 9:00 AM) and the weekday PM peak period (from 4:00 PM to 6:00 PM) at the five intersections of: SC 171/Folly Road & SC 700/Maybank Highway and County Club Drive, SC 171/Folly Road & Old Folly Road, SC 700/Maybank Highway & Old Folly Road, and SC 700/Maybank Highway & Wappoo Creek Place for use in the traffic impact analysis.

The raw traffic volume counts are provided in Appendix B and the 2015 existing traffic volumes are illustrated in Exhibit 4.1 and documented in Appendix C.



2015 EXISTING PEAK HOUR TRAFFIC VOLUMES LEGEND

000 - AM Peak Hour Traffic Volumes

(000) - PM Peak Hour Traffic Volumes

4.2 FUTURE TRAFFIC VOLUME PROJECTIONS

4.2.1 Historical Growth Rates

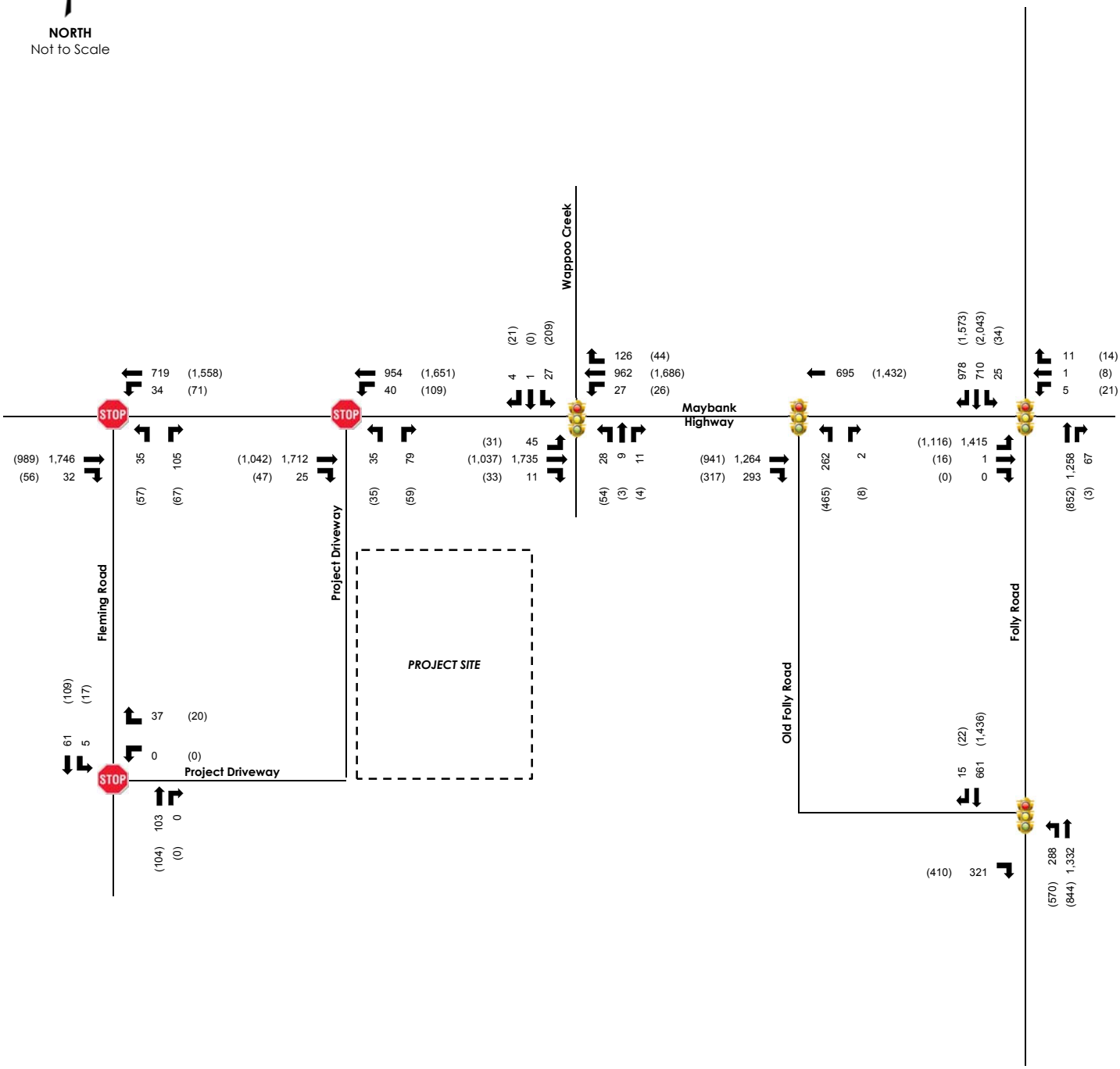
To develop an annual background growth rate for use in the analysis, historical count data along SC 700/Maybank Highway (SCDOT count station #271) and Fleming Road (SCDOT count station #607) was reviewed over the past five years. It was determined that the roadways have collectively experienced annual growth of less than 1.0%. Therefore, a 1.0% annual growth rate was utilized to develop 2016 Existing Conditions, 2019 No Build traffic volumes, which are illustrated in Exhibit 4.2 and documented in Appendix C.

4.2.2 Fully Entitled Development Traffic Volume Projections

In addition to the background growth rates, a fully entitled project is currently underway within the study area and was considered in the analysis. The Standard is located in the southwest quadrant of the SC 700/Maybank Highway & Fleming Road intersection, west of and adjacent to the project site. According to the traffic impact study performed for The Standard, the project is planned to consist of 284 apartment units, 10,000 square-feet of specialty retail space, and a 6,000 square-foot high-turnover sit-down restaurant. The Standard was recently under construction and was completed in late 2015. Since the development of the site is beginning to lease apartments, 100% the trips associated with this development were considered fully entitled for the purposes of this report.

4.2.3 2019 No Build Traffic Volumes

The 2019 No Build traffic volumes, which include consideration of the background growth rates and nearby development traffic volumes, are illustrated in Exhibit 4.2 and documented in Appendix C.



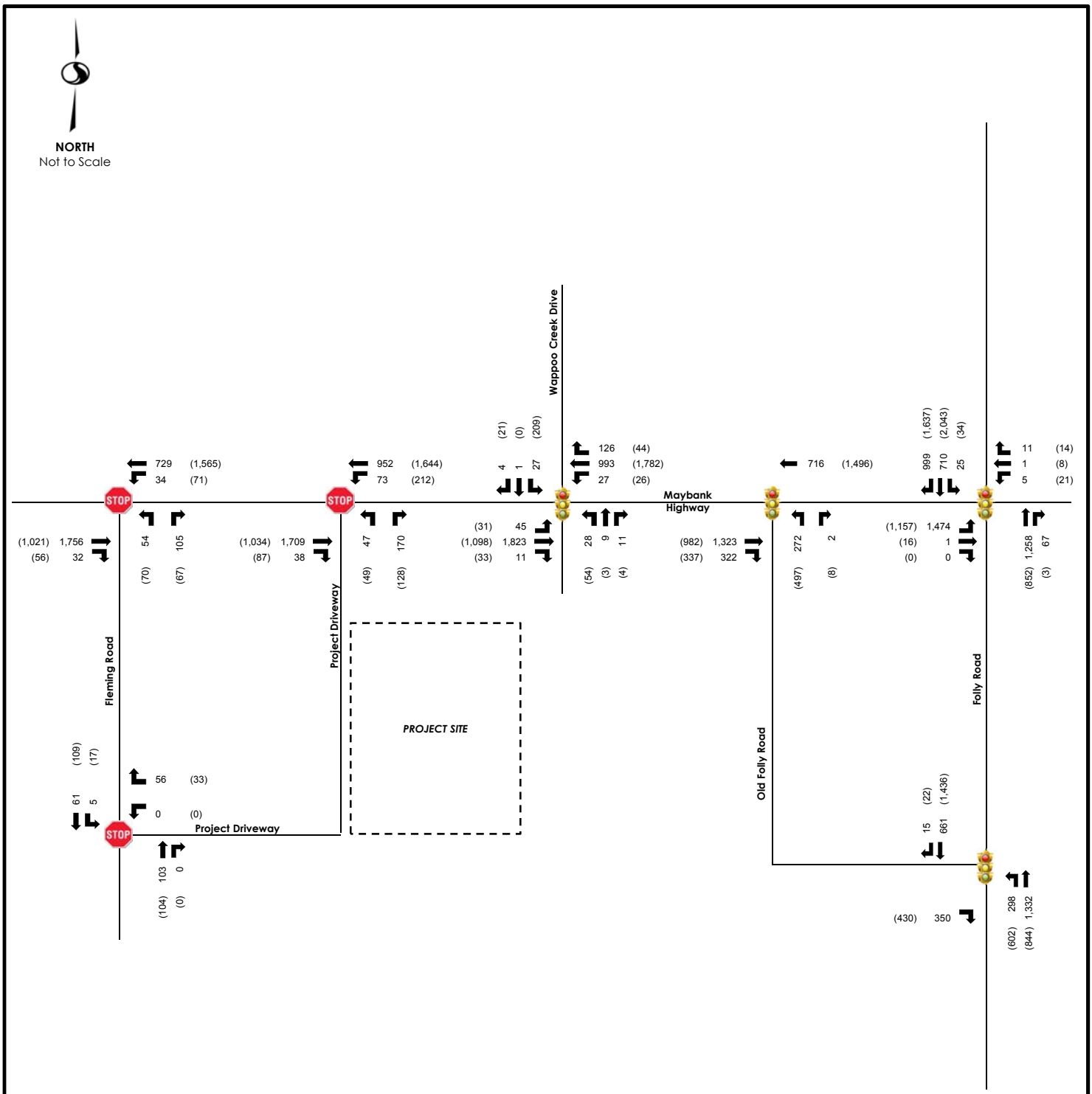
2018 NO BUILD PEAK HOUR TRAFFIC VOLUMES LEGEND

000 - AM Peak Hour Traffic Volumes

(000) - PM Peak Hour Traffic Volumes

4.2.4 2019 Build Traffic Volumes

The Maybank Planned Development project traffic volumes were then added to the 2019 No Build traffic volumes to develop 2019 Build traffic volumes, which are illustrated in Exhibit 4.3 and documented in Appendix C.



2018 BUILD PEAK HOUR TRAFFIC VOLUMES LEGEND

000 - AM Peak Hour Traffic Volumes

(000) - PM Peak Hour Traffic Volumes

5.0 Traffic Impact Analysis

Using the existing and projected traffic volumes previously discussed, intersection analyses were conducted for the study and project driveway intersections considering 2016 Existing conditions, 2019 No Build conditions, and 2019 Build conditions. This analysis was conducted using the Transportation Research Board's *Highway Capacity Manual 2010 (HCM 2010)* methodologies of the *Synchro*, Version 9 software for 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 5.1 summarizes the *HCM 2010* control delay thresholds associated with each LOS grade for unsignalized and signalized intersections.

Table 5.1 – *HCM 2010* LOS Criteria for Unsignalized & Signalized Intersections

Unsignalized Intersections	
LOS	**Control Delay Per Vehicle (seconds)**
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Signalized Intersections	
LOS	**Control Delay Per Vehicle (seconds)**
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

5.1 INTERSECTION LOS ANALYSIS

As part of the intersection analysis, SCDOT's default *Synchro* parameters were utilized. Existing peak-hour factors (PHF) were utilized in the analysis of existing and future conditions and a minimum PHF of 0.90 and maximum PHF of 0.95 being considered for future-year conditions. Existing heavy vehicle percentages, as previously discussed, were utilized in the analysis, with a minimum percentage of 2% considered. The existing lane geometry was also utilized for the analysis of existing conditions and future-year scenarios.

Using the *Synchro* software, intersection analyses were conducted for 2016 Existing conditions, 2019 No Build conditions, and 2019 Build conditions for the weekday AM peak-hour and the weekday PM peak-hour time periods.

The results of the signalized intersection analyses for existing and future-year conditions for the weekday AM and PM peak-hour time periods are summarized in Table 5.2.

Table 5.2 – Signalized Intersection Analysis Results

Intersection	Intersection Control	LOS/Delay (seconds)					
		2016 Existing Conditions		2019 No Build Conditions		2019 Build Conditions	
		AM	PM	AM	PM	AM	PM
SC 700/Maybank Highway & Wappoo Creek Drive	Signalized	A/6.5	B/12.3	A/6.9	B/15.7	A/7.0	B/15.6
SC 700/Maybank Highway & Old Folly Road	Signalized	A/7.7	A/9.6	A/9.0	B/11.0	B/10.1	B/11.8
SC 700/Maybank Highway/Country Club Drive & SC 171/Folly Road	Signalized	D/42.4	E/67.8	D/52.2	F/93.4	E/56.9	F/101.4
Old Folly Road & SC 171/Folly Road	Signalized	A/2.2	A/9.2	A/2.3	B/14.0	A/2.3	B/15.4

The results of the signalized intersection analyses indicate that the study intersections currently operate and are expected to continue to operate at an acceptable LOS with consideration of the Maybank Planned Development, with one exception.

The SC 700/Maybank Highway/Country Club Drive & SC 171/Folly Road intersection currently experiences LOS E conditions during the PM peak hour and is anticipated to experience LOS F conditions in the future, with or without the Maybank Planned Development. Project traffic is projected to be 1.8% of the total intersection traffic for the 2019 Build conditions. Due to the fact that the intersection is projected to operate at undesirable conditions and the minimal impact of the project traffic, no improvements are recommended at this time.

The results of the unsignalized intersection analyses for existing and future-year conditions for the weekday AM and PM peak-hour time periods are summarized in Table 5.3.

Table 5.3 – Unsignalized Intersection Analysis Results

Intersection	Approach	LOS/Delay (seconds)					
		2016 Peak Conditions		2019 No Build Conditions		2019 Build Conditions	
		AM	PM	AM	PM	AM	PM
SC 700/Maybank Highway & Fleming Road	EB	A/0.0	A/0.0	A/0.0	A/0.0	A/0.0	A/0.0
	WB	A/0.9	A/0.5	A/0.9	A/0.5	A/0.9	A/0.5
	NB	E/44.6	D/31.0	F/118.6	E/44.2	F/216.5	F/60.7
Fleming Road & Project Driveway	WB	-	-	A/9.0	A/8.9	A/9.1	A/9.0
	NB	-	-	A/0.0	A/0.0	A/0.0	A/0.0
	SB	-	-	A/0.6	A/1.0	A/0.6	A/1.0
SC 700/Maybank Highway & Project Driveway	EB	-	-	A/0.0	A/0.0	A/0.0	A/0.0
	WB	-	-	A/0.8	A/0.8	A/1.5	A/1.9
	NB	-	-	E/44.9	D/28.6	F/67.4	E/48.0

The results of the unsignalized intersection analyses for the SC 700/Maybank Highway & Fleming Road intersection indicate that the SC 700/Maybank Highway approaches to the intersection currently experience free-flow LOS A conditions and are expected to continue to experience free-flow LOS A conditions with the development of the project site. The northbound approach of the SC 700/Maybank Highway & Fleming Road intersection currently experiences LOS E conditions during the AM peak hour and is anticipated to experience LOS F conditions in the future, with or without consideration of the Maybank Planned Development. Future signalization of the SC 700/Maybank Highway & Fleming Road intersection would mitigate the undesirable conditions. Therefore, it is recommended that a signal warrant analysis be performed to determine if signal warrants would be met at the intersection of SC 700/Maybank Highway & Fleming Road upon completion of the project.

At the SC 700/Maybank Highway & Project Driveway intersection, the SC 700/Maybank Highway approaches to the intersection currently experience free-flow LOS A conditions and are expected to continue to experience free-flow LOS A conditions with the development of the Maybank Planned Development and the Standard. The northbound approach of the SC 700/Maybank Highway & Project Driveway intersection is projected to experience undesirable delay in the future with the development of the project site. It should be noted that the undesirable operating conditions for the SC 700/Maybank Highway & Project Driveway intersection will only impact residents and patrons of the Maybank Planned Development and the Standard. It is anticipated that future signalization of the SC 700/Maybank

Highway & Fleming Road intersection would attract additional trips from the Maybank Planned Development and the Standard, reducing the delay at the SC 700/Maybank Highway & Project Driveway intersection, as well as creating acceptable gaps for vehicles turning onto SC 700/Maybank Highway from the project site. Therefore, no improvements are recommended for the intersection at this time.

Worksheets documenting the intersection analyses are provided in Appendix D for 2016 Existing conditions, Appendix E for 2019 No Build conditions and Appendix F for 2019 Build conditions.

5.2 TURN LANE ANALYSIS

An analysis was conducted to determine the potential need for exclusive turn lanes for the proposed ingress movements at the existing project driveway intersection along Fleming Road. There is an existing right-turn lane along SC 700/Maybank Highway, which will accommodate the right-turn movement into the project. This analysis was conducted utilizing the criteria documented in SCDOT's *ARMS* manual and *Highway Design Manual* (2003).

The need for exclusive right-turn lanes is based upon the criteria documented in Section 15.5.1.1 of the *Highway Design Manual,* which consists of seven considerations. These considerations and applications for the existing project driveway along Fleming Road are listed below.

1) *at a free-flowing leg of any intersection on a two-lane urban or rural highway which satisfies the criteria in Figure 15.5A;*

   Fleming Road meets the criteria; therefore, the project driveway was analyzed for an exclusive right-turn lane using Figure 15.5A. The project driveway does not meet the criteria during either peak period. Worksheets documenting the turn lane analysis are provided in Appendix G.

2) *at the free-flowing leg of any unsignalized intersection on a high-speed, four-lane urban or rural highway which satisfies the criteria in Figure 15.5B;*

   The criteria are not applicable for Fleming Road.

3) *at any intersection where a capacity analysis determines a right-turn lane is necessary to meet the level-of-service criteria;*

   As shown in Table 5.2, the intersection is projected to operate at an acceptable LOS without an exclusive right-turn lane.

4) *at any signalized intersection where the projected right-turning volume is greater than 300 vehicles per hour and where there is greater than 300 vehicles per hour per lane on the mainline;*

   The intersection is not signalized and is not projected to experience greater than 300 right-turning vehicles per hour; therefore, this consideration is not applicable.

5) *for uniformity of intersection design along the highway if other intersections have right-turn lanes;*

   There are no right-turn lanes along Fleming Road at nearby intersections; therefore, this consideration is not met.

6) *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*

   The intersection is not near railroad facilities; therefore, this consideration is not applicable.

7) *at any intersection where the crash experience, existing traffic operations, sight distance restrictions, or engineering judgment indicates a significant conflict related to right turning vehicles.*

   No issues with crashes, traffic operations, or sight distance are known; therefore, this consideration is not applicable.

Based on the *Highway Design Manual* considerations for the project driveways, an exclusive northbound right-turn lane along Fleming Road at the project driveway is not recommended at this time.

The existing right-turn lane along SC 700/Maybank Highway will serve the eastbound right-turn movement at the project driveway.

The need for exclusive left-turn lanes is based upon the criteria documented in Section 15.5.1.2 of the *Highway Design Manual,* which consists of six considerations. These considerations and applications for the proposed project driveway along Fleming Road are listed below. There is an existing two-way, left-turn lane along SC 700/Maybank Highway, which will accommodate the left-turn movement into the project.

1) *at any unsignalized intersection on a two-lane urban or rural highway which satisfies the criteria in Figures 15.5C, 15.5D, 15.5E, 15.5F, 15.5G;*

   The criteria are not applicable for Fleming Road.

2) *at any signalized intersection. At locations where you have 300 vehicles per hour, consider a traffic review to determine if dual left-turn lanes are required;*

   The project driveway intersection is not signalized; therefore, this consideration is not applicable.

3) *at all entrances to major residential, commercial and industrial developments;*

   The development is not a major residential, commercial, or industrial development; therefore, this consideration is not applicable.

4) *at all median crossovers;*

   There is no median along Fleming Road; therefore, this consideration is not applicable.

5) *for uniformity of intersection design along the highway if other intersections have left-turn lanes (i.e., to satisfy driver expectancy);or*

   There are no other left-turn lanes along Fleming Road at nearby intersections; therefore, this consideration is not applicable.

6) *at any intersection where crash experience, traffic operations, sight distance restrictions (e.g., intersection beyond a crest vertical curve), or engineering judgment indicates a significant conflict related to left-turning vehicles.*

   No issues with crashes, traffic operations, or sight distance are known; therefore, this consideration is not applicable.

Based on the *Highway Design Manual* considerations for the project driveways, an exclusive left-turn lane along Fleming Road at the project driveway is not recommended at this time.

The existing two-way left-turn lane along SC 700/Maybank Highway will serve the westbound left-turn movement at the project driveway.

6.0 Summary of Findings and Recommendations

A traffic impact analysis was conducted for the Maybank Planned Development in accordance with City of Charleston and SCDOT guidelines. The proposed Maybank Planned Development is located on the south side of SC 700/Maybank Highway between Fleming Road and Wappoo Creek Drive in the City of Charleston, South Carolina and is proposed to consist of 270 apartments.

Access to the development will be provided through one existing full access driveway along SC 700/Maybank Highway and one existing full access driveway along Fleming Road. These driveways will be shared with the adjacent development, The Standard.

The results of the signalized intersection analyses indicate that the study intersections currently operate and are expected to continue to operate at an acceptable LOS with consideration of the Maybank Planned Development, with one exception. The SC 700/Maybank Highway/Country Club Drive & SC 171/Folly Road intersection currently experiences LOS E conditions during the PM peak hour and is anticipated to experience LOS F conditions in the future, with or without the project. Project traffic is projected to be 1.8% of the total intersection traffic for the 2019 Build conditions. Due to the fact that the intersection is projected to operate at undesirable conditions and the minimal impact of the project traffic, no improvements are recommended at this time.

The results of the unsignalized intersection analyses show the SC 700/Maybank Highway approaches to the intersections with Fleming Road and the Project Driveway currently experience free-flow LOS A conditions and are expected to continue to experience free-flow LOS A conditions with the development of the project site. The northbound approach of the SC 700/Maybank Highway & Fleming Road intersection currently experiences LOS E conditions during the AM peak hour and is anticipated to experience LOS F conditions in the future with or without consideration of the Maybank Planned Development. The northbound approach of the SC 700/Maybank Highway & Project Driveway intersection is projected to experience undesirable delay in the future with the development of the project site. Future signalization of the SC 700/Maybank Highway & Fleming Road intersection would mitigate the undesirable condition at both intersections. Therefore, it is recommended that a signal warrant analysis be performed to determine if signal warrants would be met at the intersection of SC 700/Maybank Highway & Fleming Road upon completion of the Maybank Planned Development and The Standard.

Based on the *Highway Design Manual* considerations for the project driveways, exclusive ingress turn lanes along Fleming Road at the project driveway are not recommended at this time. The existing right-turn lane along SC 700/Maybank Highway will serve the eastbound right-turn movement at the project driveway and the existing two-way left-turn lane along SC 700/Maybank Highway will serve the westbound left-turn movement at the project driveway.

Appendix A

Trip Generation Worksheet

TRIP GENERATION ESTIMATES

Maybank Planned Development

Weekday Daily

TRIP GENERATION CHARACTERISTICS						DIRECT. DISTRIB.		GROSS TRIPS			INTERNAL CAPTURE TRIPS				PASS-BY CAPTURE TRIPS				NEW EXTERNAL TRIPS		
Land Use	Ed.	LUC	Scale	Unit	Equation/Rate	In	Out	In	Out	Total	%	In	Out	Trips	%	In	Out	Trips	In	Out	Total
Apartment	9th	220	278	DU	T=6.06(X) + 123.56	50%	50%	904	904	1,808	12%	113	113	226	0%	0	0	0	791	791	1,582
Shopping Center	9th	820	7.5	ksf	Ln(T)=0.65 Ln(X) + 5.83	50%	50%	631	630	1,261	18%	113	113	226	34%	176	176	352	342	341	683
							Total:	1,535	1,534	3,069	15%	226	226	452	11%	176	176	352	1,133	1,132	2,265

Weekday AM Peak Hour

TRIP GENERATION CHARACTERISTICS						DIRECT. DISTRIB.		GROSS TRIPS			INTERNAL CAPTURE TRIPS				PASS-BY CAPTURE TRIPS				NEW EXTERNAL TRIPS		
Land Use	Ed.	LUC	Scale	Unit	Equation/Rate	In	Out	In	Out	Total	%	In	Out	Trips	%	In	Out	Trips	In	Out	Total
Apartment	9th	220	278	DU	T=0.49(X) + 3.73	20%	80%	28	112	140	1%	1	1	2	0%	0	0	0	27	111	138
Shopping Center	9th	820	7.5	ksf	Ln(T)=0.61 Ln(X)+2.24	62%	38%	20	12	32	6%	1	1	2	34%	5	5	10	14	6	20
							Total:	48	124	172	2%	2	2	4	6%	5	5	10	41	117	158

Weekday PM Peak Hour

TRIP GENERATION CHARACTERISTICS						DIRECT. DISTRIB.		GROSS TRIPS			INTERNAL CAPTURE TRIPS				PASS-BY CAPTURE TRIPS				NEW EXTERNAL TRIPS		
Land Use	Ed.	LUC	Scale	Unit	Equation/Rate	In	Out	In	Out	Total	%	In	Out	Trips	%	In	Out	Trips	In	Out	Total
Apartment	9th	220	278	DU	T=0.55(X) + 17.65	65%	35%	111	60	171	11%	14	5	19	0%	0	0	0	97	55	152
Shopping Center	9th	820	7.5	ksf	Ln(T)=0.67 Ln(X) + 3.31	48%	52%	51	55	106	18%	5	14	19	34%	15	15	30	31	26	57
							Total:	162	115	277	14%	19	19	38	11%	15	15	30	128	81	209

Appendix B

Traffic Count Data

Short Counts

735 Maryland St.
Columbia, SC 29201

You Can Count On Us!

Default Comments
Change These in The Preferences Window
Select File/Preference in the Main Scree
Then Click the Comments Tab

File Name : Folly Rd @ Maybank-Country Club
Site Code : 08252015
Start Date : 8/25/2015
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bank 2

	Folly Rd Southbound				Country Club Dr Westbound				Folly Rd Northbound				Maybank Hwy Eastbound				
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Int. Total
07:00	2	115	117	47	2	2	0	0	0	206	2	0	328	0	0	0	821
07:15	3	135	108	49	1	0	2	0	0	284	0	1	280	12	0	1	876
07:30	1	145	103	48	0	0	6	0	0	332	1	0	334	0	0	0	970
07:45	2	173	134	43	2	0	4	0	0	281	8	0	343	0	0	0	990
Total	8	568	462	187	5	2	12	0	0	1103	11	1	1285	12	0	1	3657
08:00	4	166	174	55	0	1	2	0	0	351	46	0	303	1	0	0	1103
08:15	5	137	185	82	2	0	1	0	0	296	3	1	352	0	0	0	1064
08:30	13	206	183	58	1	0	4	0	0	281	6	0	298	0	0	0	1050
08:45	11	168	126	45	3	0	3	0	0	270	3	0	271	1	0	0	901
Total	33	677	668	240	6	1	10	0	0	1198	58	1	1224	2	0	0	4118
16:00	6	271	180	132	9	3	5	0	0	185	2	0	240	0	0	0	1033
16:15	7	408	188	102	6	7	4	0	0	213	1	0	272	0	0	0	1208
16:30	4	355	209	119	7	1	8	0	0	185	0	0	243	0	0	0	1131
16:45	7	429	250	111	2	2	1	0	0	218	0	0	202	0	0	0	1222
Total	24	1463	827	464	24	13	18	0	0	801	3	0	957	0	0	0	4594
17:00	8	440	214	135	5	3	1	0	0	209	0	0	256	1	0	0	1272
17:15	10	454	219	134	7	0	6	0	0	211	0	0	272	0	0	0	1313
17:30	9	534	252	131	3	1	4	0	0	207	1	0	236	14	0	0	1392
17:45	6	535	193	163	5	4	2	0	0	192	2	0	263	0	0	0	1365
Total	33	1963	878	563	20	8	13	0	0	819	3	0	1027	15	0	0	5342
Grand Total	98	4671	2835	1454	55	24	53	0	0	3921	75	2	4493	29	0	1	17711
Apprch %	1.1	51.6	31.3	16.1	41.7	18.2	40.2	0	0	98.1	1.9	0.1	99.3	0.6	0	0	
Total %	0.6	26.4	16	8.2	0.3	0.1	0.3	0	0	22.1	0.4	0	25.4	0.2	0	0	
Passenger Vehicles	98	4657	2818	1446	55	24	52	0	0	3902	75	2	4473	29	0	1	17632
% Passenger Vehicles	100	99.7	99.4	99.4	100	100	98.1	0	0	99.5	100	100	99.6	100	0	100	99.6
Heavy Vehicles	0	14	17	8	0	0	1	0	0	19	0	0	20	0	0	0	79
% Heavy Vehicles	0	0.3	0.6	0.6	0	0	1.9	0	0	0.5	0	0	0.4	0	0	0	0.4
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Short Counts

735 Maryland St.
Columbia, SC 29201

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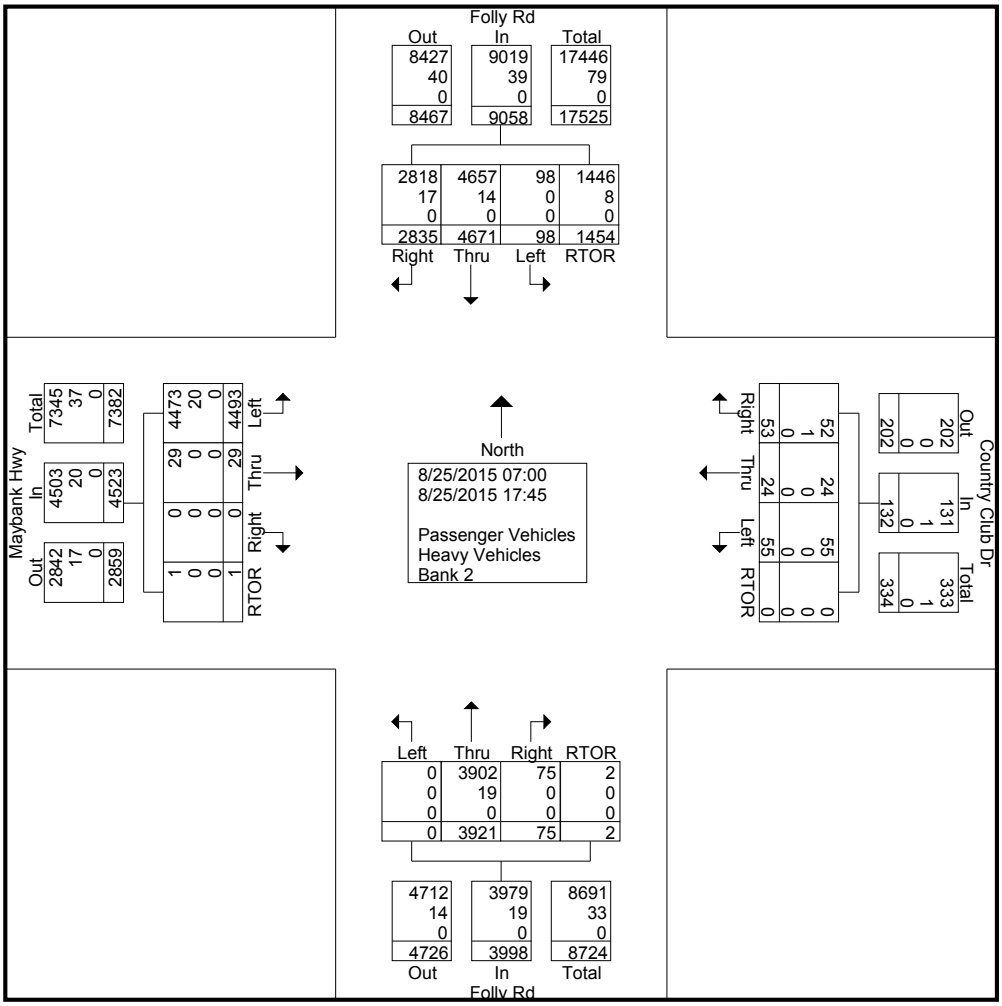
File Name : Folly Rd @ Maybank-Country Club
Site Code : 08252015
Start Date : 8/25/2015
Page No : 2



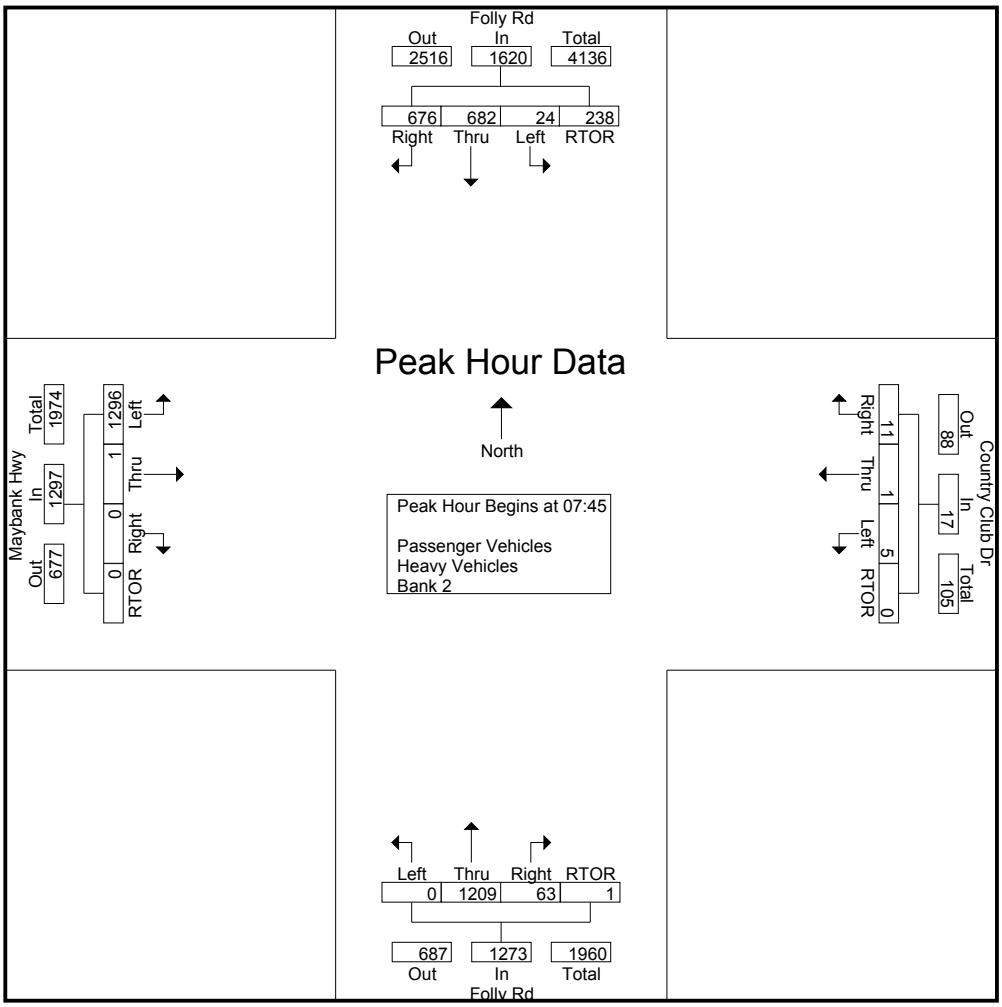
Short Counts

735 Maryland St.
Columbia, SC 29201

You Can Count On Us!

File Name : Folly Rd @ Maybank-Country Club
Site Code : 08252015
Start Date : 8/25/2015
Page No : 3

	Folly Rd Southbound					Country Club Dr Westbound					Folly Rd Northbound					Maybank Hwy Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	2	173	134	43	352	**2**	0	**4**	0	**6**	0	281	8	0	289	343	0	0	0	343	990
08:00	4	166	174	55	399	0	**1**	2	0	3	0	**351**	**46**	0	**397**	303	**1**	0	0	304	**1103**
08:15	5	137	**185**	**82**	409	2	0	1	0	3	0	296	3	**1**	300	**352**	0	0	0	**352**	1064
08:30	**13**	**206**	183	58	**460**	1	0	4	0	5	0	281	6	0	287	298	0	0	0	298	1050
Total Volume	24	682	676	238	1620	5	1	11	0	17	0	1209	63	1	1273	1296	1	0	0	1297	4207
% App. Total	1.5	42.1	41.7	14.7		29.4	5.9	64.7	0		0	95	4.9	0.1		99.9	0.1	0	0		
PHF	.462	.828	.914	.726	.880	.625	.250	.688	.000	.708	.000	.861	.342	.250	.802	.920	.250	.000	.000	.921	.954



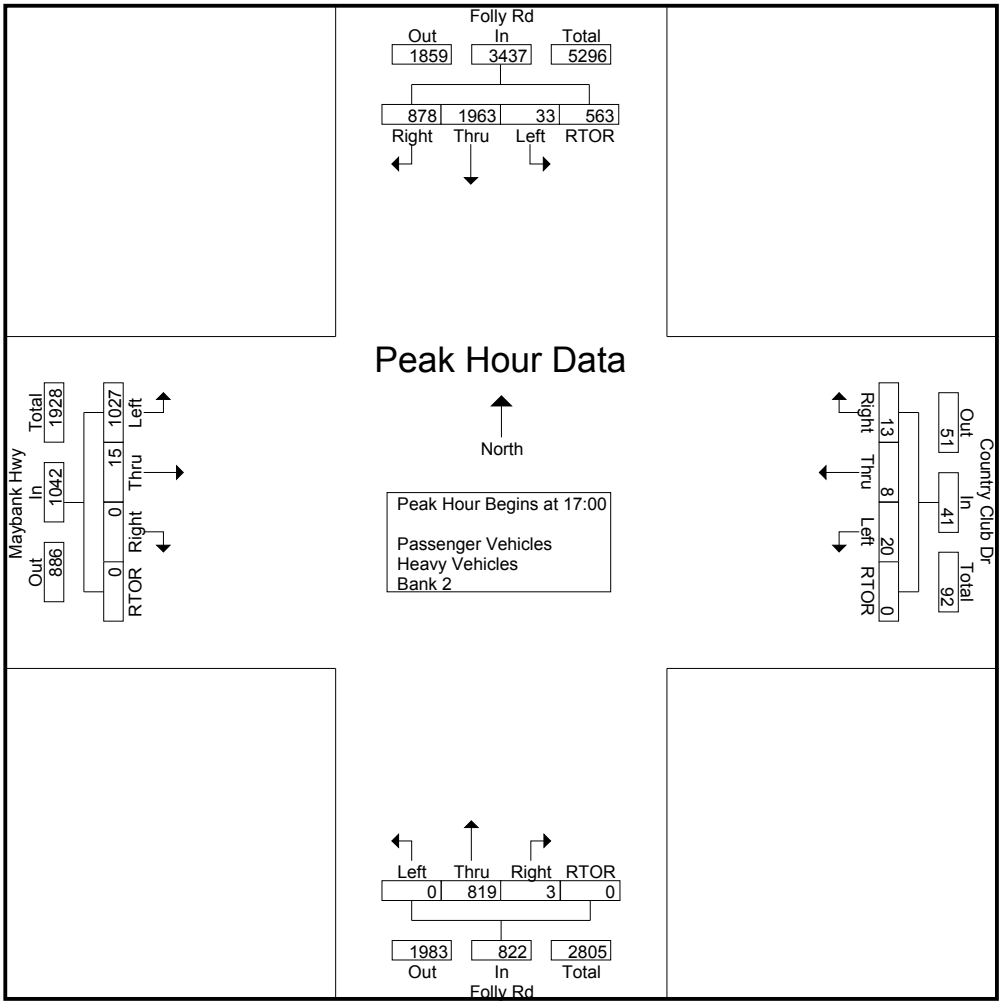
Short Counts

735 Maryland St.
Columbia, SC 29201

You Can Count On Us!

File Name : Folly Rd @ Maybank-Country Club
Site Code : 08252015
Start Date : 8/25/2015
Page No : 4

	Folly Rd Southbound					Country Club Dr Westbound					Folly Rd Northbound					Maybank Hwy Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	8	440	214	135	797	5	3	1	0	9	0	209	0	0	209	256	1	0	0	257	1272
17:15	**10**	454	219	134	817	**7**	0	**6**	0	**13**	0	**211**	0	0	**211**	**272**	0	0	0	**272**	1313
17:30	9	534	**252**	131	**926**	3	1	4	0	8	0	207	1	0	208	236	**14**	0	0	250	**1392**
17:45	6	**535**	193	**163**	897	5	**4**	2	0	11	0	192	**2**	0	194	263	0	0	0	263	1365
Total Volume	33	1963	878	563	3437	20	8	13	0	41	0	819	3	0	822	1027	15	0	0	1042	5342
% App. Total	1	57.1	25.5	16.4		48.8	19.5	31.7	0		0	99.6	0.4	0		98.6	1.4	0	0		
PHF	.825	.917	.871	.863	.928	.714	.500	.542	.000	.788	.000	.970	.375	.000	.974	.944	.268	.000	.000	.958	.959



Short Counts

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Then Click the Comments Tab

File Name : Folly Rd @ Old Folly Rd
Site Code : 08262015
Start Date : 8/26/2015
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bank 2

	Folly Rd Southbound				Westbound				Folly Rd Northbound				Old Folly Rd Eastbound				
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Int. Total
07:00	0	127	3	0	0	0	0	0	46	226	0	0	0	0	5	80	487
07:15	0	136	3	0	0	0	0	0	52	231	0	0	0	0	11	102	535
07:30	0	146	3	0	0	0	0	0	67	360	0	0	0	0	11	52	639
07:45	0	181	3	0	0	0	0	0	64	305	0	0	0	0	7	42	602
Total	0	590	12	0	0	0	0	0	229	1122	0	0	0	0	34	276	2263
08:00	0	150	8	0	0	0	0	0	61	353	0	2	0	0	7	65	646
08:15	0	158	0	0	0	0	0	0	72	262	0	1	0	0	16	77	586
08:30	0	182	7	0	0	0	0	0	98	252	0	0	0	0	2	65	606
08:45	0	133	11	0	0	0	0	0	66	188	0	0	0	0	25	79	502
Total	0	623	26	0	0	0	0	0	297	1055	0	3	0	0	50	286	2340
16:00	0	271	4	0	0	0	0	0	127	176	0	0	0	0	34	56	668
16:15	0	325	5	0	0	0	0	0	130	195	0	0	0	0	23	58	736
16:30	0	300	9	0	0	0	0	0	118	204	0	1	0	0	35	86	753
16:45	0	322	1	0	0	0	0	0	127	197	0	0	0	0	29	49	725
Total	0	1218	19	0	0	0	0	0	502	772	0	1	0	0	121	249	2882
17:00	0	330	8	0	0	0	0	0	139	231	0	1	0	0	24	65	798
17:15	0	324	9	0	0	0	0	0	127	204	0	0	0	0	29	86	779
17:30	0	404	3	0	0	0	0	0	120	179	0	0	0	0	31	59	796
17:45	0	280	8	0	0	0	0	0	110	150	0	0	0	0	31	26	605
Total	0	1338	28	0	0	0	0	0	496	764	0	1	0	0	115	236	2978
Grand Total	0	3769	85	0	0	0	0	0	1524	3713	0	5	0	0	320	1047	10463
Apprch %	0	97.8	2.2	0	0	0	0	0	29.1	70.8	0	0.1	0	0	23.4	76.6	
Total %	0	36	0.8	0	0	0	0	0	14.6	35.5	0	0	0	0	3.1	10	
Passenger Vehicles	0	3757	84	0	0	0	0	0	1512	3696	0	5	0	0	320	1044	10418
% Passenger Vehicles	0	99.7	98.8	0	0	0	0	0	99.2	99.5	0	100	0	0	100	99.7	99.6
Heavy Vehicles	0	12	1	0	0	0	0	0	12	17	0	0	0	0	0	3	45
% Heavy Vehicles	0	0.3	1.2	0	0	0	0	0	0.8	0.5	0	0	0	0	0	0.3	0.4
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Short Counts

735 Maryland St.
Columbia, SC 29201
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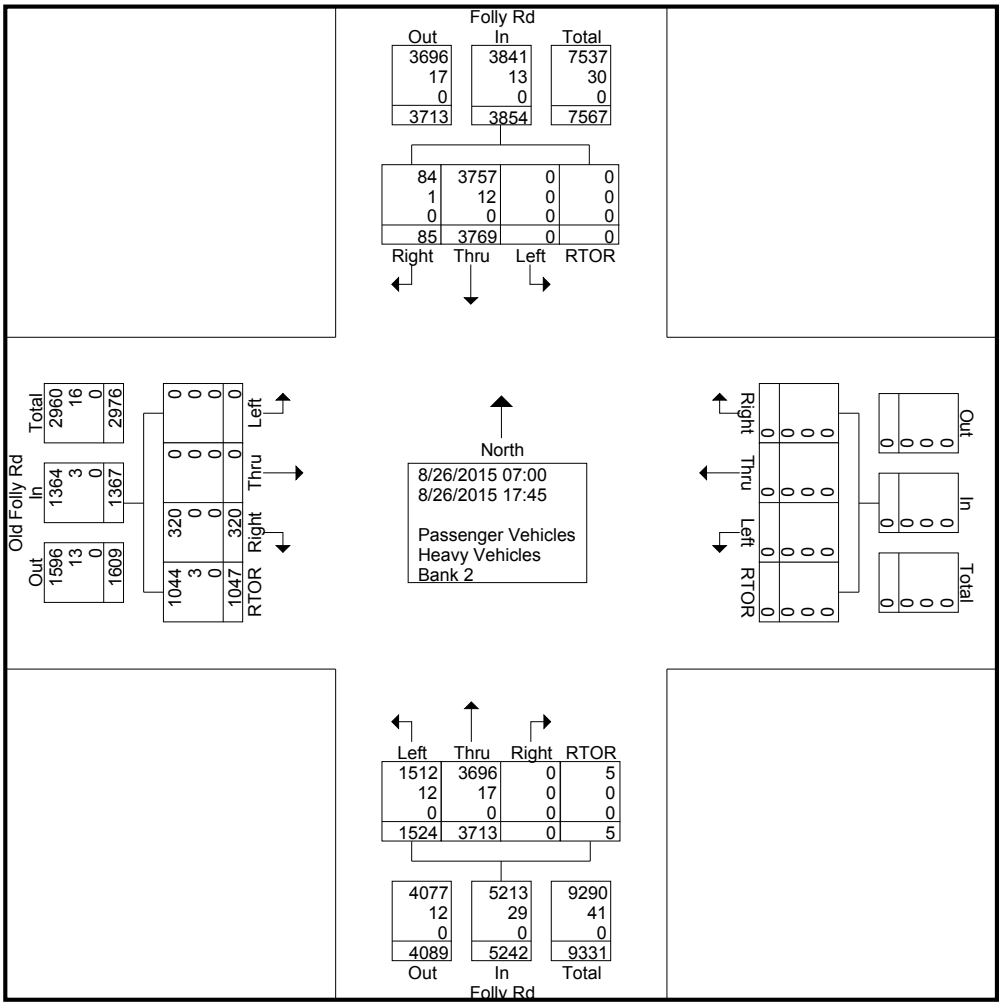
File Name : Folly Rd @ Old Folly Rd
Site Code : 08262015
Start Date : 8/26/2015
Page No : 2



Short Counts

735 Maryland St.
Columbia, SC 29201
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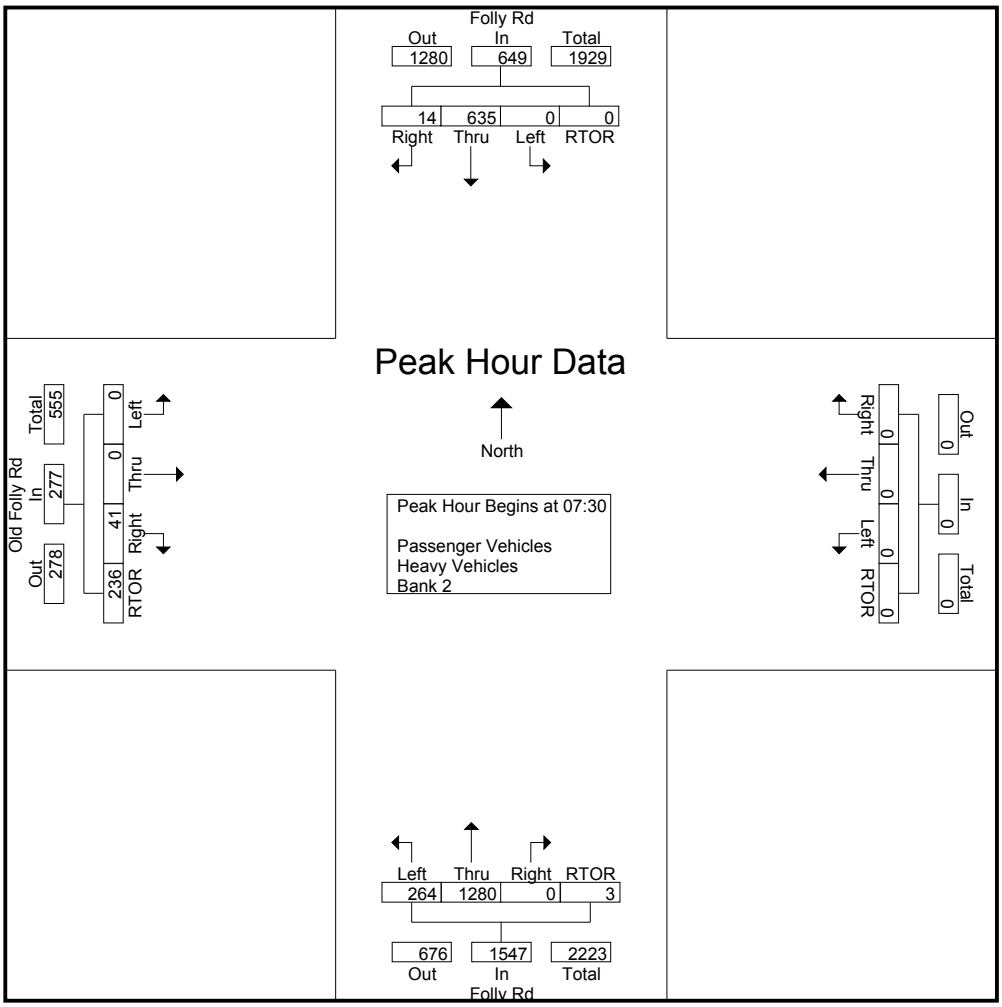
File Name : Folly Rd @ Old Folly Rd
Site Code : 08262015
Start Date : 8/26/2015
Page No : 3

	Folly Rd Southbound					Westbound					Folly Rd Northbound					Old Folly Rd Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	146	3	0	149	0	0	0	0	0	67	**360**	0	0	**427**	0	0	11	52	63	639
07:45	0	**181**	3	0	**184**	0	0	0	0	0	64	305	0	0	369	0	0	7	42	49	602
08:00	0	150	**8**	0	158	0	0	0	0	0	61	353	0	**2**	416	0	0	7	65	72	**646**
08:15	0	158	0	0	158	0	0	0	0	0	**72**	262	0	1	335	0	0	**16**	**77**	**93**	586
Total Volume	0	635	14	0	649	0	0	0	0	0	264	1280	0	3	1547	0	0	41	236	277	2473
% App. Total	0	97.8	2.2	0		0	0	0	0		17.1	82.7	0	0.2		0	0	14.8	85.2		
PHF	.000	.877	.438	.000	.882	.000	.000	.000	.000	.000	.917	.889	.000	.375	.906	.000	.000	.641	.766	.745	.957



Short Counts

735 Maryland St.
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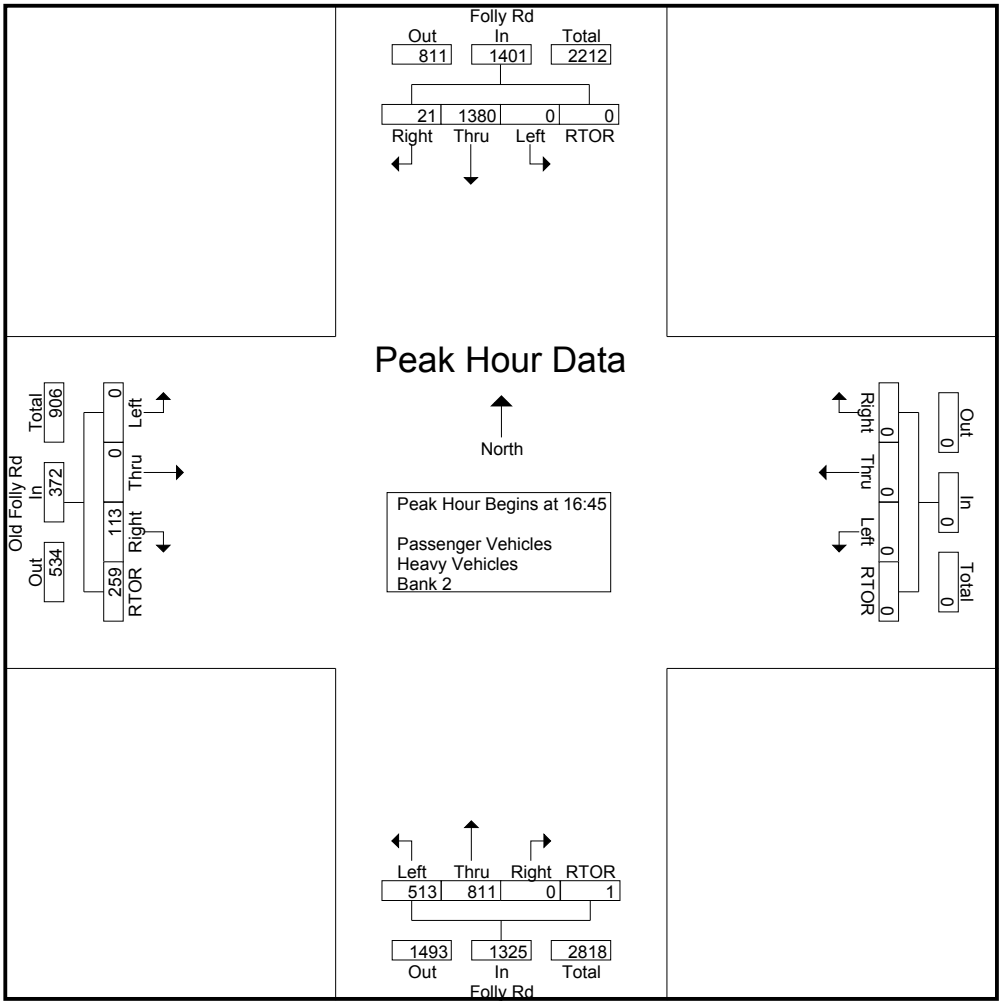
File Name : Folly Rd @ Old Folly Rd
Site Code : 08262015
Start Date : 8/26/2015
Page No : 4

	Folly Rd Southbound					Westbound					Folly Rd Northbound					Old Folly Rd Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	322	1	0	323	0	0	0	0	0	127	197	0	0	324	0	0	29	49	78	725
17:00	0	330	8	0	338	0	0	0	0	0	**139**	**231**	0	**1**	**371**	0	0	24	65	89	**798**
17:15	0	324	**9**	0	333	0	0	0	0	0	127	204	0	0	331	0	0	29	**86**	**115**	779
17:30	0	**404**	3	0	**407**	0	0	0	0	0	120	179	0	0	299	0	0	**31**	59	90	796
Total Volume	0	1380	21	0	1401	0	0	0	0	0	513	811	0	1	1325	0	0	113	259	372	3098
% App. Total	0	98.5	1.5	0		0	0	0	0		38.7	61.2	0	0.1		0	0	30.4	69.6		
PHF	.000	.854	.583	.000	.861	.000	.000	.000	.000	.000	.923	.878	.000	.250	.893	.000	.000	.911	.753	.809	.971



Short Counts

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File Name : Maybank @ Old Folly Rd
Site Code : 08252015
Start Date : 8/25/2015
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bank 2

	Business Southbound				Maybank Hwy Westbound				Old Folly Rd Northbound				Maybank Hwy Eastbound				
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Int. Total
07:00	0	0	0	1	0	128	0	0	28	0	0	0	1	303	62	2	525
07:15	0	0	0	0	0	138	0	0	28	0	2	0	0	263	75	6	512
07:30	0	0	0	0	0	118	0	0	54	0	2	0	0	353	56	3	586
07:45	0	0	0	0	0	163	0	0	56	0	0	0	0	306	35	5	565
Total	0	0	0	1	0	547	0	0	166	0	4	0	1	1225	228	16	2188
08:00	0	0	0	0	0	141	0	0	59	0	0	0	0	295	57	6	558
08:15	0	0	0	1	0	171	0	0	56	0	1	0	0	272	63	10	574
08:30	0	0	0	0	0	167	0	0	68	0	1	0	0	278	65	9	588
08:45	0	0	0	1	0	133	0	0	63	0	0	0	0	196	59	7	459
Total	0	0	0	2	0	612	0	0	246	0	2	0	0	1041	244	32	2179
16:00	0	0	0	0	0	282	0	0	121	0	1	0	1	220	67	12	704
16:15	0	0	0	0	0	284	0	0	112	0	1	0	0	244	85	4	730
16:30	0	0	0	0	0	307	0	0	129	0	0	0	0	205	60	3	704
16:45	0	0	0	0	0	300	0	0	81	0	0	2	0	212	69	4	668
Total	0	0	0	0	0	1173	0	0	443	0	2	2	1	881	281	23	2806
17:00	0	0	0	0	0	313	0	0	112	0	1	0	0	236	67	4	733
17:15	0	0	0	0	0	321	0	0	109	0	0	0	0	219	68	6	723
17:30	0	0	0	0	0	335	0	0	88	0	1	5	0	226	61	1	717
17:45	0	0	0	0	0	337	0	0	103	0	1	0	0	178	70	6	695
Total	0	0	0	0	0	1306	0	0	412	0	3	5	0	859	266	17	2868
Grand Total	0	0	0	3	0	3638	0	0	1267	0	11	7	2	4006	1019	88	10041
Apprch %	0	0	0	100	0	100	0	0	98.6	0	0.9	0.5	0	78.3	19.9	1.7	
Total %	0	0	0	0	0	36.2	0	0	12.6	0	0.1	0.1	0	39.9	10.1	0.9	
Passenger Vehicles	0	0	0	0	0	3585	0	0	1251	0	8	6	2	3954	1003	86	9895
% Passenger Vehicles	0	0	0	0	0	98.5	0	0	98.7	0	72.7	85.7	100	98.7	98.4	97.7	98.5
Heavy Vehicles	0	0	0	0	0	46	0	0	13	0	1	1	0	48	13	1	123
% Heavy Vehicles	0	0	0	0	0	1.3	0	0	1	0	9.1	14.3	0	1.2	1.3	1.1	1.2
Bank 2	0	0	0	3	0	7	0	0	3	0	2	0	0	4	3	1	23
% Bank 2	0	0	0	100	0	0.2	0	0	0.2	0	18.2	0	0	0.1	0.3	1.1	0.2

Short Counts

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File Name : Maybank @ Old Folly Rd
Site Code : 08252015
Start Date : 8/25/2015
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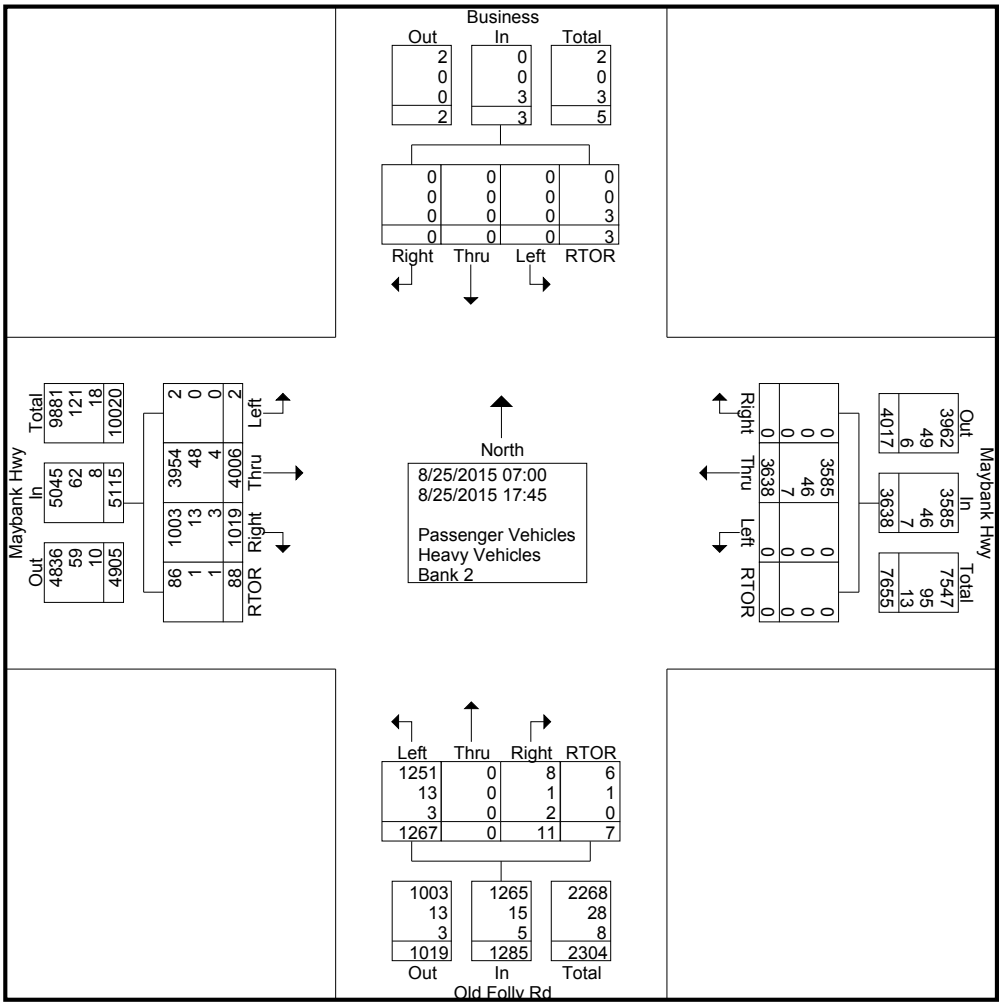

Short Counts

735 Maryland St.
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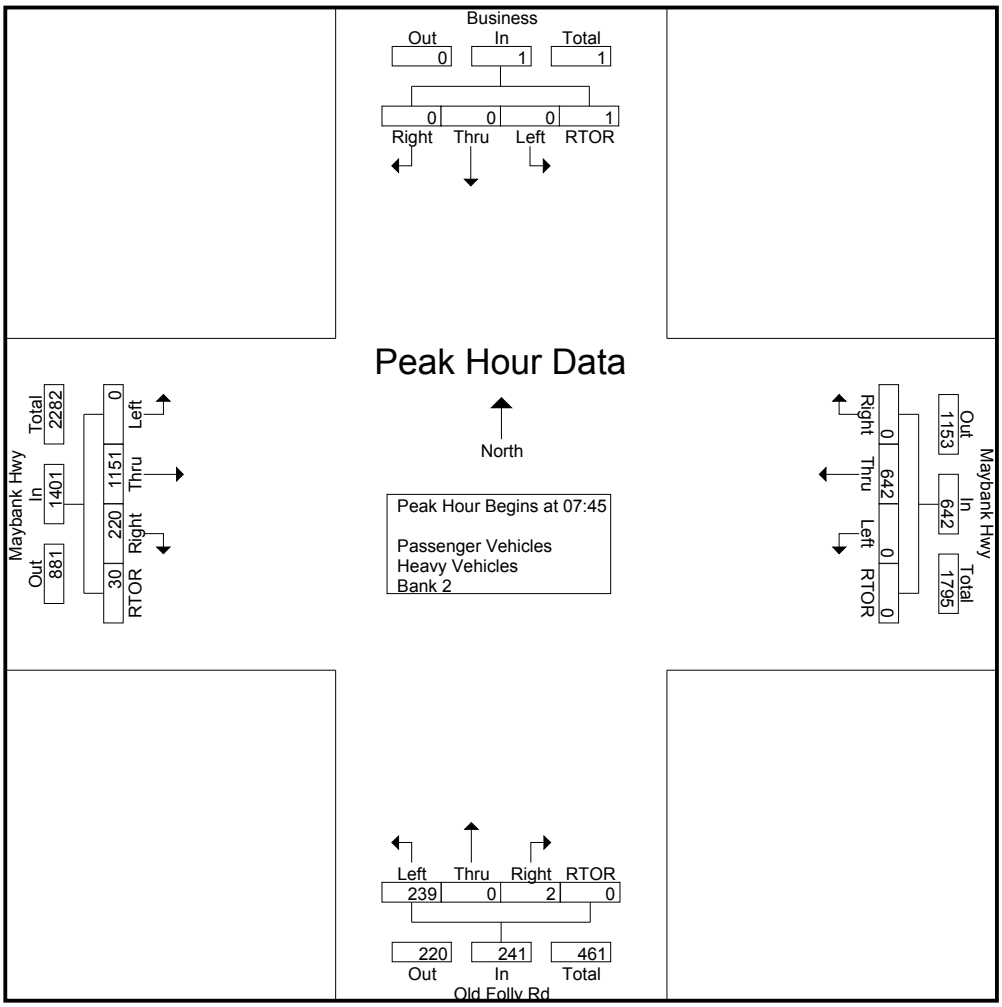
File Name : Maybank @ Old Folly Rd
Site Code : 08252015
Start Date : 8/25/2015
Page No : 3

	Business Southbound					Maybank Hwy Westbound					Old Folly Rd Northbound					Maybank Hwy Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	0	0	0	0	0	0	163	0	0	163	56	0	0	0	56	0	**306**	35	5	346	565
08:00	0	0	0	0	0	0	141	0	0	141	59	0	0	0	59	0	295	57	6	**358**	558
08:15	0	0	0	**1**	**1**	0	**171**	0	0	**171**	56	0	**1**	0	57	0	272	63	**10**	345	574
08:30	0	0	0	0	0	0	167	0	0	167	**68**	0	1	0	**69**	0	278	**65**	9	352	**588**
Total Volume	0	0	0	1	1	0	642	0	0	642	239	0	2	0	241	0	1151	220	30	1401	2285
% App. Total	0	0	0	100		0	100	0	0		99.2	0	0.8	0		0	82.2	15.7	2.1		
PHF	.000	.000	.000	.250	.250	.000	.939	.000	.000	.939	.879	.000	.500	.000	.873	.000	.940	.846	.750	.978	.972



Short Counts

735 Maryland St.
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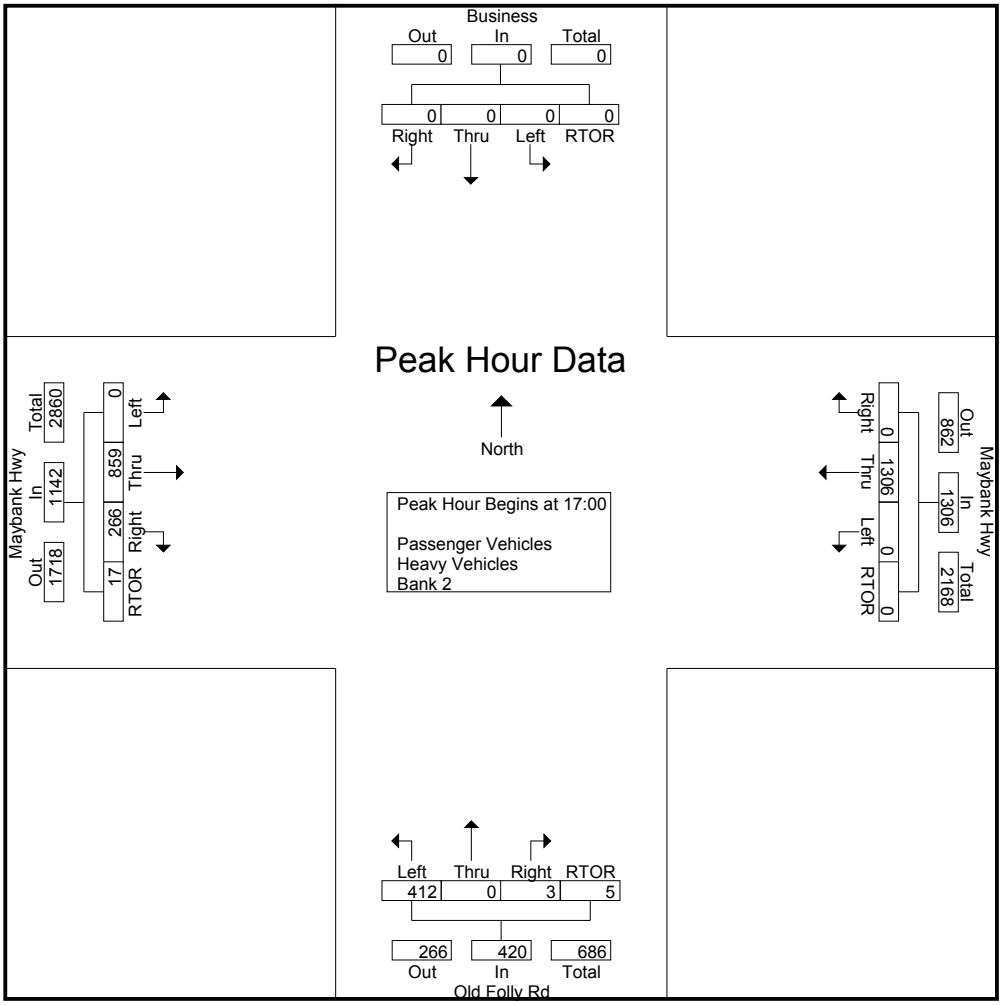
File Name : Maybank @ Old Folly Rd
Site Code : 08252015
Start Date : 8/25/2015
Page No : 4

	Business Southbound					Maybank Hwy Westbound					Old Folly Rd Northbound					Maybank Hwy Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	0	0	0	0	0	0	313	0	0	313	**112**	0	**1**	0	**113**	0	**236**	67	4	**307**	**733**
17:15	0	0	0	0	0	0	321	0	0	321	109	0	0	0	109	0	219	68	**6**	293	723
17:30	0	0	0	0	0	0	335	0	0	335	88	0	1	**5**	94	0	226	61	1	288	717
17:45	0	0	0	0	0	0	**337**	0	0	**337**	103	0	1	0	104	0	178	**70**	6	254	695
Total Volume	0	0	0	0	0	0	1306	0	0	1306	412	0	3	5	420	0	859	266	17	1142	2868
% App. Total	0	0	0	0		0	100	0	0		98.1	0	0.7	1.2		0	75.2	23.3	1.5		
PHF	.000	.000	.000	.000	.000	.000	.969	.000	.000	.969	.920	.000	.750	.250	.929	.000	.910	.950	.708	.930	.978



Short Counts

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File Name : Maybank Hwy @ Wappoo Creek Pl
Site Code : 08262015
Start Date : 8/26/2015
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Bank 2

	Wappoo Creek Pl Southbound				Maybank Hwy Westbound				Shopping Center Northbound				Maybank Hwy Eastbound				
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Int. Total
07:00	2	0	0	0	5	185	2	0	5	0	2	0	2	433	4	0	640
07:15	5	0	2	0	4	255	11	0	3	0	3	0	9	424	2	0	718
07:30	5	0	5	0	4	195	12	0	1	1	0	0	12	433	1	0	669
07:45	4	0	1	0	1	181	16	0	8	3	1	0	5	384	5	0	609
Total	16	0	8	0	14	816	41	0	17	4	6	0	28	1674	12	0	2636
08:00	4	0	2	0	5	216	14	0	5	1	4	0	15	411	4	0	681
08:15	7	0	1	0	6	259	27	0	6	5	1	0	5	426	2	0	745
08:30	9	1	1	0	10	229	30	0	6	1	4	0	14	380	3	0	688
08:45	6	0	0	0	5	182	50	0	10	2	2	0	9	355	2	0	623
Total	26	1	4	0	26	886	121	0	27	9	11	0	43	1572	11	0	2737
16:00	16	1	0	0	3	195	43	0	4	0	0	0	2	165	1	0	430
16:15	24	0	6	0	2	400	11	0	5	0	2	0	11	185	4	0	650
16:30	50	0	1	0	11	356	7	0	5	2	1	0	14	239	6	0	692
16:45	70	0	3	0	7	347	11	0	12	1	1	0	4	202	8	0	666
Total	160	1	10	0	23	1298	72	0	26	3	4	0	31	791	19	0	2438
17:00	52	0	9	0	8	383	12	0	13	0	2	0	11	273	9	0	772
17:15	38	0	6	0	3	386	7	0	8	2	0	0	9	227	9	0	695
17:30	41	0	2	0	7	399	12	0	19	0	1	0	6	227	6	0	720
17:45	22	0	1	0	5	346	8	0	13	1	1	0	4	205	7	0	613
Total	153	0	18	0	23	1514	39	0	53	3	4	0	30	932	31	0	2800
Grand Total	355	2	40	0	86	4514	273	0	123	19	25	0	132	4969	73	0	10611
Apprch %	89.4	0.5	10.1	0	1.8	92.6	5.6	0	73.7	11.4	15	0	2.6	96	1.4	0	
Total %	3.3	0	0.4	0	0.8	42.5	2.6	0	1.2	0.2	0.2	0	1.2	46.8	0.7	0	
Passenger Vehicles	352	2	39	0	86	4438	273	0	122	19	25	0	131	4912	71	0	10470
% Passenger Vehicles	99.2	100	97.5	0	100	98.3	100	0	99.2	100	100	0	99.2	98.9	97.3	0	98.7
Heavy Vehicles	3	0	1	0	0	76	0	0	1	0	0	0	1	57	2	0	141
% Heavy Vehicles	0.8	0	2.5	0	0	1.7	0	0	0.8	0	0	0	0.8	1.1	2.7	0	1.3
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Short Counts

735 Maryland St.
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File Name : Maybank Hwy @ Wappoo Creek Pl
Site Code : 08262015
Start Date : 8/26/2015
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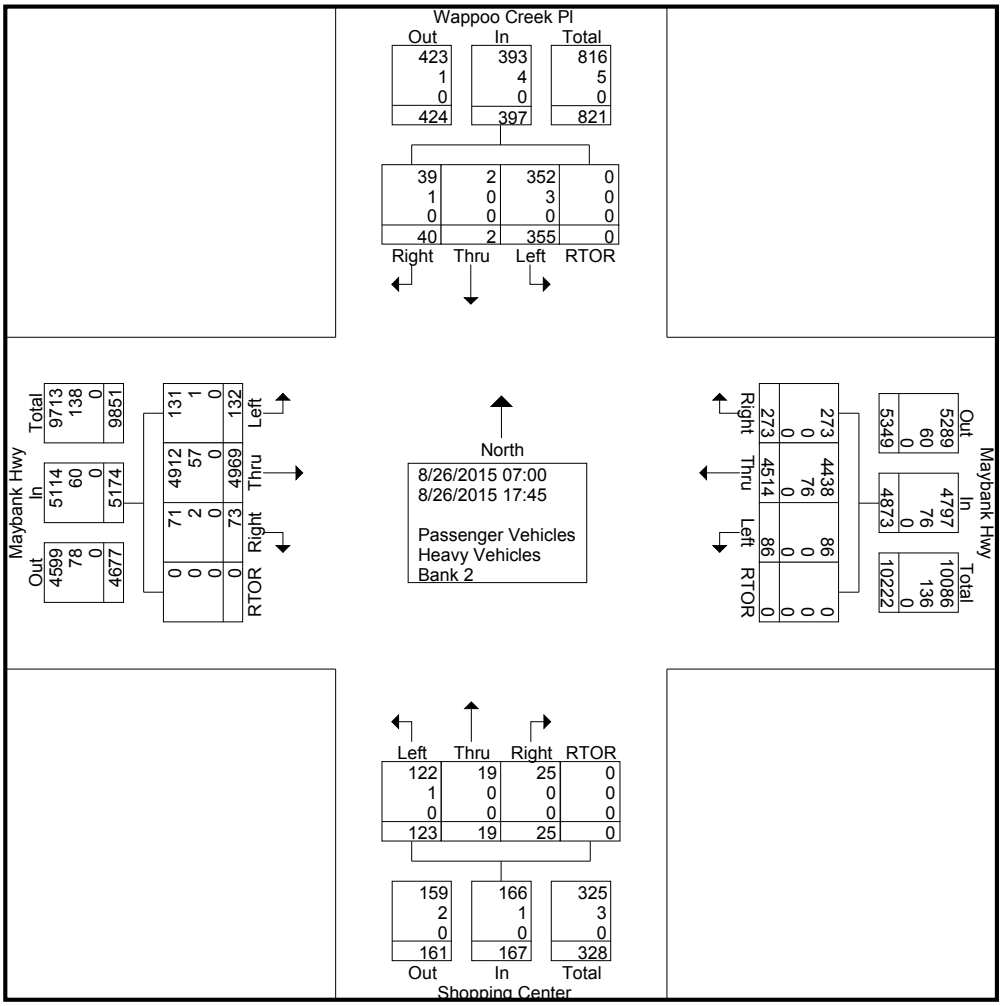

Short Counts

735 Maryland St.
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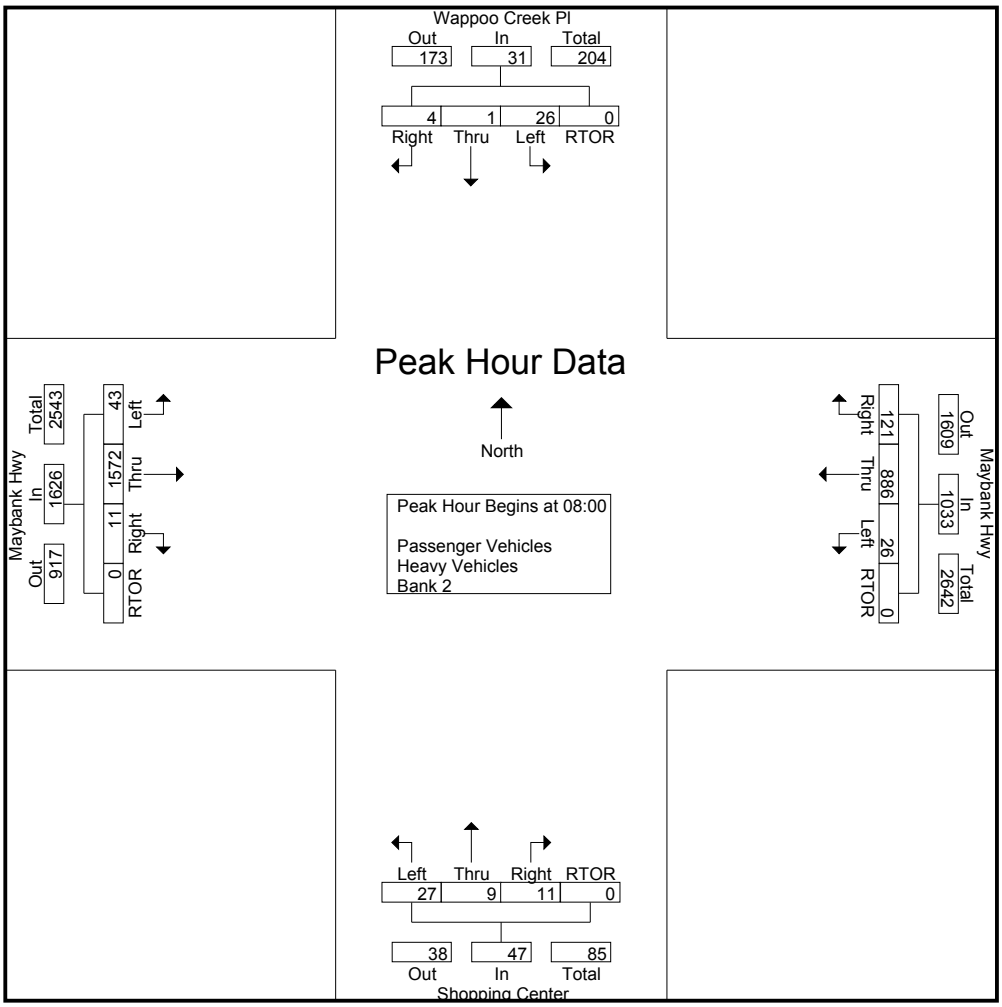
You Can Count On Us!

File Name : Maybank Hwy @ Wappoo Creek Pl
Site Code : 08262015
Start Date : 8/26/2015
Page No : 3

	Wappoo Creek Pl Southbound					Maybank Hwy Westbound					Shopping Center Northbound					Maybank Hwy Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	4	0	**2**	0	6	5	216	14	0	235	5	1	**4**	0	10	**15**	411	**4**	0	430	681
08:15	7	0	1	0	8	6	**259**	27	0	**292**	6	**5**	1	0	12	5	**426**	2	0	**433**	**745**
08:30	**9**	**1**	1	0	**11**	**10**	229	30	0	269	6	1	4	0	11	14	380	3	0	397	688
08:45	6	0	0	0	6	5	182	**50**	0	237	**10**	2	2	0	**14**	9	355	2	0	366	623
Total Volume	26	1	4	0	31	26	886	121	0	1033	27	9	11	0	47	43	1572	11	0	1626	2737
% App. Total	83.9	3.2	12.9	0		2.5	85.8	11.7	0		57.4	19.1	23.4	0		2.6	96.7	0.7	0		
PHF	.722	.250	.500	.000	.705	.650	.855	.605	.000	.884	.675	.450	.688	.000	.839	.717	.923	.688	.000	.939	.918



Short Counts

735 Maryland St.
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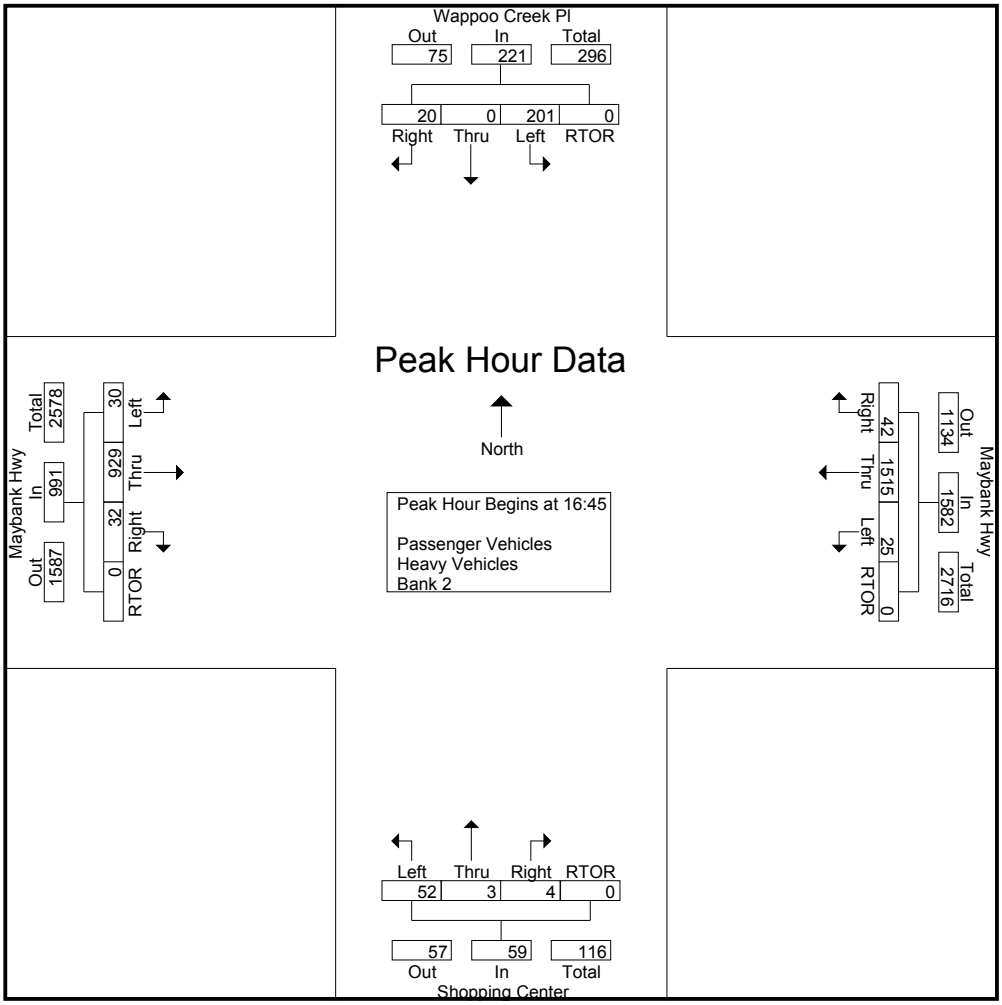
File Name : Maybank Hwy @ Wappoo Creek Pl
Site Code : 08262015
Start Date : 8/26/2015
Page No : 4

	Wappoo Creek Pl Southbound					Maybank Hwy Westbound					Shopping Center Northbound					Maybank Hwy Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	**70**	0	3	0	**73**	7	347	11	0	365	12	1	1	0	14	4	202	8	0	214	666
17:00	52	0	**9**	0	61	**8**	383	**12**	0	403	13	0	**2**	0	15	**11**	**273**	**9**	0	**293**	**772**
17:15	38	0	6	0	44	3	386	7	0	396	8	**2**	0	0	10	9	227	9	0	245	695
17:30	41	0	2	0	43	7	**399**	12	0	**418**	**19**	0	1	0	**20**	6	227	6	0	239	720
Total Volume	201	0	20	0	221	25	1515	42	0	1582	52	3	4	0	59	30	929	32	0	991	2853
% App. Total	91	0	9	0		1.6	95.8	2.7	0		88.1	5.1	6.8	0		3	93.7	3.2	0		
PHF	.718	.000	.556	.000	.757	.781	.949	.875	.000	.946	.684	.375	.500	.000	.738	.682	.851	.889	.000	.846	.924



Short Counts

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File Name : Maybank @ Fleming
Site Code : 01162013
Start Date : 1/16/2013
Page No : 1

Groups Printed- Unshifted

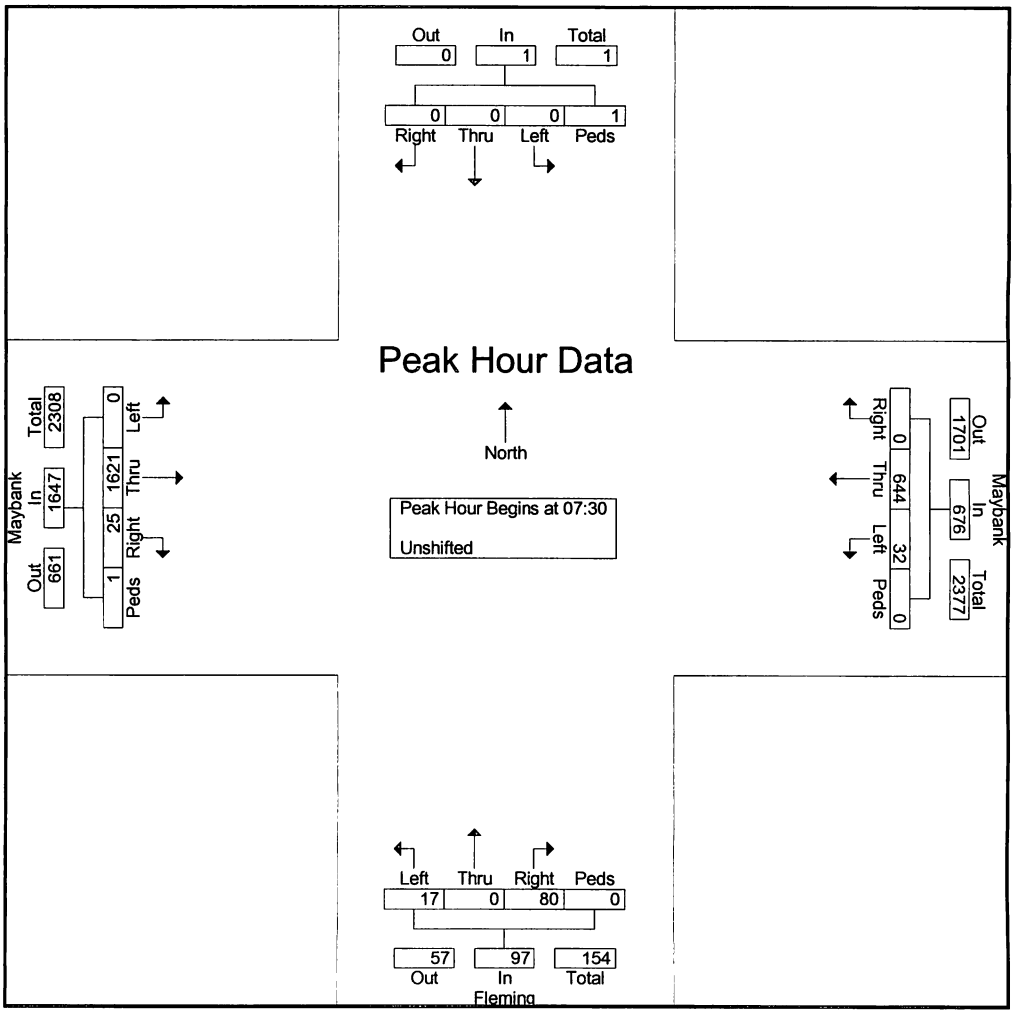
	Southbound				Maybank Westbound				Fleming Northbound				Maybank Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	0	0	0	0	9	110	0	1	6	0	6	0	0	290	5	0	427
07:15	0	0	0	0	13	108	0	0	4	0	12	0	0	365	10	0	512
07:30	0	0	0	0	11	159	0	0	4	0	18	0	0	418	3	0	613
07:45	0	0	0	0	7	136	0	0	3	0	20	0	0	437	10	0	613
Total	0	0	0	0	40	513	0	1	17	0	56	0	0	1510	28	0	2165
08:00	0	0	0	0	9	189	0	0	7	0	26	0	0	388	11	0	630
08:15	0	0	0	1	5	160	0	0	3	0	16	0	0	378	1	1	565
08:30	0	0	0	0	10	143	0	0	5	0	15	0	0	399	3	0	575
08:45	0	0	0	0	6	164	0	0	3	0	15	0	0	303	6	0	497
Total	0	0	0	1	30	656	0	0	18	0	72	0	0	1468	21	1	2267
16:00	0	0	0	0	18	275	0	0	7	0	19	0	0	201	3	0	523
16:15	0	0	0	0	18	307	0	0	9	0	14	0	0	177	15	0	540
16:30	0	0	0	0	15	284	0	0	9	0	19	0	0	203	6	0	536
16:45	0	0	0	0	10	338	0	0	7	0	15	0	0	207	8	0	585
Total	0	0	0	0	61	1204	0	0	32	0	67	0	0	788	32	0	2184
17:00	0	0	0	0	17	330	0	0	10	0	12	0	0	208	12	0	589
17:15	0	0	0	0	15	335	0	0	15	0	15	0	0	207	10	0	597
17:30	0	0	0	0	15	372	0	0	9	0	13	0	0	263	5	0	677
17:45	0	0	0	0	20	398	0	0	11	0	13	0	0	209	9	0	660
Total	0	0	0	0	67	1435	0	0	45	0	53	0	0	887	36	0	2523
Grand Total	0	0	0	1	198	3808	0	1	112	0	248	0	0	4653	117	1	9139
Apprch %	0	0	0	100	4.9	95	0	0	31.1	0	68.9	0	0	97.5	2.5	0	
Total %	0	0	0	0	2.2	41.7	0	0	1.2	0	2.7	0	0	50.9	1.3	0	

Short Counts

735 Maryland St.
Columbia, SC 29201
You Can Count On Us!

File Name : Maybank @ Fleming
Site Code : 01162013
Start Date : 1/16/2013
Page No : 3

	Southbound					Maybank Westbound					Fleming Northbound					Maybank Eastbound					
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 Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	0	0	0	0	**11**	159	0	0	170	4	0	18	0	22	0	418	3	0	421	613
07:45	0	0	0	0	0	7	136	0	0	143	3	0	20	0	23	0	**437**	10	0	**447**	613
08:00	0	0	0	0	0	9	**189**	0	0	**198**	**7**	0	**26**	0	**33**	0	388	**11**	0	399	**630**
08:15	0	0	0	**1**	**1**	5	160	0	0	165	3	0	16	0	19	0	378	1	**1**	380	565
Total Volume	0	0	0	1	1	32	644	0	0	676	17	0	80	0	97	0	1621	25	1	1647	2421
% App. Total	0	0	0	100		4.7	95.3	0	0		17.5	0	82.5	0		0	98.4	1.5	0.1		
PHF	.000	.000	.000	.250	.250	.727	.852	.000	.000	.854	.607	.000	.769	.000	.735	.000	.927	.568	.250	.921	.961

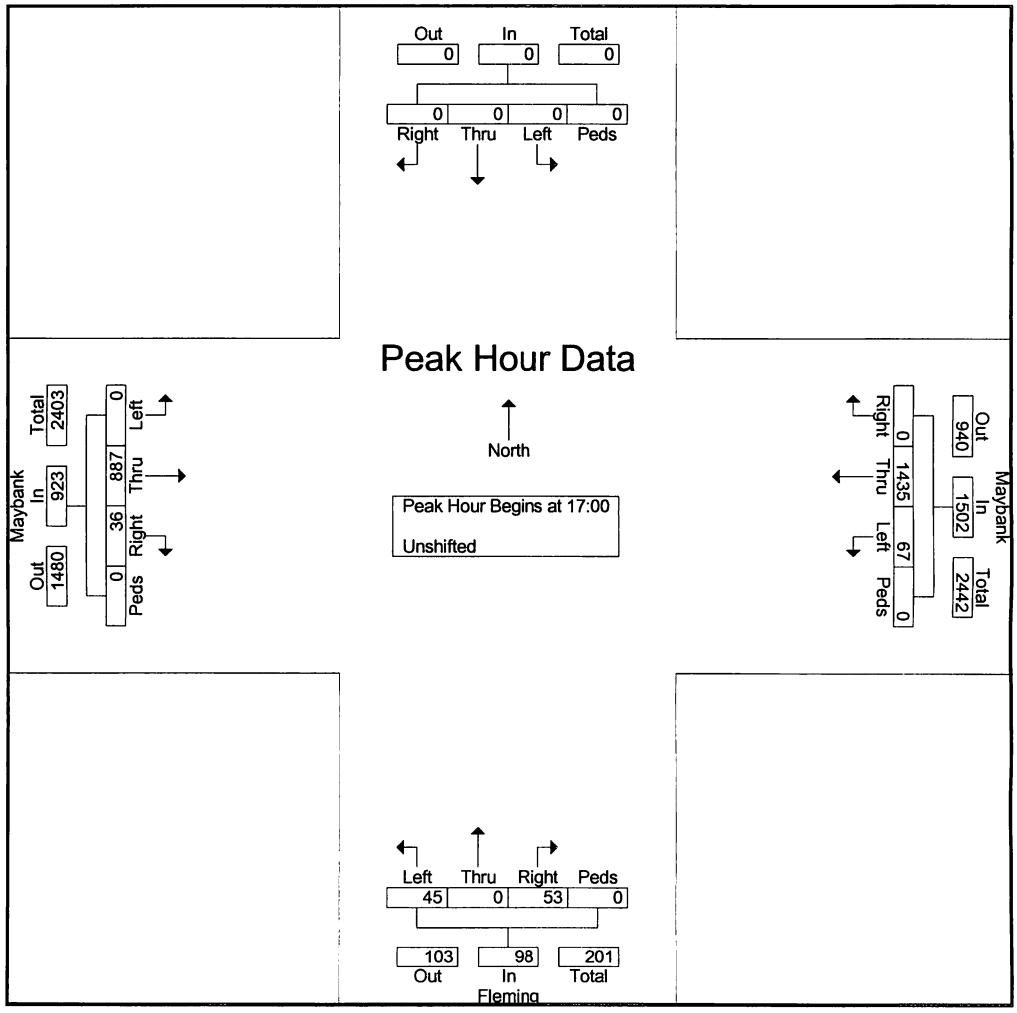


Short Counts

735 Maryland St.
Columbia, SC 29201
You Can Count On Us!

File Name : Maybank @ Fleming
Site Code : 01162013
Start Date : 1/16/2013
Page No : 4

	Southbound					Maybank Westbound					Fleming Northbound					Maybank Eastbound					
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 Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	0	0	0	0	0	17	330	0	0	347	10	0	12	0	22	0	208	**12**	0	220	589
17:15	0	0	0	0	0	15	335	0	0	350	**15**	0	**15**	0	**30**	0	207	10	0	217	597
17:30	0	0	0	0	0	15	372	0	0	387	9	0	13	0	22	0	**263**	5	0	**268**	**677**
17:45	0	0	0	0	0	**20**	**398**	0	0	**418**	11	0	13	0	24	0	209	9	0	218	660
Total Volume	0	0	0	0	0	67	1435	0	0	1502	45	0	53	0	98	0	887	36	0	923	2523
% App. Total	0	0	0	0		4.5	95.5	0	0		45.9	0	54.1	0		0	96.1	3.9	0		
PHF	.000	.000	.000	.000	.000	.838	.901	.000	.000	.898	.750	.000	.883	.000	.817	.000	.843	.750	.000	.861	.932



Appendix C

Traffic Volume Development Worksheets

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Maybank Highway & Fleming Road

TRAFFIC CONTROL: Unsignalized

DATE COUNTED:

AM PEAK HOUR (7:30-8:30 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES		1654	26	33	657		17		82			
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	17	0	0	7	0	0	0	1	0	0	0
2016 TRAFFIC VOLUMES	**0**	**1671**	**26**	**33**	**664**	**0**	**17**	**0**	**83**	**0**	**0**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	51	1	1	20	0	1	0	3	0	0	0
Vested Traffic		25	5		35		17		20			
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**1,746**	**32**	**34**	**719**	**0**	**35**	**0**	**105**	**0**	**0**	**0**
New Project Traffic		10			10		19					
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**1,756**	**32**	**34**	**729**	**0**	**54**	**0**	**105**	**0**	**0**	**0**

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES		905	37	68	1464		46		54			
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	9	0	1	15	0	0	0	1	0	0	0
2016 TRAFFIC VOLUMES	**0**	**914**	**37**	**69**	**1479**	**0**	**46**	**0**	**55**	**0**	**0**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	28	1	2	45	0	1	0	2	0	0	0
Vested Traffic		47	17		35		9		11			
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**989**	**56**	**71**	**1,558**	**0**	**57**	**0**	**67**	**0**	**0**	**0**
New Project Traffic		32			7		13					
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**1,021**	**56**	**71**	**1,565**	**0**	**70**	**0**	**67**	**0**	**0**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Maybank Highway & Project Driveway

TRAFFIC CONTROL: Unsignalized

DATE COUNTED:

AM PEAK HOUR (7:30-8:30 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES		1626			917							
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	16	0	0	9	0	0	0	0	0	0	0
2016 TRAFFIC VOLUMES	**0**	**1642**	**0**	**0**	**926**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	50	0	0	28	0	0	0	0	0	0	0
Vested Traffic		20	25	40			35		79			
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**1,712**	**25**	**40**	**954**	**0**	**35**	**0**	**79**	**0**	**0**	**0**
New Project Traffic			10	31			10		88			
Pass-By Project Traffic		-3	3	2	-2		2		3			
2019 BUILD TRAFFIC VOLUMES	**0**	**1,709**	**38**	**73**	**952**	**0**	**47**	**0**	**170**	**0**	**0**	**0**

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES		**991**			**1587**							
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	10	0	0	16	0	0	0	0	0	0	0
2016 TRAFFIC VOLUMES	**0**	**1001**	**0**	**0**	**1603**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	30	0	0	49	0	0	0	0	0	0	0
Vested Traffic		11	47	109			35		59			
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**1,042**	**47**	**109**	**1,651**	**0**	**35**	**0**	**59**	**0**	**0**	**0**
New Project Traffic			32	96			7		61			
Pass-By Project Traffic		-8	8	7	-7		7		8			
2019 BUILD TRAFFIC VOLUMES	**0**	**1,034**	**87**	**212**	**1,644**	**0**	**49**	**0**	**128**	**0**	**0**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Maybank Highway & Wappoo Creek Drive

TRAFFIC CONTROL: Signalized

DATE COUNTED: Wednesday August 26, 2015

AM PEAK HOUR (8:00-9:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	43	1572	11	26	886	121	27	9	11	26	1	4
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	16	0	0	9	1	0	0	0	0	0	0
2016 TRAFFIC VOLUMES	**43**	**1588**	**11**	**26**	**895**	**122**	**27**	**9**	**11**	**26**	**1**	**4**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	1	48	0	1	27	4	1	0	0	1	0	0
Vested Traffic		99			40							
2019 NO-BUILD TRAFFIC VOLUMES	**45**	**1,735**	**11**	**27**	**962**	**126**	**28**	**9**	**11**	**27**	**1**	**4**
New Project Traffic		88			31							
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**45**	**1,823**	**11**	**27**	**993**	**126**	**28**	**9**	**11**	**27**	**1**	**4**

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	30	929	32	25	1515	42	52	3	4	201	0	20
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	9	0	0	15	0	1	0	0	2	0	0
2016 TRAFFIC VOLUMES	**30**	**938**	**32**	**25**	**1530**	**42**	**53**	**3**	**4**	**203**	**0**	**20**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	1	28	1	1	46	1	2	0	0	6	0	1
Vested Traffic		70			109							
2019 NO-BUILD TRAFFIC VOLUMES	**31**	**1,037**	**33**	**26**	**1,686**	**44**	**54**	**3**	**4**	**209**	**0**	**21**
New Project Traffic		61			96							
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**31**	**1,098**	**33**	**26**	**1,782**	**44**	**54**	**3**	**4**	**209**	**0**	**21**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Maybank Highway & Old Folly Road

TRAFFIC CONTROL: Signalized

DATE COUNTED: Tuesday August 25, 2015

AM PEAK HOUR (7:45-8:45 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	0	1151	250	0	642	0	239	0	2	0	0	0
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	12	3	0	6	0	2	0	0	0	0	0
2016 TRAFFIC VOLUMES	**0**	**1163**	**253**	**0**	**648**	**0**	**241**	**0**	**2**	**0**	**0**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	35	8	0	20	0	7	0	0	0	0	0
Vested Traffic		66	33		27		13					
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**1,264**	**293**	**0**	**695**	**0**	**262**	**0**	**2**	**0**	**0**	**0**
New Project Traffic		59	29		21		10					
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**1,323**	**322**	**0**	**716**	**0**	**272**	**0**	**2**	**0**	**0**	**0**

PM PEAK HOUR (5:00-6:00 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	0	859	283	0	1306	0	412	0	8	0	0	0
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	9	3	0	13	0	4	0	0	0	0	0
2016 TRAFFIC VOLUMES	**0**	**868**	**286**	**0**	**1319**	**0**	**416**	**0**	**8**	**0**	**0**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	26	9	0	40	0	13	0	0	0	0	0
Vested Traffic		47	23		73		36					
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**941**	**317**	**0**	**1,432**	**0**	**465**	**0**	**8**	**0**	**0**	**0**
New Project Traffic		41	20		64		32					
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**982**	**337**	**0**	**1,496**	**0**	**497**	**0**	**8**	**0**	**0**	**0**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Maybank Highway & Folly Road

TRAFFIC CONTROL: Signalized

DATE COUNTED: Tuesday August 25, 2015

AM PEAK HOUR (7:45-8:45 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	1296	1	0	5	1	11	0	1209	64	24	682	914
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	13	0	0	0	0	0	0	12	1	0	7	9
2016 TRAFFIC VOLUMES	**1309**	**1**	**0**	**5**	**1**	**11**	**0**	**1221**	**65**	**24**	**689**	**923**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	40	0	0	0	0	0	0	37	2	1	21	28
Vested Traffic	66											27
2019 NO-BUILD TRAFFIC VOLUMES	**1,415**	**1**	**0**	**5**	**1**	**11**	**0**	**1,258**	**67**	**25**	**710**	**978**
New Project Traffic	59											21
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**1,474**	**1**	**0**	**5**	**1**	**11**	**0**	**1,258**	**67**	**25**	**710**	**999**

PM PEAK HOUR (5:00-6:00 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	1027	15	0	20	8	13	0	819	3	33	1963	1441
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	10	0	0	0	0	0	0	8	0	0	20	14
2016 TRAFFIC VOLUMES	**1037**	**15**	**0**	**20**	**8**	**13**	**0**	**827**	**3**	**33**	**1983**	**1455**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	31	0	0	1	0	0	0	25	0	1	60	44
Vested Traffic	47											73
2019 NO-BUILD TRAFFIC VOLUMES	**1,116**	**16**	**0**	**21**	**8**	**14**	**0**	**852**	**3**	**34**	**2,043**	**1,573**
New Project Traffic	41											64
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**1,157**	**16**	**0**	**21**	**8**	**14**	**0**	**852**	**3**	**34**	**2,043**	**1,637**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Old Folly Road & Folly Road

TRAFFIC CONTROL: Signalized

DATE COUNTED: Wednesday August 26, 2015

AM PEAK HOUR (7:30-8:30 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	0	0	277	0	0	0	264	1280	0	0	635	14
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	3	0	0	0	3	13	0	0	6	0
2016 TRAFFIC VOLUMES	**0**	**0**	**280**	**0**	**0**	**0**	**267**	**1293**	**0**	**0**	**641**	**14**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	8	0	0	0	8	39	0	0	19	0
Vested Traffic			33				13					
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**0**	**321**	**0**	**0**	**0**	**288**	**1,332**	**0**	**0**	**661**	**15**
New Project Traffic			29				10					
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**0**	**350**	**0**	**0**	**0**	**298**	**1,332**	**0**	**0**	**661**	**15**

PM PEAK HOUR (4:45-5:45 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2015 TRAFFIC VOLUMES	0	0	372	0	0	0	513	811	0	0	1380	21
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	4	0	0	0	5	8	0	0	14	0
2016 TRAFFIC VOLUMES	**0**	**0**	**376**	**0**	**0**	**0**	**518**	**819**	**0**	**0**	**1394**	**21**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	11	0	0	0	16	25	0	0	42	1
Vested Traffic			23				36					
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**0**	**410**	**0**	**0**	**0**	**570**	**844**	**0**	**0**	**1,436**	**22**
New Project Traffic			20				32					
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**0**	**430**	**0**	**0**	**0**	**602**	**844**	**0**	**0**	**1,436**	**22**

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Fleming Road & Project Driveway

TRAFFIC CONTROL: Unsignalized

DATE COUNTED:

AM PEAK HOUR (7:30-8:30 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2016 TRAFFIC VOLUMES								**99**			**59**	
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	0	0	0	0	0	1	0	0	1	0
2016 TRAFFIC VOLUMES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**0**	**0**	**60**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	0	0	0	0	0	3	0	0	2	0
Vested Traffic						37				5		
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**0**	**0**	**0**	**0**	**37**	**0**	**103**	**0**	**5**	**61**	**0**
New Project Traffic						19						
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**0**	**0**	**0**	**0**	**56**	**0**	**103**	**0**	**5**	**61**	**0**

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2016 TRAFFIC VOLUMES								**100**			**105**	
Years To Current (2016)	1	1	1	1	1	1	1	1	1	1	1	1
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	0	0	0	0	0	1	0	0	1	0
2016 TRAFFIC VOLUMES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**101**	**0**	**0**	**106**	**0**
Years To Buildout (2019)	3	3	3	3	3	3	3	3	3	3	3	3
Yearly Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Background Traffic Growth	0	0	0	0	0	0	0	3	0	0	3	0
Vested Traffic						20				17		
2019 NO-BUILD TRAFFIC VOLUMES	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**104**	**0**	**17**	**109**	**0**
New Project Traffic						13						
Pass-By Project Traffic												
2019 BUILD TRAFFIC VOLUMES	**0**	**0**	**0**	**0**	**0**	**33**	**0**	**104**	**0**	**17**	**109**	**0**

Appendix D

Analysis Worksheets (2016 Existing Conditions)

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1671	26	33	664	17	83
Future Vol, veh/h	1671	26	33	664	17	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1857	29	37	738	19	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1886	0	2313	943
Stage 1	-	-	-	-	1871	-
Stage 2	-	-	-	-	442	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	314	-	32	264
Stage 1	-	-	-	-	107	-
Stage 2	-	-	-	-	615	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	314	-	28	264
Mov Cap-2 Maneuver	-	-	-	-	88	-
Stage 1	-	-	-	-	107	-
Stage 2	-	-	-	-	543	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	44.6
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	197	-	-	314	-
HCM Lane V/C Ratio	0.564	-	-	0.117	-
HCM Control Delay (s)	44.6	-	-	18	-
HCM Lane LOS	E	-	-	C	-
HCM 95th %tile Q(veh)	3	-	-	0.4	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	0	100	0	0	60
Future Vol, veh/h	0	0	100	0	0	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	111	0	0	67

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	178	111	0	0	111	0
Stage 1	111	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	812	942	-	-	1479	-
Stage 1	914	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	812	942	-	-	1479	-
Mov Cap-2 Maneuver	812	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1479	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1642	0	0	926	0	0
Future Vol, veh/h	1642	0	0	926	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1824	0	0	1029	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1824	0	2338	912
Stage 1	-	-	-	-	1824	-
Stage 2	-	-	-	-	514	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	332	-	31	276
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	565	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	332	-	31	276
Mov Cap-2 Maneuver	-	-	-	-	94	-
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	565	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	332	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1588	11	26	895	122	27	9	11	26	1	4
Future Volume (veh/h)	43	1588	11	26	895	122	27	9	11	26	1	4
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	47	1726	12	28	973	133	29	10	12	28	1	4
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	420	2386	17	246	2344	1049	181	41	32	275	7	141
Arrive On Green	0.66	0.66	0.66	0.66	0.66	0.66	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	508	3603	25	277	3539	1583	718	464	364	1443	82	1583
Grp Volume(v), veh/h	47	847	891	28	973	133	51	0	0	29	0	4
Grp Sat Flow(s),veh/h/ln	508	1770	1858	277	1770	1583	1546	0	0	1526	0	1583
Q Serve(g_s), s	2.3	15.0	15.0	3.5	6.2	1.5	0.7	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	8.5	15.0	15.0	18.5	6.2	1.5	1.4	0.0	0.0	0.7	0.0	0.1
Prop In Lane	1.00		0.01	1.00		1.00	0.57		0.24	0.97		1.00
Lane Grp Cap(c), veh/h	420	1172	1231	246	2344	1049	255	0	0	283	0	141
V/C Ratio(X)	0.11	0.72	0.72	0.11	0.42	0.13	0.20	0.00	0.00	0.10	0.00	0.03
Avail Cap(c_a), veh/h	420	1172	1231	246	2345	1049	622	0	0	621	0	524
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.8	5.3	5.3	11.3	3.8	3.0	20.7	0.0	0.0	20.4	0.0	20.1
Incr Delay (d2), s/veh	0.1	2.2	2.1	0.2	0.1	0.1	0.4	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.8	8.2	0.3	3.0	0.6	0.7	0.0	0.0	0.4	0.0	0.1
LnGrp Delay(d),s/veh	5.9	7.5	7.4	11.5	3.9	3.1	21.0	0.0	0.0	20.5	0.0	20.2
LnGrp LOS	A	A	A	B	A	A	C			C		C
Approach Vol, veh/h		1785			1134			51			33	
Approach Delay, s/veh		7.4			4.0			21.0			20.5	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		10.3		38.0		10.3		38.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		16.0		32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s		2.7		20.5		3.4		17.0
Green Ext Time (p_c), s		0.9		11.4		0.9		15.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1163	253	0	648	241	2
Future Volume (veh/h)	1163	253	0	648	241	2
Number	8	18	7	4	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	0	1863	1863	1900
Adj Flow Rate, veh/h	1199	261	0	668	250	0
Adj No. of Lanes	2	0	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1851	399	0	2261	427	194
Arrive On Green	0.64	0.64	0.00	0.64	0.12	0.00
Sat Flow, veh/h	2990	625	0	3725	3548	1615
Grp Volume(v), veh/h	728	732	0	668	250	0
Grp Sat Flow(s),veh/h/ln	1770	1752	0	1770	1774	1615
Q Serve(g_s), s	12.6	12.9	0.0	4.2	3.3	0.0
Cycle Q Clear(g_c), s	12.6	12.9	0.0	4.2	3.3	0.0
Prop In Lane		0.36	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1131	1120	0	2261	427	194
V/C Ratio(X)	0.64	0.65	0.00	0.30	0.59	0.00
Avail Cap(c_a), veh/h	1136	1125	0	2273	1139	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	5.5	5.6	0.0	4.0	20.7	0.0
Incr Delay (d2), s/veh	1.2	1.4	0.0	0.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.5	0.0	2.0	1.7	0.0
LnGrp Delay(d),s/veh	6.8	6.9	0.0	4.1	22.0	0.0
LnGrp LOS	A	A		A	C	
Approach Vol, veh/h	1460			668	250	
Approach Delay, s/veh	6.9			4.1	22.0	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				37.8		12.0		37.8
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				6.2		5.3		14.9
Green Ext Time (p_c), s				25.5		0.7		16.9

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	1221	65	24	689	923	1309	1	0	5	1	11
Future Volume (veh/h)	0	1221	65	24	689	923	1309	1	0	5	1	11
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	0	1285	68	25	725	972	1379	0	0	5	1	0
Adj No. of Lanes	0	2	0	1	2	1	2	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	0	1366	72	104	1646	1349	1372	720	0	11	11	10
Arrive On Green	0.00	0.40	0.40	0.02	0.47	0.47	0.39	0.00	0.00	0.01	0.01	0.00
Sat Flow, veh/h	0	3513	181	1774	3539	1583	3548	1863	0	1774	1863	1583
Grp Volume(v), veh/h	0	664	689	25	725	972	1379	0	0	5	1	0
Grp Sat Flow(s),veh/h/ln	0	1770	1831	1774	1770	1583	1774	1863	0	1774	1863	1583
Q Serve(g_s), s	0.0	45.7	45.9	1.0	17.5	29.8	49.0	0.0	0.0	0.4	0.1	0.0
Cycle Q Clear(g_c), s	0.0	45.7	45.9	1.0	17.5	29.8	49.0	0.0	0.0	0.4	0.1	0.0
Prop In Lane	0.00		0.10	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	707	731	104	1646	1349	1372	720	0	11	11	10
V/C Ratio(X)	0.00	0.94	0.94	0.24	0.44	0.72	1.00	0.00	0.00	0.47	0.09	0.00
Avail Cap(c_a), veh/h	0	707	731	198	1732	1387	1372	720	0	224	235	200
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	36.6	36.6	30.3	22.8	3.6	38.8	0.0	0.0	62.8	62.6	0.0
Incr Delay (d2), s/veh	0.0	20.5	20.5	1.2	0.2	1.8	25.5	0.0	0.0	28.8	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.3	27.3	0.5	8.6	34.4	28.7	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	0.0	57.1	57.1	31.4	23.0	5.4	64.3	0.0	0.0	91.5	66.0	0.0
LnGrp LOS		E	E	C	C	A	F			F	E	
Approach Vol, veh/h		1353			1722			1379			6	
Approach Delay, s/veh		57.1			13.2			64.3			87.3	
Approach LOS		E			B			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		64.9		6.8	8.3	56.6		55.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		62.0		16.0	9.0	47.0		49.0
Max Q Clear Time (g_c+I1), s		31.8		2.4	3.0	47.9		51.0
Green Ext Time (p_c), s		27.1		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	280	267	1293	641	14
Future Volume (veh/h)	0	280	267	1293	641	14
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	292	278	1347	668	0
Adj No. of Lanes	0	1	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	0	743	2949	1967	880
Arrive On Green	0.00	0.00	0.11	0.83	0.56	0.00
Sat Flow, veh/h	0		1774	3632	3632	1583
Grp Volume(v), veh/h	0.0		278	1347	668	0
Grp Sat Flow(s),veh/h/ln			1774	1770	1770	1583
Q Serve(g_s), s			1.9	3.7	3.7	0.0
Cycle Q Clear(g_c), s			1.9	3.7	3.7	0.0
Prop In Lane			1.00			1.00
Lane Grp Cap(c), veh/h			743	2949	1967	880
V/C Ratio(X)			0.37	0.46	0.34	0.00
Avail Cap(c_a), veh/h			990	3146	1967	880
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			2.4	0.8	4.4	0.0
Incr Delay (d2), s/veh			0.3	0.1	0.1	0.0
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.8	1.7	1.8	0.0
LnGrp Delay(d),s/veh			2.7	0.9	4.5	0.0
LnGrp LOS			A	A	A	
Approach Vol, veh/h				1625	668	
Approach Delay, s/veh				1.2	4.5	
Approach LOS				A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	10.0	26.0				36.0		
Change Period (Y+Rc), s	6.0	6.0				6.0		
Max Green Setting (Gmax), s	9.0	17.0				32.0		
Max Q Clear Time (g_c+I1), s	3.9	5.7				5.7		
Green Ext Time (p_c), s	0.4	11.1				24.3		

Intersection Summary	
HCM 2010 Ctrl Delay	2.2
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	914	37	69	1479	46	55
Future Vol, veh/h	914	37	69	1479	46	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1016	41	77	1643	51	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1057	0	2011	528
Stage 1	-	-	-	-	1036	-
Stage 2	-	-	-	-	975	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	655	-	~ 51	495
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	326	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	655	-	~ 45	495
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	288	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	31
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	248	-	-	655	-
HCM Lane V/C Ratio	0.453	-	-	0.117	-
HCM Control Delay (s)	31	-	-	11.2	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.2	-	-	0.4	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	0	101	0	0	106
Future Vol, veh/h	0	0	101	0	0	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	112	0	0	118

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	230	112	0	0	112	0
Stage 1	112	-	-	-	-	-
Stage 2	118	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	758	941	-	-	1478	-
Stage 1	913	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	758	941	-	-	1478	-
Mov Cap-2 Maneuver	758	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1478	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1001	0	0	1603	0	0
Future Vol, veh/h	1001	0	0	1603	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1112	0	0	1781	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1112	0	2003	556
Stage 1	-	-	-	-	1112	-
Stage 2	-	-	-	-	891	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	624	-	52	475
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	361	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	624	-	52	475
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	361	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	624	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	938	32	25	1530	42	53	3	4	203	0	20
Future Volume (veh/h)	30	938	32	25	1530	42	53	3	4	203	0	20
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	33	1020	35	27	1663	46	58	3	4	221	0	22
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1966	67	331	1993	892	255	14	10	485	0	357
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.23	0.23	0.23	0.23	0.00	0.23
Sat Flow, veh/h	285	3491	120	533	3539	1583	600	64	43	1586	0	1583
Grp Volume(v), veh/h	33	517	538	27	1663	46	65	0	0	221	0	22
Grp Sat Flow(s),veh/h/ln	285	1770	1842	533	1770	1583	707	0	0	1586	0	1583
Q Serve(g_s), s	6.1	10.2	10.2	1.9	22.0	0.7	2.1	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	28.1	10.2	10.2	12.1	22.0	0.7	8.8	0.0	0.0	6.7	0.0	0.6
Prop In Lane	1.00		0.07	1.00		1.00	0.89		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	177	997	1037	331	1993	892	279	0	0	485	0	357
V/C Ratio(X)	0.19	0.52	0.52	0.08	0.83	0.05	0.23	0.00	0.00	0.46	0.00	0.06
Avail Cap(c_a), veh/h	177	997	1037	331	1993	892	358	0	0	563	0	446
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	7.7	7.7	11.4	10.2	5.6	22.7	0.0	0.0	19.6	0.0	17.3
Incr Delay (d2), s/veh	0.5	0.5	0.5	0.1	3.2	0.0	0.4	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.0	5.2	0.3	11.5	0.3	1.0	0.0	0.0	3.2	0.0	0.3
LnGrp Delay(d),s/veh	22.3	8.1	8.1	11.5	13.5	5.6	23.1	0.0	0.0	20.3	0.0	17.3
LnGrp LOS	C	A	A	B	B	A	C			C		B
Approach Vol, veh/h		1088			1736			65			243	
Approach Delay, s/veh		8.6			13.2			23.1			20.0	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		18.8		38.0		18.8		38.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		16.0		32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s		8.7		24.0		10.8		30.1
Green Ext Time (p_c), s		2.7		8.0		2.0		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	868	286	0	1319	416	8
Future Volume (veh/h)	868	286	0	1319	416	8
Number	8	18	7	4	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	0	1863	1863	1900
Adj Flow Rate, veh/h	886	292	0	1346	431	0
Adj No. of Lanes	2	0	0	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1487	489	0	2009	639	291
Arrive On Green	0.57	0.57	0.00	0.57	0.18	0.00
Sat Flow, veh/h	2712	861	0	3725	3548	1615
Grp Volume(v), veh/h	598	580	0	1346	431	0
Grp Sat Flow(s),veh/h/ln	1770	1711	0	1770	1774	1615
Q Serve(g_s), s	10.5	10.5	0.0	12.6	5.4	0.0
Cycle Q Clear(g_c), s	10.5	10.5	0.0	12.6	5.4	0.0
Prop In Lane		0.50	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1004	971	0	2009	639	291
V/C Ratio(X)	0.60	0.60	0.00	0.67	0.67	0.00
Avail Cap(c_a), veh/h	1005	972	0	2011	1194	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.7	6.7	0.0	7.2	18.2	0.0
Incr Delay (d2), s/veh	1.0	1.0	0.0	0.9	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	5.1	0.0	6.2	2.7	0.0
LnGrp Delay(d),s/veh	7.7	7.7	0.0	8.0	19.4	0.0
LnGrp LOS	A	A		A	B	
Approach Vol, veh/h	1178			1346	431	
Approach Delay, s/veh	7.7			8.0	19.4	
Approach LOS	A			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				33.0		14.6		33.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				27.0		16.0		27.0
Max Q Clear Time (g_c+I1), s				14.6		7.4		12.5
Green Ext Time (p_c), s				12.4		1.2		14.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	827	3	33	1983	1455	1037	15	0	20	8	13
Future Volume (veh/h)	0	827	3	33	1983	1455	1037	15	0	20	8	13
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	0	861	3	34	2066	1516	1091	0	0	21	8	0
Adj No. of Lanes	0	2	0	1	2	1	2	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	0	1736	6	295	1936	1335	1051	552	0	35	37	31
Arrive On Green	0.00	0.48	0.48	0.02	0.55	0.55	0.30	0.00	0.00	0.02	0.02	0.00
Sat Flow, veh/h	0	3711	13	1774	3539	1583	3548	1863	0	1774	1863	1583
Grp Volume(v), veh/h	0	421	443	34	2066	1516	1091	0	0	21	8	0
Grp Sat Flow(s),veh/h/ln	0	1770	1861	1774	1770	1583	1774	1863	0	1774	1863	1583
Q Serve(g_s), s	0.0	21.4	21.4	1.2	72.0	72.0	39.0	0.0	0.0	1.5	0.6	0.0
Cycle Q Clear(g_c), s	0.0	21.4	21.4	1.2	72.0	72.0	39.0	0.0	0.0	1.5	0.6	0.0
Prop In Lane	0.00		0.01	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	849	893	295	1936	1335	1051	552	0	35	37	31
V/C Ratio(X)	0.00	0.50	0.50	0.12	1.07	1.14	1.04	0.00	0.00	0.60	0.22	0.00
Avail Cap(c_a), veh/h	0	849	893	378	1936	1335	1051	552	0	216	226	192
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	23.4	23.4	17.9	29.8	7.3	46.3	0.0	0.0	64.0	63.5	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.4	0.2	41.1	70.6	38.0	0.0	0.0	15.0	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.5	11.1	0.6	46.0	74.4	24.5	0.0	0.0	0.9	0.3	0.0
LnGrp Delay(d),s/veh	0.0	23.8	23.8	18.0	70.9	77.9	84.3	0.0	0.0	79.0	66.4	0.0
LnGrp LOS		C	C	B	F	F	F			E	E	
Approach Vol, veh/h		864			3616			1091			29	
Approach Delay, s/veh		23.8			73.3			84.3			75.5	
Approach LOS		C			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		78.0		8.6	8.8	69.2		45.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		72.0		16.0	9.0	57.0		39.0
Max Q Clear Time (g_c+I1), s		74.0		3.5	3.2	23.4		41.0
Green Ext Time (p_c), s		0.0		0.1	0.0	33.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	376	518	819	1394	21
Future Volume (veh/h)	0	376	518	819	1394	21
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	388	534	844	1437	0
Adj No. of Lanes	0	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	0	602	3198	2131	953
Arrive On Green	0.00	0.00	0.21	0.90	0.60	0.00
Sat Flow, veh/h	0		1774	3632	3632	1583
Grp Volume(v), veh/h	0.0		534	844	1437	0
Grp Sat Flow(s),veh/h/ln			1774	1770	1770	1583
Q Serve(g_s), s			9.4	1.9	16.9	0.0
Cycle Q Clear(g_c), s			9.4	1.9	16.9	0.0
Prop In Lane			1.00			1.00
Lane Grp Cap(c), veh/h			602	3198	2131	953
V/C Ratio(X)			0.89	0.26	0.67	0.00
Avail Cap(c_a), veh/h			836	3524	2131	953
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			14.5	0.4	8.3	0.0
Incr Delay (d2), s/veh			8.7	0.0	0.9	0.0
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			10.1	0.8	8.4	0.0
LnGrp Delay(d),s/veh			23.2	0.4	9.2	0.0
LnGrp LOS			C	A	A	
Approach Vol, veh/h				1378	1437	
Approach Delay, s/veh				9.2	9.2	
Approach LOS				A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	18.8	43.5				62.3		
Change Period (Y+Rc), s	6.0	6.0				6.0		
Max Green Setting (Gmax), s	21.0	35.0				62.0		
Max Q Clear Time (g_c+I1), s	11.4	18.9				3.9		
Green Ext Time (p_c), s	1.4	15.9				52.4		

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Appendix E

Analysis Worksheets (2019 No Build Conditions)

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1746	32	34	719	35	105
Future Vol, veh/h	1746	32	34	719	35	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1940	36	38	799	39	117

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1976	0	2433	988
Stage 1	-	-	-	-	1958	-
Stage 2	-	-	-	-	475	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	289	-	~ 26	246
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	592	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	289	-	~ 23	246
Mov Cap-2 Maneuver	-	-	-	-	79	-
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	514	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	118.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	161	-	-	289	-
HCM Lane V/C Ratio	0.966	-	-	0.131	-
HCM Control Delay (s)	118.6	-	-	19.3	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	7.3	-	-	0.4	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	37	103	0	5	61
Future Vol, veh/h	0	37	103	0	5	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	114	0	6	68

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	193	114	0	0	114	0
Stage 1	114	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	796	939	-	-	1475	-
Stage 1	911	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	793	939	-	-	1475	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	939	1475	-
HCM Lane V/C Ratio	-	-	0.044	0.004	-
HCM Control Delay (s)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1712	25	40	954	35	79
Future Vol, veh/h	1712	25	40	954	35	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1902	28	44	1060	39	88

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1930	0	2535	965
Stage 1	-	-	-	-	1916	-
Stage 2	-	-	-	-	619	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	301	-	~ 22	255
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	301	-	~ 19	255
Mov Cap-2 Maneuver	-	-	-	-	80	-
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	426	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	44.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	80	255	-	-	301	-
HCM Lane V/C Ratio	0.486	0.344	-	-	0.148	-
HCM Control Delay (s)	86.7	26.4	-	-	19	-
HCM Lane LOS	F	D	-	-	C	-
HCM 95th %tile Q(veh)	2	1.5	-	-	0.5	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1735	11	27	962	126	28	9	11	27	1	4
Future Volume (veh/h)	45	1735	11	27	962	126	28	9	11	27	1	4
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	49	1886	12	29	1046	137	30	10	12	29	1	4
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	2489	16	217	2443	1093	167	39	30	257	7	136
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	472	3605	23	237	3539	1583	715	459	352	1461	78	1583
Grp Volume(v), veh/h	49	925	973	29	1046	137	52	0	0	30	0	4
Grp Sat Flow(s),veh/h/ln	472	1770	1859	237	1770	1583	1526	0	0	1539	0	1583
Q Serve(g_s), s	2.7	18.2	18.2	4.9	7.0	1.6	0.9	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	9.7	18.2	18.2	23.1	7.0	1.6	1.7	0.0	0.0	0.8	0.0	0.1
Prop In Lane	1.00		0.01	1.00		1.00	0.58		0.23	0.97		1.00
Lane Grp Cap(c), veh/h	399	1222	1283	217	2443	1093	237	0	0	264	0	136
V/C Ratio(X)	0.12	0.76	0.76	0.13	0.43	0.13	0.22	0.00	0.00	0.11	0.00	0.03
Avail Cap(c_a), veh/h	399	1222	1283	217	2444	1093	560	0	0	561	0	473
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.8	5.4	5.4	12.9	3.6	2.8	23.1	0.0	0.0	22.8	0.0	22.5
Incr Delay (d2), s/veh	0.1	2.8	2.7	0.3	0.1	0.1	0.5	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	9.4	9.9	0.3	3.4	0.7	0.8	0.0	0.0	0.4	0.0	0.1
LnGrp Delay(d),s/veh	5.9	8.1	8.1	13.2	3.8	2.9	23.6	0.0	0.0	23.0	0.0	22.5
LnGrp LOS	A	A	A	B	A	A	C			C		C
Approach Vol, veh/h		1947			1212			52			34	
Approach Delay, s/veh		8.0			3.9			23.6			22.9	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		10.6		43.0		10.6		43.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		16.0		37.0		16.0		37.0
Max Q Clear Time (g_c+I1), s		2.8		25.1		3.7		20.2
Green Ext Time (p_c), s		0.9		11.9		0.9		16.8

Intersection Summary	
HCM 2010 Ctrl Delay	6.9
HCM 2010 LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1264	293	0	695	262	2
Future Volume (veh/h)	1264	293	0	695	262	2
Number	8	18	7	4	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	0	1863	1863	1900
Adj Flow Rate, veh/h	1331	308	0	732	278	0
Adj No. of Lanes	2	0	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1816	413	0	2242	456	208
Arrive On Green	0.63	0.63	0.00	0.63	0.13	0.00
Sat Flow, veh/h	2959	651	0	3725	3548	1615
Grp Volume(v), veh/h	813	826	0	732	278	0
Grp Sat Flow(s),veh/h/ln	1770	1748	0	1770	1774	1615
Q Serve(g_s), s	15.7	16.6	0.0	4.8	3.7	0.0
Cycle Q Clear(g_c), s	15.7	16.6	0.0	4.8	3.7	0.0
Prop In Lane		0.37	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1121	1107	0	2242	456	208
V/C Ratio(X)	0.72	0.75	0.00	0.33	0.61	0.00
Avail Cap(c_a), veh/h	1123	1109	0	2245	1125	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.3	6.4	0.0	4.3	20.8	0.0
Incr Delay (d2), s/veh	2.4	2.8	0.0	0.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	8.7	0.0	2.4	1.9	0.0
LnGrp Delay(d),s/veh	8.6	9.2	0.0	4.4	22.1	0.0
LnGrp LOS	A	A		A	C	
Approach Vol, veh/h	1639			732	278	
Approach Delay, s/veh	8.9			4.4	22.1	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				38.0		12.5		38.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				6.8		5.7		18.6
Green Ext Time (p_c), s				25.0		0.8		13.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	1258	67	25	710	978	1415	1	0	5	1	11
Future Volume (veh/h)	0	1258	67	25	710	978	1415	1	0	5	1	11
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	0	1324	71	26	747	1029	1490	0	0	5	1	0
Adj No. of Lanes	0	2	0	1	2	1	2	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	0	1338	72	93	1621	1349	1399	734	0	11	11	10
Arrive On Green	0.00	0.39	0.39	0.02	0.46	0.46	0.39	0.00	0.00	0.01	0.01	0.00
Sat Flow, veh/h	0	3510	183	1774	3539	1583	3548	1863	0	1774	1863	1583
Grp Volume(v), veh/h	0	685	710	26	747	1029	1490	0	0	5	1	0
Grp Sat Flow(s),veh/h/ln	0	1770	1830	1774	1770	1583	1774	1863	0	1774	1863	1583
Q Serve(g_s), s	0.0	48.7	48.9	1.1	18.4	34.8	50.0	0.0	0.0	0.4	0.1	0.0
Cycle Q Clear(g_c), s	0.0	48.7	48.9	1.1	18.4	34.8	50.0	0.0	0.0	0.4	0.1	0.0
Prop In Lane	0.00		0.10	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	693	717	93	1621	1349	1399	734	0	11	11	10
V/C Ratio(X)	0.00	0.99	0.99	0.28	0.46	0.76	1.07	0.00	0.00	0.47	0.09	0.00
Avail Cap(c_a), veh/h	0	693	717	185	1702	1386	1399	734	0	224	235	200
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	38.3	38.4	31.7	23.6	4.0	38.4	0.0	0.0	62.8	62.7	0.0
Incr Delay (d2), s/veh	0.0	31.0	31.2	1.6	0.2	2.5	43.6	0.0	0.0	28.8	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	29.7	30.9	0.6	9.0	36.7	32.7	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	0.0	69.3	69.6	33.3	23.8	6.5	82.0	0.0	0.0	91.6	66.1	0.0
LnGrp LOS		E	E	C	C	A	F			F	E	
Approach Vol, veh/h		1395			1802			1490			6	
Approach Delay, s/veh		69.4			14.0			82.0			87.3	
Approach LOS		E			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		64.1		6.8	8.4	55.7		56.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		61.0		16.0	9.0	46.0		50.0
Max Q Clear Time (g_c+I1), s		36.8		2.4	3.1	50.9		52.0
Green Ext Time (p_c), s		21.3		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	321	288	1332	661	15
Future Volume (veh/h)	0	321	288	1332	661	15
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	338	303	1402	696	0
Adj No. of Lanes	0	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	0	737	2952	1946	871
Arrive On Green	0.00	0.00	0.12	0.83	0.55	0.00
Sat Flow, veh/h	0		1774	3632	3632	1583
Grp Volume(v), veh/h	0.0		303	1402	696	0
Grp Sat Flow(s),veh/h/ln			1774	1770	1770	1583
Q Serve(g_s), s			2.1	3.9	4.0	0.0
Cycle Q Clear(g_c), s			2.1	3.9	4.0	0.0
Prop In Lane			1.00			1.00
Lane Grp Cap(c), veh/h			737	2952	1946	871
V/C Ratio(X)			0.41	0.47	0.36	0.00
Avail Cap(c_a), veh/h			968	3130	1946	871
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			2.5	0.8	4.6	0.0
Incr Delay (d2), s/veh			0.4	0.1	0.1	0.0
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.9	1.8	2.0	0.0
LnGrp Delay(d),s/veh			2.9	0.9	4.7	0.0
LnGrp LOS			A	A	A	
Approach Vol, veh/h				1705	696	
Approach Delay, s/veh				1.3	4.7	
Approach LOS				A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	10.3	25.9				36.2		
Change Period (Y+Rc), s	6.0	6.0				6.0		
Max Green Setting (Gmax), s	9.0	17.0				32.0		
Max Q Clear Time (g_c+I1), s	4.1	6.0				5.9		
Green Ext Time (p_c), s	0.4	10.9				24.3		

Intersection Summary	
HCM 2010 Ctrl Delay	2.3
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	989	56	71	1558	57	67
Future Vol, veh/h	989	56	71	1558	57	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1099	62	79	1731	63	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1161	0	2153	581
Stage 1	-	-	-	-	1130	-
Stage 2	-	-	-	-	1023	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	597	-	~ 41	457
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	308	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	597	-	~ 36	457
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	267	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	44.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	223	-	-	597	-
HCM Lane V/C Ratio	0.618	-	-	0.132	-
HCM Control Delay (s)	44.2	-	-	11.9	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	3.6	-	-	0.5	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	20	104	0	17	109
Future Vol, veh/h	0	20	104	0	17	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	116	0	19	121

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	275	116	0	0	116	0
Stage 1	116	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	715	936	-	-	1473	-
Stage 1	909	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	705	936	-	-	1473	-
Mov Cap-2 Maneuver	705	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	858	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	936	1473	-
HCM Lane V/C Ratio	-	-	0.024	0.013	-
HCM Control Delay (s)	-	-	8.9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1042	47	109	1651	35	59
Future Vol, veh/h	1042	47	109	1651	35	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1158	52	121	1834	39	66

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1210	0	2343	605
Stage 1	-	-	-	-	1184	-
Stage 2	-	-	-	-	1159	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	572	-	~ 30	441
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	261	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	572	-	~ 24	441
Mov Cap-2 Maneuver	-	-	-	-	114	-
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	206	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	28.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	114	441	-	-	572	-
HCM Lane V/C Ratio	0.341	0.149	-	-	0.212	-
HCM Control Delay (s)	52.1	14.6	-	-	13	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	1.4	0.5	-	-	0.8	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1037	33	26	1686	44	54	3	4	209	0	21
Future Volume (veh/h)	31	1037	33	26	1686	44	54	3	4	209	0	21
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	34	1127	36	28	1833	48	59	3	4	227	0	23
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1964	63	296	1986	888	255	14	10	490	0	362
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.23	0.23	0.23	0.23	0.00	0.23
Sat Flow, veh/h	241	3501	112	481	3539	1583	592	62	42	1590	0	1583
Grp Volume(v), veh/h	34	570	593	28	1833	48	66	0	0	227	0	23
Grp Sat Flow(s),veh/h/ln	241	1770	1843	481	1770	1583	695	0	0	1590	0	1583
Q Serve(g_s), s	5.1	11.9	11.9	2.3	26.9	0.8	2.2	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	32.0	11.9	11.9	14.2	26.9	0.8	9.1	0.0	0.0	6.9	0.0	0.6
Prop In Lane	1.00		0.06	1.00		1.00	0.89		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	148	993	1034	296	1986	888	279	0	0	490	0	362
V/C Ratio(X)	0.23	0.57	0.57	0.09	0.92	0.05	0.24	0.00	0.00	0.46	0.00	0.06
Avail Cap(c_a), veh/h	148	993	1034	296	1986	888	352	0	0	562	0	444
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.9	8.1	8.1	12.7	11.4	5.7	22.8	0.0	0.0	19.6	0.0	17.2
Incr Delay (d2), s/veh	0.8	0.8	0.8	0.1	7.8	0.0	0.4	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.9	6.2	0.3	14.9	0.3	1.0	0.0	0.0	3.2	0.0	0.3
LnGrp Delay(d),s/veh	27.7	8.9	8.9	12.8	19.2	5.7	23.2	0.0	0.0	20.3	0.0	17.3
LnGrp LOS	C	A	A	B	B	A	C			C		B
Approach Vol, veh/h		1197			1909			66			250	
Approach Delay, s/veh		9.4			18.8			23.2			20.0	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		19.0		38.0		19.0		38.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		16.0		32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s		8.9		28.9		11.1		34.0
Green Ext Time (p_c), s		2.7		3.1		1.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	941	317	0	1432	465	8
Future Volume (veh/h)	941	317	0	1432	465	8
Number	8	18	7	4	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	0	1863	1863	1900
Adj Flow Rate, veh/h	991	334	0	1507	496	0
Adj No. of Lanes	2	0	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1534	513	0	2084	676	308
Arrive On Green	0.59	0.59	0.00	0.59	0.19	0.00
Sat Flow, veh/h	2700	872	0	3725	3548	1615
Grp Volume(v), veh/h	670	655	0	1507	496	0
Grp Sat Flow(s),veh/h/ln	1770	1709	0	1770	1774	1615
Q Serve(g_s), s	13.6	13.9	0.0	16.6	7.1	0.0
Cycle Q Clear(g_c), s	13.6	13.9	0.0	16.6	7.1	0.0
Prop In Lane		0.51	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1042	1006	0	2084	676	308
V/C Ratio(X)	0.64	0.65	0.00	0.72	0.73	0.00
Avail Cap(c_a), veh/h	1042	1006	0	2084	1045	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.4	7.4	0.0	8.0	20.7	0.0
Incr Delay (d2), s/veh	1.4	1.5	0.0	1.3	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	6.8	0.0	8.3	3.6	0.0
LnGrp Delay(d),s/veh	8.8	8.9	0.0	9.3	22.3	0.0
LnGrp LOS	A	A		A	C	
Approach Vol, veh/h	1325			1507	496	
Approach Delay, s/veh	8.9			9.3	22.3	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				38.0		16.3		38.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				18.6		9.1		15.9
Green Ext Time (p_c), s				13.4		1.2		16.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	852	3	34	2043	1573	1116	16	0	21	8	14
Future Volume (veh/h)	0	852	3	34	2043	1573	1116	16	0	21	8	14
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	0	897	3	36	2151	1656	1187	0	0	22	8	0
Adj No. of Lanes	0	2	0	1	2	1	2	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	0	1706	6	277	1909	1335	1078	566	0	36	38	32
Arrive On Green	0.00	0.47	0.47	0.02	0.54	0.54	0.30	0.00	0.00	0.02	0.02	0.00
Sat Flow, veh/h	0	3711	12	1774	3539	1583	3548	1863	0	1774	1863	1583
Grp Volume(v), veh/h	0	439	461	36	2151	1656	1187	0	0	22	8	0
Grp Sat Flow(s),veh/h/ln	0	1770	1861	1774	1770	1583	1774	1863	0	1774	1863	1583
Q Serve(g_s), s	0.0	22.9	22.9	1.3	71.0	71.0	40.0	0.0	0.0	1.6	0.6	0.0
Cycle Q Clear(g_c), s	0.0	22.9	22.9	1.3	71.0	71.0	40.0	0.0	0.0	1.6	0.6	0.0
Prop In Lane	0.00		0.01	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	834	877	277	1909	1335	1078	566	0	36	38	32
V/C Ratio(X)	0.00	0.53	0.53	0.13	1.13	1.24	1.10	0.00	0.00	0.61	0.21	0.00
Avail Cap(c_a), veh/h	0	834	877	359	1909	1335	1078	566	0	216	226	192
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	24.5	24.5	18.7	30.3	7.2	45.8	0.0	0.0	64.0	63.5	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.6	0.2	64.6	114.8	59.5	0.0	0.0	15.7	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.4	11.9	0.7	51.6	90.8	28.4	0.0	0.0	1.0	0.3	0.0
LnGrp Delay(d),s/veh	0.0	25.1	25.0	18.9	94.9	122.0	105.3	0.0	0.0	79.7	66.2	0.0
LnGrp LOS		C	C	B	F	F	F			E	E	
Approach Vol, veh/h		900			3843			1187			30	
Approach Delay, s/veh		25.1			105.9			105.3			76.1	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		77.0		8.7	8.9	68.1		46.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		71.0		16.0	9.0	56.0		40.0
Max Q Clear Time (g_c+I1), s		73.0		3.6	3.3	24.9		42.0
Green Ext Time (p_c), s		0.0		0.1	0.0	31.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	93.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	410	570	844	1436	22
Future Volume (veh/h)	0	410	570	844	1436	22
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	432	600	888	1512	0
Adj No. of Lanes	0	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	0	650	3305	2149	961
Arrive On Green	0.00	0.00	0.26	0.93	0.61	0.00
Sat Flow, veh/h	0		1774	3632	3632	1583
Grp Volume(v), veh/h	0.0		600	888	1512	0
Grp Sat Flow(s),veh/h/ln			1774	1770	1770	1583
Q Serve(g_s), s			19.8	2.0	26.5	0.0
Cycle Q Clear(g_c), s			19.8	2.0	26.5	0.0
Prop In Lane			1.00			1.00
Lane Grp Cap(c), veh/h			650	3305	2149	961
V/C Ratio(X)			0.92	0.27	0.70	0.00
Avail Cap(c_a), veh/h			853	3594	2149	961
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			23.3	0.3	12.2	0.0
Incr Delay (d2), s/veh			13.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			16.7	0.9	13.1	0.0
LnGrp Delay(d),s/veh			36.3	0.3	13.3	0.0
LnGrp LOS			D	A	B	
Approach Vol, veh/h				1488	1512	
Approach Delay, s/veh				14.8	13.3	
Approach LOS				B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	29.6	61.0				90.6		
Change Period (Y+Rc), s	6.0	6.0				6.0		
Max Green Setting (Gmax), s	34.0	52.0				92.0		
Max Q Clear Time (g_c+I1), s	21.8	28.5				4.0		
Green Ext Time (p_c), s	1.8	23.3				80.6		

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Appendix F

Analysis Worksheets (2019 Build Conditions)

Intersection	
Int Delay, s/veh	13

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1756	32	34	729	54	105
Future Vol, veh/h	1756	32	34	729	54	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1951	36	38	810	60	117

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1987	0	2450	993
Stage 1	-	-	-	-	1969	-
Stage 2	-	-	-	-	481	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	286	-	~ 26	244
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	286	-	~ 23	244
Mov Cap-2 Maneuver	-	-	-	-	78	-
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	510	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	216.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	142	-	-	286	-
HCM Lane V/C Ratio	1.244	-	-	0.132	-
HCM Control Delay (s)	216.5	-	-	19.5	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	10.6	-	-	0.5	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	56	103	0	5	61
Future Vol, veh/h	0	56	103	0	5	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	62	114	0	6	68

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	193	114	0	0	114	0
Stage 1	114	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	796	939	-	-	1475	-
Stage 1	911	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	793	939	-	-	1475	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	939	1475	-
HCM Lane V/C Ratio	-	-	0.066	0.004	-
HCM Control Delay (s)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1709	38	73	952	47	170
Future Vol, veh/h	1709	38	73	952	47	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1899	42	81	1058	52	189

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1941	0	2611	971
Stage 1	-	-	-	-	1920	-
Stage 2	-	-	-	-	691	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	298	-	~ 20	252
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	459	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	298	-	~ 15	252
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	334	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	67.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	76	252	-	-	298	-
HCM Lane V/C Ratio	0.687	0.75	-	-	0.272	-
HCM Control Delay (s)	122	52.3	-	-	21.5	-
HCM Lane LOS	F	F	-	-	C	-
HCM 95th %tile Q(veh)	3.2	5.3	-	-	1.1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1823	11	27	993	126	28	9	11	27	1	4
Future Volume (veh/h)	45	1823	11	27	993	126	28	9	11	27	1	4
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	49	1982	12	29	1079	137	30	10	12	29	1	4
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	392	2576	16	201	2528	1131	154	37	28	241	6	129
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	457	3607	22	216	3539	1583	706	457	349	1473	78	1583
Grp Volume(v), veh/h	49	971	1023	29	1079	137	52	0	0	30	0	4
Grp Sat Flow(s),veh/h/ln	457	1770	1859	216	1770	1583	1512	0	0	1550	0	1583
Q Serve(g_s), s	2.9	20.4	20.5	5.8	7.4	1.6	1.0	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	10.3	20.4	20.5	26.3	7.4	1.6	1.9	0.0	0.0	0.9	0.0	0.1
Prop In Lane	1.00		0.01	1.00		1.00	0.58		0.23	0.97		1.00
Lane Grp Cap(c), veh/h	392	1264	1328	201	2528	1131	220	0	0	247	0	129
V/C Ratio(X)	0.13	0.77	0.77	0.14	0.43	0.12	0.24	0.00	0.00	0.12	0.00	0.03
Avail Cap(c_a), veh/h	392	1264	1328	201	2529	1131	509	0	0	513	0	431
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.6	5.3	5.3	13.7	3.5	2.6	25.6	0.0	0.0	25.2	0.0	24.9
Incr Delay (d2), s/veh	0.1	2.9	2.8	0.3	0.1	0.0	0.5	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	10.7	11.3	0.4	3.5	0.7	0.8	0.0	0.0	0.5	0.0	0.1
LnGrp Delay(d),s/veh	5.7	8.3	8.2	14.0	3.6	2.7	26.2	0.0	0.0	25.4	0.0	25.0
LnGrp LOS	A	A	A	B	A	A	C			C		C
Approach Vol, veh/h		2043			1245			52			34	
Approach Delay, s/veh		8.1			3.7			26.2			25.4	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		10.8		48.0		10.8		48.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		16.0		42.0		16.0		42.0
Max Q Clear Time (g_c+I1), s		2.9		28.3		3.9		22.5
Green Ext Time (p_c), s		0.9		13.6		0.9		19.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1323	322	0	716	272	2
Future Volume (veh/h)	1323	322	0	716	272	2
Number	8	18	7	4	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	0	1863	1863	1900
Adj Flow Rate, veh/h	1393	339	0	754	288	0
Adj No. of Lanes	2	0	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1793	426	0	2235	467	212
Arrive On Green	0.63	0.63	0.00	0.63	0.13	0.00
Sat Flow, veh/h	2932	674	0	3725	3548	1615
Grp Volume(v), veh/h	855	877	0	754	288	0
Grp Sat Flow(s),veh/h/ln	1770	1744	0	1770	1774	1615
Q Serve(g_s), s	17.5	18.9	0.0	5.1	3.9	0.0
Cycle Q Clear(g_c), s	17.5	18.9	0.0	5.1	3.9	0.0
Prop In Lane		0.39	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1117	1101	0	2235	467	212
V/C Ratio(X)	0.77	0.80	0.00	0.34	0.62	0.00
Avail Cap(c_a), veh/h	1118	1102	0	2236	1121	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.7	6.9	0.0	4.4	20.8	0.0
Incr Delay (d2), s/veh	3.2	4.2	0.0	0.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	10.0	0.0	2.4	2.0	0.0
LnGrp Delay(d),s/veh	9.9	11.1	0.0	4.5	22.1	0.0
LnGrp LOS	A	B		A	C	
Approach Vol, veh/h	1732			754	288	
Approach Delay, s/veh	10.5			4.5	22.1	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				38.0		12.7		38.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				7.1		5.9		20.9
Green Ext Time (p_c), s				24.9		0.8		11.1

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	1258	67	25	710	999	1474	1	0	5	1	11
Future Volume (veh/h)	0	1258	67	25	710	999	1474	1	0	5	1	11
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	0	1324	71	26	747	1052	1553	0	0	5	1	0
Adj No. of Lanes	0	2	0	1	2	1	2	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	0	1312	70	90	1593	1349	1426	749	0	11	11	10
Arrive On Green	0.00	0.38	0.38	0.02	0.45	0.45	0.40	0.00	0.00	0.01	0.01	0.00
Sat Flow, veh/h	0	3510	183	1774	3539	1583	3548	1863	0	1774	1863	1583
Grp Volume(v), veh/h	0	685	710	26	747	1052	1553	0	0	5	1	0
Grp Sat Flow(s),veh/h/ln	0	1770	1830	1774	1770	1583	1774	1863	0	1774	1863	1583
Q Serve(g_s), s	0.0	48.7	48.7	1.1	18.7	37.1	51.0	0.0	0.0	0.4	0.1	0.0
Cycle Q Clear(g_c), s	0.0	48.7	48.7	1.1	18.7	37.1	51.0	0.0	0.0	0.4	0.1	0.0
Prop In Lane	0.00		0.10	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	680	703	90	1593	1349	1426	749	0	11	11	10
V/C Ratio(X)	0.00	1.01	1.01	0.29	0.47	0.78	1.09	0.00	0.00	0.47	0.09	0.00
Avail Cap(c_a), veh/h	0	680	703	183	1673	1385	1426	749	0	224	235	200
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	39.1	39.1	31.9	24.3	4.1	37.9	0.0	0.0	62.9	62.7	0.0
Incr Delay (d2), s/veh	0.0	36.3	36.6	1.7	0.2	2.9	52.0	0.0	0.0	28.8	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	30.5	31.6	0.6	9.2	37.6	35.1	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	0.0	75.4	75.7	33.6	24.5	7.0	89.9	0.0	0.0	91.6	66.1	0.0
LnGrp LOS		F	F	C	C	A	F			F	E	
Approach Vol, veh/h		1395			1825			1553			6	
Approach Delay, s/veh		75.6			14.5			89.9			87.4	
Approach LOS		E			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		63.1		6.8	8.4	54.7		57.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		60.0		16.0	9.0	45.0		51.0
Max Q Clear Time (g_c+I1), s		39.1		2.4	3.1	50.7		53.0
Green Ext Time (p_c), s		18.0		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	56.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	350	298	1332	661	15
Future Volume (veh/h)	0	350	298	1332	661	15
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	368	314	1402	696	0
Adj No. of Lanes	0	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	0	740	2953	1936	866
Arrive On Green	0.00	0.00	0.12	0.83	0.55	0.00
Sat Flow, veh/h	0		1774	3632	3632	1583
Grp Volume(v), veh/h	0.0		314	1402	696	0
Grp Sat Flow(s),veh/h/ln			1774	1770	1770	1583
Q Serve(g_s), s			2.2	3.9	4.0	0.0
Cycle Q Clear(g_c), s			2.2	3.9	4.0	0.0
Prop In Lane			1.00			1.00
Lane Grp Cap(c), veh/h			740	2953	1936	866
V/C Ratio(X)			0.42	0.47	0.36	0.00
Avail Cap(c_a), veh/h			965	3126	1936	866
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			2.5	0.8	4.6	0.0
Incr Delay (d2), s/veh			0.4	0.1	0.1	0.0
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			1.0	1.8	2.0	0.0
LnGrp Delay(d),s/veh			2.9	0.9	4.7	0.0
LnGrp LOS			A	A	A	
Approach Vol, veh/h				1716	696	
Approach Delay, s/veh				1.3	4.7	
Approach LOS				A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	10.4	25.8				36.2		
Change Period (Y+Rc), s	6.0	6.0				6.0		
Max Green Setting (Gmax), s	9.0	17.0				32.0		
Max Q Clear Time (g_c+I1), s	4.2	6.0				5.9		
Green Ext Time (p_c), s	0.5	10.9				24.3		

Intersection Summary	
HCM 2010 Ctrl Delay	2.3
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1021	56	71	1565	70	67
Future Vol, veh/h	1021	56	71	1565	70	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1134	62	79	1739	78	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1197	0	2193	598
Stage 1	-	-	-	-	1166	-
Stage 2	-	-	-	-	1027	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	579	-	~ 39	445
Stage 1	-	-	-	-	259	-
Stage 2	-	-	-	-	306	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	579	-	~ 34	445
Mov Cap-2 Maneuver	-	-	-	-	135	-
Stage 1	-	-	-	-	259	-
Stage 2	-	-	-	-	264	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	60.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	205	-	-	579	-
HCM Lane V/C Ratio	0.743	-	-	0.136	-
HCM Control Delay (s)	60.7	-	-	12.2	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	4.9	-	-	0.5	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	33	104	0	17	109
Future Vol, veh/h	0	33	104	0	17	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	116	0	19	121

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	275	116	0	0	116	0
Stage 1	116	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	715	936	-	-	1473	-
Stage 1	909	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	705	936	-	-	1473	-
Mov Cap-2 Maneuver	705	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	858	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	936	1473	-
HCM Lane V/C Ratio	-	-	0.039	0.013	-
HCM Control Delay (s)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1034	87	212	1644	49	128
Future Vol, veh/h	1034	87	212	1644	49	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1149	97	236	1827	54	142

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1246	0	2581	623
Stage 1	-	-	-	-	1197	-
Stage 2	-	-	-	-	1384	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	554	-	~ 21	429
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	198	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	554	-	~ 12	429
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	114	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	48
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	76	429	-	-	554	-
HCM Lane V/C Ratio	0.716	0.332	-	-	0.425	-
HCM Control Delay (s)	127.6	17.5	-	-	16.2	-
HCM Lane LOS	F	C	-	-	C	-
HCM 95th %tile Q(veh)	3.4	1.4	-	-	2.1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1098	33	26	1782	44	54	3	4	209	0	21
Future Volume (veh/h)	31	1098	33	26	1782	44	54	3	4	209	0	21
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	34	1193	36	28	1937	48	59	3	4	227	0	23
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	2069	62	286	2088	934	230	13	9	465	0	347
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.22	0.22	0.22	0.22	0.00	0.22
Sat Flow, veh/h	218	3508	106	452	3539	1583	552	58	39	1599	0	1583
Grp Volume(v), veh/h	34	602	627	28	1937	48	66	0	0	227	0	23
Grp Sat Flow(s),veh/h/ln	218	1770	1844	452	1770	1583	649	0	0	1599	0	1583
Q Serve(g_s), s	5.9	13.3	13.3	2.6	31.1	0.8	2.5	0.0	0.0	0.0	0.0	0.7
Cycle Q Clear(g_c), s	37.0	13.3	13.3	15.8	31.1	0.8	10.2	0.0	0.0	7.7	0.0	0.7
Prop In Lane	1.00		0.06	1.00		1.00	0.89		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	135	1044	1088	286	2088	934	251	0	0	465	0	347
V/C Ratio(X)	0.25	0.58	0.58	0.10	0.93	0.05	0.26	0.00	0.00	0.49	0.00	0.07
Avail Cap(c_a), veh/h	135	1044	1088	286	2088	934	302	0	0	516	0	404
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	8.0	8.0	12.9	11.7	5.4	25.8	0.0	0.0	22.2	0.0	19.4
Incr Delay (d2), s/veh	1.0	0.8	0.8	0.1	7.9	0.0	0.6	0.0	0.0	0.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.6	6.9	0.3	17.1	0.4	1.1	0.0	0.0	3.6	0.0	0.3
LnGrp Delay(d),s/veh	30.6	8.8	8.8	13.1	19.6	5.5	26.4	0.0	0.0	22.9	0.0	19.5
LnGrp LOS	C	A	A	B	B	A	C			C		B
Approach Vol, veh/h		1263			2013			66			250	
Approach Delay, s/veh		9.4			19.1			26.4			22.6	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		19.7		43.0		19.7		43.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		16.0		37.0		16.0		37.0
Max Q Clear Time (g_c+I1), s		9.7		33.1		12.2		39.0
Green Ext Time (p_c), s		2.4		3.9		1.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	982	337	0	1496	497	8
Future Volume (veh/h)	982	337	0	1496	497	8
Number	8	18	7	4	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	0	1863	1863	1900
Adj Flow Rate, veh/h	1034	355	0	1575	530	0
Adj No. of Lanes	2	0	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1511	513	0	2061	707	322
Arrive On Green	0.58	0.58	0.00	0.58	0.20	0.00
Sat Flow, veh/h	2688	882	0	3725	3548	1615
Grp Volume(v), veh/h	702	687	0	1575	530	0
Grp Sat Flow(s),veh/h/ln	1770	1707	0	1770	1774	1615
Q Serve(g_s), s	15.1	15.5	0.0	18.4	7.7	0.0
Cycle Q Clear(g_c), s	15.1	15.5	0.0	18.4	7.7	0.0
Prop In Lane		0.52	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1030	994	0	2061	707	322
V/C Ratio(X)	0.68	0.69	0.00	0.76	0.75	0.00
Avail Cap(c_a), veh/h	1031	994	0	2061	1033	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.9	8.0	0.0	8.6	20.7	0.0
Incr Delay (d2), s/veh	1.8	2.1	0.0	1.8	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	7.6	0.0	9.3	3.9	0.0
LnGrp Delay(d),s/veh	9.8	10.1	0.0	10.4	22.5	0.0
LnGrp LOS	A	B		B	C	
Approach Vol, veh/h	1389			1575	530	
Approach Delay, s/veh	9.9			10.4	22.5	
Approach LOS	A			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				38.0		17.0		38.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				20.4		9.7		17.5
Green Ext Time (p_c), s				11.6		1.2		14.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.0
HCM 2010 LOS	B

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	852	3	34	2043	1637	1157	16	0	21	8	14
Future Volume (veh/h)	0	852	3	34	2043	1637	1157	16	0	21	8	14
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	0	897	3	36	2151	1723	1230	0	0	22	8	0
Adj No. of Lanes	0	2	0	1	2	1	2	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	0	1678	6	271	1882	1335	1105	580	0	36	38	32
Arrive On Green	0.00	0.46	0.46	0.02	0.53	0.53	0.31	0.00	0.00	0.02	0.02	0.00
Sat Flow, veh/h	0	3711	12	1774	3539	1583	3548	1863	0	1774	1863	1583
Grp Volume(v), veh/h	0	439	461	36	2151	1723	1230	0	0	22	8	0
Grp Sat Flow(s),veh/h/ln	0	1770	1861	1774	1770	1583	1774	1863	0	1774	1863	1583
Q Serve(g_s), s	0.0	23.3	23.3	1.4	70.0	70.0	41.0	0.0	0.0	1.6	0.6	0.0
Cycle Q Clear(g_c), s	0.0	23.3	23.3	1.4	70.0	70.0	41.0	0.0	0.0	1.6	0.6	0.0
Prop In Lane	0.00		0.01	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	821	863	271	1882	1335	1105	580	0	36	38	32
V/C Ratio(X)	0.00	0.53	0.53	0.13	1.14	1.29	1.11	0.00	0.00	0.61	0.21	0.00
Avail Cap(c_a), veh/h	0	821	863	353	1882	1335	1105	580	0	216	226	192
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	25.2	25.2	19.3	30.8	7.1	45.3	0.0	0.0	64.0	63.5	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.6	0.2	71.3	136.6	63.8	0.0	0.0	15.7	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.5	12.1	0.7	52.6	98.9	29.7	0.0	0.0	1.0	0.3	0.0
LnGrp Delay(d),s/veh	0.0	25.8	25.8	19.5	102.2	143.7	109.1	0.0	0.0	79.7	66.2	0.0
LnGrp LOS		C	C	B	F	F	F			E	E	
Approach Vol, veh/h		900			3910			1230			30	
Approach Delay, s/veh		25.8			119.7			109.1			76.1	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		76.0		8.7	8.9	67.1		47.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		70.0		16.0	9.0	55.0		41.0
Max Q Clear Time (g_c+I1), s		72.0		3.6	3.4	25.3		43.0
Green Ext Time (p_c), s		0.0		0.1	0.0	29.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	103.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	430	602	844	1436	22
Future Volume (veh/h)	0	430	602	844	1436	22
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	453	634	888	1512	0
Adj No. of Lanes	0	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	0	680	3326	2100	939
Arrive On Green	0.00	0.00	0.29	0.94	0.59	0.00
Sat Flow, veh/h	0		1774	3632	3632	1583
Grp Volume(v), veh/h	0.0		634	888	1512	0
Grp Sat Flow(s),veh/h/ln			1774	1770	1770	1583
Q Serve(g_s), s			24.5	2.0	30.3	0.0
Cycle Q Clear(g_c), s			24.5	2.0	30.3	0.0
Prop In Lane			1.00			1.00
Lane Grp Cap(c), veh/h			680	3326	2100	939
V/C Ratio(X)			0.93	0.27	0.72	0.00
Avail Cap(c_a), veh/h			883	3618	2100	939
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			25.8	0.2	14.4	0.0
Incr Delay (d2), s/veh			13.9	0.0	1.2	0.0
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			19.4	0.9	15.1	0.0
LnGrp Delay(d),s/veh			39.7	0.3	15.6	0.0
LnGrp LOS			D	A	B	
Approach Vol, veh/h				1522	1512	
Approach Delay, s/veh				16.7	15.6	
Approach LOS				B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	34.6	65.2				99.8		
Change Period (Y+Rc), s	6.0	6.0				6.0		
Max Green Setting (Gmax), s	40.0	56.0				102.0		
Max Q Clear Time (g_c+I1), s	26.5	32.3				4.0		
Green Ext Time (p_c), s	2.1	23.6				89.8		

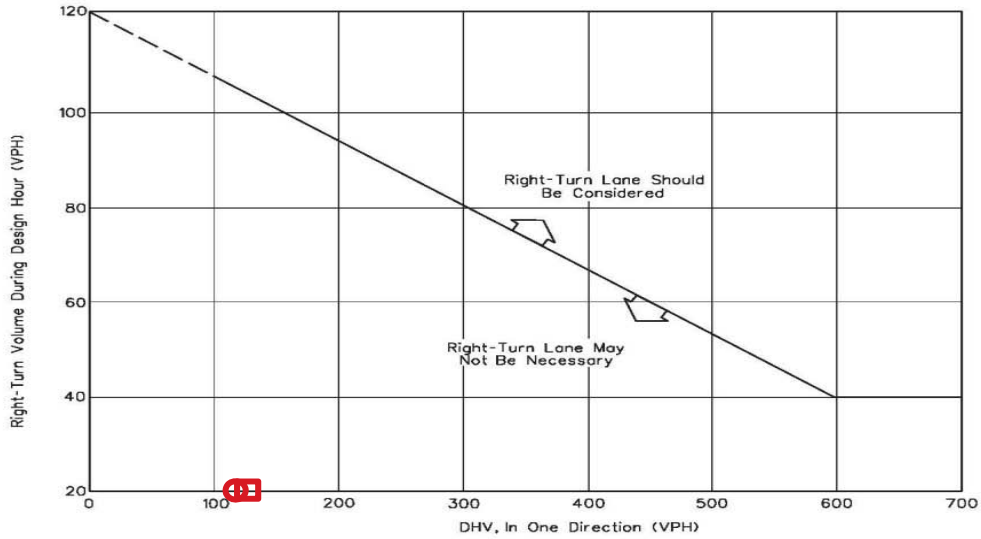
Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

Appendix G

Turn Lane Analysis Worksheets

RIGHT-TURN LANE WARRANT REVIEW

INTERSECTION: Fleming Road & Project Driveway
MOVEMENT Northbound Right-Turn Lane



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

Example

Given: Design Speed = 35 miles per hour (mph)
DHV = 250 vehicles per hour (vph)
Right Turns = 100 vehicles per hour (vph)

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

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

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS

Figure 15.5A

2018 Build Conditions	Major Road Volume (Direction of Right Turn Ingress)	Right Turn Volume	Speed along Right Turn Ingress	Symbol
AM Peak Hour	103	0	35	○
PM Peak Hour	104	0	35	□

L2.)

Ratification
Number_____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) TO ADD A NEW OVERLAY ZONING DISTRICT TO BE KNOWN AS THE GATEWAY OVERLAY ZONE, ADD REGULATIONS TO AUTHORIZE SPECIFIC LAND USES, BUILDING HEIGHTS AND LOT OCCUPANCY REQUIREMENTS IN THE GATEWAY OVERLAY ZONE, AND CHANGE THE ZONE MAP, WHICH IS PART THEREOF, SO THAT CERTAIN PROPERTIES BEARING THE FOLLOWING CHARLESTON COUNTY TAX MAP NUMBERS, TO WIT: TMS# 457-07-01-029 AND 457-07-01-061 (310 BROAD STREET) BE INCLUDED WITHIN THE GATEWAY OVERLAY ZONE. **(AS AMENDED)**

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting in the first sentence of Section 54-102(c)(1) immediately after "Tech Corridor Overlay Zone" the text "Gateway Overlay Zone," and inserting the following new subsection at the end of Section 54-202 to read as follows:

a. "l. **Gateway, G Overlay Zone.** The Gateway Overlay Zone is intended for sites in the City that are located at primary entrances to specifically defined or colloquially known districts and areas of the City. The purpose of the Gateway Overlay is to accommodate a more varied use matrix at these strategic locations by providing an opportunity for denser residential developments at commercially zoned properties by way of an optional set of development regulations that authorize higher residential density, impose lot coverage requirements and certain height restrictions."

Section 2. Article 2, Part 5: Permitted Uses For Overlay Zones of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by inserting the following new section:

"Sec. 54-229.2. Gateway, G Overlay Zone.

b. Intent. The intent of the Gateway "G" overlay zone is to accommodate a more varied use matrix at the strategic locations by providing an opportunity for denser residential developments at commercially zoned properties by way of an optional set of

development regulations that authorize higher residential density, impose lot coverage requirements and certain height restrictions."

c. Permitted uses. In any Gateway overlay zoning district, land may be used and buildings or structures may be erected, altered or used for any purpose allowed by the underlying zoning district as listed in Article 2, Part 3. In the alternative, land may be used and buildings or structures may be erected, altered or used for any purpose allowed by the underlying zoning district, and may include residential uses at a density between 50 and 78 units per acre of high ground, or fraction thereof, provided a Site Plan of the property being put to alternate uses demonstrates the following conditions are met:

1. The gross floor area of the structures on the property shown on the Site Plan, in the aggregate, but excluding parking structures, shall not exceed 80,300 square feet per acre of high ground, or fraction thereof; and

2. No less than seventy (70%) per cent of the gross floor area of the structures on the property shown on the Site Plan must be used for residential purposes; and

3. The total number of required off-street parking spaces must be provided on site and calculated in accordance with the parking standards of the underlying zoning district for the use; and

4. No structure on the property shown on the Site Plan shall exceed the lesser of: (a) the height limit set by the underlying zoning district; or (b) 160 feet, with a 10 foot allowance for mechanicals, to include stairs, railings, antennas and elevator overruns; and

5. Lot Occupancy of Buildings of the buildings on the Site Plan shall not exceed fifty-five (55%) percent of the property shown on the Site Plan.

d. The Site Plan may include multiple, contiguous lots of record over which the alternate uses and other requirements of subpart (c) may be allocated. If the lots of record delineated on the Site Plan are not under common ownership, the consent of all owners of the lots of record must be shown on the Site Plan. For purposes hereof, lots of record separated by a public right-of-way shall be deemed contiguous.

Section 3. The Zoning Ordinance of the City of Charleston be, and the same hereby is, amended by changing the zone map, which is a part thereof, so that the property described in Section 4 hereof be included in the Gateway overlay zone.

Section 4. The property to be included in the Gateway overlay is described as follows:

Charleston County Tax Map Parcels, as indicated, bearing TMS# 457-07-01-029 AND 457-07-01-061, identified as 310 Broad Street.

Section 5. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____ day of
_____ in the Year of Our Lord, 2016,
and in the _____th Year of the Independence of
the United States of America

_____
John J. Tecklenburg, Mayor

ATTEST: _____
Vanessa Turner Maybank
Clerk of Council

L3.

Ratification
Number_____

AN ORDINANCE

TO AMEND THE ZONING ORDINANCE OF THE CITY OF CHARLESTON BY CHANGING THE ZONE MAP, WHICH IS A PART THEREOF, SO THAT A PORTION OF 176 CONCORD STREET (PENINSULA) (5.039 ACRES) (TMS #459-00-00-009) (COUNCIL DISTRICT 1), BE REZONED FROM 50/25 OLD CITY HEIGHT DISTRICT CLASSIFICATION TO 56/30V OLD CITY HEIGHT DISTRICT CLASSIFICATION.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That the Zoning Ordinance of the City of Charleston be, and the same hereby is amended, by changing the zone map thereof so as to rezone the property described in Section 2 hereof by changing the zoning designation from 50/25 Old City Height District classification to 56/30V Old City Height District classification.

Section 2. The property to be rezoned is described as follows:

a portion of 176 Concord Street (Peninsula) (5.039 acres) (TMS #459-00-00-009)

Section 3. This ordinance shall become effective upon ratification.

Ratified in City Council this _____day of _____ in the Year of Our Lord _____, in the _____ Year of Independence of the United States of America.

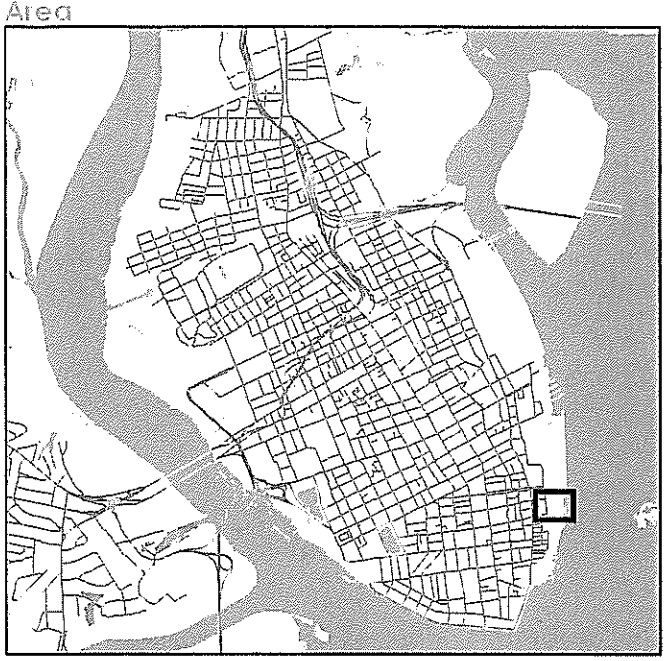
By: _____
John J. Tecklenburg
Mayor, City of Charleston

Attest: _____
Vanessa Turner Maybank
Clerk of Council

City of Charleston

City Council
June 21, 2016

Area



Rezoning

176 Concord St (Peninsula)

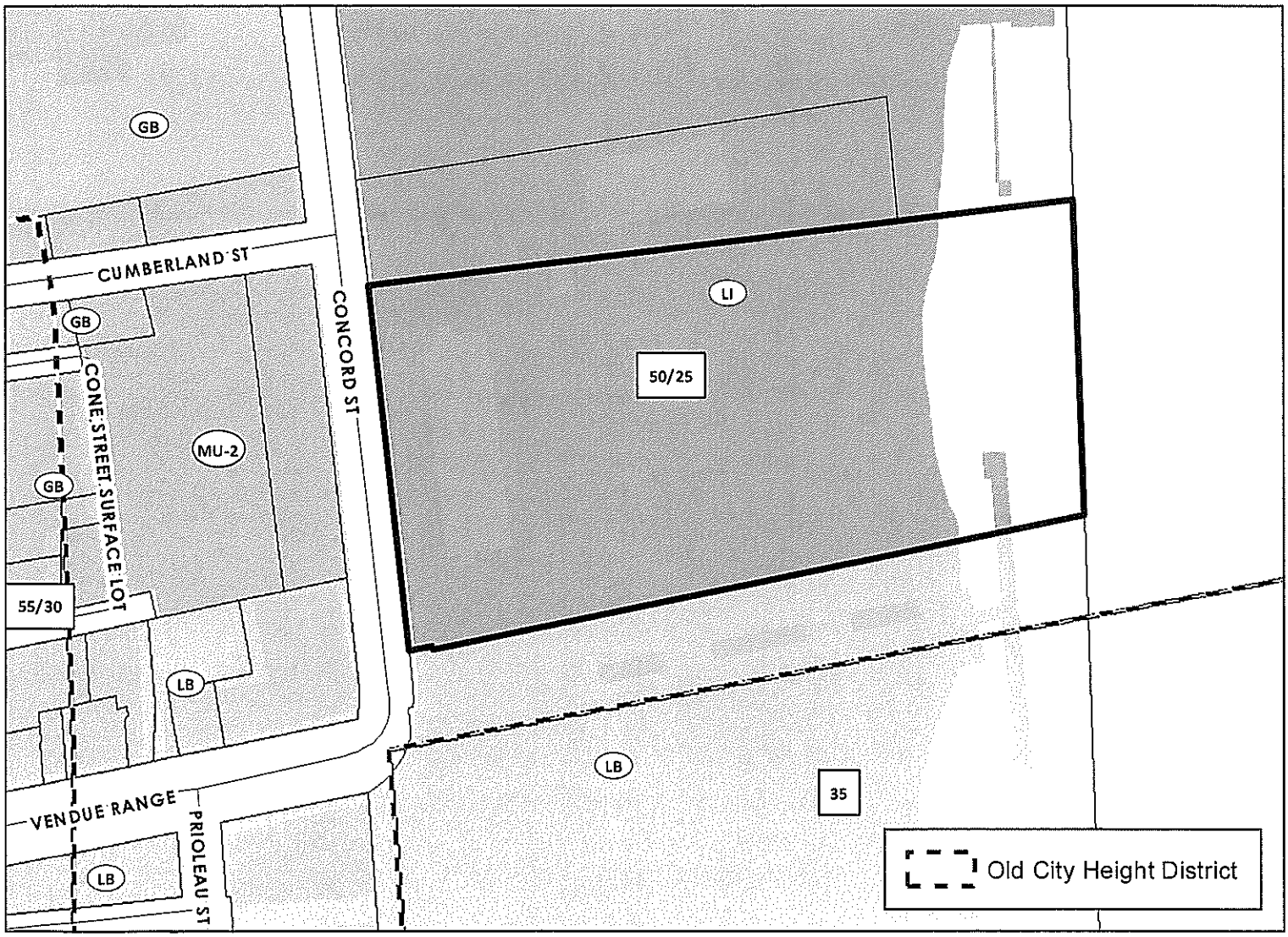
TMS# 4590000009 (a portion)

5.039 ac.

Request rezoning from 50/25 Old City Height District to 56/30V Old City Height District.

Owner: SC State Ports Authority
Applicant: Leucadia Coast Investor LLC

Location



N

L4.

Ratification
Number_____

AN ORDINANCE

TO AMEND THE ZONING ORDINANCE OF THE CITY OF CHARLESTON BY CHANGING THE ZONE MAP, WHICH IS A PART THEREOF, SO THAT 186 CONCORD STREET (PENINSULA) (1.493 ACRES) (TMS #459-00-00-0091) (COUNCIL DISTRICT 1), BE REZONED FROM 50/25 OLD CITY HEIGHT DISTRICT CLASSIFICATION TO 56/30V OLD CITY HEIGHT DISTRICT CLASSIFICATION.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That the Zoning Ordinance of the City of Charleston be, and the same hereby is amended, by changing the zone map thereof so as to rezone the property described in Section 2 hereof by changing the zoning designation from 50/25 Old City Height District classification to 56/30V Old City Height District classification.

Section 2. The property to be rezoned is described as follows:

186 Concord Street (Peninsula) (1.493 acres) (TMS #459-00-00-0091)

Section 3. This ordinance shall become effective upon ratification.

Ratified in City Council this _____day of _____ in the Year of Our Lord _____, in the _____ Year of Independence of the United States of America.

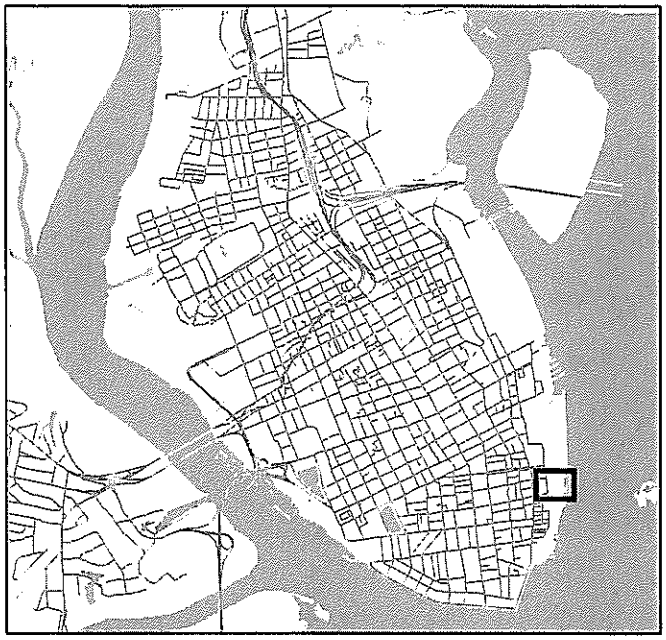
By: _____
John J. Tecklenburg
Mayor, City of Charleston

Attest: _____
Vanessa Turner Maybank
Clerk of Council

City of Charleston

City Council
June 21, 2016

Area



Rezoning

186 Concord St (Peninsula)

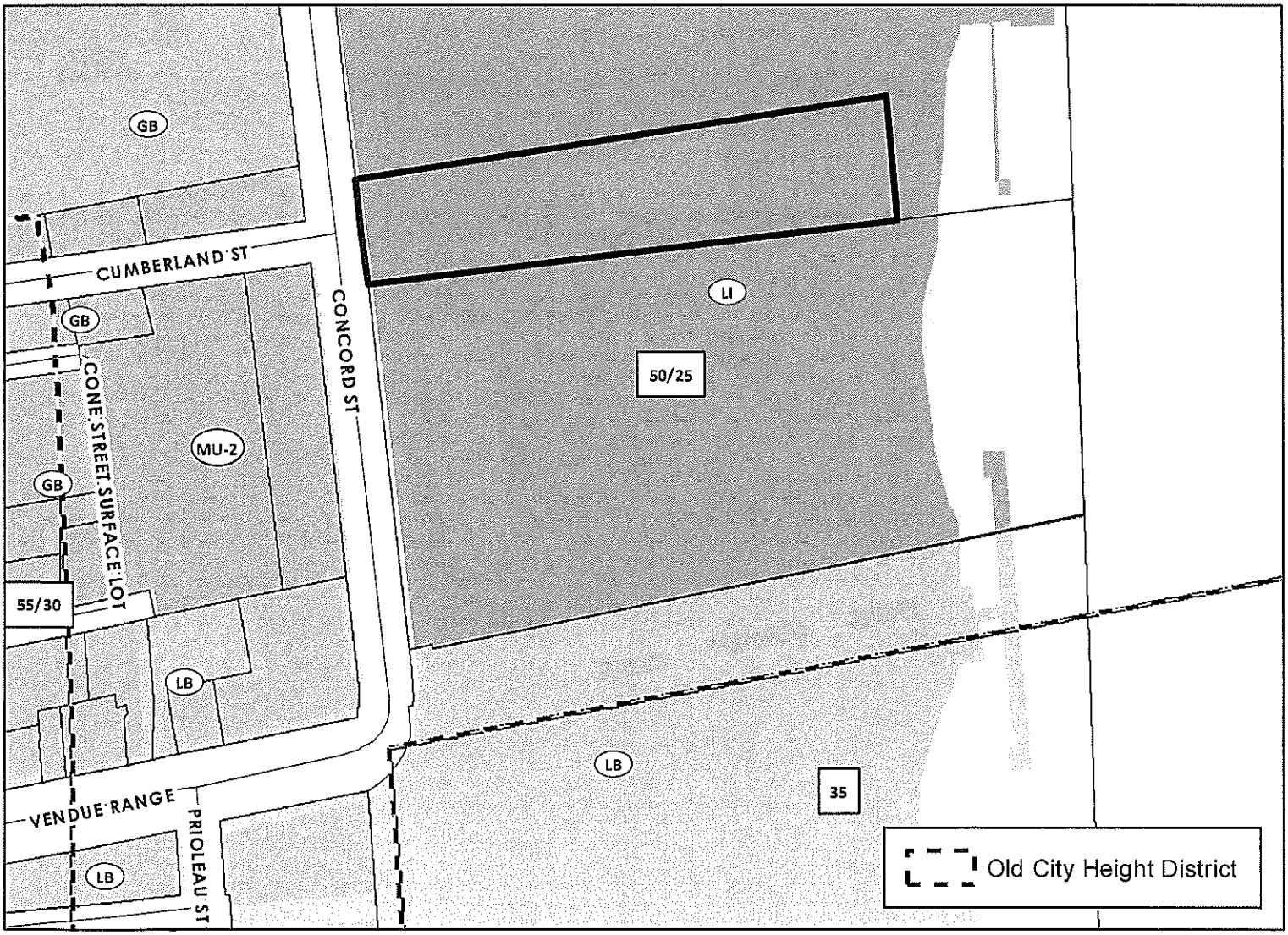
TMS# 45900000091

1.493 ac.

Request rezoning from 50/25 Old City Height District to 56/30V Old City Height District.

Owner: SC State Ports Authority
Applicant: Leucadia Coast Investor LLC

Location



N

L5.)

Ratification
Number_____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON (ZONING ORDINANCE) BY AMENDING SECTION 54-208.1 BED AND BREAKFASTS NOT LOCATED WITHIN THE OLD AND HISTORIC DISTRICT, TO CLARIFY WHERE BED AND BREAKFASTS ARE PERMITTED IN AREAS OUTSIDE THE OLD AND HISTORIC DISTRICT

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. That subsection "a." of Section 54-208.1 of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by deleting text shown below with a ~~strikethrough~~ and adding text shown below with a double-underline:

"a. A bed and breakfast may be established in a dwelling unit as an accessory to the principal residential use, on any property located on the Charleston peninsula in the Old City District ~~or~~ south of the Highway 17 Septima Clark Expressway right-of-way and not located within the Old and Historic District, or on any property located south of the Highway 17 Septima Clark Expressway and not located within the Old and Historic District, where the zoning administrator, after reviewing a bed and breakfast application, finds that the following requirements are met:

Section 2. That subsection "a., 2." of Section 54-208.1 of Chapter 54 of the Code of the City of Charleston (Zoning Ordinance) is hereby amended by deleting text shown below with a ~~strikethrough~~ and adding text shown below with a double-underline:

"2. The subject property shall be located within the Old City District ~~or~~ south of the Highway 17 Septima Clark Expressway right-of-way and not located within the Old and Historic District, or south of the Highway 17 Septima Clark Expressway and not within the Old and Historic District; and"

Section 3. This Ordinance shall become effective upon ratification.

Ratified in City Council this _____ day of
_____ in the Year of Our Lord, 2016,
and in the _____ Year of the Independence of
the United States of America

_____
John J. Tecklenburg, Mayor

ATTEST: _____
Clerk of Council