

A G E N D A
JAMES CITY COUNTY PLANNING COMMISSION
REGULAR MEETING
County Government Center Board Room
101 Mounts Bay Road, Williamsburg VA 23185
December 5, 2018
6:00 PM

A. CALL TO ORDER

B. ROLL CALL

C. PUBLIC COMMENT

D. REPORTS OF THE COMMISSION

E. CONSENT AGENDA

1. Minutes of the November 7, 2018 Regular Meeting

F. PUBLIC HEARINGS

1. SUP-18-0026. 6096 Centerville Road Detached Accessory Apartment
2. SUP-18-0029. 7206 Merrimac Trail Rental of Rooms Renewal
3. REZONING-18-0004/HEIGHT LIMITATION WAIVER-18-0002. Oakland Pointe
4. Case No. ORD18-0007. Consideration of a Zoning Ordinance Amendment to Authorize the Board of Zoning Appeals to Grant a Reasonable Modification in Accordance with the Americans with Disabilities Act or State and Federal Fair Housing Laws, as Applicable
5. Case Nos. ORD-18-0010 and ORD-18-0011. Amendments to Address a Code of Virginia Change Prohibiting Mandatory Conceptual Plans

G. PLANNING COMMISSION CONSIDERATIONS

H. PLANNING DIRECTOR'S REPORT

1. Planning Director's Report - December 2018

I. PLANNING COMMISSION DISCUSSION AND REQUESTS

J. ADJOURNMENT

ITEM SUMMARY

DATE: 12/5/2018

TO: The Planning Commission

FROM: Paul D. Holt, III, Secretary

SUBJECT: Minutes of the November 7, 2018 Regular Meeting

ATTACHMENTS:

	Description	Type
	Minutes of the November 7, 2018 Regular Meeting	Minutes

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/24/2018 - 8:15 AM
Planning Commission	Holt, Paul	Approved	11/24/2018 - 8:31 AM
Publication Management	Burcham, Nan	Approved	11/26/2018 - 7:43 AM
Planning Commission	Holt, Paul	Approved	11/26/2018 - 7:56 AM

MINUTES
JAMES CITY COUNTY PLANNING COMMISSION
REGULAR MEETING
County Government Center Board Room
101 Mounts Bay Road, Williamsburg VA 23185
November 7, 2018
6:00 PM

A. CALL TO ORDER

Mr. Danny Schmidt called the meeting to order at 6:00 p.m.

B. ROLL CALL

Planning Commissioners Present:

Rich Krapf
Danny Schmidt
Jack Haldeman
Frank Polster
Julia Leverenz

Planning Commissioners Absent:

Heath Richardson
Tim O'Connor

Staff Present:

Paul Holt, Director of Community Development and Planning
Max Hlavin, Deputy County Attorney

C. PUBLIC COMMENT

Mr. Schmidt opened Public Comment.

As no one wished to speak, Mr. Schmidt closed Public Comment.

D. REPORTS OF THE COMMISSION

Mr. Rich Krapf stated that the Development Review Committee (DRC) met on October 24, 2018 to consider two cases.

Mr. Krapf stated that SP-0047-2018, 4521 John Tyler Highway McDonald's Site Improvements was before the Committee because the applicant requested approval to use a new color for the exterior of the existing building. Mr. Krapf stated that the 1993 Special Use Permit requires DRC review and approval of all building designs including paint color. Mr. Krapf stated that the Committee unanimously approved the proposed color for the building.

Mr. Krapf stated that C-18-0091, 4621 Ware Creek Road - Overhead Utility Waiver was before the Committee because the Zoning Ordinance requires all new utility connections to be placed underground. Mr. Krapf stated that the applicant has requested a waiver to this requirement, which may be permitted by approval of the Planning Commission per the recommendation of the DRC. Mr. Krapf stated that the applicant received permission from the adjacent property owner to use an existing power pole and extend the overhead line through a utility easement over Ware Creek Road to a pole on his property. Mr. Krapf stated that the

line would be an extension of existing overhead service, the adjacent property owner will only grant an overhead utility easement, the extension would be a short distance from the existing service to the property and once the power line reaches the transformer the power line will be buried underground to the proposed house. Mr. Krapf stated that because of these factors the Committee voted to approve the waiver with the condition that the easement be recorded in the office of the Clerk of the Circuit Court for the City of Williamsburg and County of James City within 30 days of Planning Commission approval.

Mr. Krapf noted that the Committee discussed the timeline for the Planning Commission to provide discussion topic suggestions for the upcoming Comprehensive Plan review. Topics of interest include Agricultural and Forestal Districts, Purchase of Development Rights, the Primary Service Area and Rural Lands. Mr. Krapf stated that staff would research and respond.

E. CONSENT AGENDA

1. Minutes of the October 17, 2018 Special Meeting
2. Development Review Committee Action Item: Case No. C-18-0091. 4621 Ware Creek Road - Overhead Utility Waiver
3. Development Review Committee Action Item: Case No. SP-0047-2018. 4521 John Tyler Highway McDonald's Site Improvements

Mr. Krapf made a motion to approve the Consent Agenda.

On a voice vote the Commission voted to approve the Consent Agenda (5-0).

F. PUBLIC HEARINGS

There were no Public Hearing items.

G. PLANNING COMMISSION CONSIDERATIONS

1. Initiation of Consideration of Amendments to the Zoning Ordinance to Authorize the Board of Zoning Appeals to Grant a Reasonable Modification in Accordance with the Americans with Disabilities Act

A motion to Approve was made by Jack Haldeman, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 2

Ayes: Haldeman, Krapf, Leverenz, Polster, Schmidt

Absent: O'Connor, Richardson

Mr. Paul Holt, Director of Community Development and Planning, stated that during the 2018 session of the General Assembly amendments were made to Section 15.2-2259 of the Code of Virginia. The amendment language states: "the local planning commission or other agent shall not delay the official submission of any proposed plat, site plan or plan of development by requiring presubmission conferences, meetings or reviews." Mr. Holt stated that after consultation with the County Attorney's office, it is staff's understanding that this language prohibiting the requirement of "presubmission reviews" would also prohibit the requirement for conceptual plan submissions.

Mr. Holt stated that conceptual plans have been a part of the County's Zoning and Subdivision Ordinances for many years. Mr. Holt stated that for most of that time, the sections covering

conceptual plans were worded to encourage their submission, but not require it. However, in 2016 the site plan section of the Zoning Ordinance was amended to require “enhanced conceptual plans” prior to the submission certain types of development. Mr. Holt stated the recent change now effectively prohibits that requirement.

Mr. Holt stated that staff proposes to revise the Zoning and Subdivision Ordinance in order to ensure compliance with the current State Code language. Mr. Holt stated that staff recommends the Planning Commission adopt the attached resolution to formally initiate consideration of such amendments to the Zoning and Subdivision Ordinance. Mr. Holt noted that adoption of this Ordinance is a procedural step required under State Code and will not constitute a change to County Code.

Mr. Krapf inquired if applicants would still be able to submit a conceptual plan voluntarily.

Mr. Holt stated that the proposed amendments would closely resemble the language used prior to the 2016 changes. Mr. Holt noted that the earlier language encouraged submission of a conceptual plan.

Mr. Jack Haldeman inquired if the resolution could be revised to state that the amendment is being made to conform to State Code mandates.

Mr. Max Hlavin, Deputy County Attorney, stated that process requires that the resolution identify one of the public purposes referenced in State Code which are public necessity, convenience, general welfare or good zoning practice. Mr. Hlavin noted that the language provided in the proposed resolution is the County’s standard Initiation Resolution language.

Mr. Haldeman inquired if it is necessary to identify the public necessity, convenience, general welfare or good zoning practice that is advanced by the amendment.

Mr. Hlavin stated that the Commission does not need to have a substantive discussion of what those are. Mr. Hlavin further stated that the suggested edit would meet State Code requirements.

Ms. Julia Leverenz inquired if conforming to State Code would constitute public necessity.

Mr. Hlavin stated that it would.

Mr. Frank Polster requested that staff and the Policy Committee consider the need for detailed information about projects, especially small residential subdivisions, in regard to environmental impacts.

Mr. Schmidt stated that he concurs with the proposed amendment to the resolution.

Mr. Krapf stated that he would be surprised if the amendment reduces the number of conceptual plans submitted. Mr. Krapf further stated that he believes applicants prefer the conceptual plan process to receive feedback before they invest in detailed engineered drawings.

Mr. Polster noted that this is his point regarding the lack of detailed information.

Mr. Krapf stated that the more detailed drawings come after the legislative process at the site plan or construction drawings stage. Mr. Krapf stated that he finds conceptual plans very valuable to the review process and hopes applicants will continue to submit them. Mr. Krapf further stated that he also concurs with the proposed edit to the resolution.

Mr. Haldeman made a motion to amend the fourth paragraph to read “Whereas, the Commission is of the opinion that conforming to State Code is good zoning practice and warrants the consideration of amendments to the Subdivision and Zoning Ordinance.”

Mr. Holt inquired if Mr. Haldeman was including approval of the Initiating Resolution in his motion.

Mr. Haldeman confirmed.

On a roll call vote the Commission voted to adopt the Initiating Resolution as amended (5-0).

2. Initiation of Consideration of Amendments to the Zoning and Subdivision Ordinance to Address a Code of Virginia Change Prohibiting Mandatory Conceptual Plans

A motion to Approve was made by Jack Haldeman, the motion result was Passed.

AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 2

Ayes: Haldeman, Krapf, Leverenz, Polster, Schmidt

Absent: O'Connor, Richardson

Mr. Holt stated that during the 2018 session of the General Assembly, amendments were made to Section 15.2-2309 of the Code of Virginia that provide authority to the Board of Zoning Appeals to alleviate a hardship by granting a reasonable modification to a property or improvement thereon requested by, or on behalf of, a person with a disability in accordance with the Americans with Disabilities Act.

Mr. Holt stated that staff recommends the Planning Commission adopt the attached resolution to initiate consideration of such amendment to the Zoning Ordinance to ensure compliance with the Code of Virginia and refer this matter to the Policy Committee.

Mr. Haldeman made a motion to recommend approval and amend the fifth paragraph to read “Whereas, the Commission is of the opinion that conforming to State Code is good zoning practice and warrants the consideration of amendments to the Subdivision and Zoning Ordinance.”

On a roll call vote the Commission voted to adopt the Initiating Resolution as amended (5-0).

H. PLANNING DIRECTOR'S REPORT

1. Planning Director's Report - November 2018

Mr. Holt stated that he had nothing in addition to the report provided in the Agenda Packet.

I. PLANNING COMMISSION DISCUSSION AND REQUESTS

Mr. Haldeman inquired about the schedule for the Capital Improvements Program process.

Mr. Holt stated that department heads are in the process of submitting their applications. Mr. Holt noted that the process has moved to an online application and review system. Mr. Holt stated that the Policy Committee's December meeting will include training on the new elements of the process and that the review would begin in January.

J. ADJOURNMENT

Mr. Haldeman made a motion to adjourn.

The meeting was adjourned at approximately 6:25 p.m.

Danny Schmidt, Vice Chair

Paul D. Holt, III, Secretary

ITEM SUMMARY

DATE: 12/5/2018

TO: The Planning Commission

FROM: Alex Baruch, Senior Planner

SUBJECT: SUP-18-0026. 6096 Centerville Road Detached Accessory Apartment

ATTACHMENTS:

	Description	Type
☐	Staff Report	Staff Report
☐	Location Map	Backup Material
☐	Proposed SUP Conditions	Backup Material
☐	Master Plan	Backup Material
☐	Proposed Garage/Apartment Layout and Elevation	Backup Material
☐	Proposed Single-Family Home Layout and Elevation	Backup Material
☐	Building Plot Plan for Structures	Backup Material
☐	Applicant Letter	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/28/2018 - 8:28 AM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 8:28 AM
Publication Management	Daniel, Martha	Approved	11/28/2018 - 9:10 AM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 1:02 PM

SPECIAL USE PERMIT-18-0026. 6096 Centerville Road Detached Accessory Apartment

Staff Report for the December 5, 2018, Planning Commission Public Hearing**SUMMARY FACTS**

Applicant: Mr. Antwyne Anderson, Jr.

Land Owners: Mr. Antwyne Anderson, Jr. and Mrs. Tara Anderson

Proposal: The construction of a 374-square-foot detached accessory apartment to be occupied by the landowners' family member.

Location: 6096 Centerville Road

Tax Map/Parcel No.: 3110100027

Project Acreage: +/- 4.52 acres

Zoning: A-1, General Agricultural

Comprehensive Plan: Low-Density Residential

Primary Service Area: Inside
(PSA)

Staff Contact: Alex Baruch, Senior Planner

PUBLIC HEARING DATES

Planning Commission: December 5, 2018, 6:00 p.m.
Board of Supervisors: January 8, 2019, 5:00 p.m. (tentative)

FACTORS FAVORABLE

1. With the proposed conditions, staff finds the proposal will not impact the surrounding zoning and development.
2. With the proposed conditions, staff finds the proposal consistent with the recommendations of the Comprehensive Plan adopted in 2015, "Toward 2035: Leading the Way."

FACTORS UNFAVORABLE

1. With the attached Special Use Permit (SUP) conditions, staff finds no unfavorable factors.

SUMMARY STAFF RECOMMENDATION

Approval, subject to the proposed conditions.

PROJECT DESCRIPTION

Mr. and Mrs. Anderson have applied for an SUP to allow a detached accessory apartment to be occupied by their grandmother. The property is currently vacant and building permits have been submitted for this proposal and are under review. The detached accessory structure will be 748 square feet with the proposed apartment taking up 374 square feet (50%) of the total structure. The other half of the structure will be used as a garage.

A-1, General Agricultural, allows accessory apartments as a specially permitted use in accordance with 24-32(b) of the James City County Code. Section 24-32(b) states that detached accessory apartments, where approved, shall comply with the following requirements:

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

SPECIAL USE PERMIT-18-0026. 6096 Centerville Road Detached Accessory Apartment

Staff Report for the December 5, 2018, Planning Commission Public Hearing

1. Only one accessory apartment shall be created per lot.

Staff Analysis: Only one accessory apartment is proposed with this application.

2. The accessory apartment may not occupy more than 50% of the floor area of the accessory structure and shall meet all setback, yard and height regulations applicable to accessory structures in the zoning district in which it is located.

Staff Analysis: Attachment No. 4 shows that only 374 square feet of the proposed detached structure will be a part of the accessory apartment which is 50% of the proposed detached structure. Attachment No. 6 shows the lot layout which meets all of the setbacks, yard and height regulations for the A-1 Zoning District.

3. The accessory apartment shall not exceed 400 square feet in size and shall meet all setback, yard and height regulations applicable to accessory structures in the zoning district in which it is located.

Staff Analysis: Attachment No. 4 shows that the proposed accessory apartment will be 374 square feet of the detached structure which is less than 400 square feet. Attachment No. 6 shows the lot layout which meets all of the setbacks, yard and height regulations for the A-1 Zoning District.

4. The property owner or an immediate family member as defined in Section 19-17 of the subdivision Ordinance shall reside in either the single-family dwelling or the accessory apartment.

Staff Analysis: In the applicant's letter (Attachment No. 7) the applicant states that the detached accessory apartment will be

occupied by the owners' grandmother and the applicant will be residing in the main structure.

5. Approval from the Health Department shall be required where the property is served by an individual well and/or sewer disposal system.

Staff Analysis: On November 14, 2018, the Virginia Department of Health approved the proposed septic system for the house and detached accessory structure.

6. The accessory structure shall be so designed such that the size and scale of the structure is compatible with surrounding structures.

Staff Analysis: Attachment Nos. 4 and 5 show the design of the accessory structure to be compatible with surrounding structures.

7. Off-street parking shall be required in accordance with Section 24-54 of this chapter.

Staff Analysis: Section 24-59 states that the minimum off-street parking required for a single-family unit with an accessory apartment is three parking spaces. The house is proposed to have a two-car garage and the detached accessory structure proposes a one-car garage which meets the Ordinance requirement for three parking spaces.

Staff has reviewed the proposed design and finds that all requirements have been met.

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

SPECIAL USE PERMIT-18-0026. 6096 Centerville Road Detached Accessory Apartment

Staff Report for the December 5, 2018, Planning Commission Public Hearing

PLANNING AND ZONING HISTORY

- Case No. S-0054-2004. 6096 Centerville Road Subdivision.
- Case No. S-0069-2006. Bernard Bishop Boundary Line Adjustment.
- Case No. S-0039-2011. Bishop Centerville Road Boundary Line Extinguishment.
- Case No. S-0055-2013. Bishop Centerville Road Boundary Line Adjustment.

SURROUNDING ZONING AND DEVELOPMENT

- Located on Centerville Road.
- Surrounding zoning designations include:
 - a. A-1, General Agricultural, to the north, south and east; R-2, General Residential across Centerville Road to the west, primarily residential parcels.

COMPREHENSIVE PLAN

- The property is designated Low-Density Residential on the 2035 Comprehensive Plan Land Use Map, as are all of the surrounding parcels. Appropriate primary uses recommended by the Comprehensive Plan include single-family homes, duplexes and cluster housing. Staff finds the proposal consistent with Low-Density Residential Comprehensive Plan land use designation adopted in 2015, *“Toward 2035: Leading the Way.”*
- ***Affordable housing options for workforce, young professionals, the disabled and the elderly:*** This proposal provides affordable housing and assistance for a grandparent of the property owner.

- Surrounding Comprehensive Plan designations include:

- a. Low-Density Residential to the north, south, east and west consisting of mostly residential properties.

PUBLIC IMPACTS

1. Anticipated Impact on Public Facilities and Services:

- a. *Streets.* No turn lanes or warrant analyses are required for this project.
- b. This project passes the Adequate Transportation Facilities Test.
- c. *Schools/Fire/Utilities.* This area of the County is served by Fire Station 4 on Olde Towne Road. This parcel is inside the PSA and is served by public water and private septic system. The closest JCSA sewer line is 1700 feet from the property. For a residence within the PSA, a connection is required if the nearest sewer main is 300 feet or less away from the corner of the property. The Health Department has reviewed and approved the proposed septic system.

2. Anticipated Impact on Environmental/Cultural/Historical:

- a. *Environmental:* The Stormwater and Resource Protection Division has reviewed the proposal and approved the application. Additional coordination will take place regarding the construction of the dwellings through inspections of the single-family construction.

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

Staff Report for the December 5, 2018, Planning Commission Public Hearing

- b. *Cultural/Historic*: The subject properties are shown as moderately sensitive areas on the Comprehensive Plan's Archaeologically Sensitive Areas Map (CC-1, page 101).

3. Anticipated Impact on Nearby and Surrounding Properties:

- a. None.

PROPOSED CONDITIONS

- Proposed conditions are provided in Attachment No. 2.

STAFF RECOMMENDATION

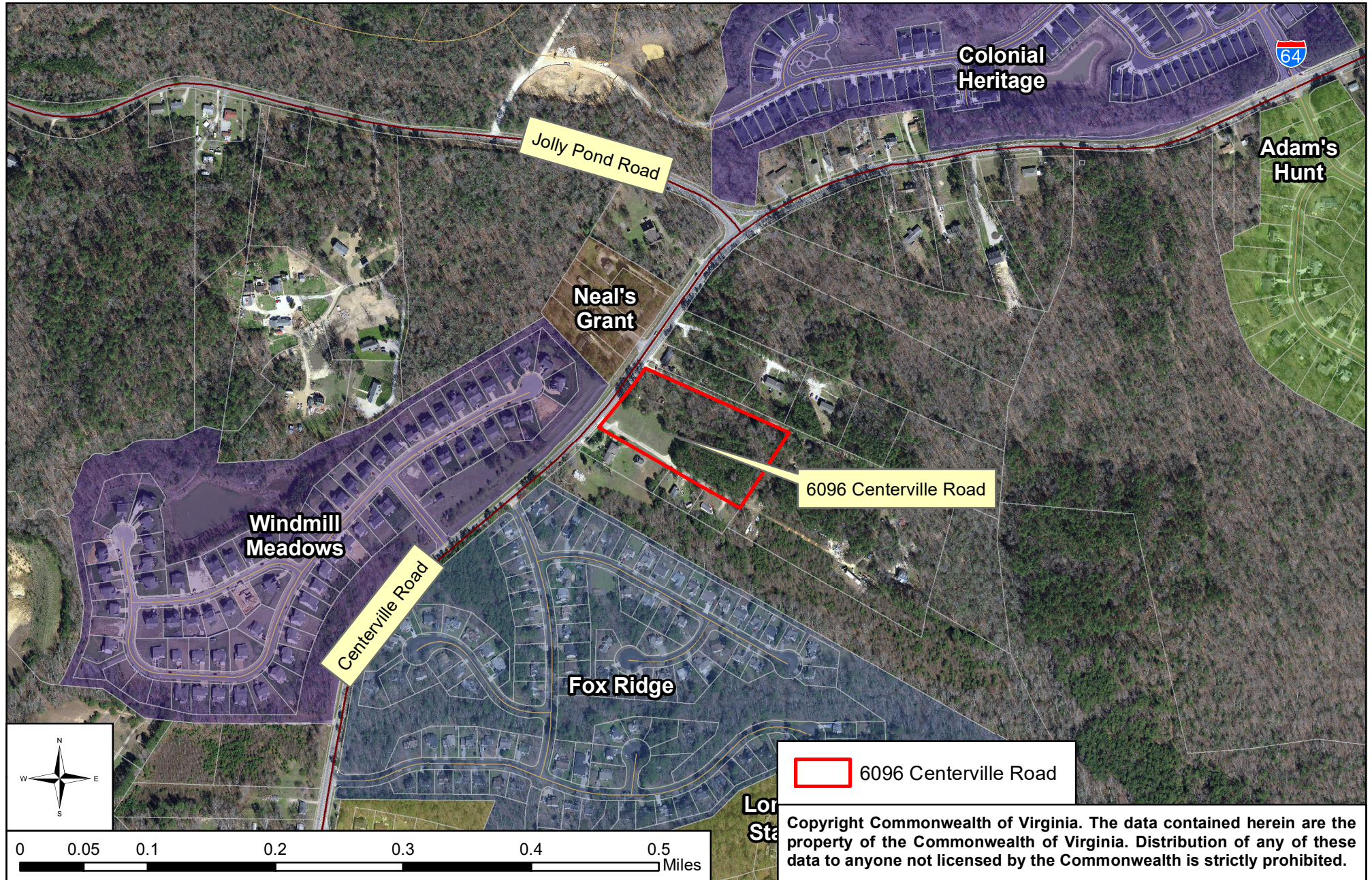
Approval subject to the proposed conditions.

AB/md
SUP18-26CtrRdDet

Attachments:

1. Location Map
2. Proposed SUP Conditions
3. Master Plan
4. Proposed Garage/Apartment Layout and Elevation
5. Proposed Single-Family Home Layout and Elevation
6. Building Plot Plan for Structures
7. Applicant Letter

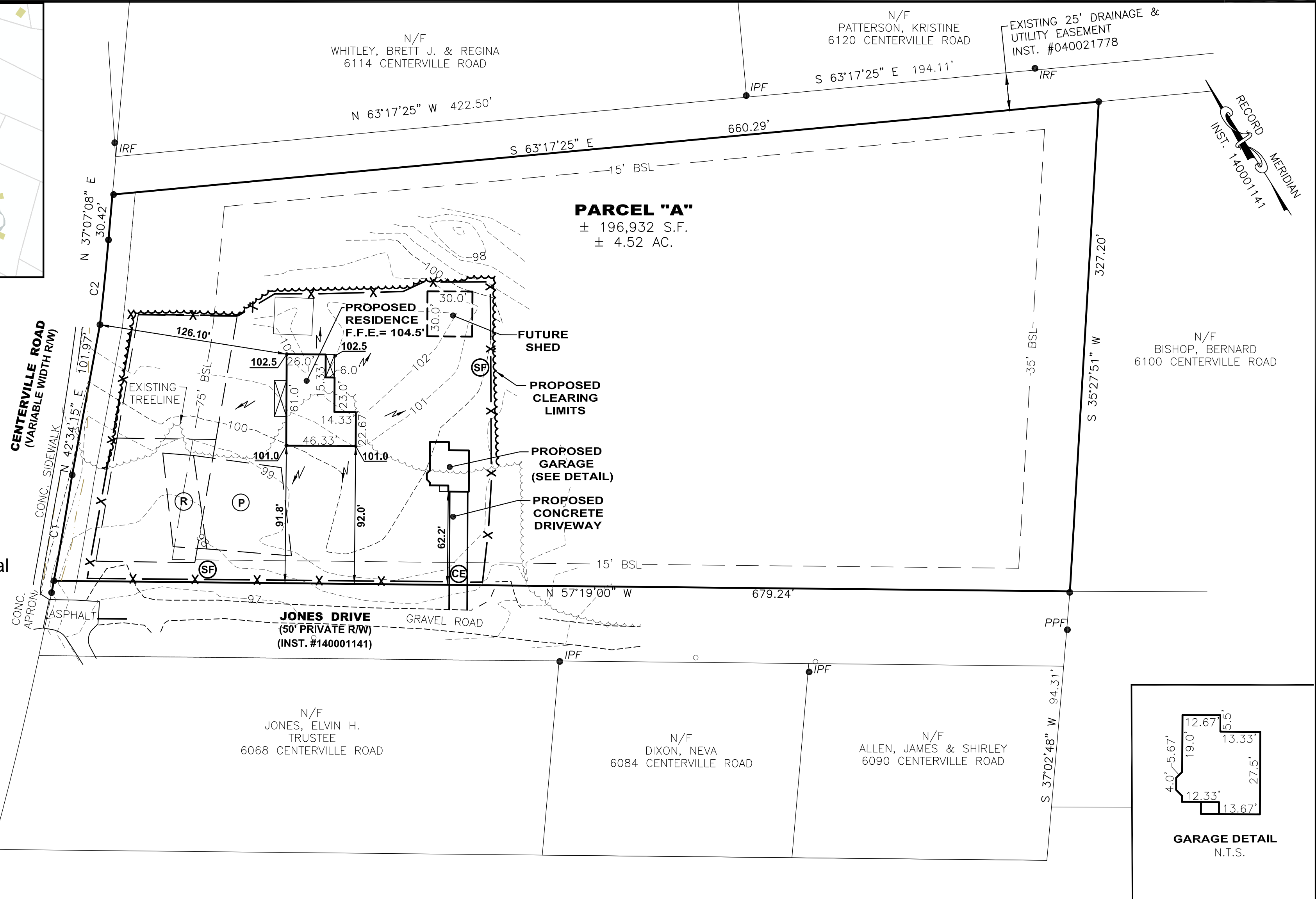
JCC-SUP-18-0026, 6096 Centerville Road Detached Accessory Apartment



Proposed SUP Conditions:

1. *Master Plan:* This SUP shall be valid for a detached accessory apartment (the “Project”) located at 6096 Centerville Road, further identified as James City County Real Estate Tax Map No. 3110100027 (the “Property”). Development of the Project on the Property shall be in accordance with section 24-32(b) of the James City County Code (the “County Code”), as amended, and shall occur generally as shown on the exhibit entitled, “6096 Centerville Road Detached Accessory Apartment,” dated November 19, 2018 (the “Master Plan”), with any deviations considered pursuant to Section 24-23(a)(2) of the County Code, as amended.
2. *Dwelling Occupied:* Within 24 months from the issuance of this SUP a permanent certificate of occupancy for the accessory apartment shall be issued or the SUP shall become void.
3. *Recordation:* A certified copy of the Board of Supervisors’ SUP resolution shall be recorded against the Property in the James City County Williamsburg Circuit Court prior to issuance of any certificate of occupancy for the accessory apartment. Proof of recordation shall be provided to the Zoning Administrator.
4. *Access:* No new ingress/egress points shall be created to Centerville Road. All ingress and egress to the Property shall be via the private right of way shown as Jones Drive on the Master Plan.
5. *Water Conservation Plan:* Water conservation standards shall be enforced on the Property. Water conservation standards shall be submitted to and approved by the James City Service Authority prior to any certificate of occupancy for the detached accessory apartment. The standards may include, but shall not be limited to, such water conservation measures as limitations on the installation and use of irrigation systems and irrigation wells, the use of approved landscaping materials including the use of drought-tolerant plants where appropriate, and the use of water-conserving fixtures and appliances to promote water conservation and minimize the use of public water resources.
6. *Severability:* The SUP is not severable. Invalidity of any word, phrase, clause, sentence, or paragraph shall invalidate the remainder.

Acreage: +/- 4.52



1. Property is not located in a FEMA Flood zone.
2. Site is served by public water and will be served by a septic system.
3. The property does not contain Resource Protection Area.
4. The property will use Jones Drive for ingress/egress and will not create a new ingress/egress point on Centerville Road.
5. A minimum of three parking spots shall be provided (two for the single family home and one for the detached accessory apartment).

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	72.05'	2331.83'	1°46'13"	N 43°27'21" E	72.04'
C2	56.77'	2336.83'	1°23'31"	N 37°48'53" E	56.77'

LEGEND

Ⓒ = CONSTRUCTION ENTRANCE

Ⓓ = RESERVE DRAINFIELD

⒫ = PRIMARY DRAINFIELD

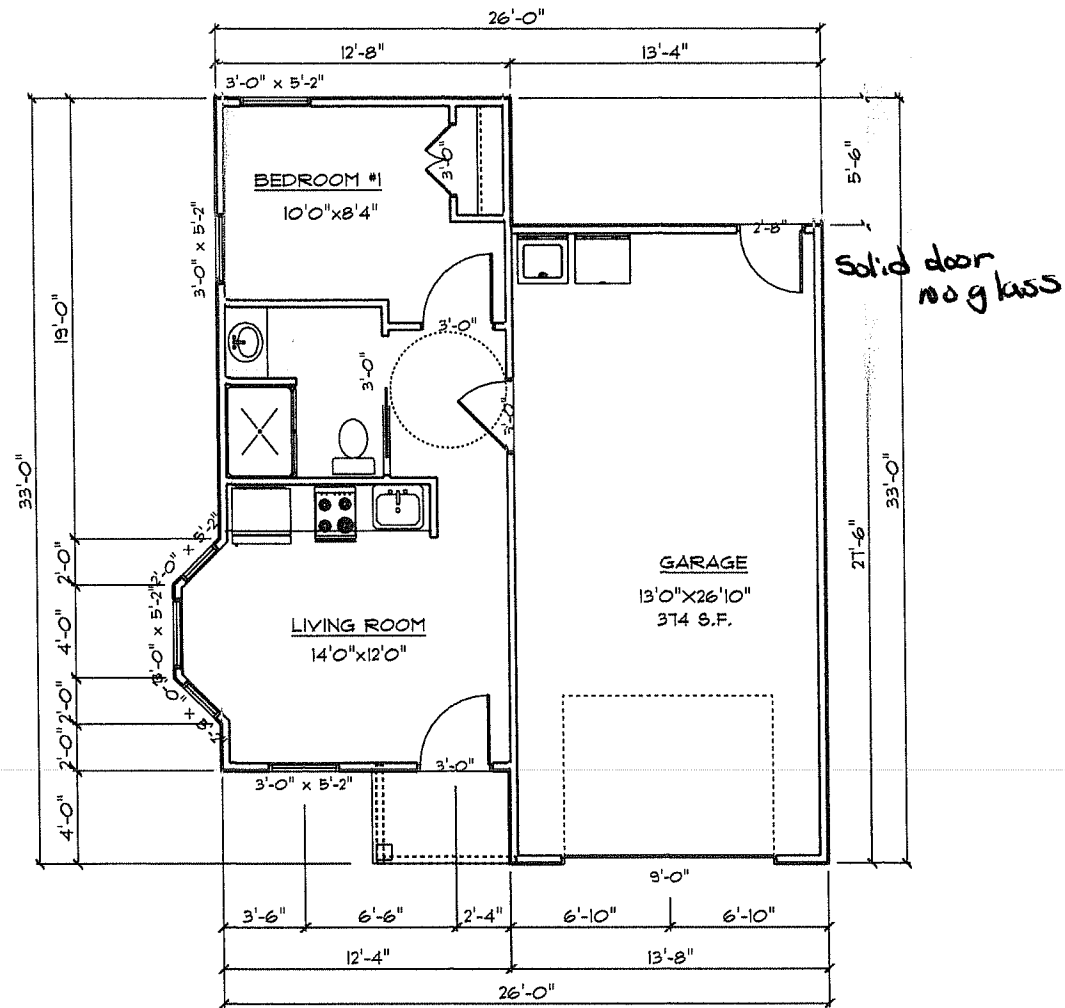
IRF = IRON ROD FOUND

PPF = PINCH PIPE FOUND

IPF = IRON PIPE FOUND



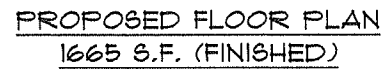
PROPOSED FRONT ELEVATION



PROPOSED GARAGE/APARTMENT
374 S.F. (FINISHED)



PROPOSED FRONT ELEVATION



PROPOSED FLOOR PLAN
1665 S.F. (FINISHED)

GENERAL NOTES

1. A TITLE REPORT HAS NOT BEEN FURNISHED TO THIS FIRM.
2. ELEVATIONS SHOWN HEREON ARE IN FEET.
3. WETLANDS, IF ANY, WERE NOT RESEARCHED OR LOCATED FOR THIS PLAT.
4. THIS FIRM MADE NO ATTEMPT TO LOCATE UNDERGROUND UTILITIES.
5. PARCEL LIES IN F.I.R.M. ZONE "X", AS SHOWN ON COMMUNITY PANEL #51095C0108D, DATED DECEMBER 16, 2015.
6. LOT SERVED BY PRIVATE WELLS AND SEPTIC SYSTEMS.
7. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS SHOWN HEREON.
8. ALL TOPOGRAPHIC DATA AS SHOWN IS BASED ON JAMES CITY COUNTY G.I.S. INFORMATION.
9. CONTRACTOR SHALL DETERMINE EXACT FINISH FLOOR ELEVATION AFTER EXCAVATION.
10. ALL DIMENSIONS SHOWN HEREON ARE TO THE FRAME LINE OF THE BUILDING.
11. DRAINFIELD LOCATIONS SHOWN ARE PROPOSED.

EROSION & SEDIMENT CONTROL

NOTES

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE "VIRGINIA EROSIONS AND SEDIMENT CONTROL HANDBOOK 1992 THIRD EDITION". THE CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH ALL APPLICABLE MEASURES CONTAINED THEREIN WHICH MAY BE PERTINENT TO THIS PROJECT.

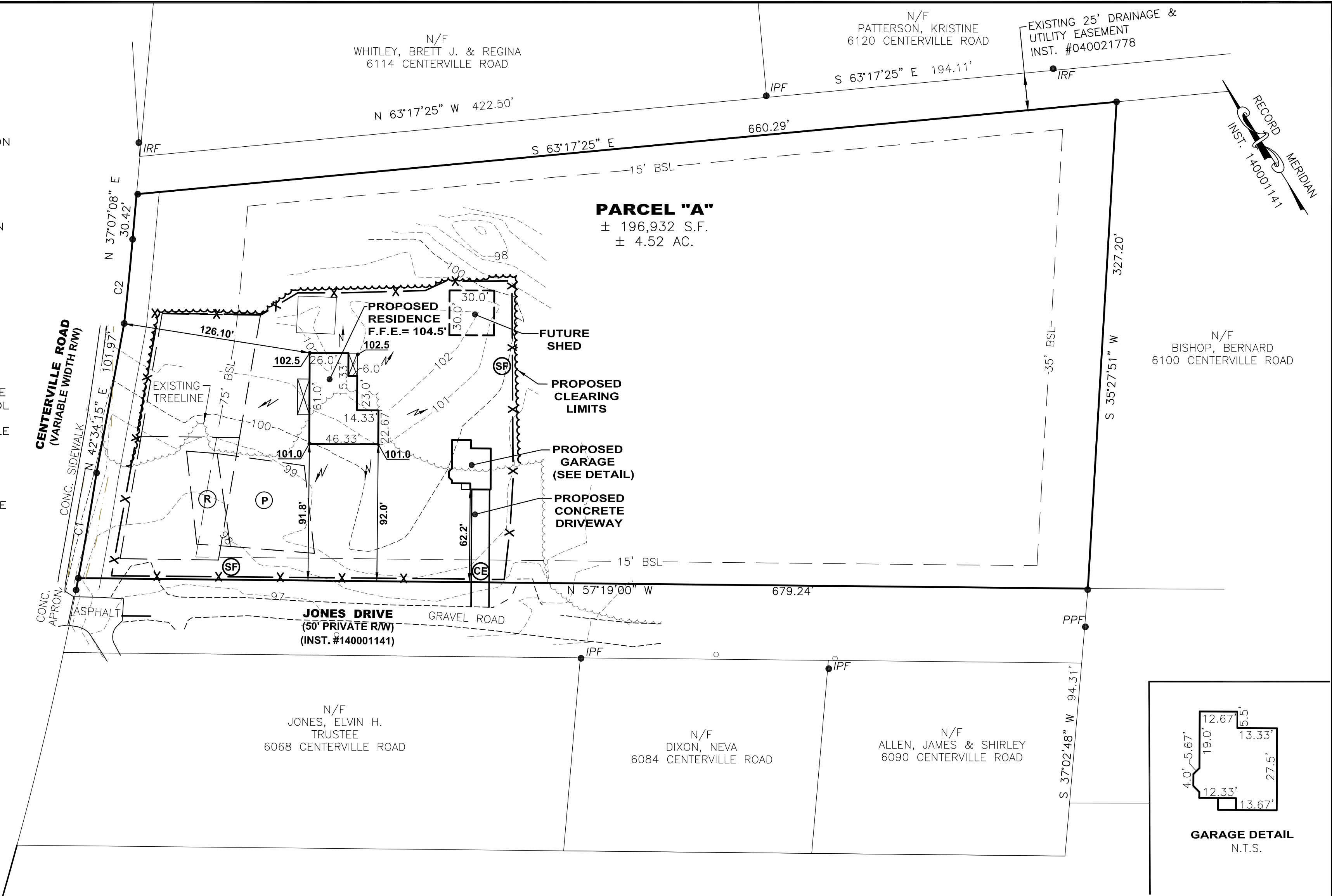
BUILDING INFORMATION

PROPOSED BUILDING IS A 1-STORY FRAME RESIDENCE
PROPOSED GARAGE IS A 1 BAY, SIDE LOADING

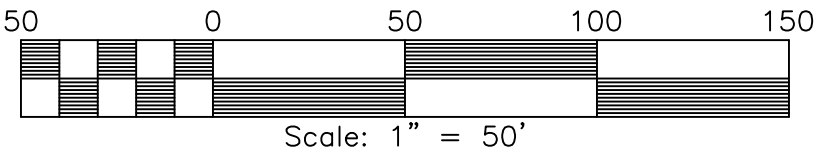
SITE INFORMATION
PARCEL "A",
"PLAT OF BOUNDARY LINE ADJUSTMENT BETWEEN THE PROPERTIES OF BERNARD BISHOP, JR. & ELVIN H. JONES".
TOTAL AREA: ± 196,932 S.F. / ± 4.52 AC.
IMPERVIOUS AREA: 6,079 S.F. / 0.139 AC.
DISTURBED AREA: 47,450 S.F. / 1.089 AC.
PARCEL ID: 3110100027
ZONING DISTRICT: A1 (GENERAL AGRICULTURE)
PROPERTY IS NOT LOCATED IN AN RPA OR RMA

BUILDING SETBACK (BSL)
FRONT: 75' BSL
REAR: 35' BSL
SIDE: 15' BSL

EXISTING ADDRESS:
6096 CENTERVILLE ROAD
JAMES CITY COUNTY, VIRGINIA



- LEGEND
- (CE) = CONSTRUCTION ENTRANCE
- (R) = RESERVE DRAINFIELD
- (P) = PRIMARY DRAINFIELD
- IRF = IRON ROD FOUND
- PPF = PINCH PIPE FOUND
- IPF = IRON PIPE FOUND



CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	72.05'	2331.83'	1°46'13"	N 43°27'21" E	72.04'
C2	56.77'	2336.83'	1°23'31"	N 37°48'53" E	56.77'



DATE: 10/22/2018
DRAWN BY: LRI
PROJECT No. 18-408
FILE NAME: 18-408.DWG
REFERENCES:
INST. #140001141

PLOT PLAN OF
#6096 CENTERVILLE ROAD
FOR
WAYNE HARBIN BUILDER

JAMES CITY COUNTY

VIRGINIA

NO.	DATE	REVISION / COMMENT / NOTE
1	10/25/2018	REVISED DRAINFIELD



Board of Supervisors,

I'd like to request a Special Use Permit to build a detached accessory apartment alongside my home that is due to begin being built shortly.

Me and my wife Tara Anderson would like to have this available for our grandmother whom is a recent double leg amputee. We are her primary providers from a distance as she currently lives in Michigan and realize that she will need relocate to Virginia so that we can provide her better care. This detached apartment would make this a possibility on our newfound property. Me, my wife and two kids plan to utilize our main home being built as our primary residence.

We will only be building one detached accessory apartment on the property and it will be positioned on the back side of the main house. The space will have 374 square feet of both finished livable space as well as garage space for a total of 748 square feet. The exterior siding and roof materials will be an exact match to our main home being built.

Wayne Harbin Builder and I have agreed to a contract for both dwellings that I'm sure will meet all requirements. Langley FCU has pre-approved me for complete financing of all things included as well.

Your time reviewing this request for a Special Use Permit is greatly appreciated. I'm extremely hopeful that it will be granted and look forward to the feedback.

Thanks,

Antwyne Anderson Jr.

ITEM SUMMARY

DATE: 12/5/2018

TO: The Planning Commission

FROM: Terry Costello, Deputy Zoning Administrator

SUBJECT: SUP-18-0029. 7206 Merrimac Trail Rental of Rooms Renewal

ATTACHMENTS:

	Description	Type
▣	Staff Report	Staff Report
▣	Location Map	Backup Material
▣	Master Plan	Backup Material
▣	Draft SUP Conditions	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/28/2018 - 8:33 AM
Publication Management	Daniel, Martha	Approved	11/28/2018 - 9:22 AM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 1:02 PM

SPECIAL USE PERMIT-18-0029. 7206 Merrimac Trail Rental of Rooms Renewal

Staff Report for the December 5, 2018, Planning Commission Public Hearing

SUMMARY FACTS

Applicants: Mr. and Mrs. Patrick and Shelby Dillon

Land Owners: Mr. and Mrs. Patrick and Shelby Dillon

Proposal: To renew an existing Special Use Permit (SUP) that allows for the rental of up to three rooms in an owner-occupied home.

Location: 7206 Merrimac Trail

Tax Map/Parcel No.: 4140200073

Project Acreage: +/-1.4 acres

Zoning: R-2, General Residential

Comprehensive Plan: Low-Density Residential

Primary Service Area: Inside

Staff Contact: Terry Costello, Deputy Zoning Administrator

PUBLIC HEARING DATES

Planning Commission: December 5, 2018, 6:00 p.m.

Board of Supervisors: January 8, 2019, 5:00 p.m. (tentative)

FACTORS FAVORABLE

1. With the proposed conditions, staff finds the proposal compatible with surrounding development and consistent with the Comprehensive Plan.
2. The subject property is located on a major right-of-way which is capable of handling traffic generated by the proposed use.
3. The subject property is a corner lot which fronts on two roadways, effectively isolating it from other residential properties in the James Terrace Subdivision. While the property shares a boundary line with three adjacent residences, that shared frontage is well buffered via existing vegetation.
4. The existing driveway is of significant length, is screened from the road via vegetation and provides appropriate parking capacity.
5. The applicants have held a business license for the duration of the current SUP and all fees and taxes are paid.

FACTORS UNFAVORABLE

1. Staff has been made aware of the existence of a restrictive covenant that applies to the subject property and which may affect the rental of rooms on this property. The County Attorney has advised that because the County is not a party to this restrictive covenant, staff lacks the legal authority to interpret whether or not the covenant prohibits the proposed use. The applicants have affirmed that it does not. Any disagreement about this affirmation and/or the covenant is a private matter outside of the County's purview.

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

SUMMARY STAFF RECOMMENDATION

Approval, subject to the proposed conditions.

PROJECT DESCRIPTION

- The proposal is to permit the continued use of the property for the rental of up to three rooms in a private, owner-occupied home. Unlike the “Tourist Home” use, the “Rental of Rooms” use limits rentals to a maximum of three bedrooms and requires the homeowners to continue residing at the property during the time of rentals. This use prohibits the rental of the house as a whole. While the use permits the rental of a maximum of three rooms, the applicant states that it is their intent to limit rentals to two bedrooms on a regular basis.
- No changes in the size of the house or other buildings.
- The property has an existing driveway and an existing parking area sufficient to accommodate guests.
- The applicant does not intend to serve any meals to guests, therefore this is not considered a traditional Bed and Breakfast, but rather falls into an emerging category of rentals commonly known as “Home-Sharing” or “Short-term Vacation Rentals.”
- With this application, a condition to require the applicant to develop water conservation standards as required by James City Service Authority has been included. Also consistent with more recent applications, a condition was added specifying that the owner shall have only one contract for rental for any one given time period.

- The time limit on the SUP was also removed for this renewal. At the time of the original SUP, there were discussions about changing the Zoning Ordinance provisions for short-term rentals. The time limit was to allow those discussions to continue. Since then, there has been no immediate guidance to change the Ordinance.

PLANNING AND ZONING HISTORY

Through an anonymous complaint to the County’s Zoning Division, the house was found to be listed illegally on the popular home-sharing site “Airbnb.” The applicant subsequently submitted a conceptual plan and later a SUP application. The SUP was approved on March 14, 2017, and will expire March 14, 2019. A condition of the SUP was that should the applicant wish to renew, an application would need to be submitted at least 90 days prior to the date of expiration.

SURROUNDING ZONING AND DEVELOPMENT

- The zoning of surrounding properties generally to the north and east is R-2, General Residential, while properties to the west and south are zoned B-1, General Business.
- The property is a part of James Terrace subdivision.
- The property is generally bounded by the James Terrace subdivision to the north and east, by Adams Road to the South and by Merrimac Trail to the West.

COMPREHENSIVE PLAN

The property is designated Low-Density Residential on the 2035 Comprehensive Plan Land Use Map, as are all of the surrounding

SPECIAL USE PERMIT-18-0029. 7206 Merrimac Trail Rental of Rooms Renewal

Staff Report for the December 5, 2018, Planning Commission Public Hearing

parcels. Appropriate primary uses recommended by the Comprehensive Plan include single-family homes, duplexes and cluster housing. Limited commercial uses may also be considered appropriate, should the proposal meet the following standards:

1. Complements the residential character of the area. Staff finds that this use complements the residential character of the area, as this use does not propose any exterior changes, and as the current owners would continue to use the home as their primary residence.
2. Have traffic, noise, lighting and other impacts similar to surrounding residential uses. Given the length of the existing driveway, the size of the lots in this subdivision, and in conjunction with the attached conditions, staff finds the proposal meets this criterion.
3. Generally be located on collector or arterial roads at intersections. This property is located at the corner of Merrimac Trail and Adams Road, and takes access from Merrimac Trail.
4. Provide adequate screening and buffering to protect the character of nearby residential areas. Staff finds that existing vegetation provides adequate screening from the road and adjacent properties. Additionally, staff notes that this use inherently retains the same visual character as nearby residences.

Staff also notes that parcels located to the direct west and south are designated Community Commercial.

PUBLIC IMPACTS

- Anticipated impact on public facilities and services: None.

- Nearby and surrounding properties: No impacts anticipated.

PROPOSED SUP CONDITIONS

- The full text of the proposed conditions is attached.

STAFF RECOMMENDATION

Staff finds the proposal to be compatible with surrounding development and consistent with the 2035 Comprehensive Plan and Zoning Ordinance. Staff recommends the James City County Planning Commission recommend approval of this application to the Board of Supervisors, subject to the attached conditions.

TC/md

SUP18-29-MTrIRmRtl

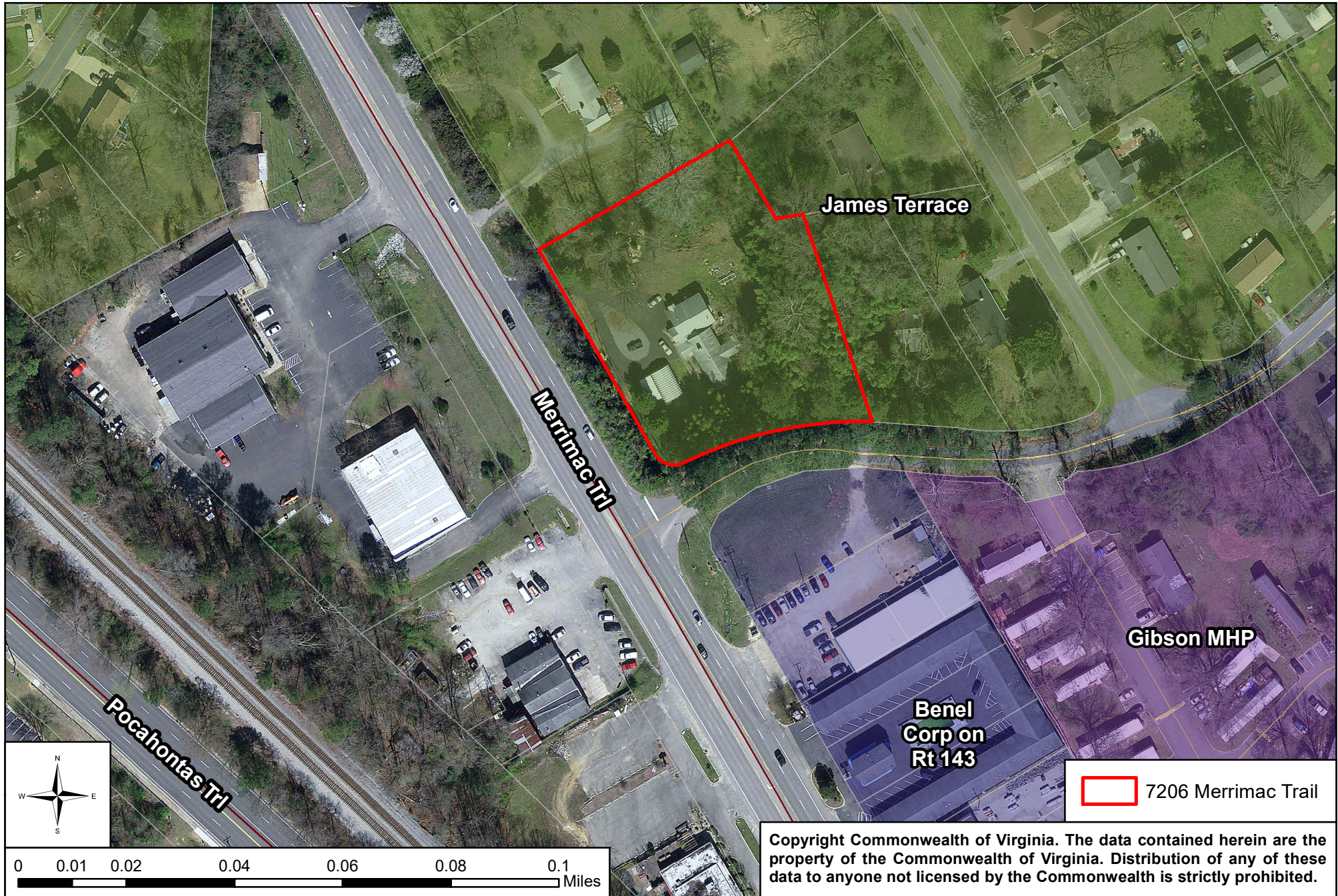
Attachments:

1. Location Map
2. Master Plan
3. Proposed SUP Conditions

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

JCC SUP-18-0029

7206 Merrimac Trail, Rental of Rooms



SUP-18-0029, 7206 Merrimac Trail, Rental of Rooms

Property Information

4140200073
Patrick A. & Shelby C. Dillon
7206 Merrimac Trail
Williamsburg, VA 23185
Zoning: R2, General Residential
Comp. Plan: Low Density Residential
Acres: ±1.38

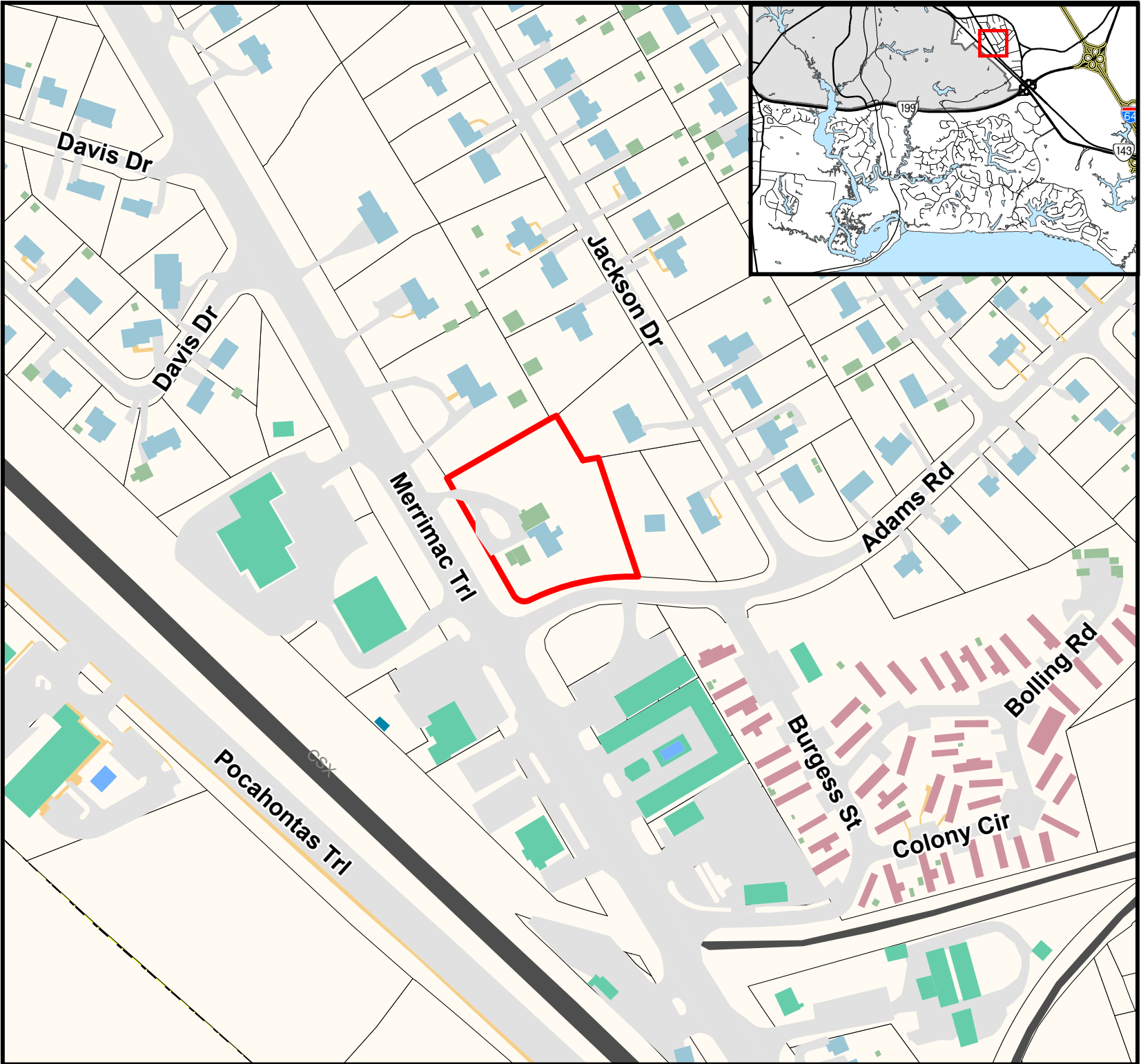
General Notes

1. Site is served by public water and sewer.
2. Property is not located in a FEMA Floodplain zone.
3. Property does not contain Resource Protection Area.
4. Property has an existing driveway.
5. A maximum of four parking spots shall be allowed at one time.

PLANNING DIVISION

November 15 2018

RECEIVED



Maps Not To Scale

Adjacent Properties

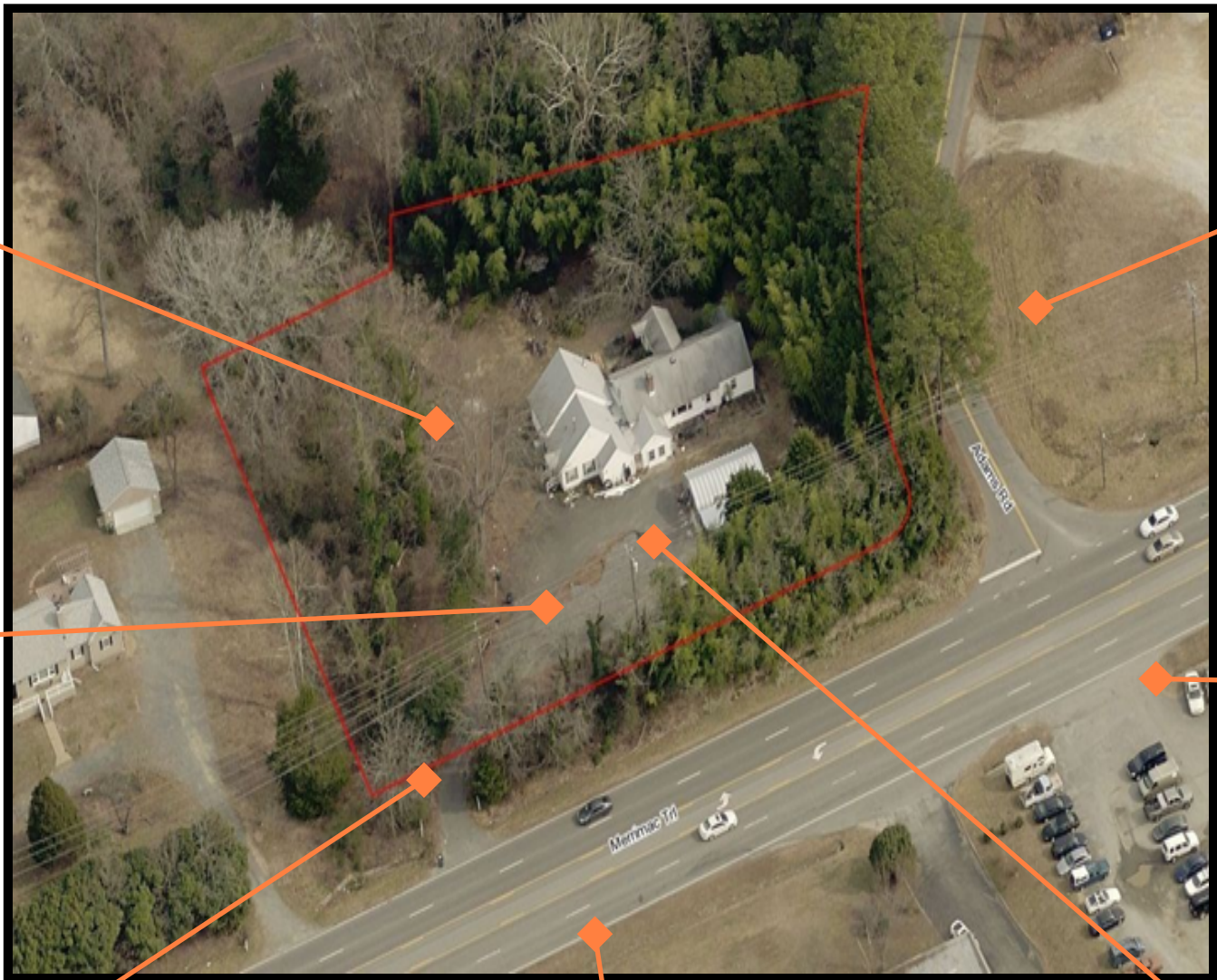
4130100012 Grindstaff Virginia Prop 85 Birchwood Lane Crossville, TN 38555 B1, General Business	4140200061 Overflow LLC 1149 Duncan Drive Williamsburg, VA 23185 R2, General Residential
4130100012A Grindstaff Virginia Prop 85 Birchwood Lane Crossville, TN 38555 B1, General Business	4140200072 Scoggins, Dianne W 7200 Merrimac Trail Williamsburg, VA 23185 R2, General Residential
4140100007A J L H C, LLC 7211 Merrimac Trail Williamsburg, VA 23185 B1, General Business	4140700001 Johnson, Frederick C 7124 Merrimac Trail Williamsburg, VA 23185 B1, General Business
4140200062 Ketron, Jimmy D & Josephine E 910 Jackson Drive Williamsburg, VA 23185 R2, General Residential	4140200074 Southard, Craig S Catherine A 900 Adams Road Williamsburg, VA 23185 R2, General Residential

Sheet Index

1. Cover Page
2. Site Photos

JCC SUP-18-0029

7206 Merrimac Trail, Rental of Rooms



Draft SUP Conditions:

1. Master Plan: This SUP shall permit the rental of rooms on property located at 7206 Merrimac Trail and further identified as James City County Real Estate Tax Map Parcel No. 4140200073 (the "Property"). The use and layout of the Property shall be generally as shown on the document entitled "JCC SUP-18-0029: 7206 Merrimac Trail Rental of Rooms" and date stamped November 15, 2018 (the "Master Plan"), with any deviations considered per Section 24-23(a)(2) of the Zoning Ordinance as amended. This condition does not restrict improvements typical of a residential property as determined by the Director of Planning.
2. Commencement: If the owner has not provided evidence of a current business license for the rental of rooms to the Director of Planning within twelve (12) months from the issuance of the SUP it shall become void.
3. Water Conservation: Water conservation standards shall be enforced on the Property. Water conservation standards shall be submitted to and approved by the James City Service Authority within six (6) months from the issuance of the SUP.
4. Number of Rental Rooms Occupants: There shall be no more than three (3) bedrooms available for rent to visitors and no more than six (6) rental occupants total at any one time.
5. Signage: No signage related to the use of rental of rooms shall be permitted on the Property.
6. Lighting: No additional exterior lighting shall be permitted on the Property, other than lighting typically used at a single-family residence.
7. Parking: No more than four (4) vehicles belonging to rental occupants shall be allowed on the Property at one time. No on-street parking shall be allowed for this use. No onsite parking shall be permitted within 100 feet of the driveway entrance. No oversized commercial vehicles belonging to rental occupants, such as but not limited to buses, commercial trucks, and trailers shall be allowed to park onsite.
8. Contracts per Rental Period: There shall be no simultaneous rentals of the Property under separate contracts.
9. Access: No access, including curb-cuts or driveways, shall be granted from the Property to Adams Road.
10. Severance Clause: This SUP is not severable. Invalidity of any word, phrase, clause, sentence, or paragraph shall invalidate the remainder.

ITEM SUMMARY

DATE: 12/5/2018

TO: The Planning Commission

FROM: Jose Ribeiro, Senior Planner II

SUBJECT: REZONING-18-0004/HEIGHT LIMITATION WAIVER-18-0002. Oakland Pointe

ATTACHMENTS:

	Description	Type
▣	Staff report	Staff Report
▣	Attachment No. 1. Location Map	Exhibit
▣	Attachment No. 2. Master Plan	Exhibit
▣	Attachment No. 3. Community Impact Study	Exhibit
▣	Attachment No. 4 Fiscal Impact Study	Exhibit
▣	Attachment No. 5. Parks and Recreation Letter	Exhibit
▣	Attachment No. 6 Traffic Impact Study	Exhibit
▣	Attachment No. 7, LOS Information for the Intersection of Richmond Road and Oakland Drive	Exhibit
▣	Attachment No. 8. LOS Information for the Intersection of Richmond Road and Croaker Road	Exhibit
▣	Attachment No. 9. Proposed Easement	Exhibit
▣	Attachment No. 10. Height Waiver Application Discussion	Exhibit
▣	Attachment No.11. Draft Height Waiver Conditions	Exhibit
▣	Attachment No. 12. Low Income Tax Credit Program Information	Exhibit
▣	Attachment No. 13. Citizens Correspondence	Exhibit

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/28/2018 - 2:01 PM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 2:02 PM
Publication Management	Burcham, Nan	Approved	11/28/2018 - 3:09 PM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 3:10 PM

REZONING-18-0004/HEIGHT LIMITATION WAIVER-18-0002. Oakland Pointe

Staff Report for the December 5, 2018, Planning Commission Public Hearing**SUMMARY FACTS**

Applicant:	Mr. Timothy O. Trant II, on behalf of Connelly Development, LLC
Land Owner:	Ms. Lisa Joy P. Marston, Trustee
Proposal:	To rezone a total of \pm 14.96 acres of land from A-1, General Agricultural to R-5, Multi-family Residential District for the purpose of constructing up to 126 apartment units. Access to the apartments is proposed via an entrance road on Oakland Drive through an adjacent property. A Height Limitation Waiver application has also been submitted for the proposed apartment buildings to be constructed up to 40 feet from grade.
Locations:	7581 and 7607 Richmond Road
Tax Map/Parcel Nos.:	2310100002 and a portion of 2310100001
Project Acreages:	\pm 14.54 acres and \pm 0.42 acres
Current Zoning:	A-1, General Agricultural
Proposed Zoning:	R-5, Multi-family Residential District
Comprehensive Plan:	Moderate-Density Residential and Low Density Residential
Primary Service Area:	Inside
Staff Contact:	Jose Ribeiro, Senior Planner II

PUBLIC HEARING DATES

Planning Commission: December 5, 2018, 6:00 p.m.

Board of Supervisors: January 8, 2019, 5:00 p.m. (tentative)

FACTORS FAVORABLE

1. Staff finds the proposal will not negatively impact surrounding development.
2. The proposal's density is within the range recommended for lands designated Moderate-Density Residential (MDR) by the adopted Comprehensive Plan.
3. Increases workforce and affordable housing opportunities via an Easement.
4. To support the proposed density, the applicant is proposing to demonstrate a commitment to various Board of Supervisors' adopted policies and to provide other public benefits (including the workforce and affordable housing assurance) through notes on the Master Plan and via an Easement that the County would be a party to (see the "Ability to Guarantee the Development as Proposed" section below for discussion regarding these items).

FACTORS UNFAVORABLE

1. Some of the typical impacts associated with residential development are not mitigated or addressed, including impacts to schools and impacts to public utilities, such as the James City Service Authority (JCSA) (see the "Ability to Guarantee the Development as Proposed" section below for discussion regarding these items).

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

2. The project is fiscally negative per the submitted Fiscal Impact Analysis worksheet.
3. Based on current enrollment data, the proposal does not meet the Adequate Public Schools Facilities Test, adopted by the Board of Supervisors on June 23, 1998.
4. This proposal does not fully meet the recommendations of the Parks & Recreation Master Plan for new residential development within the Parks & Recreation Master Plan. The applicant is seeking an exception from the Board of Supervisors, as further discussed below.
5. Because of traffic from this proposed development, the Level of Service (LOS) for a turning movement (eastbound left turn) at the Croaker Road intersection will worsen. The Traffic Study recommends both physical turn lane improvements and adjustments to the traffic signal timing. The applicant proposes to complete the physical turn lane improvements via a note and depiction on the Master Plan and via an Easement that the County would be a party to. However, the adjustments to the traffic signal timing needed to maintain LOS are at the sole discretion of the Virginia Department of Transportation (VDOT).
6. Citizens have expressed concerns with this proposal.

SUMMARY

The proposed development includes a number of favorable aspects. In addition, the proposed development's density is within the range recommended for lands designated MDR by the adopted Comprehensive Plan. However, central to the MDR language is the following statement from the adopted Comprehensive Plan:

“Development at this density is not recommended unless it offers particular public benefits. Examples of such public benefits include mixed-cost housing, affordable and workforce housing and enhanced environmental protection.”

As discussed in this staff report, the applicant is proposing to offer public benefits and provide assurances to comply with the Board of Supervisors' adopted policies through a combination of notes on the Master Plan, through stated intention in the Community Impact Statement and through a proposed Easement. The applicant is proposing the County be made a party to the Easement.

Through notes on the Master Plan, compliance with Board adopted policies include: a 150-foot-wide Community Character Corridor (CCC) buffer (a 50-foot-wide buffer width is otherwise required for by-right development), the provision of bike and pedestrian improvements consistent with the Board's adopted Bike and Ped Master Plans (bike and pedestrian would not be required if the property was subdivided in accordance with the by-right minor subdivision regulations), an alternative set of recreation facilities designed to comply with the intent of the Parks & Recreation Master Plan, proposed JCSA Water Conservation Standards (also in the Easement Agreement), and based on the project's location within the Yarmouth Creek Watershed, the implementation of Special Stormwater Criteria measures. Architectural renderings have also been included in the proposed Master Plan (also in the Easement). While not a note on the Master Plan, the applicant has also submitted a Phase I Archaeological Study which was reviewed by the Virginia Department of Historic Resources.

Through the Easement, the applicant is proposing that any development occurring on this property that results in a density higher than that allowed by-right under the current A-1 Zoning District (i.e.,

REZONING-18-0004/HEIGHT LIMITATION WAIVER-18-0002. Oakland Pointe

Staff Report for the December 5, 2018, Planning Commission Public Hearing

four minimum 3-acre lots) may only be developed in accordance with Virginia Housing and Development Authority's Low Income Tax Credit Program (or alternative as the County may approve). The applicant is also proposing the following commitments in the Easement:

- Use of the building elevations included in the Master Plan set;
- Achieving EarthCraft/Viridian gold certification (or other comparable certification);
- Development of Water Conservation Standards;
- Construction of the offsite traffic improvements;
- Construction and maintenance of a 5-foot sidewalk across the adjacent property (7575 Richmond Road); and
- Provision of a Nutrient Management Plan (NMP).

In order to achieve a density bonus above nine dwelling units per acre, the applicant proposes to construct each of the buildings to the EarthCraft Gold standard.

There are no Special Use Permit conditions associated with this request. The County Attorney's office has determined that the Easement is legal and would be binding if accepted by the Board of Supervisors.

SUMMARY STAFF RECOMENDATION

With the exception of modifying the existing traffic signal timing at the Croaker Road intersection, staff finds the requirements of the Easement along with the binding Master Plan, would mitigate impacts

from this development. VDOT has indicated that they would modify the traffic signal timing if it was determined to improve the performance of the intersection. However, without knowing whether or not the Board of Supervisors will accept an Easement, staff cannot recommend approval of this application at this time.

The Board of Supervisors will consider the Height Limitation Waiver portion of this application. Proposed conditions have been included for this application as Attachment No. 11 for informational purposes as the Commission does not review Height Limitation Waiver requests.

HISTORY OF THE PROJECT

In May 2018, the applicant requested that the Rezoning and Height Waiver Application for this project under James City County Case No. Z-0003-2017/HW-0002-2017, be withdrawn from consideration. In September 2018, the applicant submitted a revised application for consideration. The main changes proposed by the revised application are:

- The proposed development will have vehicular access only on Oakland Drive through an entrance road crossing adjacent property located at 7606 Richmond Road. The portion of the property where the access road is proposed (± 0.42 acres) is part of the rezoning application.
- With the addition of the ± 0.42 acres to this rezoning application, the proposed density for the entire project was reduced from ± 9.7 to ± 9.4 (there is no reduction in the number of dwelling units).
- Increase in open space areas of ± 1.13 acres.
- Increase in recreation areas of ± 0.5 acres.

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- The clubhouse is now proposed to be located at the western part of the site (next to the proposed access road).
- New improvements to the Route 60/Oakland Drive intersection include:
 - a. Pavement widening between median noses.
 - b. Yield bars and centerline striping.

PROJECT DESCRIPTION

- The applicant is requesting to rezone property at 7581 Richmond Road, from A-1, General Agricultural to R-5, Multi-family Residential District to permit 126 apartment units on ± 14.54 acres. The applicant is also requesting to rezone ± 0.42 acres of property at 7606 Richmond Road from A-1, General Agricultural to R-5, Multi-family Residential District to allow for an access road to connect the apartment units to Oakland Drive. The total area subject to this rezoning application is ± 14.97 acres.

The project proposes a gross density of ± 8.4 units per acre. However, per R-5 Zoning Ordinance requirements, the net density (which takes into account the non-developable portions of the site) is calculated as ± 9.4 units per acre. Per the R-5 District requirements, the project could propose up to a net density of nine units per acre without a need for any density bonuses. In order to achieve the proposed ± 9.4 units per acre net density, the project will need to achieve one bonus density point. From the options available in the Ordinance, the applicant is proposing to achieve the one bonus density point by committing to green building techniques, specifically through the EarthCraft Gold certification. A note to this effect is shown on the Master Plan and there is also

a commitment in the Easement; see the “Ability to Guarantee the Development as Proposed” section above for discussion regarding this item.

- The 126 apartment units are arranged on the site in five buildings. One of the buildings is designed to be handicapped accessible and has an elevator. The Master Plan also shows a clubhouse building.
- The applicant is proposing a private access road and parking area. The proposed private access road is located on a portion of adjacent property at 7606 Richmond Road and subject to this rezoning application. Private roads are permitted by-right in the R-5 District.
- The project is located on a CCC per the adopted Comprehensive Plan, and thus, provides a 150-foot buffer along the Richmond Road frontage of property at 7581 Richmond Road. The Master Plan shows the buffer as retaining the existing wooded character.
- The project includes buffers along the perimeter of the property at 7581 Richmond Road per the R-5 Zoning Ordinance requirements. However, at the rear of the site, the Master Plan shows a portion of the multi-use field within the buffer, which would require Planning Director approval of a buffer depth reduction at the development plan stage. As proposed, the perimeter buffers would largely retain existing trees and would be supplemented with additional landscaping.
- As shown on Sheet 3.0 of the Master Plan, the R-5 recreation requirements would be met through provision of recreation areas at the rear of the development.
- Per the adopted Pedestrian Accommodations Master Plan, this project includes the construction of a sidewalk along the frontage

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of 7581 Richmond Road. The Master Plan also shows a sidewalk connection across the adjacent property (7575 Richmond Road) allowing pedestrian access to the Richmond Road intersection with Croaker Road/Pricket Road. In addition, per the adopted Regional Bikeways Plan, the project includes a shoulder bike lane along the frontage of 7581 Richmond Road.

- If approved, the project will also be required to be constructed to the Design Requirements of the R-5 Zoning Ordinance. These Zoning Ordinance requirements include:
 - All units being served by public water and sewer (private systems are not permitted);
 - Open space to be maintained exclusively for conservation and recreation purposes;
 - The provision of playground equipment;
 - Parking lot light fixtures limited to a height of 15 feet;
 - Separation distances between the buildings a distance at least equal to the heights of the buildings; and
 - Per Section 24-35 of the Zoning Ordinance, sidewalks will also be required along both sides of all streets and driveways, including the entrance road for this project.
- The applicant is proposing to develop this apartment complex in accordance with Virginia Housing and Development Authority's Low Income Housing Tax Credit Program (LIHTC). A brief description of the LIHTC program can be found in Attachment No. 12.

ABILITY TO GUARANTEE THE DEVELOPMENT AS PROPOSED

- The applicant proposes to commit to certain County policies or adopted documents that remain in effect via notes or depictions on the Master Plan document. These would include the proposed building elevations (also in the Easement); development of water conservation standards with the JCSEA (also in the Easement); the road and bicycle/pedestrian improvements (including the off-site improvements at Richmond Road/Croaker and Richmond Road/Oakland Drive and the off-site sidewalk connection across the adjacent property), the access road connecting the apartments to Oakland Drive, the CCC Buffer Guidelines; Parks & Recreation Master Plan Guidelines (with some requested exception elements) and Special Stormwater Criteria from the Yarmouth Creek Watershed Master Plan. A Master Plan is a binding document per Section 24-23 of the Zoning Ordinance. If an applicant proposes to not include an element shown on the Master Plan on subsequent development plans, the Planning Director is charged with making a Master Plan consistency determination based on the following criteria included in the existing Zoning Ordinance: "a (development plan) may deviate from the Master Plan if the Planning Director concludes that the development plan does not: 1) Significantly affect the general location or classification of housing units or buildings as shown on the Master Plan; 2) Significantly alter the distribution of recreation or open space areas on the Master Plan; 3) Significantly affect the road layout as shown on the Master Plan; 4) Significantly alter the character of land uses or other features or conflict with any building conditions place on the corresponding legislatively-approved case associated with the Master Plan." Per the Zoning Ordinance, appeals of a Planning Director determination are made by the Development Review Committee.

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

- The applicant also proposes to achieve a density bonus to allow the project to increase from nine dwelling units per acre to 9.4 dwelling units per acre by achieving EarthCraft Gold certification. The applicant has also indicated that achieving certification would be part of the applicant's planned funding approval from the Virginia Housing Development Authority and has included this commitment in the Easement.
- The applicant also proposes to commit to certain public benefits via provision of an "Easement" which is included as Attachment No. 9. The Easement commits to development of the property "in accordance with the Virginia Housing and Development Authority's Low Income Housing Tax Credit Program or such other affordable housing regime as the County may approve." The applicant is also proposing the following commitments in the Easement:
 - Use of the building elevations included in the Master Plan set;
 - Achieving EarthCraft/Viridian gold certification (or other comparable certification);
 - Development of Water Conservation Standards;
 - Construction of the off-site traffic improvements;
 - Construction and maintenance of a five-foot sidewalk across the adjacent property (7575 Richmond Road);
 - Provision of a NMP; and
 - The applicant has submitted a Phase I Archaeology Study (See discussion on page 10).

PLANNING AND ZONING HISTORY

- The property at 7581 Richmond is zoned A-1, General Agriculture and is currently used as a single residential lot. The property at 7607 Richmond Road is also zoned A-1, General Agricultural and is currently used as a single residential lot and agricultural land, located on both the east and west sides of Oakland Drive.

SURROUNDING ZONING AND DEVELOPMENT

- North and South: A-1, General Agricultural, undeveloped land and residential lots in the Oakland subdivision.
- West: R-1, Limited Residential, residential lots in the Toano Woods subdivision.
- East: One parcel zoned MU, Mixed Use, developed as the CrossWalk Church. The second area is zoned PUD, Planning Unit Development - Residential, under development as the Village at Candle Station neighborhood consisting of single-family detached and multi-family (townhouse) units.

PUBLIC IMPACTS

Anticipated Impact on Public Facilities and Services:

Streets

- A Traffic Impact Study (TIS) was prepared for this development. Based on the Institute of Transportation Engineers manual, the study projects that the development would generate 73 P.M. peak hour trips and approximately 912 daily trips.
- The project is adjacent to Richmond Road which is a four-lane

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road with a median in this area. The entrance road for the project crosses the adjacent parcel and connects with Oakland Drive. The entrance road and the parking area for the project will be privately maintained.

- The segment of Richmond Road immediately in front of the project is currently operating at a LOS A-C and is anticipated to remain operating at this LOS through 2034. The segment of Richmond Road to the east of Croaker Road is listed in the Transportation Chapter of the Comprehensive Plan as “Forecasted 2035 volumes indicate improvement needed. WATCH” (Table T-1).
- The development proposes to connect with Richmond Road through a proposed private road connected to Oakland Drive. There is an existing median break at the intersection of Oakland Drive and Richmond Road that would allow full access to the project to and from both directions of Richmond Road.
- The TIS analyzed the project entrance as well as the two intersections mentioned above. The study included the following improvements:
 - At the intersection of Richmond Road with Croaker Road/Pricket Road, extend the left-turn lane storage on eastbound Richmond Road from 200 feet to 400 feet.
 - At the intersection of Richmond Road with Oakland Drive (median break), construct a 100-foot left-turn lane with a 100-foot taper on westbound Richmond Road. Pavement widening between median noses and yield bars and centerline striping are also proposed.
 - Adjustments to the current signal timing to optimize its

function.

- The TIS includes projected buildout in year 2025 LOS information for the two intersections, with the improvements listed above:

Richmond Road at the Croaker Road/Pricket Road Intersection:

A table showing the projected buildout in year 2025 is included in Attachment No. 8. The table also shows how these LOS compare to the projected 2025 LOS without the project being built. The table shows that with the project buildout the overall intersection LOS stays the same in the A.M. and P.M. peak hours (“C” and “D,” respectively). For eastbound left, the study shows the LOS worsening in the A.M. peak hour (from a “D” to an “E”) and staying the same in the P.M. peak hour (LOS “E”). The study also examined adjustments to the signal timing to optimize its function; if these adjustments were done, it could result in maintaining the eastbound left at a LOS “D” in the A.M. peak hour. Staff notes that adjustments to the traffic signal timing are at the sole discretion of VDOT.

Route 60/Oakland Drive:

A table showing the projected build-out in year 2025 is included in Attachment No. 7. All movements are shown as LOS C or better.

VDOT has reviewed the traffic study and concurs with the improvements recommended by the study.

Parks & Recreation

- As noted above in the Project Description section, this project must meet the R-5 Zoning Ordinance requirements for recreation

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

REZONING-18-0004/HEIGHT LIMITATION WAIVER-18-0002. Oakland Pointe

Staff Report for the December 5, 2018, Planning Commission Public Hearing

area. However, the R-5 requirements do not encompass all aspects of the Development Guidelines contained within the Parks & Recreation Master Plan. The applicant is proposing to meet most Parks & Recreation Development Guidelines through provision of facilities on-site, including parkland, playgrounds and trails. The applicant is requesting an exception to the Guidelines for the multi-use field due to its smaller dimensions (120 foot x 210 foot, instead of 360 foot x 225 foot per the Guidelines). They are also requesting an exception to the courts/pools item. In lieu of the full dimension multi-use field and the court/pool, the applicant has included a dog park area, a second playground (one for toddlers and one for elementary age children) and a pavilion with grills. The applicant's exception request is included as Attachment No. 5. Planning and Parks & Recreation staff are receptive to this request; however, the waiver must be approved by the Board of Supervisors.

- *Requirement:* Park Land - 0.3 acres minimum.
- *Proposed:* 1.30 +/- acres.
- *Requirement:* Biking/Jogging Trails - 404.5 linear feet minimum.
- *Proposed:* 1,013 linear feet of soft surface trail and 2,367 linear feet of hard surface trail.
- *Requirement:* Playgrounds - one playground (or other age-appropriate activity) minimum.
- *Proposed:* Two playgrounds.
- *Requirement:* Sport Courts or Pools - one court or pool minimum.
- *Proposed:* No courts or pools.
- *Requirement:* Multi-use/Rectangular/Soccer Fields - one

multi-use field minimum.

- *Proposed:* One multi-use field; however, the proposed field does not fully meet the recommended dimensions in the Guidelines as described above.

Schools

- The proposed apartment units are anticipated to generate an additional 39 students. As illustrated in the table below, the 39 students projected from the development would not cause the enrollment levels for Toano Middle or Warhill High Schools to exceed effective capacity. However, it would contribute to higher enrollment level exceeding the effective capacity at Norge Elementary School.

Student Enrollment and School Capacity, Williamsburg-James City County Schools 2018

<i>School</i>	<i>Effective Capacity</i>	<i>Enrollment</i>	<i>Projected Students Generated</i>	<i>Enrollment + Projected Students</i>
Norge Elementary	695	680	± 17	697
Toano Middle	790	706	± 9	715
Warhill High	1,441	1,392	± 13	1,405

Source: Student Enrollment Report, October 2018

Fiscal Impact

- The Fiscal Impact Analysis worksheet was submitted per the Fiscal Year 2019 calculations provided by the Department of Financial and Management Services.

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

- Per that analysis, the development would result in a \$463,425 annual negative fiscal impact to the County.

Fire

- The location of the project allows for coverage by both Fire Station 1, located in Toano and Station 4, located on Olde Towne Road. The Community Impact Statement indicates that both stations are within a 10-minute drive of the project site.

Utilities

- The project would be served by public water and sewer.
- The JCSA has recommended that a Water Conservation Agreement be prepared for this development. See the “Ability to Guarantee the Development as Proposed” section above for discussion regarding this item.
- The JCSA has reviewed the Master Plan and concurs with the proposed utility layout generally.

Environmental/Cultural/Historic:

Environmental

- Watershed: Yarmouth Creek.
- The existing wet pond (Marston Pond) along the project’s southeast border will be used for meeting both water quality and quantity regulations. The Community Impact Statement and Master Plan commit to upgrades to the existing pond, including

provision of a forebay near the entrance to the site which is recommended per the Yarmouth Creek Watershed Management Plan. This forebay shall be designed for off-site drainage in its current condition while the other two forebays will be designed for on-site drainage. The project will also need to implement three Special Stormwater Criteria measures to meet the Yarmouth Creek Watershed Management Plan; see the “Ability to Guarantee the Development as Proposed” section above for discussion of this item. Additional details regarding stormwater management are shown on Sheet C5.0 of the Master Plan. In addition, for this location, staff finds that a NMP would be preferred and is recommended. The applicant has included provisions for a NMP in the Easement.

The Stormwater and Resource Protection Division has reviewed the proposal and generally concurs with the Master Plan as proposed.

Cultural/Historic

- A Phase I Archaeological Study for property at 7581 Richmond Road has been conducted and concluded that no further archaeological historic preservation efforts were necessary on site. The need for a Phase I Archaeological Study for the area within the limits of the construction of the proposed access road (located on 7606 Richmond Road) would be evaluated as part of the site plan in accordance with Section 24-145 of the Zoning Ordinance.

Nearby and Surrounding Properties

Visual Impact

- Staff finds that the proposed perimeter buffers mitigate visual impacts to other adjacent properties. Additionally, much of the

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REZONING-18-0004/HEIGHT LIMITATION WAIVER-18-0002. Oakland Pointe

Staff Report for the December 5, 2018, Planning Commission Public Hearing

eastern portion of the parcel includes Resource Protection Area which provides an even larger buffer.

- The project is located on a CCC per the adopted Comprehensive Plan, and thus, provides a 150-foot wooded buffer along the Richmond Road frontage of the subject property.

Height

- See Height Limitation Waiver application discussion in Attachment No. 10.

COMPREHENSIVE PLAN

The property at 7581 Richmond Road is designated MDR by the adopted Comprehensive Plan. Recommended uses in MDR include multi-family units, apartments, recreation areas, manufactured home parks and subdivisions. The property at 7607 Richmond Road is designated MDR and Low-Density Residential (LDR) by the adopted Comprehensive Plan. Recommended uses in LDR includes single-family and multi-family units, cluster housing and recreation areas.

This application proposes a gross density of ± 8.4 dwelling units per acre. For MDR the Comprehensive Plan recommends “a minimum gross density of four units per acre up to 12 units per acre, depending on the character and density of surrounding development, physical attributes of the property, buffers, the number of dwelling units proposed and the degree to which the development is consistent with the Comprehensive Plan. Development at this density is not recommended unless it offers particular public benefits. Examples of such public benefits include mixed-cost housing, affordable and workforce housing and enhanced environmental protection.” See the “Ability to

Guarantee the Development as Proposed” section above for discussion regarding the provision of public benefits and requested density bonuses.

- Richmond Road is a CCC. The project is within the Norge Community Character Area.
- Surrounding Comprehensive Plan Designations include LDR to the southeast, south and southwest (Villages at Candle Station, undeveloped land, Oakland Subdivision), Mixed Use (the CrossWalk Church parcel) and MDR (undeveloped land to the west and north across Richmond Road).

STAFF RECOMMENDATION

With the exception of modifying the existing traffic signal timing at the Croaker Road intersection, staff finds the requirements of the Easement along with the binding Master Plan, would mitigate impacts from this development. VDOT has indicated that they would modify the traffic signal timing if it was determined to improve the performance of the intersection. However, without knowing whether or not the Board of Supervisors will accept an Easement, staff cannot recommend approval of this application at this time.

The Board of Supervisors will consider the Height Limitation Waiver portion of this application. Proposed conditions have been included for this application as Attachment No. 11 for informational purposes as the Commission does not review Height Limitation Waiver requests.

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

REZONING-18-0004/HEIGHT LIMITATION WAIVER-18-0002. Oakland Pointe

Staff Report for the December 5, 2018, Planning Commission Public Hearing

JR/nb

RZ18-04HLW18-02OaklndP

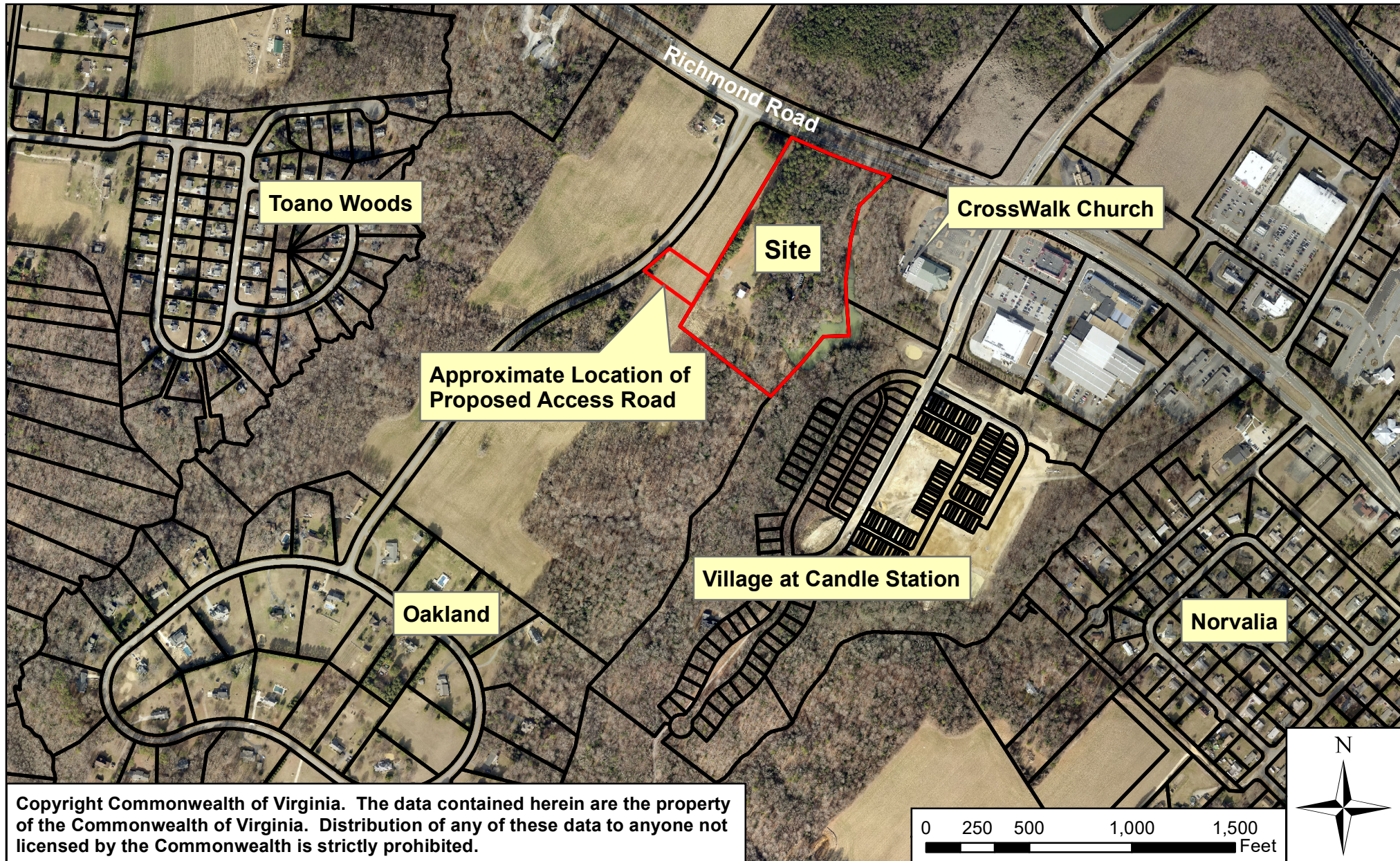
Attachments:

1. Location Map
2. Master Plan
3. Community Impact Statement
4. Fiscal Impact Study
5. Parks & Recreation Exception Request
6. Traffic Impact Study
7. LOS Information for the Intersection of Richmond Road and Oakland Drive
8. LOS Information for the Intersection of Richmond Road and Croaker Road/Pricket Road
9. Proposed Easement
10. Height Waiver Application Discussion
11. Draft Height Waiver Conditions
12. Low Income Tax Credit Program Information
13. Citizen Correspondence

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

Z-18-0004 / HW-18-0002

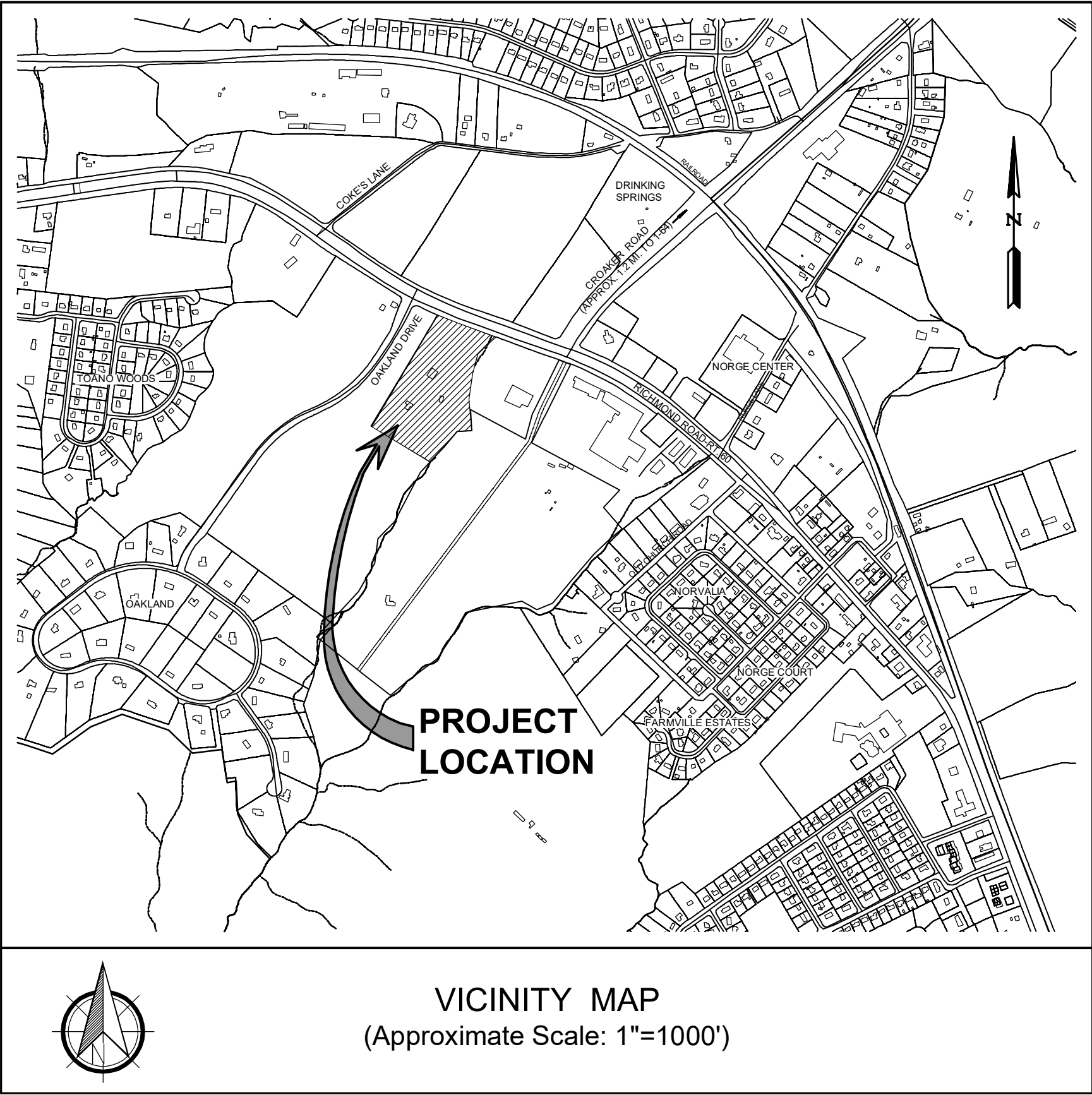
Oakland Pointe



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MASTER PLAN
FOR
Oakland Pointe
A MULTI-FAMILY COMMUNITY

STONEHOUSE DISTRICT JAMES CITY COUNTY VIRGINIA

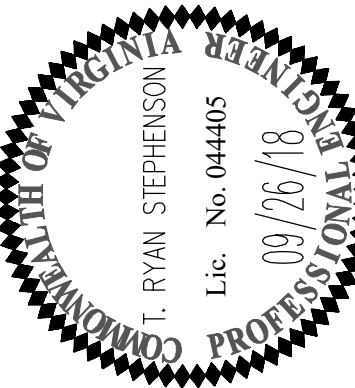


ORIGINAL SUBMITTAL DATE: OCTOBER 25, 2017
REVISED SUBMITTAL DATE: SEPTEMBER 26, 2018

INDEX OF SHEETS:

SHEET NO.	SHEET DESCRIPTION
C1.0	COVER SHEET
C2.0	EXISTING CONDITIONS
C3.0	MASTER CONCEPTUAL PLAN
C4.0	MASTER UTILITY PLAN
C5.0	MASTER STORMWATER PLAN
A-1.00	BUILDING TYPE 'A-1' ELEVATION
A-2.00	BUILDING TYPE 'A-2' ELEVATION
A-3.00	BUILDING TYPE 'B' ELEVATION

Rev.	Date	Description	Revised By
4	09/26/18	REVISED PER CHANGES IN ACCESS	JMB
3	02/22/18	REVISED PER VDOT COMMENTS	JMB
2	01/10/18	REVISED PER COUNTY COMMENTS	JMB
1	12/27/17	REVISED PER COUNTY COMMENTS	JMB



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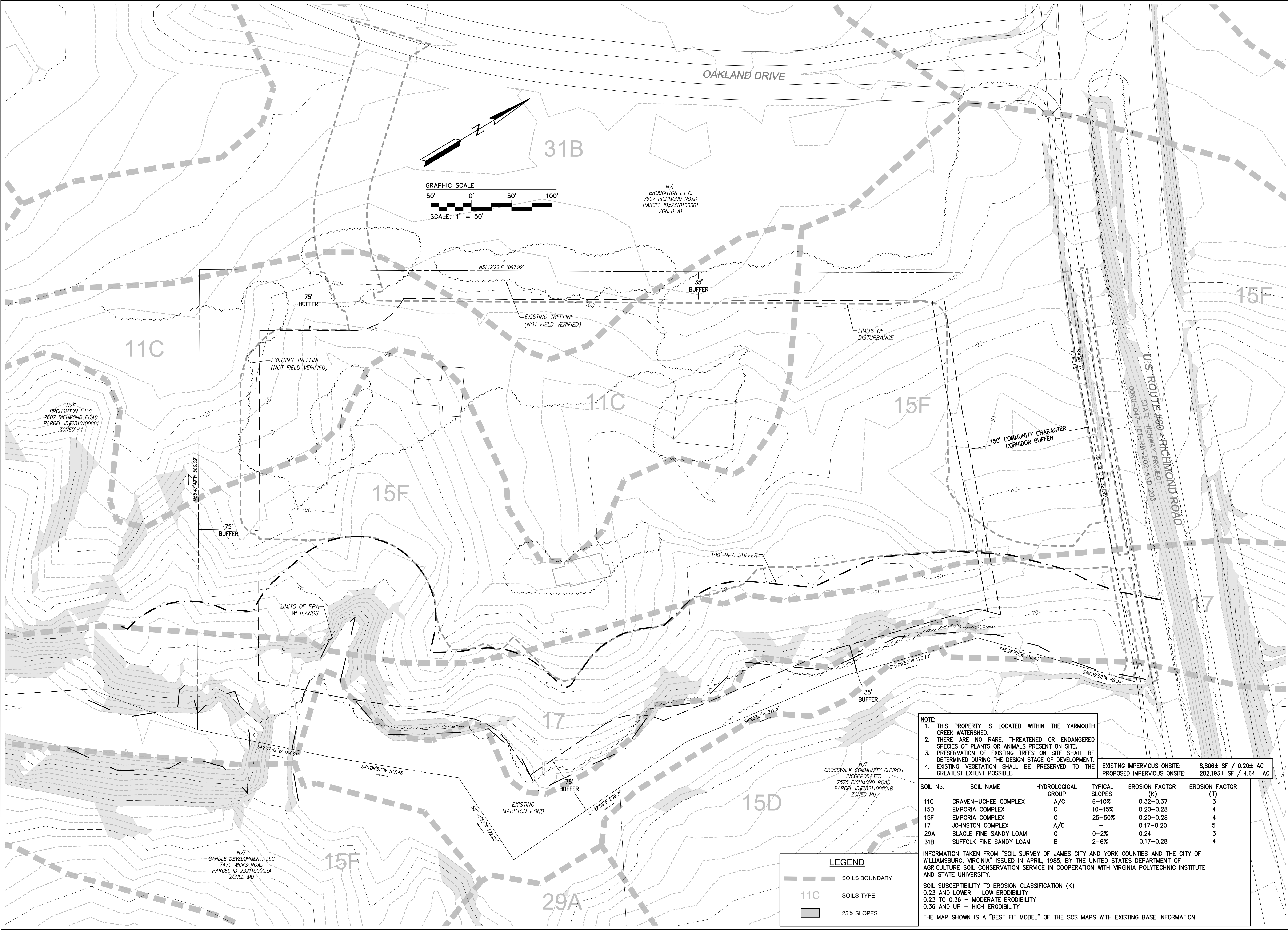
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MASTER PLAN
for
OAKLAND POINTE
DEVELOPER: CONNELLY BUILDERS, INC.

STONEHOUSE DISTRICT | JAMES CITY COUNTY | VIRGINIA

Project Contacts: HWP/TRS	
Project Number: 10503-00	
Scale: NA	Date: 10/25/17
Sheet Title: COVER SHEET	
Sheet Number C1.0	



Rev.	Date	Description
4	09/26/18	REVISED PER CHANGES IN ACCESS
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2	01/10/18	REVISED PER COUNTY COMMENTS
1	12/27/17	REVISED PER COUNTY COMMENTS



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Project Contacts: HWP/TRS
Project Number: 10503-00
Scale: 1"=50'
Date: 10/25/17

Sheet Title:
EXISTING CONDITIONS

Sheet Number:
C2.0

PROJECT TABULATIONS

AREA OF SITE	14.54± AC
AREA OF ACCESS EASEMENT	0.42± AC
TOTAL SITE AREA	14.96± AC
EXISTING ZONING	A-1 (GENERAL AGRICULTURAL)
PROPOSED ZONING	R-5 (MULTIFAMILY RESIDENTIAL)
NET DEVELOPABLE AREA	13.35± AC
GROSS DEVELOPABLE AREA	10.44± AC
20% OF GROSS ACREAGE	2.91± AC
NET NON-DEVELOPABLE AREA	4.52± AC (30.2%)
RPA BUFFERS	4.52± AC
1,000 sf STEEP SLOPES (25+%)	0.00 AC
FEMA ZONES A,AE,AQ,V,VE, COASTAL A	0.00 AC
TOTAL DWELLING UNITS	126 UNITS
MAXIMUM BUILDING HEIGHT	40'
UNIT DENSITY ALLOWED	9.00 DU/AC (WITHOUT DENSITY BONUS)
	9.90 DU/AC (WITH DENSITY BONUS)*
UNIT DENSITY PROPOSED	9.44 DU/AC
OPEN SPACE REQUIRED	1.34± AC (10% DEVELOPABLE AREA)
OPEN SPACE PROVIDED	6.61± AC (49.5% DEVELOPABLE AREA)
PERIMETER BUFFERS	2.78± AC
SWM FACILITIES	0.00 AC
REST OF SITE	3.83± AC
R-5 RECREATION AREA REQUIRED	1.26± AC
(0.5 AC. PER 50 UNITS @ 126 UNITS)	
RECREATION AREA PROVIDED	1.45± AC
(INCLUDES DOG RUN AREA, MULTI-USE FIELD, PLAYGROUND (TODDLER AND ELEMENTARY), PAVILION AND PARK)	
4' MULCH TRAIL	1,013 LINEAR FEET (NOT INCLUDED IN REC. AREA CALCULATIONS)
8' MULTI-USE 'HARD' TRAIL	2,367 LINEAR FEET (NOT INCLUDED IN REC. AREA CALCULATIONS)
PARKING CALCULATIONS	
PARKING REQUIRED	278 SPACES
(@ 2.2 SPACES PER UNIT)	
PARKING PROVIDED	279 SPACES

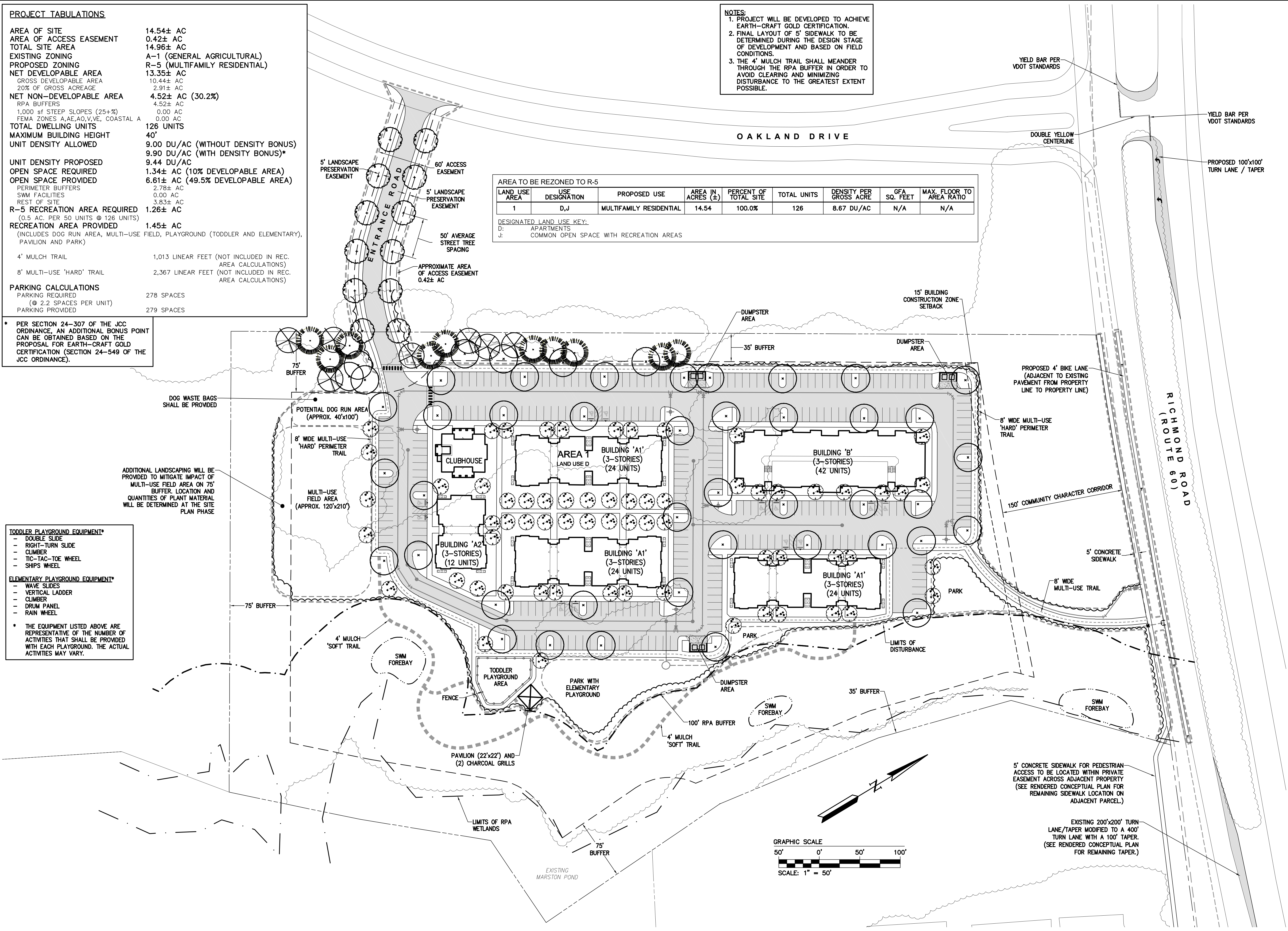
* PER SECTION 24-307 OF THE JCC ORDINANCE, AN ADDITIONAL BONUS POINT CAN BE OBTAINED BASED ON THE PROPOSAL FOR EARTH-CRAFT GOLD CERTIFICATION (SECTION 24-549 OF THE JCC ORDINANCE).

- TODDLER PLAYGROUND EQUIPMENT***
- DOUBLE SLIDE
 - RIGHT-TURN SLIDE
 - CLIMBER
 - TIC-TAC-TOE WHEEL
 - SHIPS WHEEL
- ELEMENTARY PLAYGROUND EQUIPMENT***
- WAVE SLIDES
 - VERTICAL LADDER
 - CLIMBER
 - DRUM PANEL
 - RAIN WHEEL
- * THE EQUIPMENT LISTED ABOVE ARE REPRESENTATIVE OF THE NUMBER OF ACTIVITIES THAT SHALL BE PROVIDED WITH EACH PLAYGROUND. THE ACTUAL ACTIVITIES MAY VARY.

- NOTES:
1. PROJECT WILL BE DEVELOPED TO ACHIEVE EARTH-CRAFT GOLD CERTIFICATION.
 2. FINAL LAYOUT OF 5' SIDEWALK TO BE DETERMINED DURING THE DESIGN STAGE OF DEVELOPMENT AND BASED ON FIELD CONDITIONS.
 3. THE 4' MULCH TRAIL SHALL MEANDER THROUGH THE RPA BUFFER IN ORDER TO AVOID CLEARING AND MINIMIZING DISTURBANCE TO THE GREATEST EXTENT POSSIBLE.

AREA TO BE REZONED TO R-5								
LAND USE AREA	USE DESIGNATION	PROPOSED USE	AREA IN ACRES (±)	PERCENT OF TOTAL SITE	TOTAL UNITS	DENSITY PER GROSS ACRE	GFA SQ. FEET	MAX. FLOOR TO AREA RATIO
1	D,J	MULTIFAMILY RESIDENTIAL	14.54	100.0%	126	8.67 DU/AC	N/A	N/A

DESIGNATED LAND USE KEY:
D: APARTMENTS
J: COMMON OPEN SPACE WITH RECREATION AREAS



Rev.	Date	Description
1	09/26/18	Revised Per County Comments
2	01/10/18	Revised Per County Comments
3	02/22/18	Revised Per County Comments
4	09/26/18	Revised Per Changes in Access



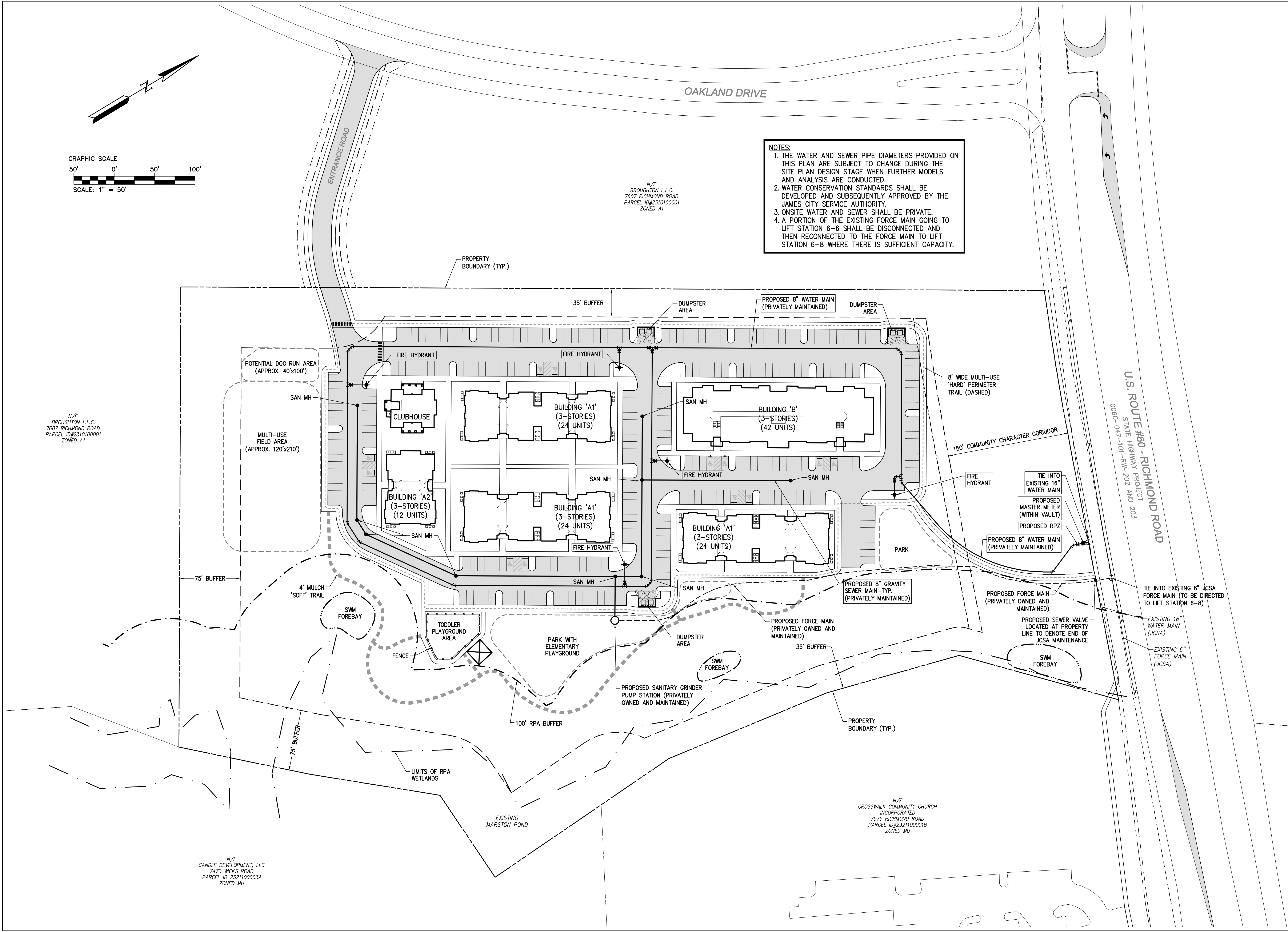
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MASTER PLAN
for
OAKLAND POINTE
DEVELOPER: CONNELLY BUILDERS, INC.
STONEHOUSE DISTRICT | JAMES CITY COUNTY | VIRGINIA

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Project Number:	10503-00
Scale:	1"=50'
Date:	10/25/17
Sheet Title:	MASTER CONCEPTUAL PLAN
Sheet Number:	C3.0



NOTES:

1. THE WATER AND SEWER PIPE DIAMETERS PROVIDED ON THIS PLAN ARE SUBJECT TO CHANGE DURING THE SITE PLAN DESIGN STAGE WHEN FURTHER MODELS AND ANALYSIS ARE CONDUCTED.
2. WATER CONSERVATION STANDARDS SHALL BE DEVELOPED AND SUBSEQUENTLY APPROVED BY THE JAMES CITY SERVICE AUTHORITY.
3. ONSITE WATER AND SEWER SHALL BE PRIVATE.
4. A PORTION OF THE EXISTING FORCE MAIN GOING TO LIFT STATION 6-6 SHALL BE DISCONNECTED AND THEN RECONNECTED TO THE FORCE MAIN TO LIFT STATION 6-8 WHERE THERE IS SUFFICIENT CAPACITY.

Rev.	Date	Description	Revised By
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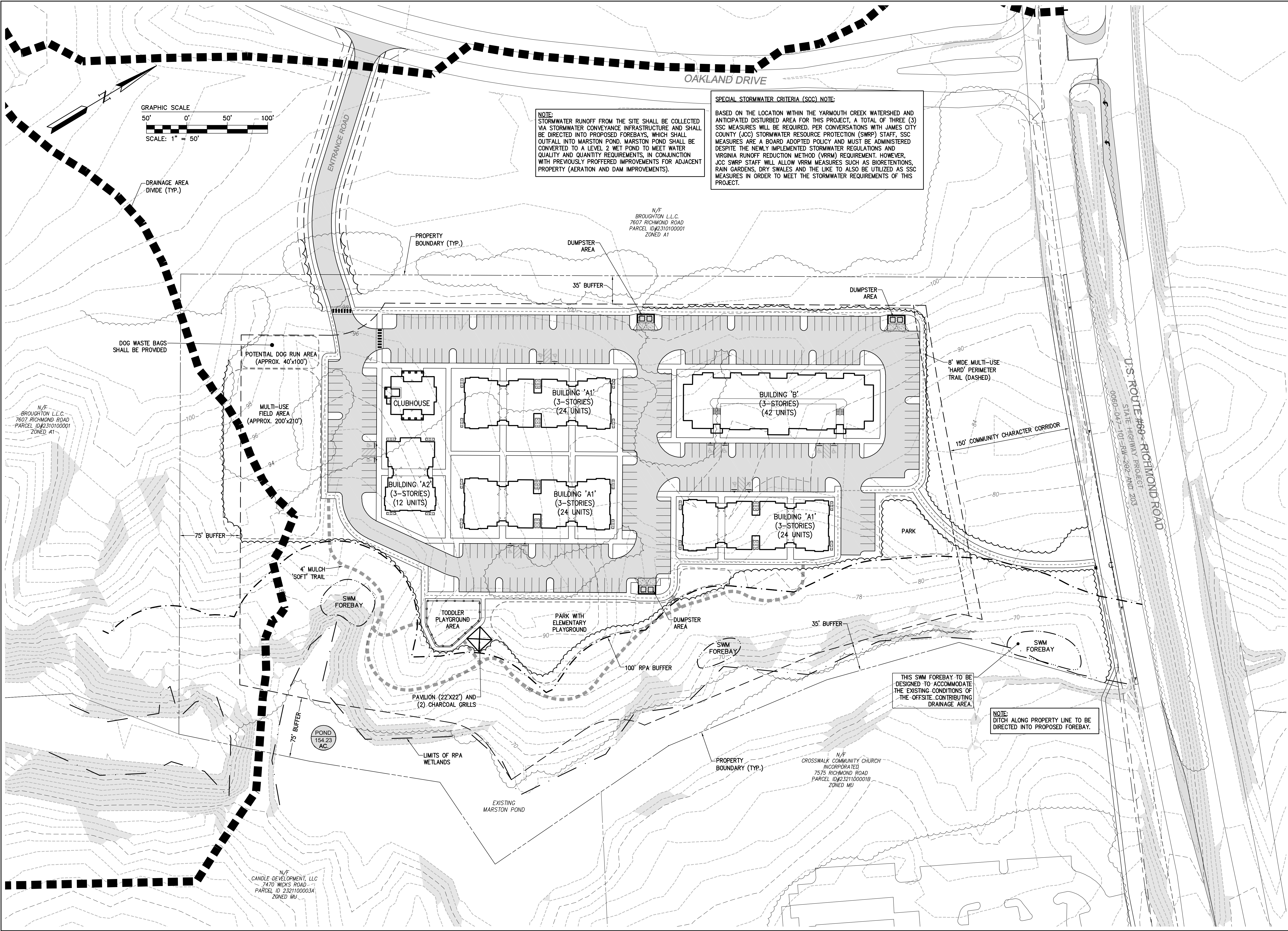
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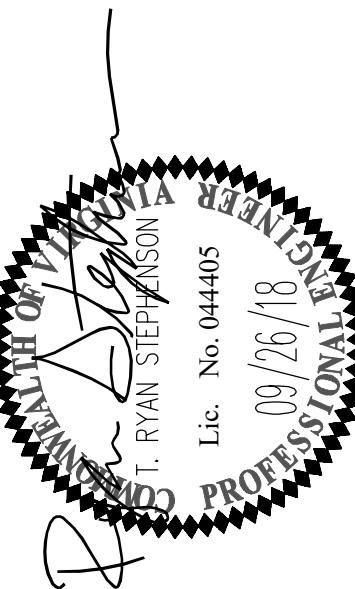
Project Contacts: HWP/TRS
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Sheet Title:
**MASTER UTILITY
PLAN**

Sheet Number
C4.0



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4	09/26/18	REVISED PER CHANGES IN ACCESS
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Sheet Number:	C5.0

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Community Impact Statement

For

Oakland Pointe

Prepared For

***Connelly Development, LLC
125 Old Chapin Road
Lexington, SC 29072
803-798-0572***

*Original: October 25, 2017
Revised: January 10, 2018
Revised: September 26, 2018*

*AES Project Number: W10503-00
County Number: C-0072-2017*

Prepared by:



5248 Olde Towne Road, Suite 1
Williamsburg, Virginia 23188
(757) 253-0040
Fax (757) 220-8994

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I. INTRODUCTION

Connelly Development, LLC proposes to amend the Zoning Map of James City County, Virginia to create a Multifamily Residential District (R-5) on approximately 14.5 acres presently zoned General Agriculture (A-1). The proposed R-5 would consist of 126 affordable apartment units with access off of Oakland Drive. The property is located in the Stonehouse District adjacent to Oakland, Crosswalk Church and Villages at Candle Station. A vicinity map is included on page 6.

The purpose of this Community Impact Statement is to summarize and organize the planning efforts of the project team into a cohesive package for Staff review, addressing the pertinent planning issues, the requirements of the Multifamily Residential Zoning District, cultural, fiscal, and physical impacts of the proposed development to the County.

Connelly Development, LLC Bio

President Mr. Kevin Connelly is a second-generation builder, with a reputation for performance, value and integrity spanning more than 30 years. The Company approach is to build each project as if we were building it for ourselves- professionally, safely, within budget, on schedule and by partnering. Seventy percent of Mr. Connelly's work is for repeat clients.

Since becoming involved in the residential construction and development industry in 1987 Kevin has been instrumental in producing over 5,867 units of multi-family housing. He is very involved in all aspects of his company's day-to-day operations and has demonstrated the ability to exceed expectations. His experience and knowledge within the construction industry has been instrumental in resolving design challenges often coming up with an innovative approach that is more economically feasible.

Connelly Builders, Inc. has an Unlimited General Contractor License with the State of North Carolina, Georgia, Virginia and South Carolina. Connelly Builders has experience and capability of building anything from a single-family detached dwelling to a mid- rise residential structure.

Kevin is a native of Lexington, South Carolina and is very active within his community. He is a past member of the Lexington Jaycees having served as Vice President, is a member of the Lexington Chamber of Commerce, served as Committee Chairman for the Lexington Chamber of Ducks Unlimited. He is a very active member of the South Carolina Home Builders Association. Kevin is a Board Member, Investors Council Member, has served as Chairman of the Public Policy Committee, and past President of the South Carolina Affordable Housing Coalition.

Kevin is also very active in his church, Mt. Horeb United Methodist in Lexington. Recently Kevin served as co-chair of the building committee and was instrumental in planning, design, and overseeing construction of their \$16.4 million-dollar expansion, one of the largest expansions of the United Methodist Churches in the United States.

II. THE PROJECT TEAM

The organizations that participated in the preparation of the information provided with this rezoning submission are as follows:

- | | |
|---------------------|--|
| • Developer | - Connelly Development, LLC |
| • Civil Engineering | - AES Consulting Engineers |
| • Land Planning | - AES Consulting Engineers |
| • Traffic | - DRW Consultants, LLC |
| • Environmental | - Kerr Environmental Services Corp. |
| • Archaeology | - Circa~ Cultural Resource Management, LLC |
| • Attorney | - Kaufman & Canoles |

Key Components of this Community Impact Statement are:

- Existing Conditions
- Project Description
- Planning Considerations
- Analysis of Impacts to Public Facilities and Services
- Analysis of Environmental Impacts
- Analysis of Storm Water Management
- Traffic Impact Analysis
- Fiscal Impact Study
- Conclusions

III. EXISTING CONDITIONS

Site Location - See Figure 1, Vicinity Map, page 6

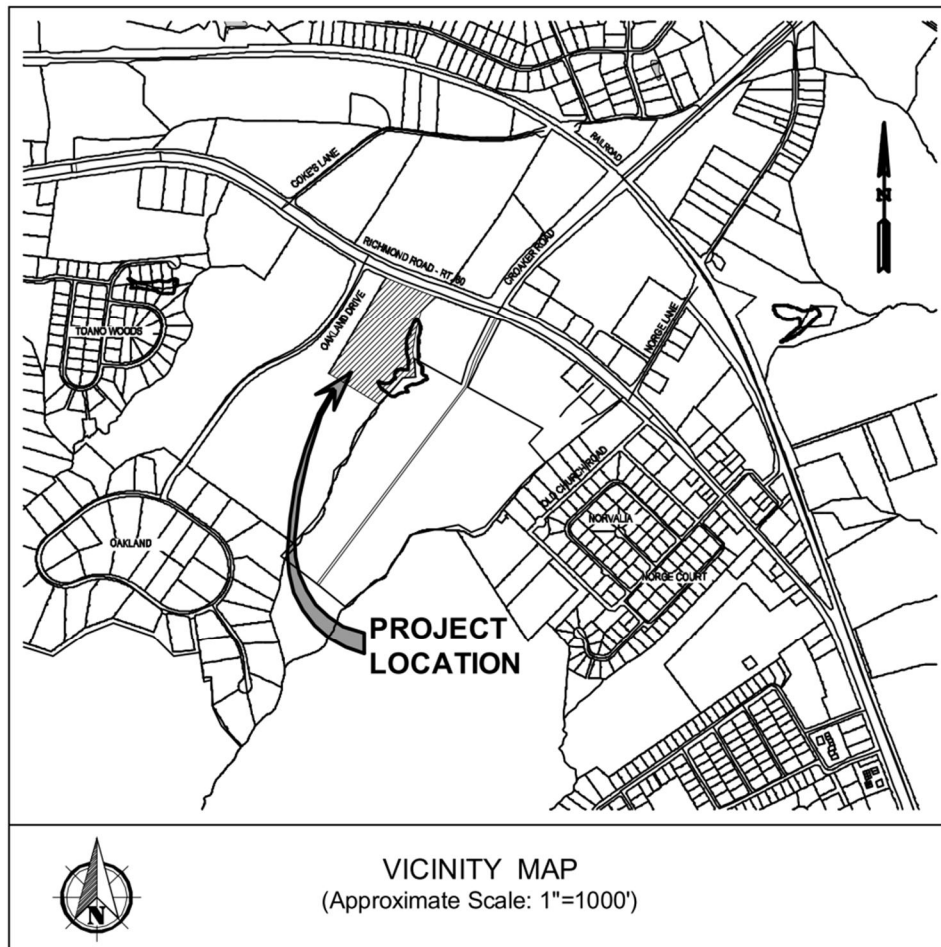
The Existing Conditions Map (included in the Appendix) details the location of buffers, wetlands, soils and slopes. The Master Plan also adheres to all items noted in the environmental constraints analysis as spelled out in Section 24-23 of the Zoning Ordinance. A pre-development site analysis revealed the following results:

Gross Site Area	14.54 acres
<i>RPA Buffers</i>	4.52 acres
<i>Non-RPA Wetland areas</i>	0.00 acres
<i>Areas of 25% or greater slopes (beyond RPA Buffers)</i>	0.00 acres
<u>Total Non-Developable Area</u>	<u>4.52 acres</u>
Gross Developable Area	10.02 acres

IV. PROJECT DESCRIPTION

Connelly Development, LLC proposes to establish an R-5, Multifamily Residential District on the 14.54 acre property. The proposed property will consist of a maximum of 126 apartment units with a clubhouse, multi-use field area, two playground areas (one for toddlers and one for elementary school aged children), pavilion (with charcoal grills), dog run area and a trail/sidewalk system. The concept, as depicted on the Master Plan (included in the Appendix), shows the proposed layout of the site. The roads serving the community will be private and there will be one entrance that will tie into Oakland Drive. Pedestrian connectivity shall be provided to the adjacent properties with a proposed 5' concrete sidewalk. A separate 4' shoulder bike lane will extend from property line to property line along the existing pavement at the property's frontage (conforming to the County's bike lane program). This project will consist of 100% affordable housing through the VHDA program and it will serve a greater need for affordable housing throughout James City County (JCC) in accordance with the JCC Strategic Plan.

Figure 1



VICINITY MAP
for
Oakland Pointe
James City County, Virginia

V. PLANNING CONSIDERATIONS

A. Land Use & Density

The entire 14.54 acre parcel is currently zoned as A-1, General Agriculture District and the Comprehensive Plan designates this parcel as Moderate Density Residential (4 to 12 units/acre). Initial discussions with James City County Staff have indicated that the proposed residential development with affordable housing would be an appropriate neighbor to the existing communities and a good land use fit for this particular site.

The proposed site has a gross density of 8.67 units per acre, which is below the maximum density allowed in the Moderate Density Residential (MDR) classification of the Comprehensive Plan. After subtracting non-developable areas, the net developable area for the site is 12.93 acres which results in a proposed net density of 9.75 units/acre. While this is also within the range of the MDR, the allowable density per the R-5 zoning district (for projects with 101-200 units and three stories or more) is 9.0 units/acre. In order to adhere to the Zoning Ordinance, a bonus point for Earth-Craft Gold certification shall be utilized to meet the required density. With the bonus point added (10% above the base density of 9.0); the new maximum density for the site is 9.90 units/acre. Our proposed density of 9.75 units/acre falls within the newly established density.

B. Environmental

Watershed protection surrounding Yarmouth Creek played an important role when making decisions regarding this property. The proposed development was laid out to provide as much undisturbed open space as possible and limit disturbance to the existing RPA buffer while avoiding impacts to the existing wetlands.

C. Historic & Archeological

Circa~ Cultural Resource Management, LLC has completed a Phase I archaeological investigation for the property. The study has been provided to James City County and it found that no further investigation is required for the property.

D. Zoning Strategy

Since residential apartments are not an allowed use within the A-1 District, a rezoning is being sought to create a Multifamily Residential District (R-5) designation for the property. The Multifamily Residential District is an appropriate vehicle for this proposal and falls in line with the Comprehensive Plan that shows this area as moderate density residential (4 to 12 units/acre). This district provides opportunities for development which reduces land consumption, reduces the amount of land devoted to streets and other impervious surfaces by requiring increased amounts of open space, buffers and

recreational amenities. The conclusions that follow in this report will summarize how this proposal meets the criteria and purpose of the Multifamily Residential District.

While the Zoning Ordinance establishes maximum building heights for the R-5 zoning district, Connelly Development, LLC requests a waiver to permit apartment building heights not to exceed 40 feet. A formal waiver request has been provided to James City County under separate cover.

E. Parks and Recreation

Connelly Development, LLC proposes to provide recreational amenities (1.45 acres of recreation space provided versus 1.26 acres required) designed to satisfy the JCC Recreational Facility Development Guidelines. These amenities shall include a clubhouse, multi-use field area, two playground areas (one for toddlers and one for elementary school aged children), pavilion (with charcoal grills), dog run area and a trail/sidewalk system. The playground areas will each consist of at least five elements and possible facility elements are listed on the Master Plan.

With this application Connelly Development, LLC also requests a waiver to provide alternate amenities from what is detailed in the JCC Recreational Facility Development Guidelines. A formal waiver request has been provided to James City County under separate cover.

VI. ANALYSIS OF IMPACTS TO PUBLIC FACILITIES AND SERVICES

A. Public Water & Sewer Facilities

The proposed development will generate 39,060 GPD (average project daily flow). As this flow is less than 40,000 GPD, an HRSD flow acceptance letter is not required.

Water service shall be provided by looping the system and connecting to the existing 16" JSCA water main located along Richmond Road. The Utility Master Plan is included in the Appendix and shows the proposed waterline layout to serve the development. The site will include a master meter near the property line (at the connection) and all onsite water distribution system features beyond the master meter will be privately owned and maintained. Hydrants will be provided to meet JSCA minimum standards and as otherwise directed by the Fire Marshall.

A fire hydrant flow test was conducted by JCSA on October 18, 2017 and the results of the test indicate approximately 5,850 gpm of flow at 20 psi. These results will be placed into a water model which will be completed and submitted prior to or with the final site plan. The model will examine volume and pressures throughout the immediate water system area, however based on the flows obtained during the test there should be adequate availability for the 126 proposed units.

Sanitary sewer service is provided to the site by a proposed (privately owned and maintained) on-site gravity sewer collection system which will convey wastewater flows to a proposed grinder pump station which will also be privately owned and maintained. Flows will then be directed from the station via proposed sewer force main to an existing 6" JCSA sewer force main along Richmond Road. Per conversations with JCSA, a portion of the existing force main heading towards Lift Station 6-6 shall be disconnected and reconnected into the Lift Station 6-8 service area. This shall be done due to the fact that Lift Station 6-6 would have to be upgraded to handle the additional flow, while Lift Station 6-8 has capacity for this development.

All system components shall be designed to JCSA standards; however onsite water and sewer features will be privately owned and maintained. Please refer to the Utility Master Plan (included in the Appendix) for the preliminary layout of the on-site water and sanitary sewer system. Please find "Table 1" which shows the anticipated wastewater flows for the project.

Table 1 – Projected Wastewater Flows

Type of Development	No. of Units	Flow (GPD/Unit)	Average Daily Flow (GPD)	Duration (hrs)	Avg. Flow (GPM)	Peak Flow (GPM)
RESIDENTIAL						
Apartment Units	126	310	39,060	24	27.1	67.8
TOTAL			39,060		27.1	67.8

B. Fire Protection and Emergency Services

There are currently five (5) fire stations providing fire protection and Emergency Medical Services (EMS) services to James City County. Two (2) stations are located within a reasonable distance to the project site. These are Fire Stations 1 and 4. The closest fire station to the subject site within James City County is Fire Station 1, located at 3135 Forge Road, approximately 2 miles west of this project site. However, both of these stations are within a 10 minute drive of the project site. Response time to the site is within appropriate limits if an emergency event occurs which requires additional fire and life safety support. The proximity of the site to these two fire stations affords the future residents of the project more than adequate response to potential emergencies.

C. Solid Waste

The proposed development on the subject property will generate solid wastes that will require collection and disposal to promote a safe and healthy environment. Multiple dumpster locations are provided on site where trash and recycle material can be deposited into the appropriate vehicle for transport of both materials to a solid waste transfer station.

D. Utility Service Providers

Virginia Natural Gas, Dominion Virginia Power, Cox Communications, and Verizon Communications provide respectively; natural gas, electricity, cable TV service, and telephone service to this area. The current policy of these utility service providers is to extend service to the development at no cost to the developer when positive revenue is identified; plus, with new land development, these utility service providers are required to place all new utility service underground.

E. Schools

The proposed development will generate approximately 39 students K-12. This figure is based on the proposal to build 126 apartment units at a student generation rate of 0.31 per apartment unit. This calculation is provided as part of the Fiscal Impact Analysis (included within the Appendix). The calculated number of K-5 students generated from the proposed development is 17 (44%), grade level 6-8 is 9 (23%) and grade level 9-12 is 13 (33%). The multiplier used for each grade level is based on the pro rata share of students currently enrolled in each grade level as reported in the 2016-2017 enrollment report published by James City County.

The proposed development will be zoned for students to attend Norge Elementary School, Toano Middle School and Warhill High School. All of these schools are currently operating below capacity.

VII. ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Wetlands & Resource Protection Areas

There are existing wetlands and associated Resource Protection Area (RPA) buffers on site and they are shown within the Master Plan (included in the Appendix). The only anticipated impacts to the RPA buffer are for the installation of forebays within the existing on-site BMP and corresponding storm outfalls. The impacts related to the installation of forebays and corresponding storm outfalls can be approved administratively per County Staff.

The wetlands have been field located per delineation by Kerr Environmental Services Corp. and a confirmation of the wetlands and RPA buffers shall be provided by the Army Corps of Engineers during the site plan stage.

B. Soils

The USDA Web Soil Survey shows several soil types within the property boundary. This property is predominantly situated on low to moderately drained soils of Craven-Uchee Complex, Emporia Complex and Johnston Complex soil types. Soils mapping can be seen on the Existing Conditions Map (included in the Appendix).

VIII. ANALYSIS OF STORMWATER MANAGEMENT

A. Water Quality

The Virginia Runoff Reduction Method (VRRM) as set forth by the Virginia Department of Environmental Quality (DEQ) governs the water quality requirements for both new and re-development projects. Since this proposed project will be constructed on mostly wooded area, this site is classified as a “New Development” project. Following the procedures for a new development, the required pollutant load reduction will be calculated to ensure the proposed development does not have a negative impact on downstream waterways. This reduction is measured in total phosphorus, a chemical that the DEQ has determined that drives all other pollutants levels. Essentially, if phosphorus is reduced, so are all the other pollutants.

The VRRM spreadsheet has been included in the Appendix detailing the site soil data, required pollutant removal, and Best Management Practices (BMPs) provided to achieve improved water quality. For this proposed site, 9.03 lbs/year of phosphorus load reduction is required. The existing wet pond (Marston Pond) located on site will be converted to a Level 2 Wet Pond (DEQ SPEC #14) and will be used to treat 13.45 acres of the proposed development, including 4.62 acres of impervious area, in order to achieve this requirement. The existing pond was designed to handle an area equivalent to 60% impervious for the entire parcel (approximately 8.73 acres) however our site is only proposing approximately 4.62 acres of impervious cover (or approximately 32%). Using this Level 2 Wet Pond, 10.82 lbs/year of phosphorus load reduction will be achieved. This load reduction exceeds the requirement by 1.79 lbs/year. Additionally, this Level 2 Wet Pond will need to meet the specifications as set forth by the DEQ, including but not limited to providing adequate treatment volume.

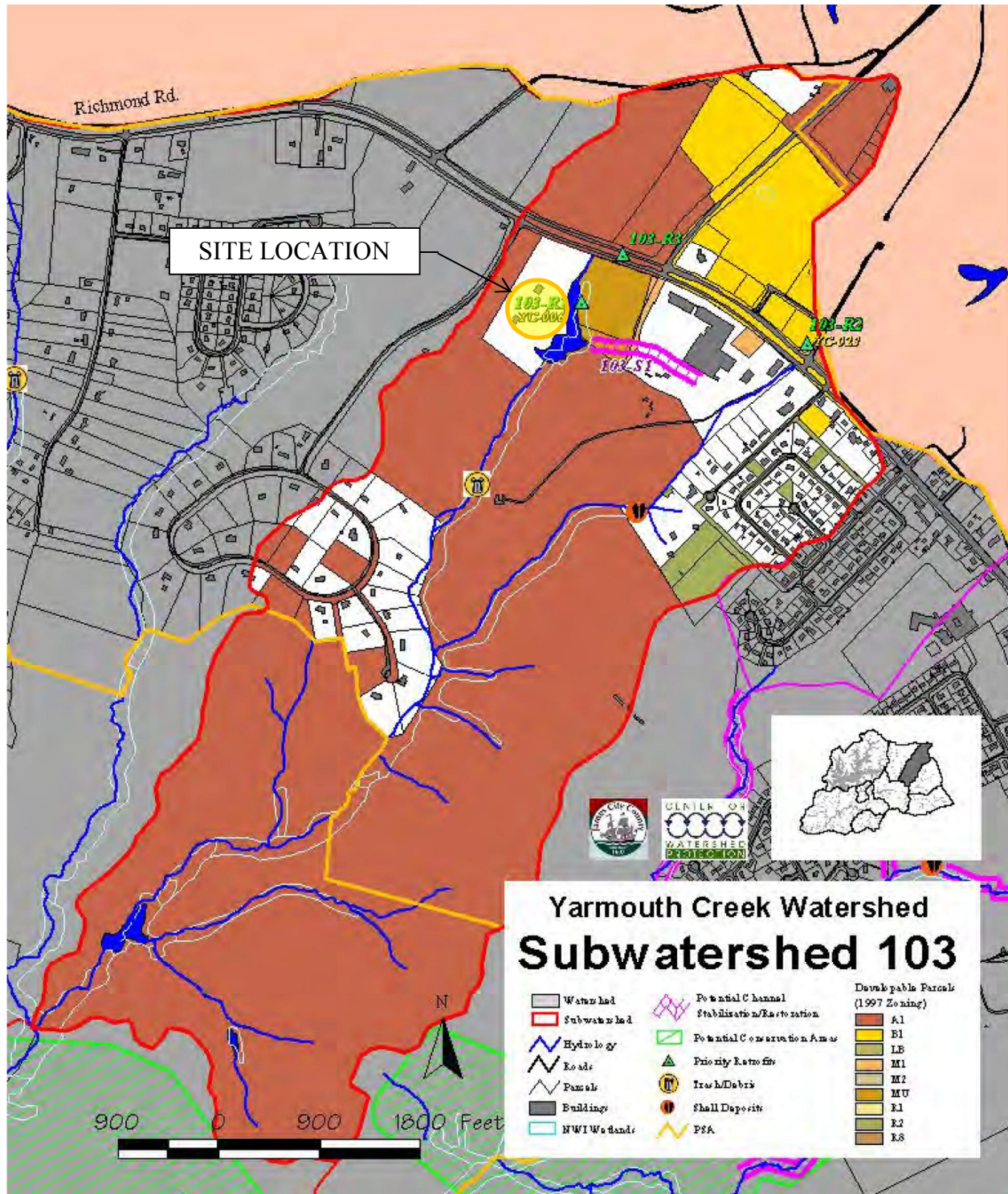
B. Water Quantity

Water quantity control is required to ensure that the post-construction stormwater runoff is controlled to a point that is either at or below the existing condition in terms of flow rates. This quantity of stormwater will be reduced by storing the increased stormwater runoff for a period of time before releasing it back into the downstream waterway. The Level 2 Wet Pond as previously used for water quality control will also be used to store the stormwater to reduce the flow. The Runoff Reduction Method will be used in combination with the SCS Method to calculate the required volume for the Level 2 Wet Pond. Appropriate measures will be taken to ensure that the 1, 2, 10, and 100-year storms are properly contained within the Level 2 Wet Pond and discharged over time with appropriate flows to maintain or better the existing condition.

C. *Special Stormwater Criteria*

Oakland Pointe is located in Subwatershed No. 103, an area considered to be “sensitive” by the Yarmouth Creek Watershed Management Plan as shown below in Figure 2. This plan was put in place to help prevent any degradation of the ecosystem and waterways downstream of Yarmouth Creek. Based on the anticipated disturbed area for this project, a total of three (3) Special Stormwater Criteria (SSC) measures will be required. Per conversations with JCC staff, SSC measures are a Board adopted policy and must be administered despite the newly implemented stormwater regulations and Virginia Runoff Reduction Method (VRRM) requirements. However, JCC staff will allow VRRM measures such as bioretentions, rain gardens, dry swales and the like to also be utilized as SSC measures in order to meet the stormwater requirements of this project. In addition, a forebay has been added to Marston Pond (near the entrance to the site) which is recommended per the Yarmouth Creek Watershed Management Plan. This forebay shall be designed for off-site drainage in its current condition while the other two proposed forebays will be designed for on-site drainage.

Figure 2



D. Storm Sewer System

The proposed storm sewer system will be comprised mainly of curb inlets and reinforced concrete pipes that are placed throughout the site at critical locations. This system will be used to convey the stormwater runoff into the proposed forebays, which will then outfall into the Level 2 Wet Pond for treatment. The Stormwater Master Plan (included in the Appendix) provides the drainage area divide for the stormwater facility. During final design, storm pipe, structures and the forebays will be located accordingly and calculations will be provided.

IX. ANALYSIS OF IMPACTS TO TRAFFIC

DRW Consultants, LLC has completed the required traffic study for the property. The report and findings have been provided to VDOT and James City County for review. Turn lane and entrance improvements have been added to the Master Plan in accordance with the study. These improvements include a proposed westbound 100'x100' turn lane/taper at Oakland Drive and the modification of an existing eastbound 200'x200' turn lane/taper into a 400' turn lane with 100' taper at the intersection of Richmond Road and Pricket Road.

X. FISCAL IMPACT STUDY

A Fiscal Impact Analysis has been prepared and is included in this submittal to the County for review.

XI. CONCLUSIONS

Oakland Pointe represents an appropriate use of land on this site in James City County. This proposed project helps to fill a growing regional need of affordable housing in James City County.

This proposed community meets the intent of the Comprehensive Plan with assurances for the provision of ample open space and its efficient use. The project team's experience in construction assures the county of high standards of design, layout and construction. Oakland Pointe will provide a model for the development of affordable housing in James City County.

The traffic study has concluded that minor turn lane/stacking improvements to Richmond Road will be necessary, while the proposed development will not have a significant impact to the school system. The fiscal analysis concludes a net negative fiscal impact to the County at build out. However, this development addresses the County's long-term need for affordable housing.

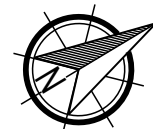
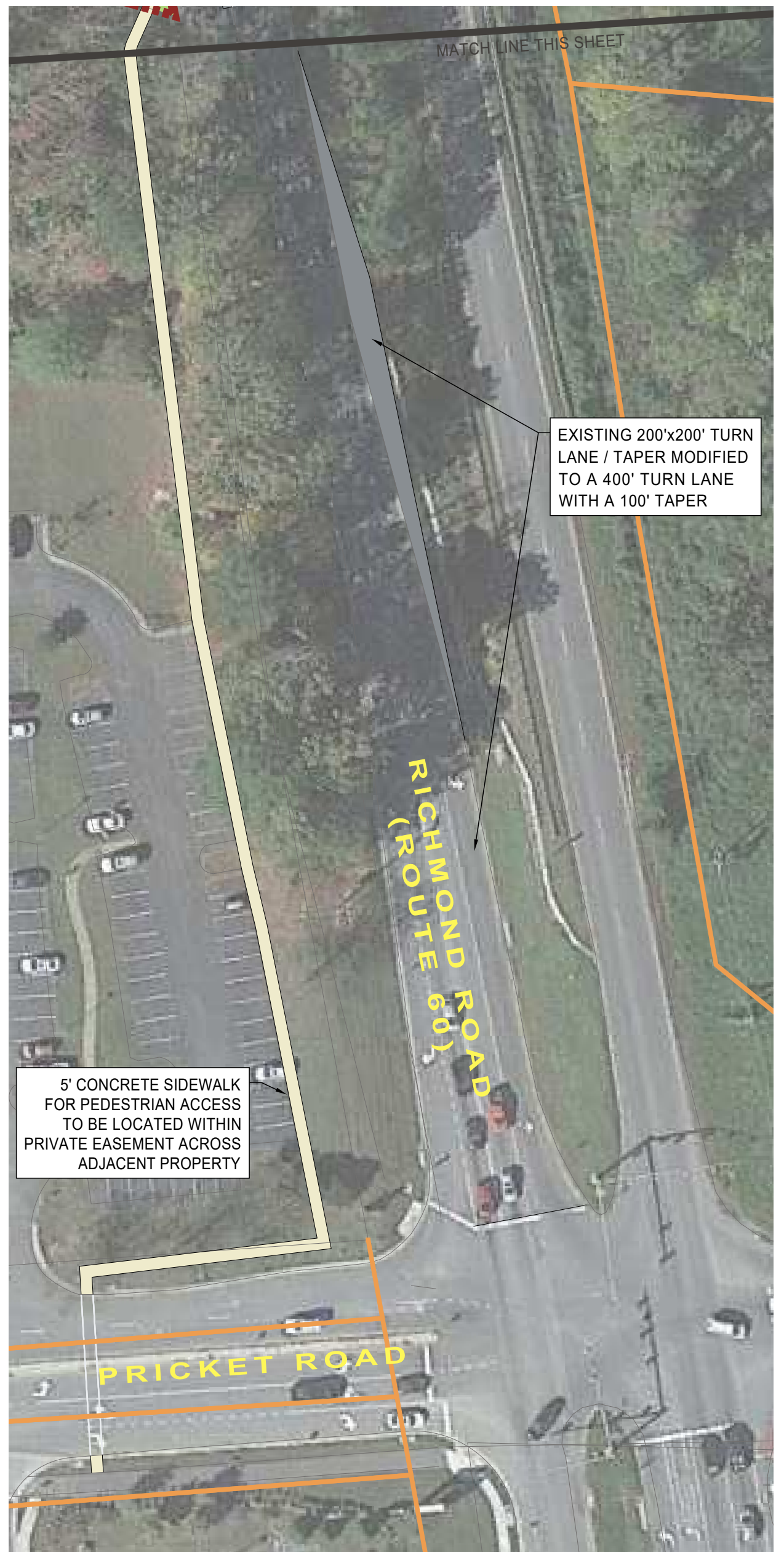
There are adequate public utilities with capacity to serve this project. The site is capable of being served by public sewer and water. Fire and life safety issues have been addressed with this application.

Finally, the careful planning of this project with regard to open space, buffers, carefully planned stormwater management systems and limits on impervious surfaces assures the County that the sensitive Subwatershed No. 103 of the Yarmouth Creek Watershed will be protected.

APPENDIX

- 2 - Master Plan Drawings (includes Architectural Drawings)
 - 3 - Rendered Conceptual Plan
 - 4 - Recreational Space Exhibit
 - 5 - Rendered Proposed Road Improvement Plan
- 6 - VRRM Summary - BMP Pollutant Removal Calculation
 - 7 - Fiscal Impact Analysis Worksheet
 - 8 - Traffic Analysis

- NOTES:
1. PROJECT WILL BE DEVELOPED TO ACHIEVE EARTH-CRAFT GOLD CERTIFICATION.
 2. FINAL LAYOUT OF 5' SIDEWALK TO BE DETERMINED DURING THE DESIGN STAGE OF DEVELOPMENT AND BASED ON FIELD CONDITIONS.
 3. THE 4' MULCH TRAIL SHALL MEANDER THROUGH THE RPA BUFFER IN ORDER TO AVOID CLEARING AND MINIMIZING DISTURBANCE TO THE GREATEST EXTENT POSSIBLE.



Revised: 9/26/2018
DATE: 10/25/2017
SCALE: 1"=50'
SHEET 1 of 1

RENDERED CONCEPTUAL PLAN
OAKLAND POINTE
JAMES CITY COUNTY, VIRGINIA
(AES PROJECT #: W10503-00 - AES PROJECT CONTACT: T. RYAN STEPHENSON, P.E.)



5248 Olde Towne Road, Suite 1
Williamsburg, Virginia 23186
Phone: (757) 253-0040
Fax: (757) 220-8994
www.aesva.com

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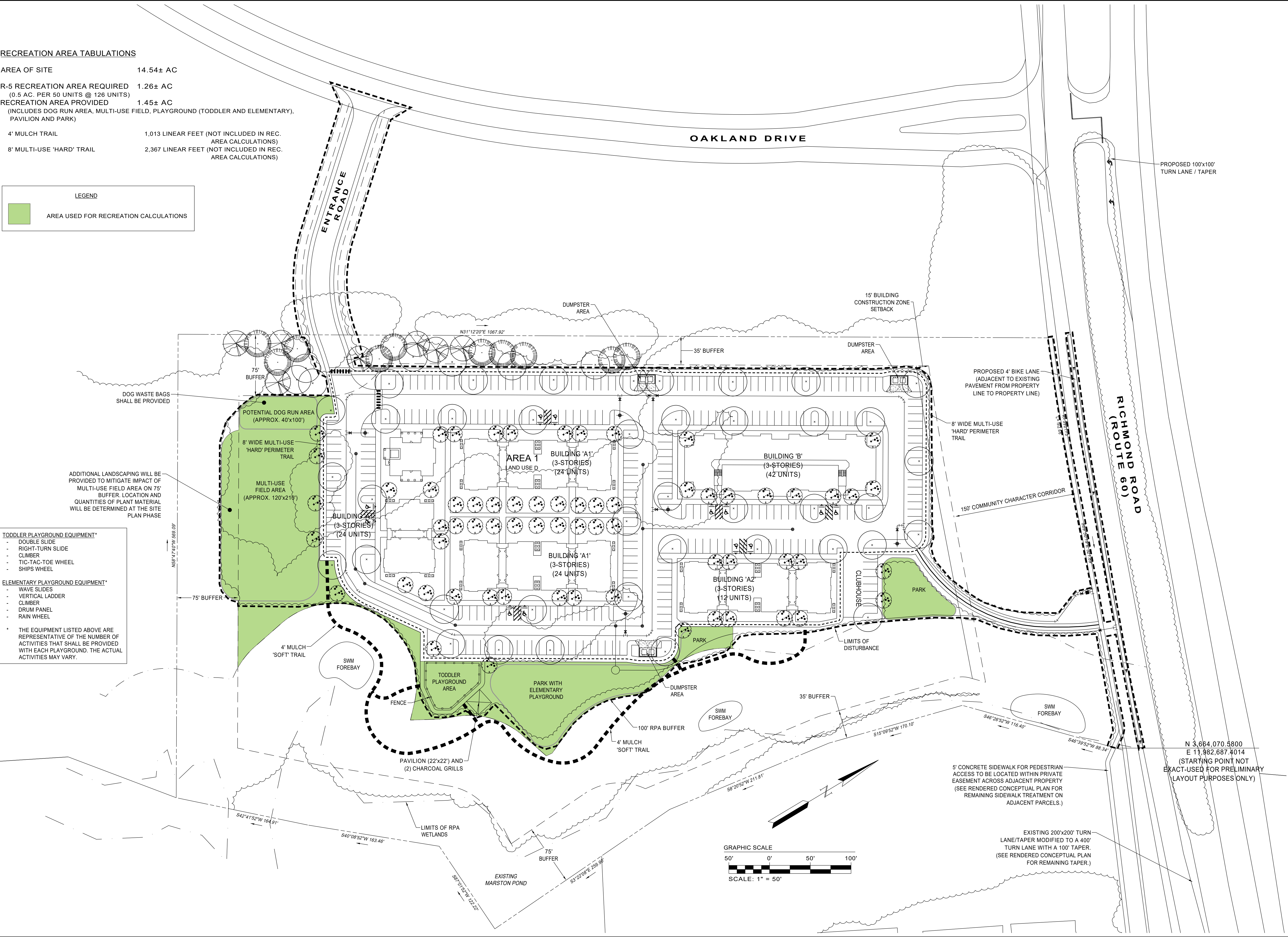
RECREATION AREA TABULATIONS

AREA OF SITE	14.54± AC
R-5 RECREATION AREA REQUIRED (0.5 AC. PER 50 UNITS @ 126 UNITS)	1.26± AC
RECREATION AREA PROVIDED (INCLUDES DOG RUN AREA, MULTI-USE FIELD, PLAYGROUND (TODDLER AND ELEMENTARY), PAVILION AND PARK)	1.45± AC
4' MULCH TRAIL	1,013 LINEAR FEET (NOT INCLUDED IN REC. AREA CALCULATIONS)
8' MULTI-USE 'HARD' TRAIL	2,367 LINEAR FEET (NOT INCLUDED IN REC. AREA CALCULATIONS)

LEGEND

AREA USED FOR RECREATION CALCULATIONS

- TODDLER PLAYGROUND EQUIPMENT***
- DOUBLE SLIDE
 - RIGHT-TURN SLIDE
 - CLIMBER
 - TIC-TAC-TOE WHEEL
 - SHIPS WHEEL
- ELEMENTARY PLAYGROUND EQUIPMENT***
- WAVE SLIDES
 - VERTICAL LADDER
 - CLIMBER
 - DRUM PANEL
 - RAIN WHEEL
- * THE EQUIPMENT LISTED ABOVE ARE REPRESENTATIVE OF THE NUMBER OF ACTIVITIES THAT SHALL BE PROVIDED WITH EACH PLAYGROUND. THE ACTUAL ACTIVITIES MAY VARY.



Rev.	Date	Description
1	09/26/18	REVISED PER CHANGES IN ACCESS
2	02/22/18	REVISED PER VDOT COMMENTS
3	01/10/18	REVISED PER COUNTY COMMENTS
4	12/27/17	REVISED PER COUNTY COMMENTS

THIS PLAN HAS
NOT RECEIVED
FINAL APPROVAL
AND IS NOT
APPROVED FOR
CONSTRUCTION.

5248 Old Towne Road, Suite 1
Williamsburg, Virginia 23188
Phone: (757) 255-0040
Fax: (757) 220-8984
www.abes.com

ABES
CONSULTING ENGINEERS

Hampton Roads | Central Virginia | Middle Peninsula

MASTER PLAN
for
OAKLAND POINTE
DEVELOPER: CONNELLY BUILDERS, INC.

STONEHOUSE DISTRICT | JAMES CITY COUNTY | VIRGINIA

Project Contacts:	HWP/TRS
Project Number:	10503-00
Scale:	1"=50'
Date:	10/25/17
Sheet Title:	RECREATIONAL SPACE EXHIBIT



Rev.	Date	Description	Revised By
4	09/26/18	REVISED PER CHANGES IN ACCESS	JMB
3	02/22/18	REVISED PER VDOT COMMENTS	JMB
2	01/10/18	REVISED PER COUNTY COMMENTS	JMB
1	12/27/17	REVISED PER COUNTY COMMENTS	JMB

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5248 Old Towne Road, Suite 1
Williamsburg, Virginia 23188
Phone: (757) 265-0040
Fax: (757) 220-8994
www.aesva.com

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MASTER PLAN
for
OAKLAND POINTE
DEVELOPER: CONNELLY BUILDERS, INC.
STONEHOUSE DISTRICT | JAMES CITY COUNTY | VIRGINIA

Project Contacts: HWP/TRS
Project Number: 10503-00
Scale: 1"=50' Date: 10/25/17
Sheet Title:
**RENDERED
PROPOSED ROAD
IMPROVEMENTS
PLAN**
Sheet Number
1 of 1

☐ 2011 BMP Standards and Specifications☒ 2013 Draft BMP Standards and SpecificationsProject Name: **W10503 Oakland Pointe**Date: **10/20/2017****CLEAR ALL**
(Ctrl+Shift+R)

data input cells

constant values

calculation cells

final results

BMP Design Specifications List: 2013 Draft Stds & Specs

Site Information**Post-Development Project (Treatment Volume and Loads)****Land Cover (acres)**

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed			9.92		9.92
Impervious Cover (acres)			4.62		4.62
					14.54

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
P _i (unitless correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)

9.03

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary		Treatment Volume and Nutrient Loads	
Forest/Open Space Cover (acres)	0.00	Treatment Volume (acre-ft)	0.5476
Weighted Rv (forest)	0.00	Treatment Volume (cubic feet)	23,855
% Forest	0%	TP Load (lb/yr)	14.99
Managed Turf Cover (acres)	9.92	TN Load (lb/yr)	107.22
Weighted Rv (turf)	0.22	(Informational Purposes Only)	
% Managed Turf	68%		
Impervious Cover (acres)	4.62		
Rv (impervious)	0.95		
% Impervious	32%		
Site Area (acres)	14.54		
Site Rv	0.45		

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)			9.92		9.92	0.22
Impervious Cover (acres)			4.62		4.62	0.95
Total					14.54	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr)	14.99
Post Development Treatment Volume in D.A. A (ft ³)	23,855

Stormwater Best Management Practices (RR = Runoff Reduction)

--Select from dropdown lists--

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0	0	0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60				0	0	0	0	0	0.00	0.00	0.00	
2. Rooftop Disconnection (RR)													
2.a. Simple Disconnection to A/B Soils (Spec #1)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.b. Simple Disconnection to C/D Soils (Spec #1)	25			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.d. To Dry Well or French Drain #1, Micro-Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.e. To Dry Well or French Drain #2, Micro-Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.f. To Rain Garden #1, Micro-Biorentention #1 (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.g. To Rain Garden #2, Micro-Biorentention #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
2.h. To Rainwater Harvesting (Spec #6)	0			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.i. To Stormwater Planter, Urban Biorentention (Spec #9, Appendix A)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45			0	0	0	0	25	0.00	0.00	0.00	0.00	
3.b. Permeable Pavement #2 (Spec #7)	75				0	0	0	25		0.00	0.00	0.00	
4. Grass Channel (RR)													
4.a. Grass Channel A/B Soils (Spec #3)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.b. Grass Channel C/D Soils (Spec #3)	10			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
5. Dry Swale (RR)													
5.a. Dry Swale #1 (Spec #10)	40			0	0	0	0	20	0.00	0.00	0.00	0.00	
5.b. Dry Swale #2 (Spec #10)	60			0	0	0	0	40	0.00	0.00	0.00	0.00	
6. Biorentention (RR)													
6.a. Biorentention #1 or Micro-Biorentention #1 or Urban Biorentention (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
6.b. Biorentention #2 or Micro-Biorentention #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
7. Infiltration (RR)													
7.a. Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
7.b. Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
8. Extended Detention Pond (RR)													
8.a. ED #1 (Spec #15)	0			0	0	0	0	15	0.00	0.00	0.00	0.00	
8.b. ED #2 (Spec #15)	15			0	0	0	0	15	0.00	0.00	0.00	0.00	
9. Sheetflow to Filter/Open Space (RR)													
9.a. Sheetflow to Conservation Area, A/B Soils (Spec #2)	75			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area, C/D Soils (Spec #2)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	

Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
1. Vegetated Roof (RR)				
0		0.00	0.00	0.00
0		0.00	0.00	0.00

2. Rooftop Disconnection (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00

3. Permeable Pavement (RR)				
25	0.00	0.00	0.00	0.00
25		0.00	0.00	0.00

4. Grass Channel (RR)				
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00

5. Dry Swale (RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00

6. Biorentention (RR)				
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

7. Infiltration (RR)				
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00

8. Extended Detention Pond (RR)				
10	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00

9. Sheetflow to Filter/Open Space (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL RUNOFF REDUCTION IN D.A. A (ft ³)	0	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr)		
		14.99
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)		0.00
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)		14.99
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS		

TOTAL RUNOFF REDUCTION IN D.A. A (ft ³)		0
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)		0.00
SEE WATER QUALITY COMPLIANCE TAB FOR SITE CALCULATIONS (Information Only)		

10. Wet Swale (no RR)													
10.a. Wet Swale #1 (Spec #11)	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11)	0			0	0	0	0	40	0.00	0.00	0.00	0.00	
11. Filtering Practices (no RR)													
11.a. Filtering Practice #1 (Spec #12)	0			0	0	0	0	60	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
12. Constructed Wetland (no RR)													
12.a. Constructed Wetland #1 (Spec #13)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13. Wet Ponds (no RR)													
13.a. Wet Pond #1 (Spec #14)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	0			0	0	0	0	45	0.00	0.00	0.00	0.00	
13.c. Wet Pond #2 (Spec #14)	0	8.83	4.62	0	0	22,985	22,985	75	0.00	14.42	10.82	3.61	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device- Hydrodynamic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.b. Manufactured Treatment Device-Filtering	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.c. Manufactured Treatment Device-Generic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	

10. Wet Swale (Coastal Plain) (no RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00
11. Filtering Practices (no RR)				
30	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00
12. Constructed Wetland (no RR)				
25	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00
13. Wet Ponds (no RR)				
30	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
40	0.00	103.19	41.28	61.92
30	0.00	0.00	0.00	0.00
14. Manufactured BMP (no RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	4.62	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	8.83	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)		9.03
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr)		14.99
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)		10.82
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)		0.00
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. A (lb/yr)		10.82
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. A (lb/yr)		4.17
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS		
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)		0.00
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)		41.28
TOTAL NITROGEN REMOVED IN D.A. A (lb/yr)		41.28

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	4.62	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	4.62	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	9.92	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	8.83	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	
Site Treatment Volume (ft ³)	1					
Runoff Reduction Volume and TP By Drainage Area						
	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft ³)	0	0	0	0	0	0
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	14.99	0.00	0.00	0.00	0.00	14.99
TP LOAD REDUCTION ACHIEVED (lb/yr)	10.82	0.00	0.00	0.00	0.00	10.82
TP LOAD REMAINING (lb/yr)	4.17	0.00	0.00	0.00	0.00	4.17
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	41.28	0.00	0.00	0.00	0.00	41.28
Total Phosphorus						
FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	14.99					
TP LOAD REDUCTION REQUIRED (lb/yr)	9.03					
TP LOAD REDUCTION ACHIEVED (lb/yr)	10.82					
TP LOAD REMAINING (lb/yr):	4.17					
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00	**				
	** TARGET TP REDUCTION EXCEEDED BY 1.79 LB/YEAR **					
Total Nitrogen (For Information Purposes)						
POST-DEVELOPMENT LOAD (lb/yr)	107.22					
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	41.28					
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	65.95					

Runoff Volume and Curve Number Calculations

Enter design storm rainfall depths (in):

1-year storm	2-year storm	10-year storm
0.00	0.00	0.00

Use NOAA Atlas 14 (<http://hdsc.mws.noaa.gov/hdsc/pfds/>)

*Notes (see below):

[1] The curve numbers and runoff volumes computed in this spreadsheet for each drainage area are limited in their applicability for determining and demonstrating compliance with water quantity requirements. See VRRM User's Guide and Documentation for additional information.

[2] Runoff Volume (RV) for pre- and post-development drainage areas must be in volumetric units (e.g., acre-feet or cubic feet) when using the Energy Balance Equation. Runoff measured in watershed-inches and shown in the spreadsheet as RV(watershed-inch) can only be used in the Energy Balance Equation when the pre- and post-development drainage areas are equal. Otherwise RV(watershed-inch) must be multiplied by the drainage area.

[3] Adjusted CNs are based on runoff reduction volumes as calculated in D.A. tabs. An alternative CN adjustment calculation for Vegetated Roofs is included in BMP specification No. 5.

Drainage Area Curve Numbers and Runoff Depths*

Curve numbers (CN, CNadj) and runoff depths (RV_{Developed}) are computed with and without reduction practices.

Drainage Area A		A Soils	B Soils	C Soils	D Soils		Total Area (acres):	14.54
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction Volume (ft³):	0	
	CN	30	55	70	77			
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	9.92	0.00			
	CN	39	61	74	80			
Impervious Cover	Area (acres)	0.00	0.00	4.62	0.00			
	CN	98	98	98	98			
		CN(D.A. A)						
		82						
		1-year storm	2-year storm	10-year storm				
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00				
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00				
Adjusted CN*		100	100	100				
*See Notes above								
Drainage Area B		A Soils	B Soils	C Soils	D Soils		Total Area (acres):	0.00
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction Volume (ft³):	0	
	CN	30	55	70	77			
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00			
	CN	39	61	74	80			
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00			
	CN	98	98	98	98			
		CN(D.A. B)						
		0						
		1-year storm	2-year storm	10-year storm				
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00				
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00				
Adjusted CN*		0	0	0				
*See Notes above								
Drainage Area C		A Soils	B Soils	C Soils	D Soils		Total Area (acres):	0.00
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction Volume (ft³):	0	
	CN	30	55	70	77			
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00			
	CN	39	61	74	80			
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00			
	CN	98	98	98	98			
		CN(D.A. C)						
		0						
		1-year storm	2-year storm	10-year storm				
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00				
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00				
Adjusted CN*		0	0	0				
*See Notes above								
Drainage Area D		A Soils	B Soils	C Soils	D Soils		Total Area (acres):	0.00
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction Volume (ft³):	0	
	CN	30	55	70	77			
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00			
	CN	39	61	74	80			
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00			
	CN	98	98	98	98			
		CN(D.A. D)						
		0						
		1-year storm	2-year storm	10-year storm				
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00				
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00				
Adjusted CN*		0	0	0				
*See Notes above								
Drainage Area E		A Soils	B Soils	C Soils	D Soils		Total Area (acres):	0.00
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction Volume (ft³):	0	
	CN	30	55	70	77			
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00			
	CN	39	61	74	80			
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00			
	CN	98	98	98	98			
		CN(D.A. E)						
		0						
		1-year storm	2-year storm	10-year storm				
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00				
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00				
Adjusted CN*		0	0	0				
*See Notes above								

DEQ Virginia Runoff Reduction Method New Development Compliance Spreadsheet - Version 3.0

BMP Design Specifications List: 2013 Draft Stds & Specs

Site Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	9.92	0.00	9.92	68
Impervious Cover (acres)	0.00	0.00	4.62	0.00	4.62	32
					14.54	100

Site Tv and Land Cover Nutrient Loads

Site Rv	0.45
Treatment Volume (ft ³)	23,855
TP Load (lb/yr)	14.99
TN Load (lb/yr)	107.22

Total TP Load Reduction Required (lb/yr)	9.03
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Site Compliance Summary

Total Runoff Volume Reduction (ft ³)	0
Total TP Load Reduction Achieved (lb/yr)	10.82
Total TN Load Reduction Achieved (lb/yr)	41.28
Remaining Post Development TP Load (lb/yr)	4.17
Remaining TP Load Reduction (lb/yr) Required	0.00

** TARGET TP REDUCTION EXCEEDED BY 1.79 LB/YEAR **

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	9.92	0.00	0.00	0.00	0.00	9.92
Impervious Cover (acres)	4.62	0.00	0.00	0.00	0.00	4.62
Total Area (acres)	14.54	0.00	0.00	0.00	0.00	14.54

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Reduced (lb/yr)	10.82	0.00	0.00	0.00	0.00	10.82

TN Load Reduced (lb/yr)	41.28	0.00	0.00	0.00	0.00	41.28
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Drainage Area A SummaryLand Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	9.92	0.00	9.92	68
Impervious Cover (acres)	0.00	0.00	4.62	0.00	4.62	32
					14.54	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft ³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
Total Impervious Cover Treated (acres)	4.62							
Total Turf Area Treated (acres)	8.83							
Total TP Load Reduction Achieved in D.A. (lb/yr)	10.82							
Total TN Load Reduction Achieved in D.A. (lb/yr)	41.28							

Drainage Area B SummaryLand Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	0.00	0.00	0
Impervious Cover (acres)	0.00	0.00	0.00	0.00	0.00	0
					0.00	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft ³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
Total Impervious Cover Treated (acres)	0.00							
Total Turf Area Treated (acres)	0.00							
Total TP Load Reduction Achieved in D.A. (lb/yr)	0.00							
Total TN Load Reduction Achieved in D.A. (lb/yr)	0.00							

Drainage Area C SummaryLand Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	0.00	0.00	0
Impervious Cover (acres)	0.00	0.00	0.00	0.00	0.00	0
					0.00	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft ³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. (lb/yr)	0.00

Drainage Area D SummaryLand Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	0.00	0.00	0
Impervious Cover (acres)	0.00	0.00	0.00	0.00	0.00	0
					0.00	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft ³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. (lb/yr)	0.00

Drainage Area E Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	0.00	0.00	0
Impervious Cover (acres)	0.00	0.00	0.00	0.00	0.00	0
					0.00	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft ³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
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Total Impervious Cover Treated (acres)	0.00
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. (lb/yr)	0.00
Total TN Load Reduction Achieved in D.A. (lb/yr)	0.00

Runoff Volume and CN Calculations

	1-year storm	2-year storm	10-year storm
Target Rainfall Event (in)	0.00	0.00	0.00

Drainage Areas	RV & CN	Drainage Area A	Drainage Area B	Drainage Area C	Drainage Area D	Drainage Area E
CN		82	0	0	0	0
RR (ft ³)		0	0	0	0	0
1-year return period	RV wo RR (ws-in)	0.00	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	0.00	0.00	0.00	0.00	0.00
	CN adjusted	100	0	0	0	0
2-year return period	RV wo RR (ws-in)	0.00	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	0.00	0.00	0.00	0.00	0.00
	CN adjusted	100	0	0	0	0
10-year return period	RV wo RR (ws-in)	0.00	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	0.00	0.00	0.00	0.00	0.00
	CN adjusted	100	0	0	0	0

Version 2018
(Last updated 9/18/2018)



Please make sure to use the accompanying Excel Spreadsheet to calculate the numbers below.

FISCAL IMPACT WORKSHEET AND ASSUMPTIONS

Please complete all *applicable* sections. Please use the provided spreadsheet to perform calculations. If space provided is insufficient, please feel free to include additional pages. If you have any questions please contact the Planning Office at 757-253-6685 or planning@jamestownva.gov

1a) PROPOSAL NAME: Oakland Pointe

1b) Does this project propose residential units? Yes ☒ No ☐ (if no, skip Sec. 2)

1c) Does this project include commercial or industrial uses? Yes ☐ No ☒ (If no, skip Sec. 3)

Fiscal Impact Worksheet Section 2: Residential Developments

2a) TOTAL NEW DWELLING UNITS. Please indicate the total number of each type of proposed dwelling unit. Then, *add* the total number of new dwelling units.

Single-Family Detached		Apartment	126
Townhome/Condominium/Single-Family		Manufactured Home	
Total Dwelling Units			

Are any units affordable? Yes ☒ No ☐ (If yes, how many?) 126

Residential Expenses – School Expenses

2b) TOTAL NEW STUDENTS GENERATED. *Multiply* the number of each type of proposed unit from (2a) its corresponding Student Generation Rate below. Then, *add* the total number of students generated by the proposal.

Unit Type	Number of Proposed Units (from 2a)	Student Generation Rate	Students Generated
Single-Family Detached		0.4	
Townhome/Condo/Attached		0.17	
Apartment	126	0.31	39.06
Manufactured Home		0.46	
Total			39.06

2c) TOTAL SCHOOL EXPENSES. *Multiply* the total number of students generated from (2b) by the Per-Student Total Expenses below.

Total Students Generated	Per-Student Operating Expenses	Per-Student Capital Expenses	Per-Student Total Expenses	Total School Expenses
39.06	\$8,762.38	\$1,948.32	\$10,710.70	\$ 418,359.73

Residential Expenses - Non-School Expenses

2d) TOTAL POPULATION GENERATED. *Multiply* the number of proposed units from (2a) and multiply by the Average Household Size number below.

Total Units Proposed	Average Household Size	Total Population Generated
126	2.45	308.7

2e) TOTAL NON-SCHOOL EXPENSES. *Multiply* the population generated from (2d) by the Per Capita Non-School Expenses below.

Total Population Generated	Per-Capita Non-School Expenses	Total Non-School Expenses
308.7	\$680.24	\$ 209,990.09

2f) TOTAL RESIDENTIAL EXPENSES. *Add* school expenses from (2c) and non-school expenses (2e) to determine total residential expenses.

Total School Expenses	Non-School Expenses	Total Residential Expenses
\$ 418,359.73	\$ 209,990.09	\$ 628,349.82

Residential Revenues

2g) TOTAL REAL ESTATE EXPECTED MARKET VALUE. Write the number of each type of units proposed from (2a). Then *determine the average* expected market value for each type of unit. Then, *multiply* the number of unit proposed by their average expected market value. Finally, *add* the total expected market value of the proposed units.

Unit Type:	Number of Units:	Average Expected Market Value:	Total Expected Market Value:
Single-Family Detached		\$	\$
Townhome/Condo/Multi-family	126 (apartments)	\$ 125,000.00	\$ 15,750,000.00
Total:		N/A	\$

- 2h) TOTAL REAL ESTATE TAXES PAID. *Multiply* the total market value from (2g) by the real estate tax rate below.

Total Market Value	Real Estate Tax Rate	Total Real Estate Taxes Paid
\$ 15,750,000.00	.0084	\$ 132,300.00

- 2i) TOTAL PERSONAL PROPERTY TAXES PAID. *Multiply* the total real estate taxes paid (2h) by the property tax average below.

Real Estate Tax Paid	Personal Property Tax Average	Personal Property Taxes Paid
\$ 132,300.00	0.15	\$ 19,845.00

- 2j) TOTAL SALES & MEALS TAXES PAID. *Multiply* the total real estate taxes paid (2h) by the sales and meals tax average below:

Real Estate Tax Paid	Sales and Meals Tax Average	Total Sales & Meals Taxes Paid
\$ 132,300.00	.09	\$ 11,907.00

- 2k) TOTAL CONSERVATION EASEMENT TAXES PAID. If the proposal contains a conservation easement, *multiply* the size of the proposed conservation easement by the conservation easement assessment rate.

Proposed Conservation Easement Size	Assessment Rate	Conservation Easement Taxes Paid
0	\$2000/acre (prorated)	\$ N/A

- 2l) TOTAL HOA TAXES PAID. If the HOA will own any property that will be rented to non- HOA members, *multiply* the expected assessed value of those rentable facilities by the real estate tax rate below.

HOA Property Type	Total Assessed Value	Real Estate Tax Rate	Total HOA Taxes Paid
	0	.0084	\$ N/A

- 2m) TOTAL RESIDENTIAL REVENUES. *Add* all residential taxes paid to the County from (2h) through (2l).

Total Residential Revenues	\$ 164,052.00
----------------------------	---------------

- 2n) RESIDENTIAL FISCAL IMPACT. Subtract total residential revenues (2m) from total residential expenses (2f).

Total Residential Ex	Total Residential Revenues	Total Residential Fiscal Impact
\$ 628,349.82	\$ 164,052.00	(464,297.82)

Fiscal Impact Analysis Worksheet Section 3: Commercial and Industrial Developments

Commercial and Industrial Expenses

N/A

3a) TOTAL NEW BUSINESSES. How many new businesses are proposed? _____
(Include all businesses that will rent or lease space at the location as part of the proposal, including probable tenants of an office park or strip mall).

3b) TOTAL COMMERCIAL EXPENSES. *Multiply* the total business real estate expected assessment value from (3c) below by the Commercial Expenses Rate below.

Total Expected Assessment Value	Commercial Expense Rate	Total Commercial Expenses
\$1	0.00468	\$ 0

Commercial & Industrial Revenues

3c) TOTAL REAL ESTATE EXPECTED ASSESSMENT VALUE. *Estimate* the expected real estate assessment value, at buildout, of all proposed commercial element properties below.

Proposed Business Properties (by use and location)	Expected Assessment Value
Total: N/A	\$ N/A

3d) TOTAL REAL ESTATE TAXES PAID. *Multiply* the total expected market property value from (3c) by the real estate tax rate below.

Expected Market Value	Real Estate Tax Rate	Real Estate Taxes Paid
N/A	.0084	\$ 0.0

3e) TOTAL BUSINESS PERSONAL PROPERTY TAXES PAID. *Multiply* the total business capitalization for each proposed commercial element by the business personal property tax rate below. Then *add* the total personal property taxes paid.

Proposed Business Name	Total Business Capitalization	Personal Property Tax Rate	Total Business Property Taxes Paid
N/A		0.01	N/A
N/A		0.01	N/A

		0.01	
Total:		N/A	\$ N/A

3f) TOTAL BUSINESS MACHINERY AND TOOLS TAXES PAID. If any manufacturing is proposed, *multiply* the total business capitalization for each proposed manufacturing element by the business machinery and tools tax rate below. Then, *add* the machinery and tools tax paid.

Proposed Business Name	Total Business Capitalization	Machinery and Tools Tax Rate	Total Business Property Taxes Paid
		0.01	
		0.01	
Total: N/A		N/A	\$ N/A

3g) TOTAL SALES TAXES PAID. *Estimate* the applicable total gross retail sales, prepared meals sales, and hotel/motel room sales for proposal's commercial elements below. Then, *multiply* the projected commercial gross sales by the applicable sales tax rates. Then, *add* the total sales taxes paid.

Tax Type	Projected Gross Sales	Sales Tax Rates	Sales Taxes Paid
Retail Sales		0.01 of Gross Retail Sales	
Prepared Meals		0.04 of Prepared Sales	
Hotel, Motel		0.02 of Gross Sales*	
Total:	N/A	N/A	\$ N/A

*Actual Occupancy Tax is 5% of Gross Sales; however, 60% of those funds are targeted to tourism.

3h) TOTAL BUSINESS LICENSES FEES PAID. Estimate each business element's total gross sales. Multiply each business element's projected gross sales by the Annual Business License rate to determine annual business licenses fee paid.

Proposed Business Name(s)	Business Type* (see exhibit sheet)	Projected Total Gross Sales	Business License Rate	Annual Business License Fees Paid
N/A	Professional Services		0.0058	N/A
N/A	Retail Services		0.0020	N/A
N/A	Contractors		0.0016	N/A
N/A	Wholesalers		0.0005	N/A
N/A	Exempt*		No fee due	N/A
N/A	Other Services		0.0036	N/A
N/A	Total	N/A	N/A	\$ 0

3i) TOTAL COMMERCIAL AND INDUSTRIAL REVENUES. *Add* the total taxes and fees paid by all of the business elements from (3d) through (3h).

Total Commercial and Industrial Revenues	\$ 0
---	------

3j) COMMERCIAL FISCAL IMPACT. *Subtract* total commercial and industrial revenues (3i) from total commercial and industrial expenses (3b).

Total Commercial	Total Commercial Revenues	Total Commercial Fiscal Impact
N/A	N/A	\$ 0

3k) TOTAL PROPOSED FISCAL IMPACT. *Add* residential fiscal impacts (2n) and commercial fiscal impacts (3j).

Residential Fiscal Impact	Commercial Fiscal Impact	Total Proposed Fiscal Impact
(464,297.82)	0	\$ (464,297.82)

Fiscal Impact Analysis Worksheet Section 4: Current Land Use

Current Residential Use (If there are no existing residential units, skip to (4g)).

4a) TOTAL CURRENT DWELLING UNITS. Please indicate the total number of each type of existing dwelling unit. Then, *add* the total number of existing dwelling units.

Single-Family Detached	1	Apartment	
Townhome/Condominium/Single-Family Attached		Manufactured Home	
Total Dwelling Units			

Residential Expenses - School Expenses

4b) TOTAL CURRENT STUDENTS. *Multiply* the number of existing units from (4a) by its corresponding Student Generation Rate below. Then, *add* the total number of existing students.

Unit Type	Number of Existing Units	Student Generation Rate	Existing Students
Single-Family Detached	1	0.4	0.4
Townhome/Condo/Attached		0.17	
Apartment		0.31	
Manufactured Home		0.46	
Total	1	N/A	0.4

- 4c) TOTAL CURRENT SCHOOL EXPENSES. *Multiply* the total number of current students from (4b) by the per-student school cost below.

Number of Existing Students	Per-Student School Cost	Current School Expenses
0.4	\$10,710.70	\$ 4,284.28

Residential Expenses - Non-School Expenses

- 4d) TOTAL CURRENT POPULATION. *Multiply* the total number of existing units from (4a) by average household size below.

Total Existing Units	Average Household Size	Total Current Population
1	2.45	2.45

- 4e) TOTAL CURRENT NON-SCHOOL EXPENSES. *Multiply* the current population from (4d) by per-capita non-school expenses below.

Total Current Population	Per-Capita Non-School Expenses	Current Non-School Expenses
2.45	\$680.24	\$ 1,666.58

- 4f) TOTAL RESIDENTIAL EXPENSES. *Add* school expenses from (4c) and non-school expenses from (4e).

School Expenses	Non-School Expenses	Residential Expenses
\$ 4,284.28	\$ 1,666.58	\$ 5,950.86

Residential Revenues

- 4g) TOTAL CURRENT ASSESSMENT VALUE. *Search* for each residential property included in the proposal on the Parcel Viewer at <http://property.jccgov.com/parcelviewer/Search.aspx>. *Indicate* each property's total assessment value below. Then, *add* total assessment values.

Property Address and Description	Assessment Value
7581Richmond Road	\$ 487,600
	\$
	\$
Total:	\$ 487,600

- 4h) TOTAL CURRENT REAL ESTATE TAXES PAID. *Multiply* the total assessment value from (4g) by the real estate tax rate below.

Total Assessment Value	Real Estate Tax Rate	Real Estate Taxes Paid
487,600	.0084	\$ 4,095.44

- 4i) TOTAL CURRENT PERSONAL PROPERTY TAXES PAID. *Multiply* total real estate taxes paid from (4h) by the personal property tax average below.

Real Estate Tax Paid	Personal Property Tax Average	Personal Property Paid
4,095.44	0.15	\$ 614.37

- 4j) TOTAL CURRENT SALES AND MEALS TAXES PAID. *Multiply* the total real estate taxes paid from (4h) by the sales and meals tax average below.

Real Estate Tax Paid	Sales and Meals Tax Average	Average Excise Tax Paid
4,095.44	.09	\$ 368.58

- 4k) TOTAL CURRENT RESIDENTIAL REVENUES. *Add* all current residential taxes paid to the County from (4h) through (4j).

Total Current Residential Revenues	\$ 5,078.39
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- 4l) CURRENT RESIDENTIAL FISCAL IMPACT. *Subtract* total residential revenues (4k) from total residential expenses (4f).

Total Residential	Total Residential Revenues	Total Residential Fiscal Impact
5,950.86	5,078.39	\$ 872.47

- 4m) FINAL RESIDENTIAL FISCAL IMPACT. *Subtract* current residential fiscal impact from (4l) from proposed residential fiscal impact from (2n).

Proposed Residential Impact	Current Residential Impact	Final Residential Fiscal Impact
464,297.82	872.47	\$ 463,425.35

Current Commercial Use

Current Commercial Expenses (if there are no current businesses or commercial properties, skip to (5k).

- 5a) TOTAL CURRENT BUSINESSES. How many businesses exist on the proposal properties? __
(Include all businesses that rent or lease space at the location).

- 5b) TOTAL CURRENT COMMERCIAL EXPENSES. *Multiply* the current number of businesses operating on the proposal properties by the per-business expense rate below.

Total Expected Assessment Value	Commercial Expense Rate	Total Commercial Expenses
	0.00468	\$

Current Commercial Revenues

- 5c) TOTAL CURRENT ASSESSMENT VALUE. *Search* for each commercial property included in the proposal on the Parcel Viewer at <http://property.jccgov.com/parcelviewer/Search.aspx>. *Indicate* each property's total assessment value below. Then, *add* total assessment values.

Addresses	Assessment Value	Real Estate Tax Rate	Real Estate Tax Paid
		.0084	
		.0084	
Total:			\$

- 5d) TOTAL CURRENT BUSINESS PERSONAL PROPERTY TAXES PAID. *Multiply* the total business capitalization for each current commercial element by the business personal property tax rate below. Then *add* the total personal property taxes paid.

Current Business	Total Business	Personal Property Tax Rate	Business Property Taxes Paid
		0.01	
		0.01	
		0.01	
Total:		N/A	\$

- 5e) TOTAL CURRENT MACHINERY AND TOOLS TAX PAID. If any manufacturing exists, *multiply* the total capitalization for manufacturing equipment by the business machinery and tools tax rate below.

Current Business	Total Business Capitalization	Personal Property Tax Rate	Machinery and Tools Tax Paid
		0.01	\$

- 5f) TOTAL CURRENT SALES TAXES PAID. *Estimate* the applicable total gross retail sales, prepared meals sales, and hotel/motel sales for existing commercial elements below. Then, *multiply* the projected commercial gross sales by the applicable sales tax rates. Then, *add* the total sales taxes paid.

Activity	Projected Gross Sales	Tax Rate	Sales Taxes Paid
Retail Sales		0.01 of Gross Retail Sales	
Prepared Meals		0.04 of Prepared Sales	
Hotel, Motel		0.02 of Gross Sales*	
Total:	N/A	N/A	\$

*Actual Occupancy Tax is 5% of Gross Sales; however, 60% of those funds are targeted to tourism.

5g) TOTAL CURRENT BUSINESS LICENSES FEES PAID. *Estimate* each current business element's total gross sales. Then, *multiply* each business element's projected gross sales by the Annual Business License rate to determine annual business licenses fee paid. Then, *add* the total business license fees paid.

Business Type	Gross Sales	Business License Rate	Annual Business License Fees Paid
Professional Services		\$0.0058	
Retail Sales		\$0.0020	
Contractors		\$0.0016	
Wholesalers		\$0.0005	
Manufacturers		No tax	
Other Services		\$0.0036	

5h) TOTAL CURRENT COMMERCIAL REVENUES. *Add* all current commercial revenues paid by existing businesses from (5c) through (5g).

Total Current Commercial Revenues	\$
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5i) CURRENT COMMERCIAL FISCAL IMPACT. *Subtract* total commercial revenues (5h) from total residential expenses (5b).

Total Commercial Expenses	Total Commercial Revenues	Total Commercial Fiscal Impact
		\$

5j) FINAL COMMERCIAL FISCAL IMPACT. *Subtract* current commercial fiscal impact from (5i) from proposed commercial fiscal impact from (3j).

Proposed Commercial Impact	Current Commercial Impact	Final Commercial Fiscal Impact
		\$

5k) FINAL FISCAL IMPACT. *Subtract* the final commercial fiscal impact from (5i) from final residential fiscal impact from (4m).

Final Residential Impact	Final Commercial Impact	Final Fiscal Impact
\$ 463,425.35	\$0	\$463,425.35

Fiscal Impact Worksheet Section 6: Phasing

Residential Phasing

6a) *Copy and paste* the residential phasing template from the accompanying Excel sheet to the page below.

Commercial Phasing

6b) *Copy and paste* the commercial phasing template from the accompanying Excel sheet to the page below.

Final Phasing Projections

6c) *Copy and paste* the final phasing projection from the accompanying Excel sheet to the page below.

Fiscal Impact Worksheet Section 7: Employment

7a) *Copy and paste* the employment projections from the accompanying Excel sheet to the page below.

DEFINITIONS AND ASSUMPTIONS

Apartment – A building used, or intended to be used as the residence of three or more families living independently of each other. Tenants have no equity in the dwelling.

Assessment Value – Assessment value is assumed to be within 1% of market value. Market value drives assessment value.

Buildout – All data and assumptions reflect the fiscal impact of the proposal at buildout.

Commercial Expense Rate – The commercial expense rate uses the proportional valuation method to determine individual business expenses. Under that method businesses are collectively responsible for impact related to the commercial property valuation.

This rate assumes that the costs of providing County services to a business are directly correlated with that business's property assessment. This assumes more valuable properties have generally more intense uses incurring greater County expenses.

Condominium – A building, or group of buildings, in which units are owned individually and the structure, common areas and common facilities are owned by all the owners on a proportional, undivided basis.

Contractor – Any person, firm or corporation accepting or offering to accept orders or contracts for doing any work on or in any building or structure, any paving, curbing or other work on sidewalks, streets, alleys or highways, any excavation of earth, rock or other materials, any construction of sewers and any installation of interior building components.

Direct Impact – The worksheet only calculates direct financial impacts on the County budget. The worksheet is only one of many development management tools and as such, does not make a determination whether any type of development “should” happen based solely on that proposal's fiscal impact. The tool is not designed to measure non-budget impacts, such as increased traffic or nonbudget benefits, such as forwarding the goals of the Comprehensive Plan. Costs incurred by other entities, such as other localities or the state, remain uncouned.

Dwelling – Any structure which is designed for use for residential purposes, except hotels, motels, boardinghouses, lodging houses and tourist cabins.

Exempt – Certain types of business activities or products are exempted from annual County business licenses. These include manufacturers, insurance agencies, apartment complexes and gasoline sales.

Fees & Licenses – All fees collected by the County, including business and professional licenses, planning fees, building permit fees, stormwater fees, environmental inspection fees, septic tank fees,

dog licenses and motor vehicle licenses, are deducted from the per-capita and per-business budgetary costs of each department that collects them.

Fiscal Impact Analysis – The County has created a set of standardized data and assumptions to streamline both the creation and review of fiscal impact studies. The County had no itemized list of questions for fiscal impact study creators to answer, resulting in portions of fiscal impact studies with no bearing on the County's budgetary bottom line. The guesswork is removed from the creation of these documents. The data used by fiscal impact study authors also came from myriad sources, often within the County, which were difficult to verify. The fiscal impact worksheet allows consistency across multiple fiscal impact studies.

Fiscal Impact Worksheet – The worksheet helps the applicant present relevant data to the County, using data verified by the County. The worksheet provides consistency across all fiscal impact analyses.

Non-School Expenses – Non-school expenses include all FY10 non-school budget spending. Non-school expenses are calculated using the Proportional Variation method. Using the Proportional Variation method, residents and businesses are assumed to be responsible for differing percentages of the County's non-school spending.

Manufacturing – Assembly of components, pieces, or subassemblies, or the process of converting raw, unfinished materials into different products, substances or purposes.

Market Value – Market value is assumed to be within 1% of assessment value. Market value drives assessment value.

Manufactured Home – A manufactured home is a structure not meeting the specifications or requirements or a manufactured home, designed for transportation after fabrication. The only manufactured homes counted in the Student Generation figure are those in designated manufactured home parks. Manufactured homes on individual lots are indistinguishable from single-family detached dwellings for the purposes of the worksheet.

Phasing – All residential developments are assumed to have an absorption rate of 20% per annum. All commercial development are assumed to have an absorption rate of 20% per annum. The date stamp Year 1 in the phasing template represents 365 days after the Board of Supervisors approval.

Professional Services – Work performed by an independent contractor within the scope of the practice of accounting, actuarial services, architecture, land surveying, landscape architecture, law, dentistry, medicine, optometry, pharmacy or professional engineering. Professional services shall also include the services of an economist procured by the State Corporation Commission.

Proportional Valuation Impact – Proportional valuation impact assumes that a proposed residential or commercial project's fiscal impact is proportional to the percentage of the total tax base that is either residential or commercial.

James City's proportional valuation is calculated using the County's Real Estate Mapping GIS program. The program calculated an aggregate property assessment value of \$12,893,394,900 for the entire County. The program calculated an aggregate commercial and industrial assessment value of \$1,631,761,400. Dividing the commercial value by the total value shows that commercial and industrial properties compose 13% of the total property tax base and are responsible for 13% of County non-school expenses. This results in residential development being responsible for Schools impacts and 87% of non-school County operations. The proportional valuation method does not factor other assorted residential and commercial taxes, fees and licenses into account. As 13% of the tax base, businesses contribute 13% for all County non-school expenses. As 87% of the tax base, residents contribute 87% for all County non-school expenses.

Furthermore, individual business expenses to the County are calculated using the proportional valuation impact method. (See Commercial Expense Rate)

Per-Business Expense Rate – The per-business expense rate assumes that the County incurs non-school expenses equal to 0.04% of the commercial real estate assessment of any given business.

Per Capita Evaluation Method – This worksheet uses the Per Capita Evaluation method to assign per-capita and per-business costs to non-school expenses. This method assumes that current per-capita and per-business expenditures and service levels are consistent with future per-capita and per-business expenditures and service levels.

Per Capita – Per capita calculations divide each department's spending, minus fees and state contributions, by the current County population. This number excludes institutional residents in detention at correctional facilities and mental institutions. Total population is determined from James City County Planning Division figures.

Per Student – Per student calculations divide County contributions to WJCC Schools, minus state educational contributions, by the total number of K-12 students living in James City and also attending WJCC Schools. Total students are determined from Williamsburg-James City County Schools School Year enrollment reports.

Per Business – Per business calculations divide each departments spending, minus fees and state contributions, by the total number of County businesses. Total businesses are determined by the number of business licenses issued.

Total Number of JCC Businesses				5490*
Percentage	of	Property	Tax	13%**
Assessments				

*James City County Commissioner of the Revenue

**Commercial impacts are calculated on a proportional variation process

Proffer – Proffers paid for schools can only be applied toward the capital expense portion of per-student school expenses. (See Board of Supervisors’ Proffer Policy.)

Retail Services – Display and sale of merchandise at retail or the rendering of personal services, such as food, drugs, clothing, furniture, hardware, appliances, barber and beauty, antiques, and household uses and other uses.

Single-Family Detached Dwelling – A detached structure arranged or designed to be occupied by one family, the structure only having one dwelling unit.

State Contributions – The state contributes both targeted and unspecified funds to the James City County budget. Funds for specific departments were subtracted from the budget totals of those departments. Unspecified state fund amounts were compiled, then evenly subtracted (7.75% of each department total) across all non-school departments.

Student Generation Rate – The student generation rate employs a demographic multiplier. The 5-year averages from the American Community Survey from the U.S. Census Bureau is utilized to develop accurate estimates of the demographics based on each household.

Townhome –In a structure containing three or more dwelling units, a dwelling unit for single-family occupancy, not more than three stories in height, attached by one or more vertical party walls extending to the roof sheathing without passageway openings to one or more additional such dwelling units, each of which is served by an individual exterior entrance or entrances.



5248 Olde Towne Road, Suite 1
Williamsburg, Virginia 23188
Phone (757) 253-0040
Fax (757) 220-8994
aesva.com

November 20, 2018

Mr. Paul Holt
Planning Director
James City County
101-A Mounts Bay Road
P.O. Box 8784
Williamsburg, Virginia 23187

**RE: Oakland Pointe
Parks and Recreation Exception Request
Rezoning Application
AES Project Number: W10503-00**

Dear Mr. Holt:

AES Consulting Engineers on behalf of Connelly Development, LLC is requesting an exception to the James City County Recreational Facility Development Guidelines for the subject project. Pursuant to the recent adoption of the Master Plan for Parks and Recreation (April 11, 2017), an exception is allowed by the Board of Supervisors through recommendations from the Director of Planning and the Director of Parks and Recreation.

Our rezoning proposal shall meet the guideline standards as listed for the park area, bike/jogging trail and playground area; however, the areas of exception are the hard court surface and the multi-use field.

Our proposal shall include a park area and playground with a pavilion located within close proximity to each to serve the entire family. In addition, over 2000 feet of multi-use trail is provided within the site that connects to a trail along Richmond Road. This provides excellent connectivity to adjacent properties.

The hard court surface requirement is an issue with long term consequences for most developments as they generally lead to being a hangout for activities that create a disturbance to the neighbors. In lieu of this court, this proposal is providing a dog park area that appeals to a larger percentage of the residents.

The field requirement appears to be more a question of size and location. Our proposal provides a field, but the dimensions fall short of the requirement. We submit that the field is large enough to engage in multiple activities and serve the intended function. The location does encroach into the buffer only because that area is already cleared and the wooded buffer to the neighbors is quite large. This area can be mitigated elsewhere on the site and create a more useful buffer than the large buffer that already exist in the rear of this property.

Mr. Paul Holt
November 20, 2018

AES Project Number: W10503-00
page 2 of 2

We appreciate the time spent by the various review agencies in the review and guidance for this project. If anyone has any questions in reference to this project please do not hesitate to call me at my office at 757-253-0040.

Sincerely,

AES Consulting Engineers



Howard W. Price
Principal
howard.price@aesva.com



Traffic Analysis For Oakland Pointe Apartments

JAMES CITY COUNTY, VIRGINIA

For:
Connelly Development, LLC

By:
**DRW Consultants, LLC
Midlothian, VA**

September 23, 2018

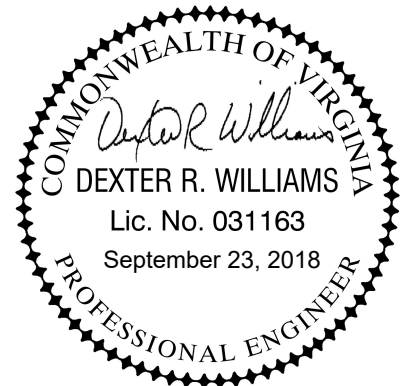
Traffic Analysis For Oakland Pointe Apartments

JAMES CITY COUNTY, VIRGINIA

For:
Connelly Development, LLC

By:
**DRW Consultants, LLC
Midlothian, VA**

September 23, 2018



FOREWORD

This traffic study is the latest update of the original November 20, 2017 study for Oakland Pointe Apartments.

Following are the revisions since the original study:

- 1. The eastbound left turn lane on Rt. 60 at Croaker Road will be reconstructed to have 400 feet of storage/100-foot taper. The original study had 300 feet storage/100-foot taper. The existing left turn lane has 200 feet storage.*
- 2. Oakland Pointe Apartments will have access only on Oakland Drive. The original study had access on Rt. 60 Richmond Road.*
- 3. The unsignalized crossover at Rt. 60/Oakland Drive will have median noses cut back and yield bar striping control in the crossover like other locations on Rt. 60. This is in addition to the westbound left turn lane on Rt. 60 at the crossover that was included in the original study.*
- 4. Traffic level of service at Rt. 60/Oakland Drive crossover is calculated for the stop control on the Oakland Drive approach to Rt. 60 and for the median yield bar control. The original study did not include median yield bar control.*
- 5. Traffic signal timing at Rt. 60/Croaker Road uses the coordinated split values. The original traffic study used the default values. This change more accurately reflects signal timing. A modified signal timing alternative also is included for the Rt. 60/Croaker Road intersection.*
- 6. The original traffic study used Trip Generation Manual 9th Edition (TGM9). This study uses the more up to date Trip Generation Manual 10th Edition (TGM10).*

All traffic counts in this study are the same as the original study.

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REPORT TEXT

INTRODUCTION AND SCOPE

Connelly Development, LLC proposes to develop an apartment project in James City County, Oakland Pointe Apartments. The site fronts on Rt. 60 Richmond Road between Croaker Road to the east and Oakland Drive to the west. The upper section of Exhibit 1 shows the site location in the VDOT Hampton Roads District. The lower section of Exhibit 1 shows the location of the site and adjacent areas on the County's parcel map.

Access to Oakland Pointe Apartments is proposed via an entrance on Oakland Drive through an adjacent property. This traffic study has been prepared to document existing and future traffic conditions with and without site development. The following intersections are included in the study for counts and analysis:

1. Rt. 60 Richmond Road/Croaker Road/Pricket Road - signalized
2. Rt. 60 Richmond Road/Oakland Drive - unsignalized

The conceptual development plan by AES is shown on Exhibit 2a and includes 126 apartments. Vehicular access is provided by a connection across the adjacent property to Oakland Drive. A sidewalk is included along the Rt. 60 frontage. Pedestrian access is provided throughout the development with pedestrian connections to Rt. 60 and Oakland Drive.

Road improvements proposed to be built by the project are shown on Exhibit 2b. These include:

1. Reconstruction of eastbound left turn lane on Rt. 60 at Croaker Road to extend existing 200 feet storage to 400 feet storage.
2. Reconstruction of Rt. 60/Oakland Drive intersection (see Exhibit 2c for detail) to include:
 - a. Pavement widening between median noses
 - b. Westbound left turn lane
 - c. Yield bars and centerline striping.

This study includes AM and PM peak hour traffic analysis at the existing two intersections for the following scenarios:

- Existing traffic
- 2025 without the project (with build out of Candle Factory rezoning/Village At Candle Station with access on Pricket Road)
- 2025 with the project and related improvements as shown on Exhibits 2b and 2c.

EXISTING TRAFFIC CONDITIONS

Intersection turning movement traffic counts were conducted by Peggy Malone & Associates from 7 to 9 AM and from 4 to 6 PM on Tuesday, October 10, 2017. Total volumes are tabulated on Appendix Exhibit A and B series and peak hour counts without balance are shown on Appendix Exhibit D.

Exhibit 3 shows AM and PM peak hour traffic on the study area road network diagram. Rt. 60 Richmond Road (posted speed limit 45 mph, east-west orientation) is a four lane divided roadway. Lane configurations at the Richmond Road intersections with Croaker Road/Pricket Road and Oakland Drive are shown on Exhibit 3.

Synchro 10 has been used to calculate intersection levels of service. VDOT signal timing was obtained for the Richmond Road/Croaker Road/Pricket Road intersection.

The following reports are included in the technical appendix:

1. For signalized Richmond Road/Croaker Road/Pricket Road, 2000 Highway Capacity Manual (HCM2000) report is used. See Appendix Exhibits J1 and J2 for the HCM2000 report AM and PM peak hours, respectively. HCM2010 HCM 6th Edition produce NEMA custom phasing violations and are not used.
2. Unsignalized intersection (Richmond Road/Oakland Drive) LOS results are shown in Appendix Exhibits K1 and K2 for the AM and PM peak hours, respectively.
3. Synchro Queues results are shown in Appendix Exhibits L1 and L2 for the AM and PM peak hours, respectively.
4. SimTraffic Queuing & Blocking results are shown in Appendix Exhibits M1, and M2 series for the AM and PM peak hours, respectively.

The following table shows existing peak hour intersection levels of service and queuing results at Richmond Road/Croaker Road/Pricket Road:

2017 COUNTS - TABLE 1-1 Richmond Road/ Croaker Road/Pricket Road									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	Synchro		SimTraffic Q&B	
						AM	PM	AM	PM
Overall	C	31.3	D	36.1					
EBL	D	52.1	D	52.5	200	286	150	254	126
EBT	B	18.4	C	27.7		208	220	126	141
EBR	B	15.0	C	23.4	10	0	0	27	46
WBL	D	42.8	D	45.1	200	23	85	55	44
WBT	C	26.4	C	33.3		127	323	120	222
WBR	C	24.4	C	26.3	200	40	66	70	109
NBL	D	38.0	D	49.9	165	29	157	14	157
NBL/T	D	39.0	D	42.4		49	132	67	208
NBR	D	37.1	D	38.8	150	0	0	20	34
SBL/T	D	52.7	D	53.5		189	422	186	986
SBR	C	29.9	C	30.6	200	36	59	65	1145

SimTraffic queue shown is maximum report value for multi-lane groups

There is overall LOS C at the Richmond Road/Croaker Road intersection in the AM peak hour and overall LOS D in the PM peak hour. There is LOS D or better for all turning movements.

Queuing on the eastbound left turn on Richmond Road at Croaker Road is of importance because site traffic will use this turn lane for left turns. Queuing for this left turn was recorded at the time of counts and is tabulated on Appendix Exhibits C1 and C2. The following table shows the recorded queues and calculated values in Table 1-1.

TABLE 1-2 EASTBOUND LEFT QUEUING		
SOURCE	AM	PM
Field	250	161
Synchro	286	150
SimTraffic	254	126

A 10-minute SimTraffic interval was used for AM peak hour traffic and a 60-minute interval was used for PM peak hour traffic as was done in the previous study to calibrate the eastbound left turn queue.

In Table 1-1, the other notable queues are on the southbound approach in the PM peak hour.

The following table shows existing peak hour intersection levels of service and queuing results at Rt. 60 Richmond Road/Oakland Drive:

2017 COUNTS - TABLE 1-3 Richmond Road/Oakland Drive									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCM 6th		SimTraffic Q&B	
						AM	PM	AM	PM
NBL	C	19.4	C	21.4		3	3	21	21
NBT	B	11.7	B	11.2		3	3	22	26
WBL	A	9.8	A	9.5		0	3		40

The existing intersection is controlled by a stop sign on the Oakland Drive approach to eastbound Rt. 60. The northbound left turn on Oakland Drive has LOS C in the AM peak hour and PM peak hour. All other movements have LOS A and B.

2025 BACKGROUND TRAFFIC

Exhibit 4 shows VDOT daily traffic counts (2012 through 2016) and linear regression analysis trend for Rt. 60 Richmond Road west and east of Croaker Road. For the 2025 design year, the traffic counts show 1.0 growth factor west of Croaker Road and a 1.08 growth factor east of Croaker Road.

A 1.08 growth factor is applied to 2017 counts to produce 2025 background traffic (growth factor only) as shown on Exhibit 5.

Build out of the Candle Factory development on Pricket Road (including Village at Candle Station) is also included in this traffic study. Table 1 on Exhibit 6 shows trip generation for the remaining development on Pricket Road using Trip Generation 10th Edition (TGM10). Table 2 shows trip distribution for the remaining development (see Appendix Exhibit E for trip assignment percentages for Pricket Road and for Oakland Drive). Trip assignments for the remaining development are shown on Exhibit 7 and 2025 background traffic without Oakland Pointe Apartments is shown on Exhibit 8.

For analysis reports, see Technical Appendix as follows:

- HCM2000 signalized intersections LOS: Exhibit J3 and J4
- Unsignalized intersection: Exhibit K3 and K4
- Synchro Queues: Exhibits L3 and L4.
- SimTraffic Queuing & Blocking: Exhibits M3 and M4.

The following table shows 2025 background traffic peak hour intersection levels of service and queuing results at Rt. 60 Richmond Road/Croaker Road/Pricket Road:

2025 Background - TABLE 2-1 Richmond Road/ Croaker Road/Pricket Road									
Traffic LOS And Seconds Delay By Lane					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	Synchro		SimTraffic Q&B	
Overall	C	31.4	D	39.6		AM	PM	AM	PM
EBL	D	51.3	E	59.7	200	321	162	273	136
EBT	B	19.6	C	29.4		227	241	213	175
EBR	B	15.9	C	24.4	10	0	0	57	62
WBL	D	40.4	D	48.6	200	28	90	60	122
WBT	C	27.0	D	36.5		136	353	104	216
WBR	C	24.9	C	27.8	200	47	79	81	131
NBL	D	38.2	E	57.0	165	54	168	14	172
NBL/T	D	38.9	D	45.7		70	138	93	225
NBR	D	36.5	D	40.9	150	0	0	33	90
SBL/T	D	50.1	E	57.1		214	470	434	950
SBR	C	29.4	D	41.5	200	45	67	248	1146

SimTraffic queue shown is maximum report value for multi-lane groups

Overall intersection LOS for both peak hours is the same as existing conditions with not much change for turning movement LOS in the AM peak hour. For the eastbound left, northbound

left and the southbound left/through in the PM peak hour, LOS changed from LOS D to LOS E.

The following table shows existing peak hour intersection levels of service and queuing results at Rt. 60 Richmond Road/Oakland Drive:

2025 Background - TABLE 2-2 Richmond Road/Oakland Drive									
Traffic LOS And Seconds Delay By Lane					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCM 6th		SimTraffic Q&B	
						AM	PM	AM	PM
NBL	C	19.4	C	22.7	180	3	3	44	32
NBT	B	11.6	B	11.2	180	3	3	25	31
WBL	A	9.8	A	9.6		0	3	14	59

The northbound left turn on Oakland Drive has LOS C in the AM peak hour AND PM peak hours. All other movements have LOS A and B.

SITE TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

Table 3 on Exhibit 6 shows trip generation for the site using TGM10, published by the Institute of Transportation Engineers (ITE). Site trip distribution is shown in Table 4 on Exhibit 6.

Site trip assignment is shown on Exhibit 9.

2025 TRAFFIC WITH SITE

Exhibit 10 shows 2025 AM and PM peak hour traffic with site traffic.

The westbound left turn on Richmond Road at Oakland Drive warrants a left turn lane (see Appendix Exhibit F) of 100-foot full width lane with 100-foot taper. This improvement is included on Exhibit 10. Also included for analysis is an additional 200 feet of storage on the eastbound left turn on Richmond Road at Croaker Road.

A major change with previous studies is the reconstruction of the Rt. 60/Oakland Drive crossover add area to the crossover and to included yield bars and a centerline stripe as shown on Exhibit 2c. This allows two step traffic operations for left turns at this location.

For analysis reports, see Technical Appendix as follows:

- HCM2000 signalized intersections LOS: Exhibit J5 and J6 series
- Unsignalized intersection LOS: Exhibits K5 and K6 series
- Synchro Queues: Exhibits L5 and L6 series
- SimTraffic Queuing & Blocking: Exhibits M5 and M6 series.

The following table shows 2025 total traffic peak hour intersection levels of service and queuing results at Rt. 60 Richmond Road/Croaker Road/Pricket Road:

2025 Total - TABLE 3-1 Richmond Road/ Croaker Road/Pricket Road Existing Signal Timing - Oakland Drive Access									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	Synchro		SimTraffic Q&B	
Overall	C	32.2	D	41.0		AM	PM	AM	PM
EBL	E	57.2	E	63.8	400	341	193	409	170
EBT	B	19.8	C	30.7		234	262	132	165
EBR	B	15.9	C	25.4	10	0	0	47	64
WBL	D	40.5	D	50.5	200	28	102	63	138
WBT	C	27.0	D	39.0		138	377	153	226
WBR	C	24.9	C	28.8	200	46	98	75	123
NBL	D	38.3	E	62.5	165	54	208	51	171
NBL/T	D	39.0	D	47.3		71	151	119	235
NBR	D	36.6	D	41.1	150	0	0	29	109
SBL/T	D	49.9	E	59.0		215	422	290	948
SBR	C	29.4	C	31.3	200	48	60	206	499

SimTraffic queue shown is maximum report value for multi-lane groups

Overall intersection LOS for both peak hours is the same as existing conditions. The AM peak hour eastbound left turn has LOS E the AM and the eastbound left, northbound left and the southbound left/through have LOS E in the PM peak hour like the background traffic.

With the proposed yield bar/centerline stripe at the Rt. 60/Oakland Drive crossover, LOS is calculated separately for eastbound and westbound Rt. 60 as follows:

2025 Total - TABLE 3-2 EB Richmond Road/Oakland Drive - Oakland Drive Access									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCM 6th		SimTraffic Q&B	
						AM	PM	AM	PM
NBT	C	17.3	C	16.6	180	5	5	32	50
NBR	B	12.0	B	11.5	180	8	5	24	32
SBL/T	C	19.1	C	19.6		5	18	34	51

2025 Total - TABLE 3-3 WB Richmond Road/Oakland Drive - Oakland Drive Access									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCM 6th		SimTraffic Q&B	
						AM	PM	AM	PM
WBL					100				33
NBL	B	10.9	C	16.3	50	3	5	41	57

All movements at the two locations have LOS C.

2025 TRAFFIC WITH SITE AND OPTIMIZED SIGNAL TIMING

As a sensitivity test for LOS and queuing results, the signal timing at the intersection has been optimized using Synchro with the following results:

2025 Total - TABLE 4-1 Richmond Road/ Croaker Road/Pricket Road Optimized Signal Timing - Oakland Drive Access									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	Synchro		SimTraffic Q&B	
						AM	PM	AM	PM
Overall	C	31.7	D	41.1					
EBL	D	50.8	E	68.5	400	269	205	413	156
EBT	B	19.4	C	30.6		239	260	349	165
EBR	B	15.6	C	25.3	10	0	0	42	73
WBL	D	42.2	D	50.5	200	32	102	69	119
WBT	C	27.6	D	38.1		166	370	131	227
WBR	C	25.5	C	28.5	200	10	91	78	133
NBL	D	40.0	E	64.7	165	63	214	10	185
NBL/T	D	41.1	D	48.1		81	152	116	255
NBR	D	38.1	D	41.4	150	0	0	29	121
SBL/T	D	50.4	E	59.2		247	422	212	969
SBR	C	30.4	C	31.5	200	11	60	47	499

SimTraffic queue shown is maximum report value for multi-lane groups

In the AM peak hour, the eastbound left turn LOS reduces to D.

The following tables show peak hour intersection levels of service and queuing results at Rt. 60 Richmond Road/Oakland Drive:

2025 Total - TABLE 4-2 EB Richmond Road/Oakland Drive - Oakland Drive Access									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCM 6th		SimTraffic Q&B	
						AM	PM	AM	PM
NBT	C	17.3	C	16.6	180	5	5	31	42
NBR	B	12.0	B	11.5	180	8	5	33	34
SBL/T	C	19.1	C	19.6	50	5	18	32	46

2025 Total - TABLE 4-3 WB Richmond Road/Oakland Drive - Oakland Drive Access									
Traffic LOS And Seconds Delay					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCM 6th		SimTraffic Q&B	
						AM	PM	AM	PM
WBL					100				28
NBL	B	10.9	C	16.3	50	3	5	34	50

LOS is the same at Rt. 60/Oakland Drive crossover with optimized timing and queues are somewhat reduced.

SUMMARY AND CONCLUSIONS

Traffic levels of service are not much affected by the project with the greatest effect being the increase in the queue on the eastbound left turn lane on Rt. 60 at Croaker Road.

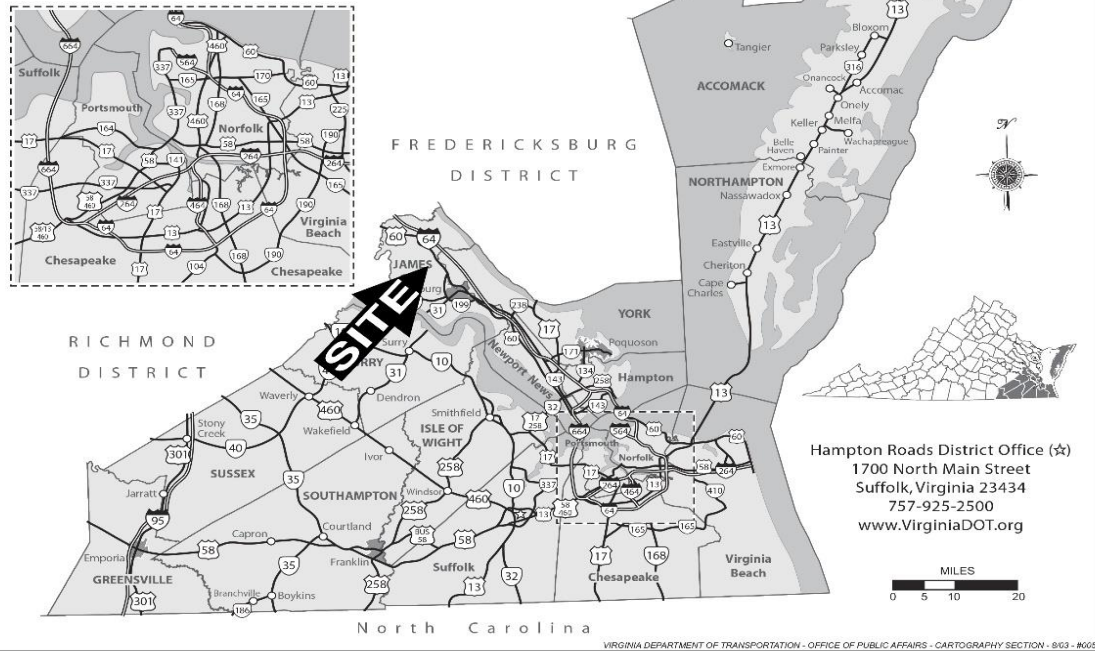
Improvements to the Rt. 60 corridor by the development to compensate for impacts as shown on Exhibit 2b and 2c include:

1. Reconstruction of eastbound left turn lane on Rt. 60 at Croaker Road to extend existing 200 feet storage to 400 feet storage.
2. Reconstruction of Rt. 60/Oakland Drive intersection (see Exhibit 2c) to include:
 - a. Pavement widening between median noses
 - b. Westbound left turn lane
 - c. Yield bars and centerline striping.



REPORT EXHIBITS

Virginia Department of Transportation HAMPTON ROADS DISTRICT





RENDERED CONCEPTUAL PLAN
OAKLAND POINTE
 JAMES CITY COUNTY, VIRGINIA
 (AES PROJECT #: W10503-00 - AES PROJECT CONTACT: T. RYAN STEPHENSON, P.E.)

AES
 CONSULTING ENGINEERS
 Henrich Roads | Central Virginia | Middle Peninsula
 5208 Oak Grove Road, Suite 1
 P.O. Box 1770, Gloucester
 Gloucester, VA 23061
 www.aesva.com

Revised: 9/21/2018
 DATE: 12/06/2017
 SCALE: 1"=50'
 SHEET 1 of 1

OAKLAND POINTE APARTMENTS
 CONCEPTUAL PLAN BY AES

DRW Consultants, LLC
 804-794-7312

Exhibit 2a

Rev	Date	Description
1	10/27/17	REVISIONS TO COUNTY COMMENTS
2	10/27/17	REVISIONS TO COUNTY COMMENTS
3	10/27/17	REVISIONS TO COUNTY COMMENTS
4	10/27/17	REVISIONS TO COUNTY COMMENTS
5	10/27/17	REVISIONS TO COUNTY COMMENTS
6	10/27/17	REVISIONS TO COUNTY COMMENTS
7	10/27/17	REVISIONS TO COUNTY COMMENTS
8	10/27/17	REVISIONS TO COUNTY COMMENTS
9	10/27/17	REVISIONS TO COUNTY COMMENTS
10	10/27/17	REVISIONS TO COUNTY COMMENTS

THIS PLAN HAS
NOT RECEIVED
FINAL APPROVAL
AND IS NOT
APPROVED FOR
CONSTRUCTION.

AES
CONSULTING ENGINEERS
1000 Old Town Road, Suite 100
Falls Church, VA 22044
Phone: (703) 255-0000
Fax: (703) 255-0000
www.aes-engineers.com

MASTER PLAN
for
OAKLAND POINTE
DEVELOPER: CONNELLY BUILDERS, INC.
JAMES CITY COUNTY
DISTRICT 1

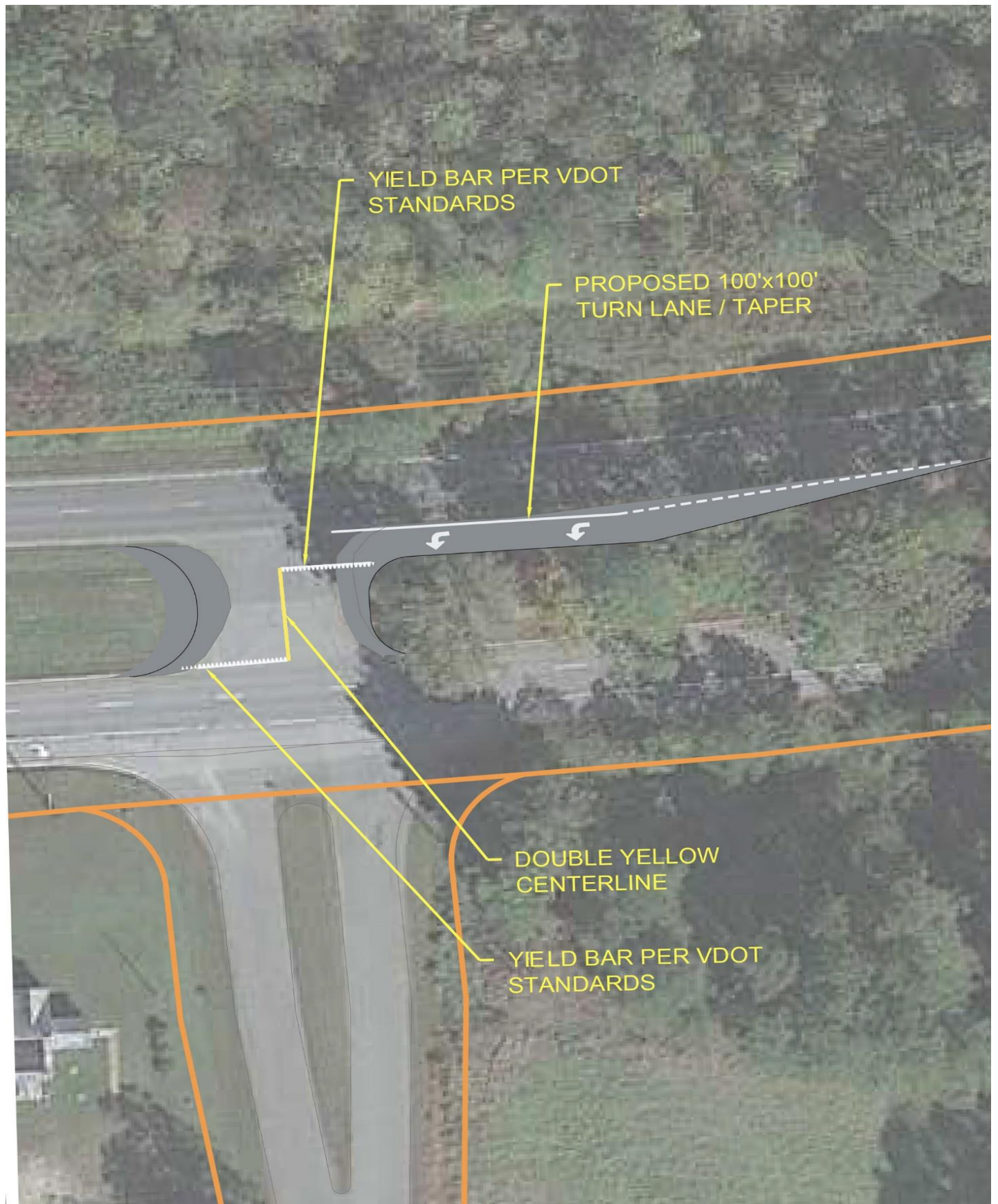
Project Number: 1000-000
Date: 10/27/17
Scale: 1" = 50'
Sheet No.: 1 of 1
RENDERED
PROPOSED ROAD
IMPROVEMENTS
PLAN



OAKLAND POINTE APARTMENTS ROAD IMPROVEMENTS PLAN

DRW Consultants, LLC
804-794-7312

Exhibit 2b

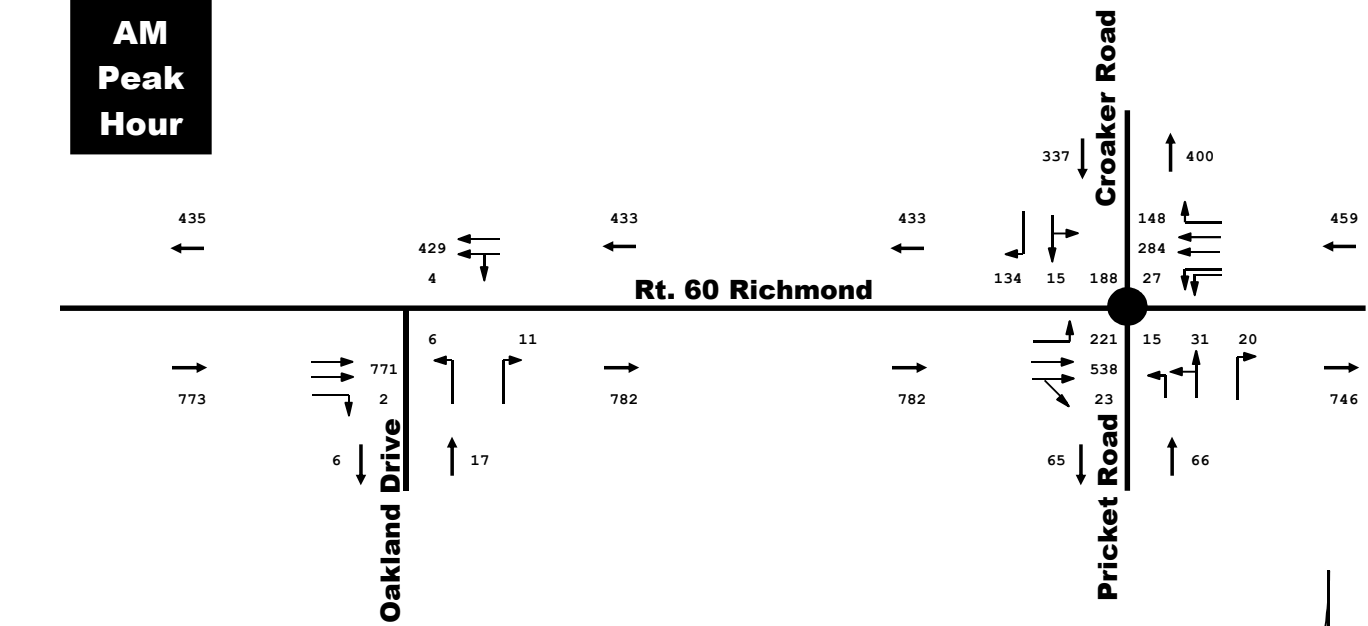


RT. 60/OAKLAND DRIVE CROSSOVER
PROPOSED PAVEMENT AND TRAFFIC CONTROL

DRW Consultants, LLC
804-794-7312

Exhibit 2c

**AM
Peak
Hour**



**PM
Peak
Hour**

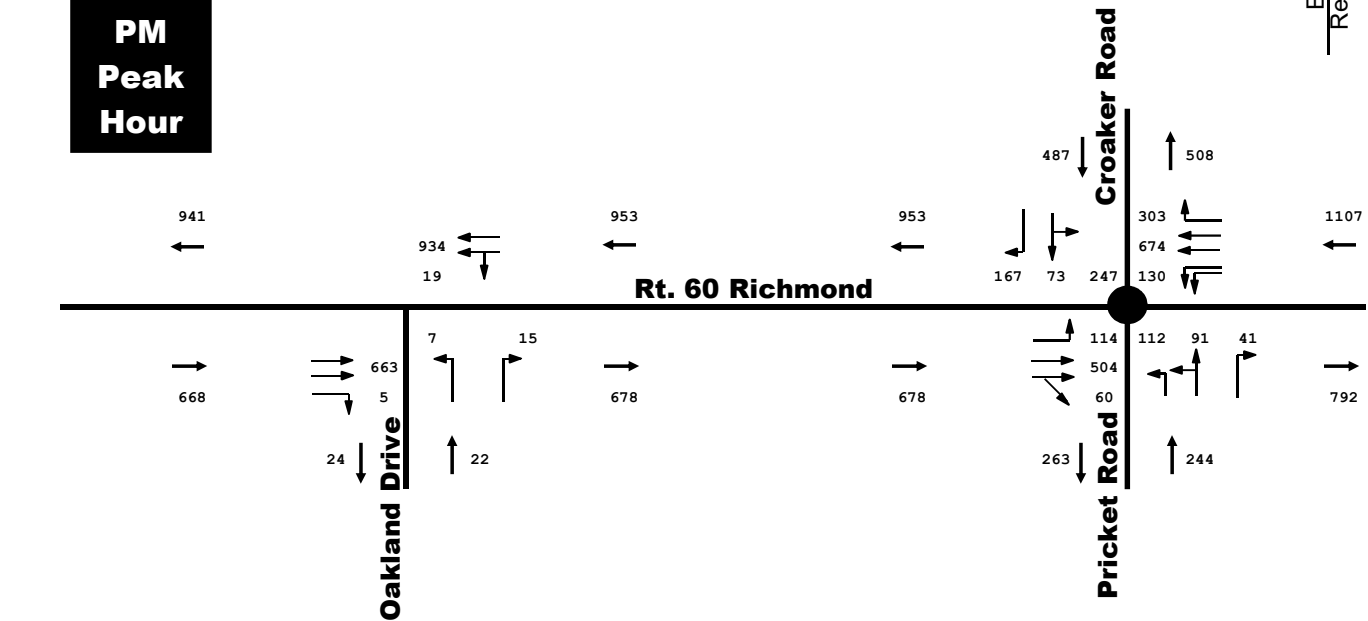


Exhibit
Reference

2017 PEAK HOUR COUNTS
WITH BALANCE

DRW Consultants, LLC
804-794-7312

Exhibit 3

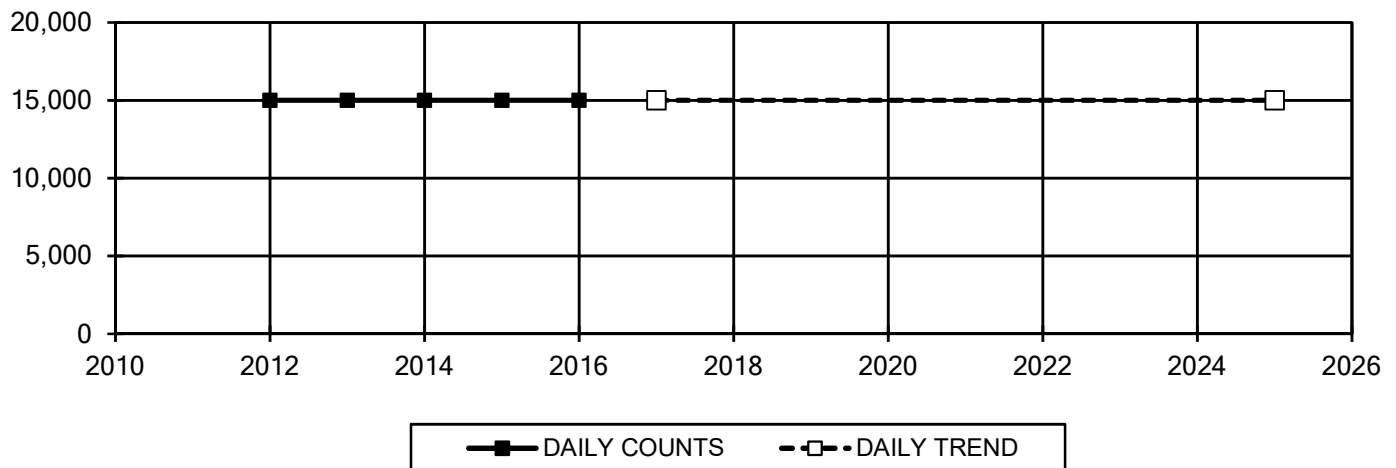
Street: Richmond Road, Rt. 60
 From: Rt. 30
 To: Croaker Road

Street: Richmond Road, Rt. 60
 From: Croaker Road
 To: Centerville Road

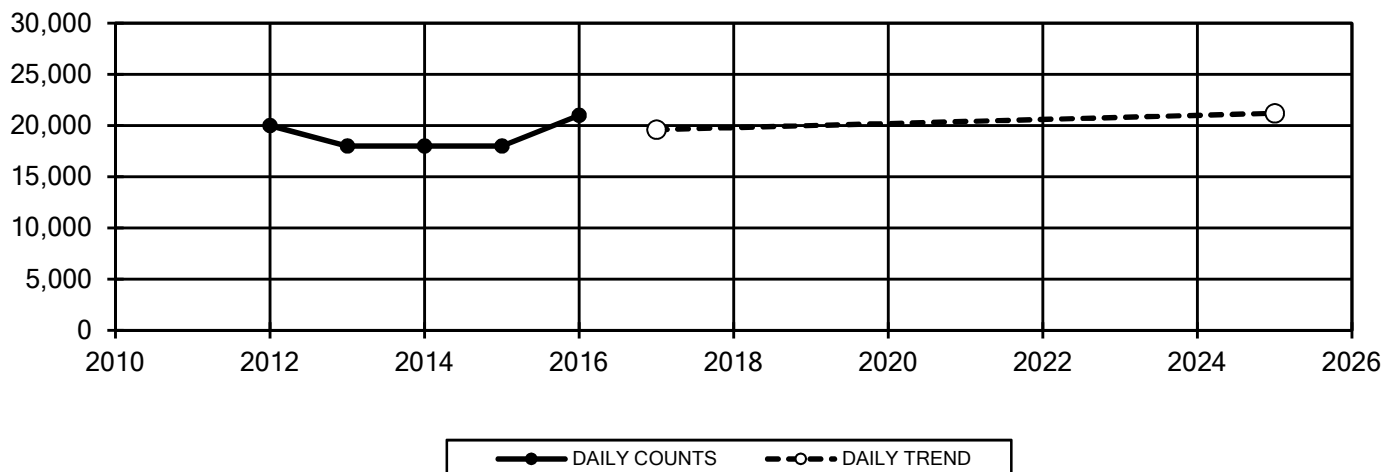
Year	DAILY COUNTS	
2012	15,000	
2013	15,000	
2014	15,000	
2015	15,000	
2016	15,000	
Year	DAILY TREND	
2017	15,000	$\Delta 17$
2025	15,000	1.00

Year	DAILY COUNTS	
2012	20,000	
2013	18,000	
2014	18,000	
2015	18,000	
2016	21,000	
Year	DAILY TREND	
2017	19,600	$\Delta 17$
2025	21,200	1.08

From Rt. 30 To Croaker Road



From Croaker Road To Centerville Road



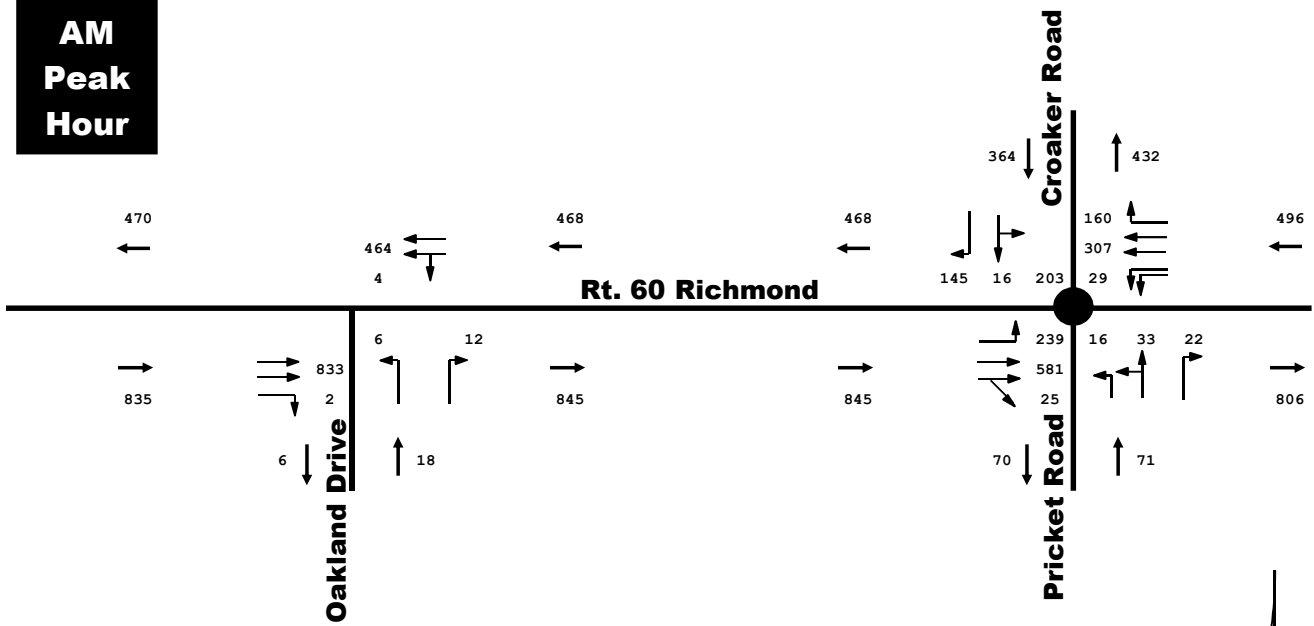
VDOT Average Annual Daily Traffic (AADT) Volume Estimates

RT. 60 RICHMOND ROAD
 DAILY TRAFFIC COUNTS AND TRENDS

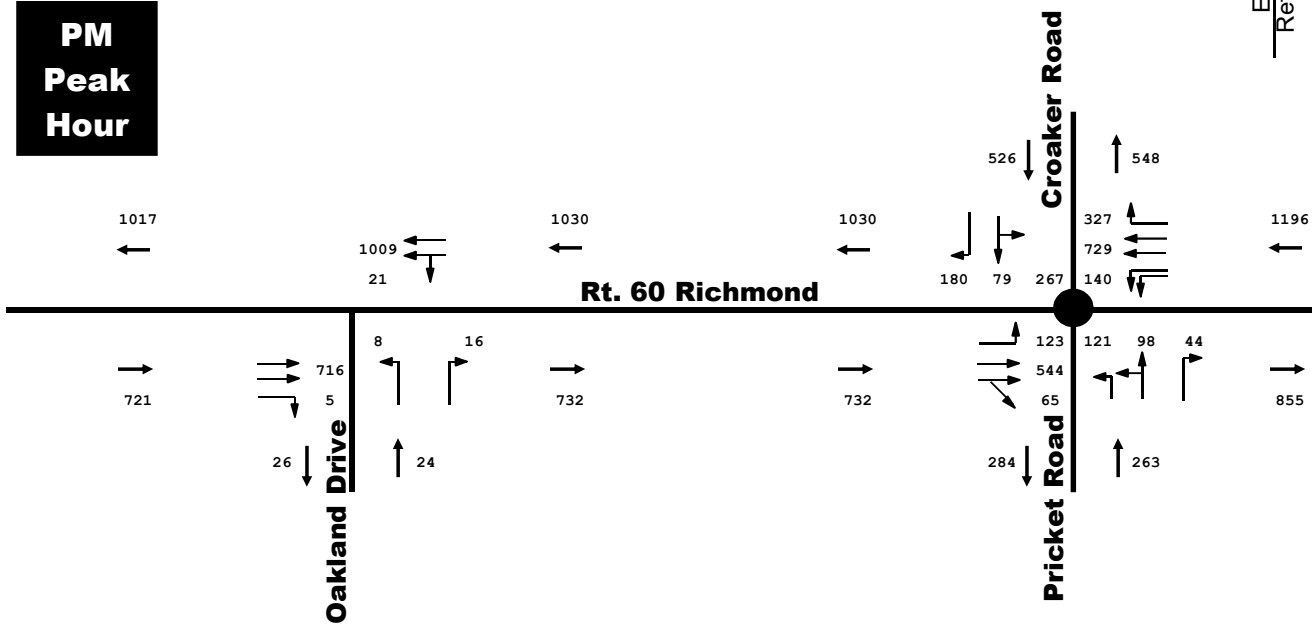
DRW Consultants, LLC
 804-794-7312

Exhibit 4

**AM
Peak
Hour**



**PM
Peak
Hour**



2025 PEAK HOUR BACKGROUND TRAFFIC
GROWTH FACTOR ONLY

DRW Consultants, LLC
804-794-7312

Exhibit 5

		LAND USE CODE	SQ.FT., OTHER UNITS	WEEKDAY TRIP GENERATION						
				AM PEAK HOUR			PM PEAK HOUR			DAILY
VALUE	LAND USE			Enter	Exit	Total	Enter	Exit	Total	

TABLE 1 - Trip Generation - Candle Factory Remaining Development

eq.-adj. st.	Single-Family	210	33 units	7	21	28	22	13	35	375
eq.-adj. st.	Multifamily Low Rise	220	78 units	9	29	38	30	17	47	549
rate-adj. st.	Mini-Warehouse	151	355 units	2	1	3	3	4	7	63
TOTAL:				18	51	69	55	34	89	987

TABLE 2 - Candle Factory Trip Distribution

		18				51	69	55		34	89
		AM Peak Hour					PM Peak Hour				
		Entering Traffic		Exiting Traffic			Entering Traffic		Exiting Traffic		
		Direction	% Dist.	Trips	% Dist.		Trips	% Dist.	Trips	% Dist.	Trips
	Rt. 60 West	33%	6	33%	17			33%	18	33%	11
	Rt. 60 East	40%	7	40%	20			40%	22	40%	14
	Croaker North	27%	5	27%	14			27%	15	27%	9
		100%	18	100%	51			100%	55	100%	34

TABLE 3 - Trip Generation - Oakland Farm Apartments

eq.-adj. st.	Multifamily Low Rise	220	126 units	14	45	59	46	27	73	912
TOTAL:				14	45	59	46	27	73	912

TABLE 4 - Oakland Farm Trip Distribution

		14				45	59	46	27	73
		AM Peak Hour				PM Peak Hour				
		Entering Traffic		Exiting Traffic		Entering Traffic		Exiting Traffic		
Direction		% Dist.	Trips	% Dist.	Trips	% Dist.	Trips	% Dist.	Trips	
Rt. 60 West		33%	5	33%	15	33%	15	33%	9	
Rt. 60 East		40%	5	40%	18	40%	19	40%	11	
Croaker North		27%	4	27%	12	27%	12	27%	7	
		100%	14	100%	45	100%	46	100%	27	

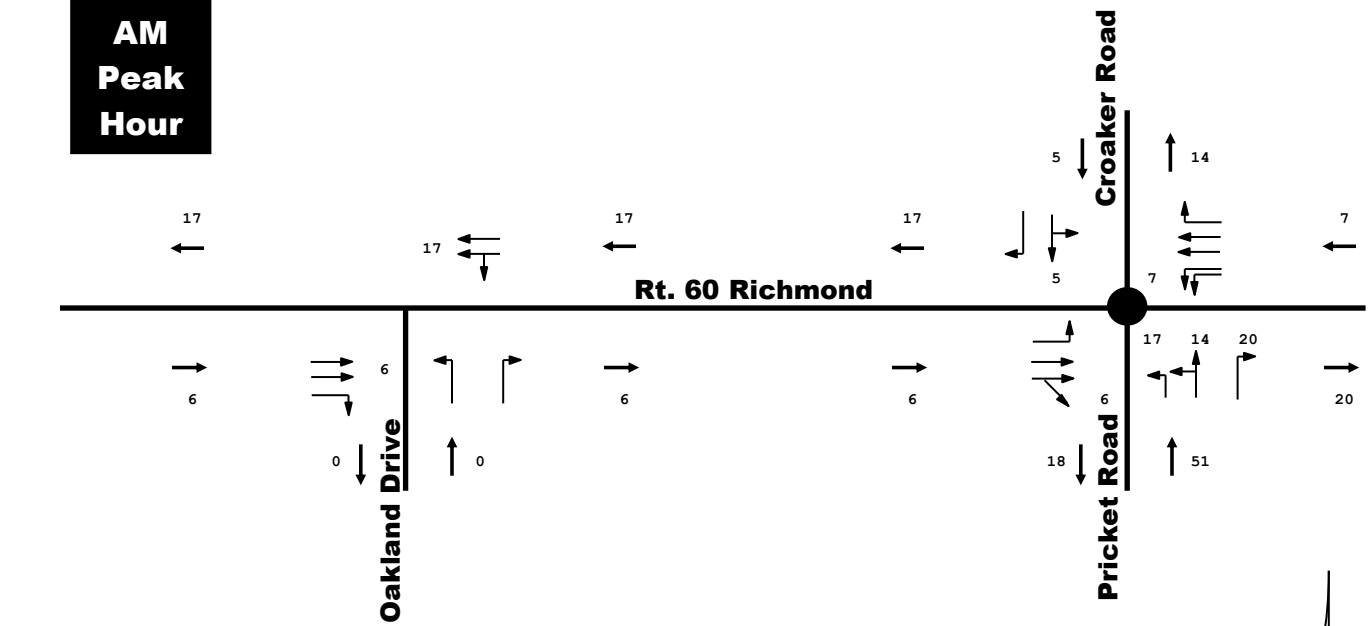
Trip generation rates from Trip Generation Manual, 10th Edition
(TGM10) by the Institute of Transportation Engineers (ITE)

REMAINING CANDLE FACTORY DEVELOPMENT
AND OAKLAND FARM APARTMENTS
TRIP GENERATION AND DISTRIBUTION

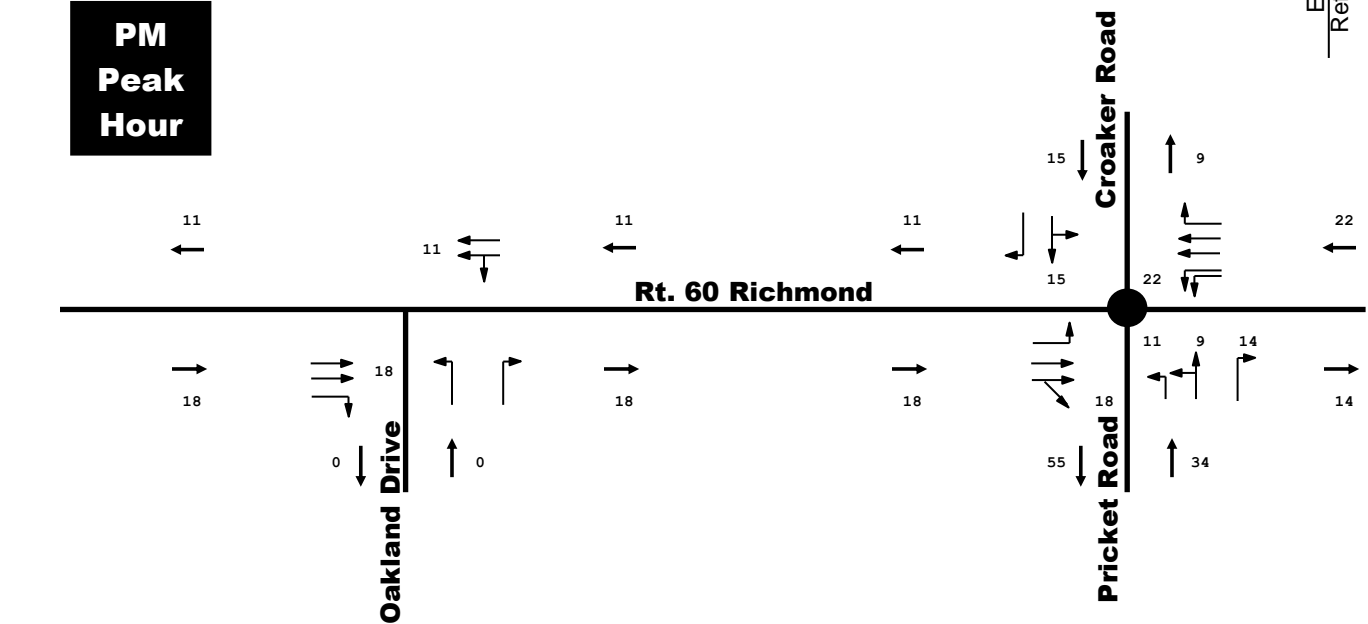
DRW Consultants, LLC
804-794-7312

Exhibit 6

**AM
Peak
Hour**



**PM
Peak
Hour**

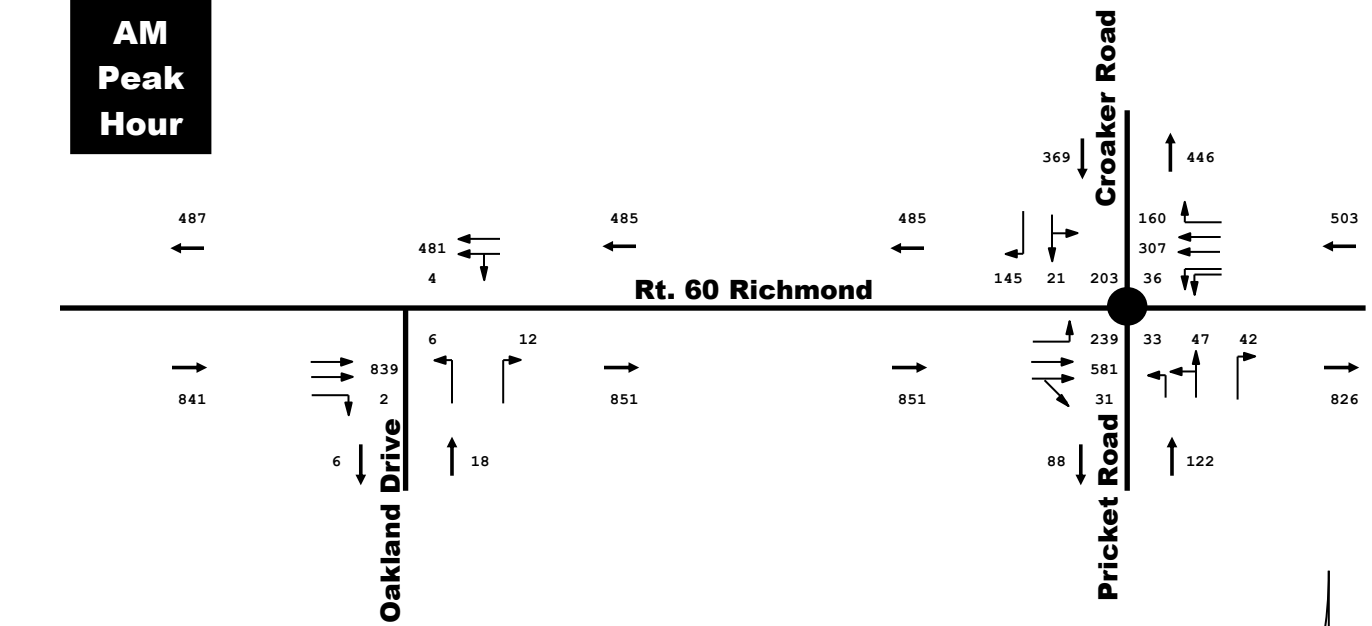


REMAINING CANDLE FACTORY TRIP ASSIGNMENT

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804-794-7312

Exhibit 7

**AM
Peak
Hour**



**PM
Peak
Hour**

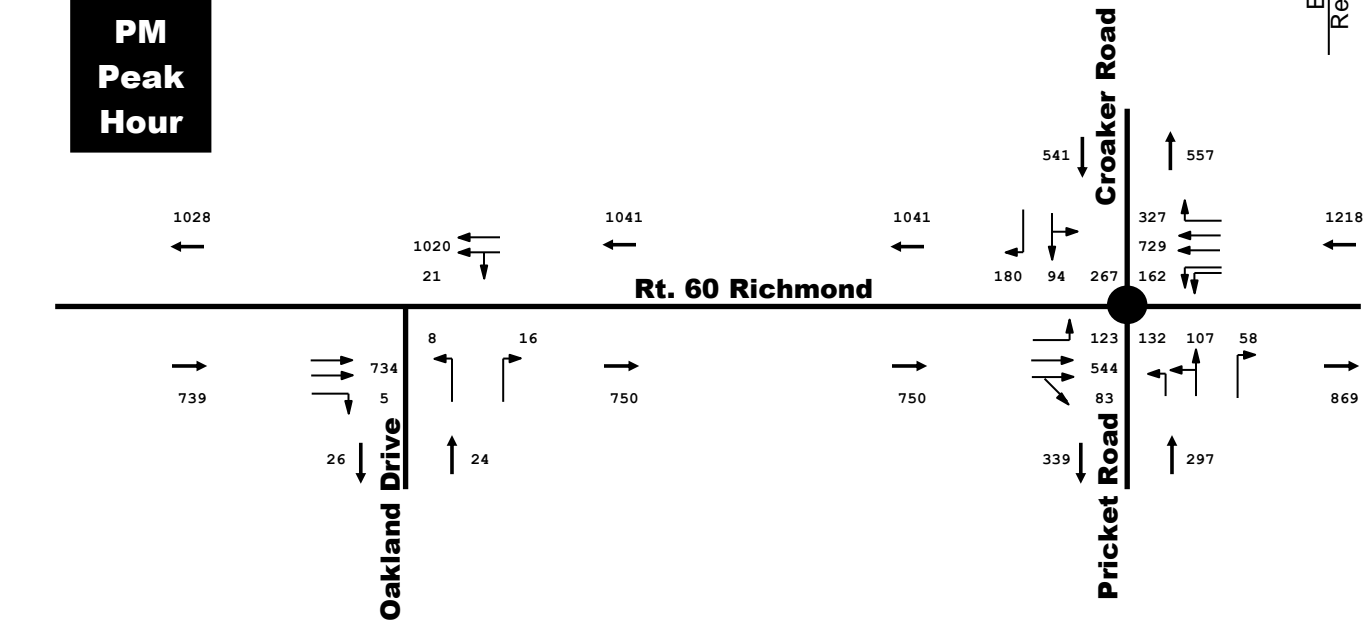


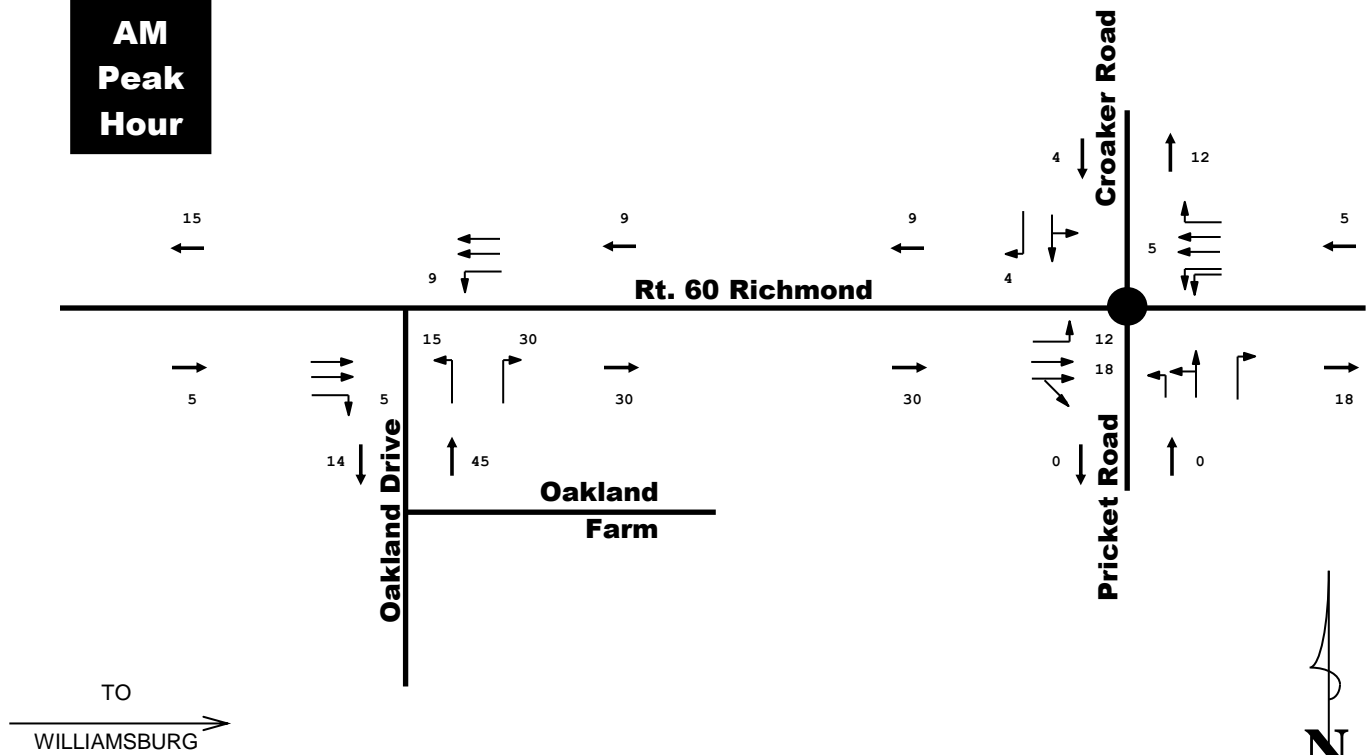
Exhibit
Reference

2025 PEAK HOUR BACKGROUND TRAFFIC
WITHOUT OAKLAND FARM APARTMENTS

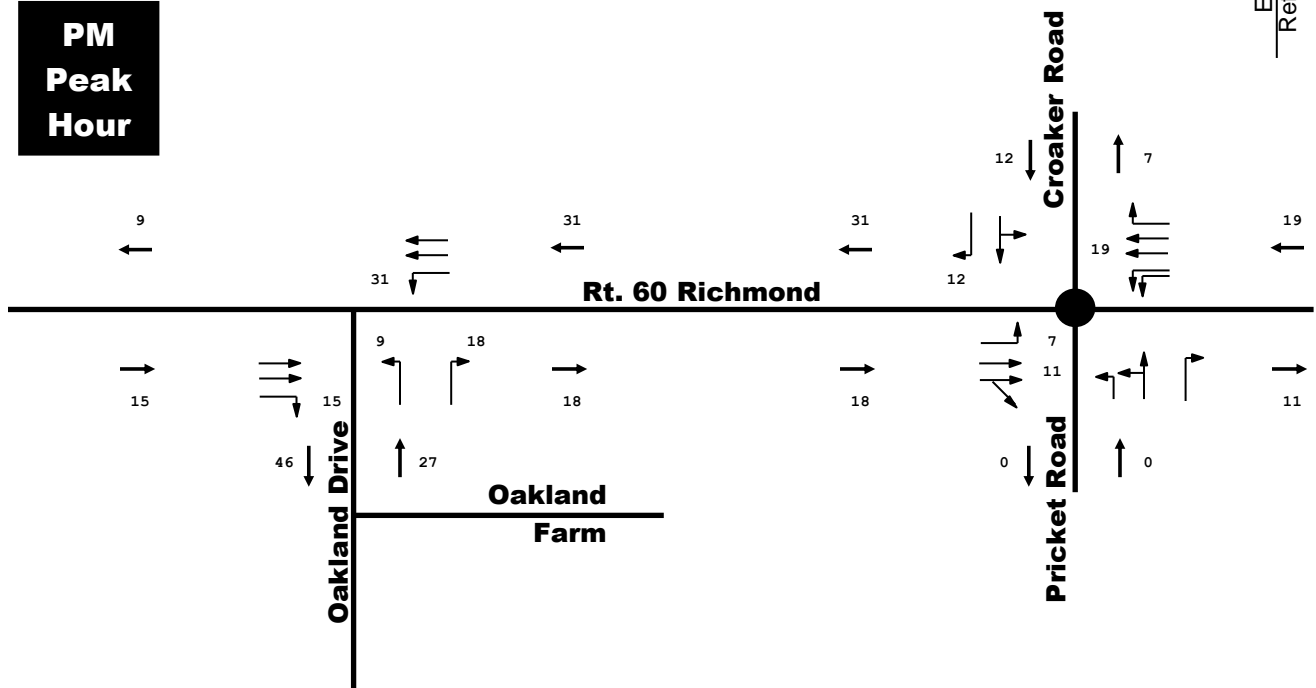
DRW Consultants, LLC
804-794-7312

Exhibit 8

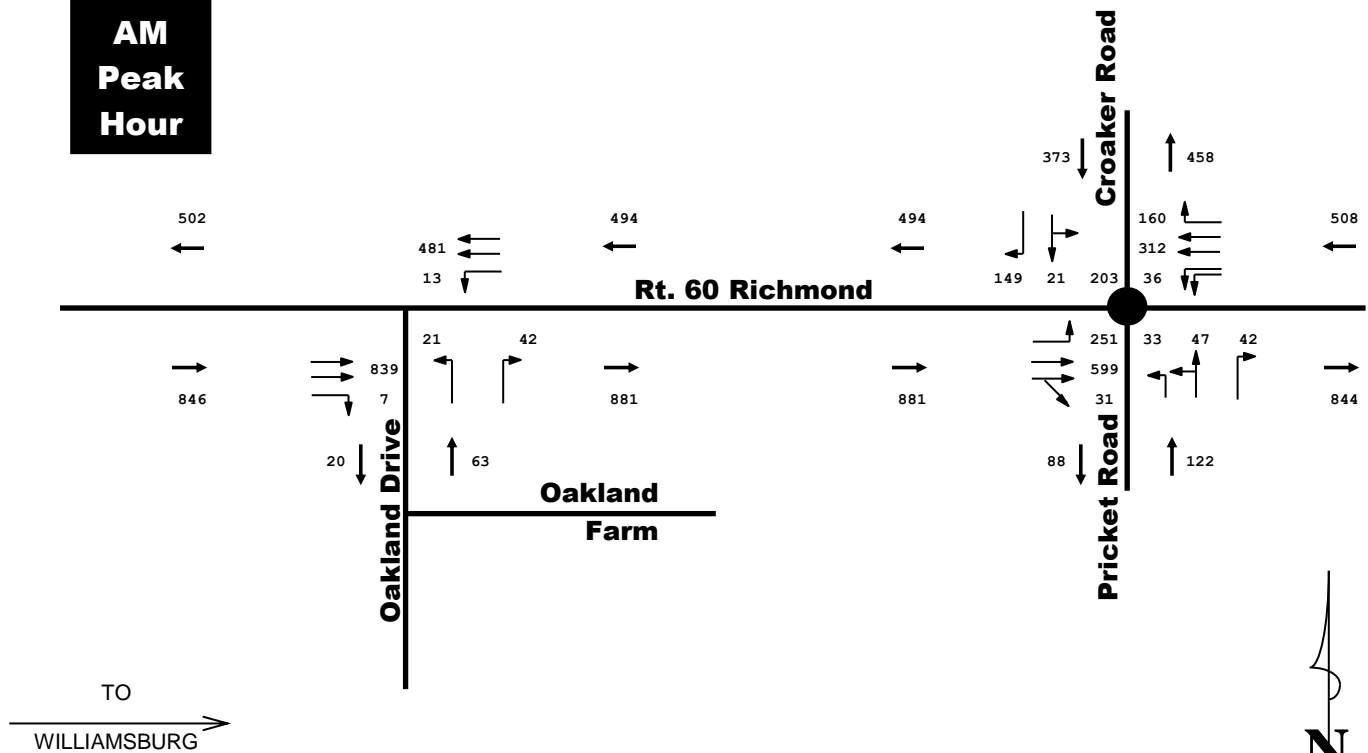
**AM
Peak
Hour**



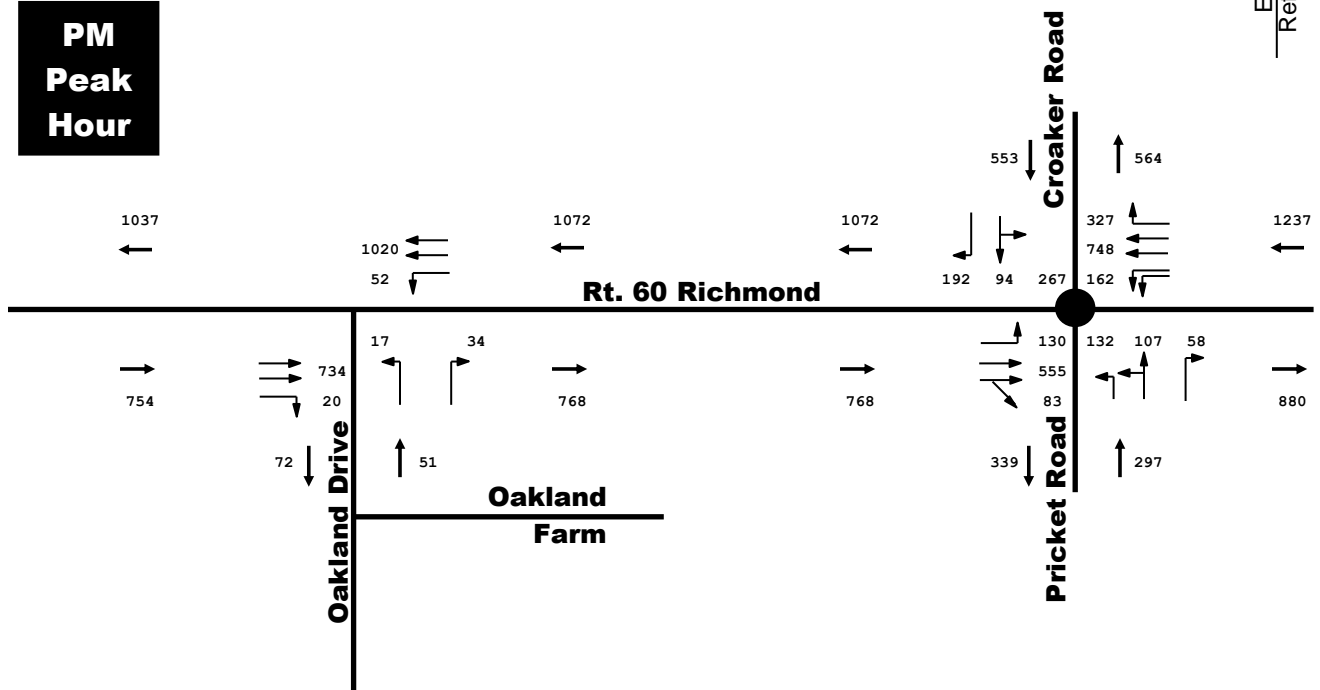
**PM
Peak
Hour**



**AM
Peak
Hour**



**PM
Peak
Hour**



2025 TOTAL PEAK HOUR TRAFFIC
WITH OAKLAND FARM APARTMENTS

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804-794-7312

Exhibit 10



APPENDIX EXHIBITS

APPENDIX TABLE OF CONTENTS

APPENDIX EXHIBITS	Number
2017 Tabulated Total Traffic Counts:	AM PM
Rt. 60 Richmond Road/Croaker Road	A3 A6
Rt. 60 Richmond Road/Oakland Drive.....	B3 B6
2017 Tabulated Eastbound Left Turn Queues	AM PM
Rt. 60 Richmond Road/Croaker Road	C1 C2
2017 Counts Without Balance	AM PM
.....	D D
2017 Development Trip Distribution	AM PM
.....	E E
Turn Lane Warrants	AM PM
Rt. 60 Westbound Left Turn At Oakland Drive	F F
HCM 2000 Signalized Intersection LOS	AM PM
Existing.....	J1 J2
Rt. 60 Richmond Road/Croaker Road	Page 1
2025 Background.....	J3 J4
Rt. 60 Richmond Road/Croaker Road	Page 1
2025 With Site Existing Timing.....	J5 J6
Rt. 60 Richmond Road/Croaker Road	Page 1
2025 With Site Optimized Timing	J7 J8
Rt. 60 Richmond Road/Croaker Road	Page 1
Unsignalized LOS	AM PM
Existing.....	K1 K2
Rt. 60 Richmond Road/Oakland Drive.....	Page 1
2025 Background.....	K3 K4
Rt. 60 Richmond Road/Oakland Drive.....	Page 1
2025 With Site.....	K5 K6
Rt. 60 Richmond Road/Oakland Drive.....	Page 1
2025 With Site Optimized Signal Timing	K7 K8
Rt. 60 Richmond Road/Oakland Drive.....	Page 1
Synchro Queues	AM PM
Existing.....	L1 L2
Rt. 60 Richmond Road/Croaker Road	Page 1
2025 Background.....	L3 L4
Rt. 60 Richmond Road/Croaker Road	Page 1
2025 With Site – Existing Timing	L5 L6
Rt. 60 Richmond Road/Croaker Road	Page 1
2025 With Site – Optimized Timing.....	L7 L8
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Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 1-Croaker Rd._Pricket Rd. & Richmond Rd. AM

Site Code :

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Groups Printed- Car

	Richmond Rd Eastbound					Richmond Rd Westbound					Pricket Rd Northbound					Croaker Rd Southbound					
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
07:00 AM	77	132	5	1	215	4	70	44	0	118	2	7	1	1	11	41	2	52	0	95	439
07:15 AM	63	109	2	0	174	5	79	43	0	127	2	11	6	0	19	41	3	24	0	68	388
07:30 AM	39	147	5	0	191	5	61	29	0	95	3	4	10	0	17	43	1	23	0	67	370
07:45 AM	25	125	5	0	155	10	59	22	0	91	5	4	3	0	12	56	6	20	0	82	340
Total	204	513	17	1	735	24	269	138	0	431	12	26	20	1	59	181	12	119	0	312	1537
08:00 AM	28	111	4	0	143	18	59	37	0	114	2	3	4	0	9	51	4	18	0	73	339
08:15 AM	29	116	2	0	147	12	50	22	0	84	1	5	6	0	12	52	5	14	0	71	314
08:30 AM	21	133	12	0	166	14	52	19	0	85	8	2	5	0	15	65	6	17	0	88	354
08:45 AM	21	110	3	0	134	12	52	24	0	88	3	9	8	0	20	57	5	22	0	84	326
Total	99	470	21	0	590	56	213	102	0	371	14	19	23	0	56	225	20	71	0	316	1333
Grand Total	303	983	38	1	1325	80	482	240	0	802	26	45	43	1	115	406	32	190	0	628	2870
Apprch %	22.9	74.2	2.9	0.1		10	60.1	29.9	0		22.6	39.1	37.4	0.9		64.6	5.1	30.3	0		
Total %	10.6	34.3	1.3	0	46.2	2.8	16.8	8.4	0	27.9	0.9	1.6	1.5	0	4	14.1	1.1	6.6	0	21.9	

	Richmond Rd Eastbound				Richmond Rd Westbound				Pricket Rd Northbound				Croaker Rd Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	77	132	5	214	4	70	44	118	2	7	1	10	41	2	52	95	437
07:15 AM	63	109	2	174	5	79	43	127	2	11	6	19	41	3	24	68	388
07:30 AM	39	147	5	191	5	61	29	95	3	4	10	17	43	1	23	67	370
07:45 AM	25	125	5	155	10	59	22	91	5	4	3	12	56	6	20	82	340
Total Volume	204	513	17	734	24	269	138	431	12	26	20	58	181	12	119	312	1535
% App. Total	27.8	69.9	2.3		5.6	62.4	32		20.7	44.8	34.5		58	3.8	38.1		
PHF	.662	.872	.850	.857	.600	.851	.784	.848	.600	.591	.500	.763	.808	.500	.572	.821	.878

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Groups Printed- Truck

	Richmond Rd Eastbound					Richmond Rd Westbound					Pricket Rd Northbound					Croaker Rd Southbound					
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
07:00 AM	5	7	2	0	14	0	2	1	0	3	0	0	0	0	0	2	1	4	0	7	24
07:15 AM	7	9	2	0	18	1	3	1	0	5	2	1	0	0	3	3	1	3	0	7	33
07:30 AM	3	4	1	0	8	1	7	4	0	12	0	2	0	0	2	2	0	4	0	6	28
07:45 AM	2	5	1	0	8	1	3	4	0	8	1	2	0	0	3	0	1	4	0	5	24
Total	17	25	6	0	48	3	15	10	0	28	3	5	0	0	8	7	3	15	0	25	109
08:00 AM	5	6	0	0	11	0	3	4	0	7	0	1	1	0	2	1	1	3	0	5	25
08:15 AM	5	4	1	0	10	1	2	3	0	6	0	1	0	0	1	3	0	2	0	5	22
08:30 AM	1	7	0	0	8	0	4	1	0	5	1	0	0	0	1	3	0	4	0	7	21
08:45 AM	2	11	1	0	14	2	3	2	0	7	2	0	0	0	2	2	1	3	0	6	29
Total	13	28	2	0	43	3	12	10	0	25	3	2	1	0	6	9	2	12	0	23	97
Grand Total	30	53	8	0	91	6	27	20	0	53	6	7	1	0	14	16	5	27	0	48	206
Apprch %	33	58.2	8.8	0		11.3	50.9	37.7	0		42.9	50	7.1	0		33.3	10.4	56.2	0		
Total %	14.6	25.7	3.9	0	44.2	2.9	13.1	9.7	0	25.7	2.9	3.4	0.5	0	6.8	7.8	2.4	13.1	0	23.3	

	Richmond Rd Eastbound				Richmond Rd Westbound				Pricket Rd Northbound				Croaker Rd Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	7	9	2	18	1	3	1	5	2	1	0	3	3	1	3	7	33
07:30 AM	3	4	1	8	1	7	4	12	0	2	0	2	2	0	4	6	28
07:45 AM	2	5	1	8	1	3	4	8	1	2	0	3	0	1	4	5	24
08:00 AM	5	6	0	11	0	3	4	7	0	1	1	2	1	1	3	5	25
Total Volume	17	24	4	45	3	16	13	32	3	6	1	10	6	3	14	23	110
% App. Total	37.8	53.3	8.9		9.4	50	40.6		30	60	10		26.1	13	60.9		
PHF	.607	.667	.500	.625	.750	.571	.813	.667	.375	.750	.250	.833	.500	.750	.875	.821	.833

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Groups Printed- Car - Truck

	Richmond Rd Eastbound					Richmond Rd Westbound					Pricket Rd Northbound					Croaker Rd Southbound					
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
07:00 AM	82	139	7	1	229	4	72	45	0	121	2	7	1	1	11	43	3	56	0	102	463
07:15 AM	70	118	4	0	192	6	82	44	0	132	4	12	6	0	22	44	4	27	0	75	421
07:30 AM	42	151	6	0	199	6	68	33	0	107	3	6	10	0	19	45	1	27	0	73	398
07:45 AM	27	130	6	0	163	11	62	26	0	99	6	6	3	0	15	56	7	24	0	87	364
Total	221	538	23	1	783	27	284	148	0	459	15	31	20	1	67	188	15	134	0	337	1646
08:00 AM	33	117	4	0	154	18	62	41	0	121	2	4	5	0	11	52	5	21	0	78	364
08:15 AM	34	120	3	0	157	13	52	25	0	90	1	6	6	0	13	55	5	16	0	76	336
08:30 AM	22	140	12	0	174	14	56	20	0	90	9	2	5	0	16	68	6	21	0	95	375
08:45 AM	23	121	4	0	148	14	55	26	0	95	5	9	8	0	22	59	6	25	0	90	355
Total	112	498	23	0	633	59	225	112	0	396	17	21	24	0	62	234	22	83	0	339	1430
Grand Total	333	1036	46	1	1416	86	509	260	0	855	32	52	44	1	129	422	37	217	0	676	3076
Apprch %	23.5	73.2	3.2	0.1		10.1	59.5	30.4	0		24.8	40.3	34.1	0.8		62.4	5.5	32.1	0		
Total %	10.8	33.7	1.5	0	46	2.8	16.5	8.5	0	27.8	1	1.7	1.4	0	4.2	13.7	1.2	7.1	0	22	
Car	303	983	38	1	1325	80	482	240	0	802	26	45	43	1	115	406	32	190	0	628	2870
% Car	91	94.9	82.6	100	93.6	93	94.7	92.3	0	93.8	81.2	86.5	97.7	100	89.1	96.2	86.5	87.6	0	92.9	93.3
Truck	30	53	8	0	91	6	27	20	0	53	6	7	1	0	14	16	5	27	0	48	206
% Truck	9	5.1	17.4	0	6.4	7	5.3	7.7	0	6.2	18.8	13.5	2.3	0	10.9	3.8	13.5	12.4	0	7.1	6.7

	Richmond Rd Eastbound				Richmond Rd Westbound				Pricket Rd Northbound				Croaker Rd Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	82	139	7	228	4	72	45	121	2	7	1	10	43	3	56	102	461
07:15 AM	70	118	4	192	6	82	44	132	4	12	6	22	44	4	27	75	421
07:30 AM	42	151	6	199	6	68	33	107	3	6	10	19	45	1	27	73	398
07:45 AM	27	130	6	163	11	62	26	99	6	6	3	15	56	7	24	87	364
Total Volume	221	538	23	782	27	284	148	459	15	31	20	66	188	15	134	337	1644
% App. Total	28.3	68.8	2.9		5.9	61.9	32.2		22.7	47	30.3		55.8	4.5	39.8		
PHF	.674	.891	.821	.857	.614	.866	.822	.869	.625	.646	.500	.750	.839	.536	.598	.826	.892

Truck % 8 5 26 11 5 7 20 16 0 4 20 11

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Groups Printed- Car

	Richmond Rd Eastbound					Richmond Rd Westbound					Pricket Rd Northbound					Croaker Rd Southbound					
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
04:00 PM	28	102	8	0	138	21	152	66	0	239	20	12	7	0	39	68	10	35	0	113	529
04:15 PM	21	110	10	0	141	36	136	56	0	228	25	15	5	0	45	52	15	33	0	100	514
04:30 PM	41	88	7	0	136	34	171	65	0	270	20	19	7	0	46	60	24	55	0	139	591
04:45 PM	30	120	17	0	167	27	174	80	0	281	23	27	16	0	66	52	19	47	0	118	632
Total	120	420	42	0	582	118	633	267	0	1018	88	73	35	0	196	232	68	170	0	470	2266
05:00 PM	34	129	18	0	181	29	148	77	0	254	25	12	13	0	50	63	11	32	1	107	592
05:15 PM	25	121	13	0	159	36	163	65	1	265	29	23	8	0	60	57	21	38	0	116	600
05:30 PM	23	126	12	0	161	36	134	78	1	249	34	28	3	0	65	72	22	38	0	132	607
05:45 PM	16	119	15	0	150	29	158	59	1	247	26	14	13	0	53	68	19	33	0	120	570
Total	98	495	58	0	651	130	603	279	3	1015	114	77	37	0	228	260	73	141	1	475	2369
Grand Total	218	915	100	0	1233	248	1236	546	3	2033	202	150	72	0	424	492	141	311	1	945	4635
Apprch %	17.7	74.2	8.1	0		12.2	60.8	26.9	0.1		47.6	35.4	17	0		52.1	14.9	32.9	0.1		
Total %	4.7	19.7	2.2	0	26.6	5.4	26.7	11.8	0.1	43.9	4.4	3.2	1.6	0	9.1	10.6	3	6.7	0	20.4	

	Richmond Rd Eastbound				Richmond Rd Westbound				Pricket Rd Northbound				Croaker Rd Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	30	120	17	167	27	174	80	281	23	27	16	66	52	19	47	118	632
05:00 PM	34	129	18	181	29	148	77	254	25	12	13	50	63	11	32	106	591
05:15 PM	25	121	13	159	36	163	65	264	29	23	8	60	57	21	38	116	599
05:30 PM	23	126	12	161	36	134	78	248	34	28	3	65	72	22	38	132	606
Total Volume	112	496	60	668	128	619	300	1047	111	90	40	241	244	73	155	472	2428
% App. Total	16.8	74.3	9		12.2	59.1	28.7		46.1	37.3	16.6		51.7	15.5	32.8		
PHF	.824	.961	.833	.923	.889	.889	.938	.931	.816	.804	.625	.913	.847	.830	.824	.894	.960

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Groups Printed- Truck

	Richmond Rd Eastbound					Richmond Rd Westbound					Pricket Rd Northbound					Croaker Rd Southbound					
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
04:00 PM	0	5	0	0	5	0	4	1	0	5	0	0	0	0	0	0	1	1	0	2	12
04:15 PM	0	2	0	0	2	1	3	5	0	9	0	1	1	0	2	1	0	2	0	3	16
04:30 PM	1	1	0	0	2	1	3	2	0	6	0	0	0	0	0	0	0	3	0	3	11
04:45 PM	1	4	0	0	5	0	7	1	0	8	0	0	1	0	1	1	0	2	0	3	17
Total	2	12	0	0	14	2	17	9	0	28	0	1	2	0	3	2	1	8	0	11	56
05:00 PM	1	2	0	0	3	1	1	0	0	2	1	0	0	0	1	2	0	6	0	8	14
05:15 PM	0	1	0	0	1	1	1	1	0	3	0	1	0	0	1	0	0	3	0	3	8
05:30 PM	0	1	0	0	1	0	2	1	0	3	0	0	0	0	0	0	0	1	0	1	5
05:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	1	0	1	0	2	4
Total	1	5	0	0	6	2	5	2	0	9	1	1	0	0	2	3	0	11	0	14	31
Grand Total	3	17	0	0	20	4	22	11	0	37	1	2	2	0	5	5	1	19	0	25	87
Apprch %	15	85	0	0		10.8	59.5	29.7	0		20	40	40	0		20	4	76	0		
Total %	3.4	19.5	0	0	23	4.6	25.3	12.6	0	42.5	1.1	2.3	2.3	0	5.7	5.7	1.1	21.8	0	28.7	

	Richmond Rd Eastbound				Richmond Rd Westbound				Pricket Rd Northbound				Croaker Rd Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	2	0	2	1	3	5	9	0	1	1	2	1	0	2	3	16
04:30 PM	1	1	0	2	1	3	2	6	0	0	0	0	0	0	3	3	11
04:45 PM	1	4	0	5	0	7	1	8	0	0	1	1	1	0	2	3	17
05:00 PM	1	2	0	3	1	1	0	2	1	0	0	1	2	0	6	8	14
Total Volume	3	9	0	12	3	14	8	25	1	1	2	4	4	0	13	17	58
% App. Total	25	75	0		12	56	32		25	25	50		23.5	0	76.5		
PHF	.750	.563	.000	.600	.750	.500	.400	.694	.250	.250	.500	.500	.500	.000	.542	.531	.853

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Groups Printed- Car - Truck

	Richmond Rd Eastbound					Richmond Rd Westbound					Pricket Rd Northbound					Croaker Rd Southbound					
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
04:00 PM	28	107	8	0	143	21	156	67	0	244	20	12	7	0	39	68	11	36	0	115	541
04:15 PM	21	112	10	0	143	37	139	61	0	237	25	16	6	0	47	53	15	35	0	103	530
04:30 PM	42	89	7	0	138	35	174	67	0	276	20	19	7	0	46	60	24	58	0	142	602
04:45 PM	31	124	17	0	172	27	181	81	0	289	23	27	17	0	67	53	19	49	0	121	649
Total	122	432	42	0	596	120	650	276	0	1046	88	74	37	0	199	234	69	178	0	481	2322
05:00 PM	35	131	18	0	184	30	149	77	0	256	26	12	13	0	51	65	11	38	1	115	606
05:15 PM	25	122	13	0	160	37	164	66	1	268	29	24	8	0	61	57	21	41	0	119	608
05:30 PM	23	127	12	0	162	36	136	79	1	252	34	28	3	0	65	72	22	39	0	133	612
05:45 PM	16	120	15	0	151	29	159	59	1	248	26	14	13	0	53	69	19	34	0	122	574
Total	99	500	58	0	657	132	608	281	3	1024	115	78	37	0	230	263	73	152	1	489	2400
Grand Total	221	932	100	0	1253	252	1258	557	3	2070	203	152	74	0	429	497	142	330	1	970	4722
Apprch %	17.6	74.4	8	0		12.2	60.8	26.9	0.1		47.3	35.4	17.2	0		51.2	14.6	34	0.1		
Total %	4.7	19.7	2.1	0	26.5	5.3	26.6	11.8	0.1	43.8	4.3	3.2	1.6	0	9.1	10.5	3	7	0	20.5	
Car	218	915	100	0	1233	248	1236	546	3	2033	202	150	72	0	424	492	141	311	1	945	4635
% Car	98.6	98.2	100	0	98.4	98.4	98.3	98	100	98.2	99.5	98.7	97.3	0	98.8	99	99.3	94.2	100	97.4	98.2
Truck	3	17	0	0	20	4	22	11	0	37	1	2	2	0	5	5	1	19	0	25	87
% Truck	1.4	1.8	0	0	1.6	1.6	1.7	2	0	1.8	0.5	1.3	2.7	0	1.2	1	0.7	5.8	0	2.6	1.8

	Richmond Rd Eastbound				Richmond Rd Westbound				Pricket Rd Northbound				Croaker Rd Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	31	124	17	172	27	181	81	289	23	27	17	67	53	19	49	121	649
05:00 PM	35	131	18	184	30	149	77	256	26	12	13	51	65	11	38	114	605
05:15 PM	25	122	13	160	37	164	66	267	29	24	8	61	57	21	41	119	607
05:30 PM	23	127	12	162	36	136	79	251	34	28	3	65	72	22	39	133	611
Total Volume	114	504	60	678	130	630	303	1063	112	91	41	244	247	73	167	487	2472
% App. Total	16.8	74.3	8.8		12.2	59.3	28.5		45.9	37.3	16.8		50.7	15	34.3		
PHF	.814	.962	.833	.921	.878	.870	.935	.920	.824	.813	.603	.910	.858	.830	.852	.915	.952
Truck %v	2	2	0		2	2	1		1	1	2		1	0	7		

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 2-Oakland Rd. & Richmond Rd. AM
Site Code :
Start Date : 10/10/2017
Page No : 1

Groups Printed- Car

Start Time	Richmond Rd Eastbound				Richmond Rd Westbound				Oakland Dr Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	208	0	0	208	2	118	1	121	1	2	1	4	333
07:15 AM	168	0	0	168	2	95	0	97	1	1	0	2	267
07:30 AM	181	1	0	182	0	92	0	92	0	4	0	4	278
07:45 AM	148	0	0	148	0	86	0	86	3	4	0	7	241
Total	705	1	0	706	4	391	1	396	5	11	1	17	1119
08:00 AM	144	0	0	144	0	81	0	81	0	2	0	2	227
08:15 AM	150	0	0	150	1	60	0	61	1	2	3	6	217
08:30 AM	164	0	0	164	0	78	0	78	0	2	0	2	244
08:45 AM	141	0	0	141	0	78	0	78	1	3	0	4	223
Total	599	0	0	599	1	297	0	298	2	9	3	14	911
Grand Total	1304	1	0	1305	5	688	1	694	7	20	4	31	2030
Apprch %	99.9	0.1	0		0.7	99.1	0.1		22.6	64.5	12.9		
Total %	64.2	0	0	64.3	0.2	33.9	0	34.2	0.3	1	0.2	1.5	

	Richmond Rd Eastbound			Richmond Rd Westbound			Oakland Dr Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	208	0	208	2	118	120	1	2	3	331
07:15 AM	168	0	168	2	95	97	1	1	2	267
07:30 AM	181	1	182	0	92	92	0	4	4	278
07:45 AM	148	0	148	0	86	86	3	4	7	241
Total Volume	705	1	706	4	391	395	5	11	16	1117
% App. Total	99.9	0.1		1	99		31.2	68.8		
PHF	.847	.250	.849	.500	.828	.823	.417	.688	.571	.844

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 2-Oakland Rd. & Richmond Rd. AM

Site Code :

Start Date : 10/10/2017

Page No : 1

Groups Printed- Truck

Start Time	Richmond Rd Eastbound				Richmond Rd Westbound				Oakland Dr Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	14	1	0	15	0	7	0	7	1	0	0	1	23
07:15 AM	18	0	0	18	0	7	0	7	0	0	0	0	25
07:30 AM	10	0	0	10	0	11	0	11	0	0	0	0	21
07:45 AM	7	0	0	7	0	7	0	7	0	0	0	0	14
Total	49	1	0	50	0	32	0	32	1	0	0	1	83
08:00 AM	11	0	0	11	0	6	0	6	0	0	0	0	17
08:15 AM	10	2	0	12	0	4	0	4	0	0	0	0	16
08:30 AM	8	0	0	8	0	10	0	10	0	0	0	0	18
08:45 AM	13	1	0	14	0	7	0	7	0	1	0	1	22
Total	42	3	0	45	0	27	0	27	0	1	0	1	73
Grand Total	91	4	0	95	0	59	0	59	1	1	0	2	156
Apprch %	95.8	4.2	0		0	100	0		50	50	0		
Total %	58.3	2.6	0	60.9	0	37.8	0	37.8	0.6	0.6	0	1.3	

	Richmond Rd Eastbound			Richmond Rd Westbound			Oakland Dr Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	14	1	15	0	7	7	1	0	1	23
07:15 AM	18	0	18	0	7	7	0	0	0	25
07:30 AM	10	0	10	0	11	11	0	0	0	21
07:45 AM	7	0	7	0	7	7	0	0	0	14
Total Volume	49	1	50	0	32	32	1	0	1	83
% App. Total	98	2		0	100		100	0		
PHF	.681	.250	.694	.000	.727	.727	.250	.000	.250	.830

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 2-Oakland Rd. & Richmond Rd. AM

Site Code :

Start Date : 10/10/2017

Page No : 1

Groups Printed- Car - Truck

	Richmond Rd Eastbound				Richmond Rd Westbound				Oakland Dr Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	222	1	0	223	2	125	1	128	2	2	1	5	356
07:15 AM	186	0	0	186	2	102	0	104	1	1	0	2	292
07:30 AM	191	1	0	192	0	103	0	103	0	4	0	4	299
07:45 AM	155	0	0	155	0	93	0	93	3	4	0	7	255
Total	754	2	0	756	4	423	1	428	6	11	1	18	1202
08:00 AM	155	0	0	155	0	87	0	87	0	2	0	2	244
08:15 AM	160	2	0	162	1	64	0	65	1	2	3	6	233
08:30 AM	172	0	0	172	0	88	0	88	0	2	0	2	262
08:45 AM	154	1	0	155	0	85	0	85	1	4	0	5	245
Total	641	3	0	644	1	324	0	325	2	10	3	15	984
Grand Total	1395	5	0	1400	5	747	1	753	8	21	4	33	2186
Apprch %	99.6	0.4	0		0.7	99.2	0.1		24.2	63.6	12.1		
Total %	63.8	0.2	0	64	0.2	34.2	0	34.4	0.4	1	0.2	1.5	
Car	1304	1	0	1305	5	688	1	694	7	20	4	31	2030
% Car	93.5	20	0	93.2	100	92.1	100	92.2	87.5	95.2	100	93.9	92.9
Truck	91	4	0	95	0	59	0	59	1	1	0	2	156
% Truck	6.5	80	0	6.8	0	7.9	0	7.8	12.5	4.8	0	6.1	7.1

	Richmond Rd Eastbound			Richmond Rd Westbound			Oakland Dr Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	222	1	223	2	125	127	2	2	4	354
07:15 AM	186	0	186	2	102	104	1	1	2	292
07:30 AM	191	1	192	0	103	103	0	4	4	299
07:45 AM	155	0	155	0	93	93	3	4	7	255
Total Volume	754	2	756	4	423	427	6	11	17	1200
% App. Total	99.7	0.3		0.9	99.1		35.3	64.7		
PHF	.849	.500	.848	.500	.846	.841	.500	.688	.607	.847

TRUCK % 7 5 0 7 17 0

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 2-Oakland Rd. & Richmond Rd. PM

Site Code :

Start Date : 10/10/2017

Page No : 1

Groups Printed- Car

Start Time	Richmond Rd Eastbound				Richmond Rd Westbound				Oakland Dr Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
04:00 PM	140	0	0	140	3	202	0	205	0	0	0	0	345
04:15 PM	143	2	0	145	1	198	0	199	0	1	0	1	345
04:30 PM	137	0	0	137	4	246	0	250	1	2	0	3	390
04:45 PM	154	2	0	156	6	227	0	233	0	6	0	6	395
Total	574	4	0	578	14	873	0	887	1	9	0	10	1475
05:00 PM	180	0	0	180	7	200	0	207	1	2	0	3	390
05:15 PM	154	1	0	155	1	235	0	236	3	4	0	7	398
05:30 PM	173	0	0	173	5	199	0	204	0	5	0	5	382
05:45 PM	129	1	0	130	2	210	0	212	0	4	0	4	346
Total	636	2	0	638	15	844	0	859	4	15	0	19	1516
Grand Total	1210	6	0	1216	29	1717	0	1746	5	24	0	29	2991
Apprch %	99.5	0.5	0		1.7	98.3	0		17.2	82.8	0		
Total %	40.5	0.2	0	40.7	1	57.4	0	58.4	0.2	0.8	0	1	

	Richmond Rd Eastbound			Richmond Rd Westbound			Oakland Dr Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	137	0	137	4	246	250	1	2	3	390
04:45 PM	154	2	156	6	227	233	0	6	6	395
05:00 PM	180	0	180	7	200	207	1	2	3	390
05:15 PM	154	1	155	1	235	236	3	4	7	398
Total Volume	625	3	628	18	908	926	5	14	19	1573
% App. Total	99.5	0.5		1.9	98.1		26.3	73.7		
PHF	.868	.375	.872	.643	.923	.926	.417	.583	.679	.988

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File Name : 2-Oakland Rd. & Richmond Rd. PM
Site Code :
Start Date : 10/10/2017
Page No : 1

Groups Printed- Truck

	Richmond Rd Eastbound				Richmond Rd Westbound				Oakland Dr Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	6	0	0	6	0	6	0	6	0	0	0	0	12
04:15 PM	2	0	0	2	0	4	0	4	0	0	0	0	6
04:30 PM	2	0	0	2	0	6	0	6	0	0	0	0	8
04:45 PM	4	2	0	6	0	9	0	9	1	1	0	2	17
Total	14	2	0	16	0	25	0	25	1	1	0	2	43
05:00 PM	1	0	0	1	1	8	0	9	0	0	0	0	10
05:15 PM	2	0	0	2	0	3	0	3	1	0	0	1	6
05:30 PM	1	0	0	1	0	2	0	2	0	0	0	0	3
05:45 PM	2	0	0	2	0	2	0	2	0	0	0	0	4
Total	6	0	0	6	1	15	0	16	1	0	0	1	23
Grand Total	20	2	0	22	1	40	0	41	2	1	0	3	66
Apprch %	90.9	9.1	0		2.4	97.6	0		66.7	33.3	0		
Total %	30.3	3	0	33.3	1.5	60.6	0	62.1	3	1.5	0	4.5	

	Richmond Rd Eastbound			Richmond Rd Westbound			Oakland Dr Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	6	0	6	0	6	6	0	0	0	12
04:15 PM	2	0	2	0	4	4	0	0	0	6
04:30 PM	2	0	2	0	6	6	0	0	0	8
04:45 PM	4	2	6	0	9	9	1	1	2	17
Total Volume	14	2	16	0	25	25	1	1	2	43
% App. Total	87.5	12.5		0	100		50	50		
PHF	.583	.250	.667	.000	.694	.694	.250	.250	.250	.632

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 2-Oakland Rd. & Richmond Rd. PM

Site Code :

Start Date : 10/10/2017

Page No : 1

Groups Printed- Car - Truck

	Richmond Rd Eastbound				Richmond Rd Westbound				Oakland Dr Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	146	0	0	146	3	208	0	211	0	0	0	0	357
04:15 PM	145	2	0	147	1	202	0	203	0	1	0	1	351
04:30 PM	139	0	0	139	4	252	0	256	1	2	0	3	398
04:45 PM	158	4	0	162	6	236	0	242	1	7	0	8	412
Total	588	6	0	594	14	898	0	912	2	10	0	12	1518
05:00 PM	181	0	0	181	8	208	0	216	1	2	0	3	400
05:15 PM	156	1	0	157	1	238	0	239	4	4	0	8	404
05:30 PM	174	0	0	174	5	201	0	206	0	5	0	5	385
05:45 PM	131	1	0	132	2	212	0	214	0	4	0	4	350
Total	642	2	0	644	16	859	0	875	5	15	0	20	1539
Grand Total	1230	8	0	1238	30	1757	0	1787	7	25	0	32	3057
Apprch %	99.4	0.6	0		1.7	98.3	0		21.9	78.1	0		
Total %	40.2	0.3	0	40.5	1	57.5	0	58.5	0.2	0.8	0	1	
Car	1210	6	0	1216	29	1717	0	1746	5	24	0	29	2991
% Car	98.4	75	0	98.2	96.7	97.7	0	97.7	71.4	96	0	90.6	97.8
Truck	20	2	0	22	1	40	0	41	2	1	0	3	66
% Truck	1.6	25	0	1.8	3.3	2.3	0	2.3	28.6	4	0	9.4	2.2

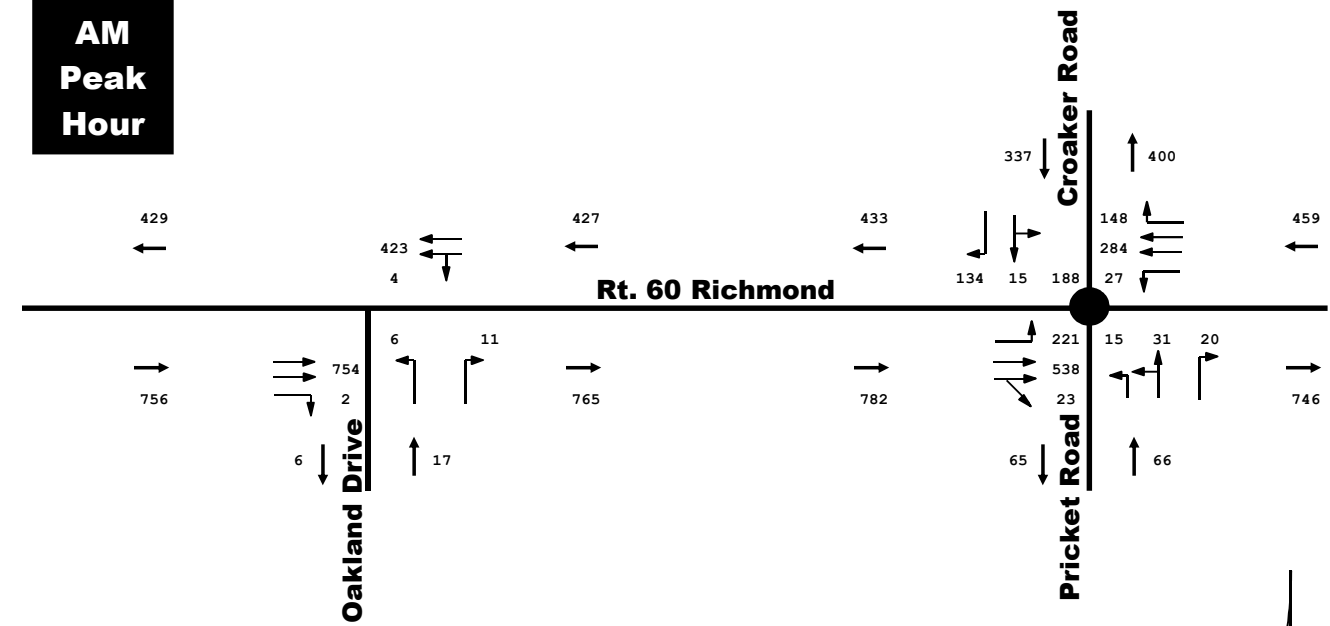
	Richmond Rd Eastbound			Richmond Rd Westbound			Oakland Dr Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	139	0	139	4	252	256	1	2	3	398
04:45 PM	158	4	162	6	236	242	1	7	8	412
05:00 PM	181	0	181	8	208	216	1	2	3	400
05:15 PM	156	1	157	1	238	239	4	4	8	404
Total Volume	634	5	639	19	934	953	7	15	22	1614
% App. Total	99.2	0.8		2	98		31.8	68.2		
PHF	.876	.313	.883	.594	.927	.931	.438	.536	.688	.979

TRUCK % 1 40 5 3 29 7

Date:	10/10/2017	Observer: K. Leigh
Intersection Name: Croaker Rd. & US60 Eastbound Left Queue		
AM Shift: 7:00-9:00 AM		
	Approach: US60 EB	
	Left (1 lane)	
Time:	# veh	distance (feet)
7:00	5	125
	6	150
	7	175
	5	125
	4	100
	8	250
	6	200
	4	100
	8	200
	5	125
	8	225
7:15	4	150
	9	250
	7	200
	6	175
	10	250
	4	100
	6	150
	5	125
	4	125
	3	75
7:30	1	25
	3	75
	2	50
	1	25
	3	100
	5	125
	3	75
	3	75
	8	250
	4	125
	4	125
	5	175
7:45	2	50
	2	50
	2	50
	2	50
	4	100
	3	100
	1	25
	1	25
	1	25
Average	4	121
PM Peak 50th Percentile	4	125
PM Peak 95th Percentile	8	250
		Exhibit C1

Date:	10/10/2017	Observer: K. Leigh
Intersection Name:		
PM SHIFT 4:00-6:00 PM		
	Approach: US60 EB	
	Left (1 lane)	
Time:	# veh	distance (feet)
4:45	1	25
	4	100
	7	175
	3	75
	1	75
	4	100
	4	100
	1	25
	5	150
5:00	7	175
	6	150
	5	125
	6	150
	2	50
	4	100
5:15	4	100
	5	125
	5	125
	2	50
	3	75
	4	100
	3	75
	3	75
5:30	1	25
	4	100
	3	75
	2	50
	2	50
	2	50
	2	50
	5	125
	4	100
Average	3	91
AM Peak 50th Percentile	4	100
AM Peak 95th Percentile	6	161
		Exhibit C2

**AM
Peak
Hour**



TO →

**PM
Peak
Hour**

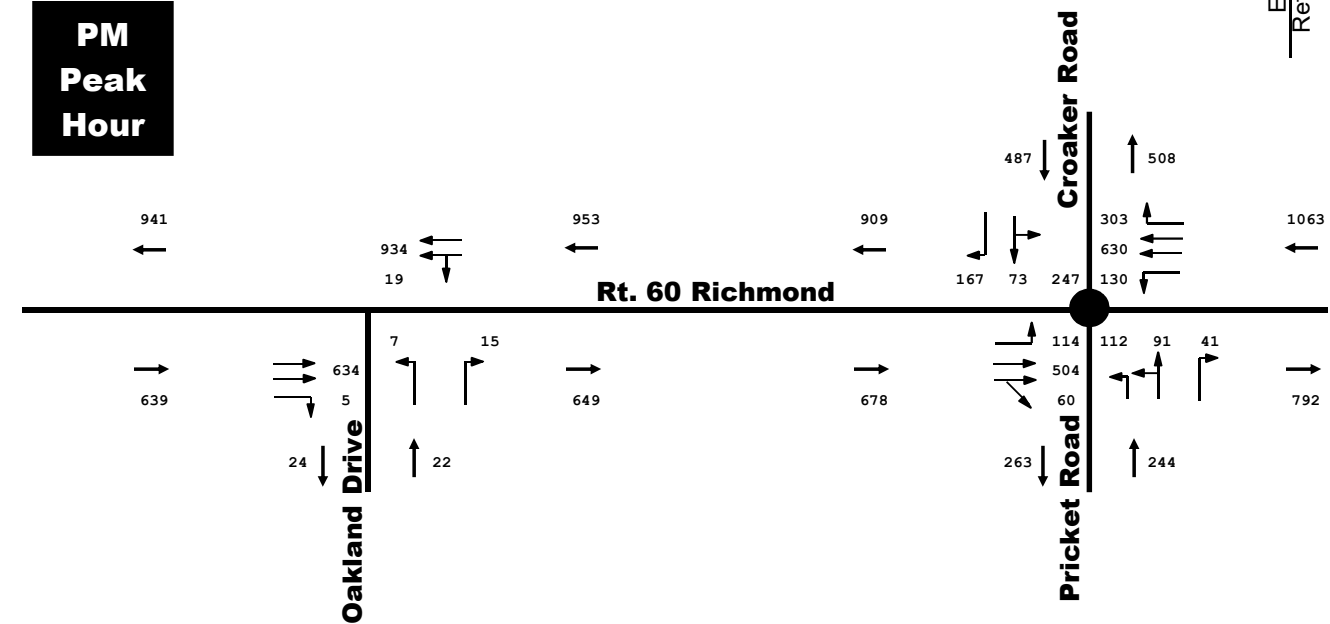


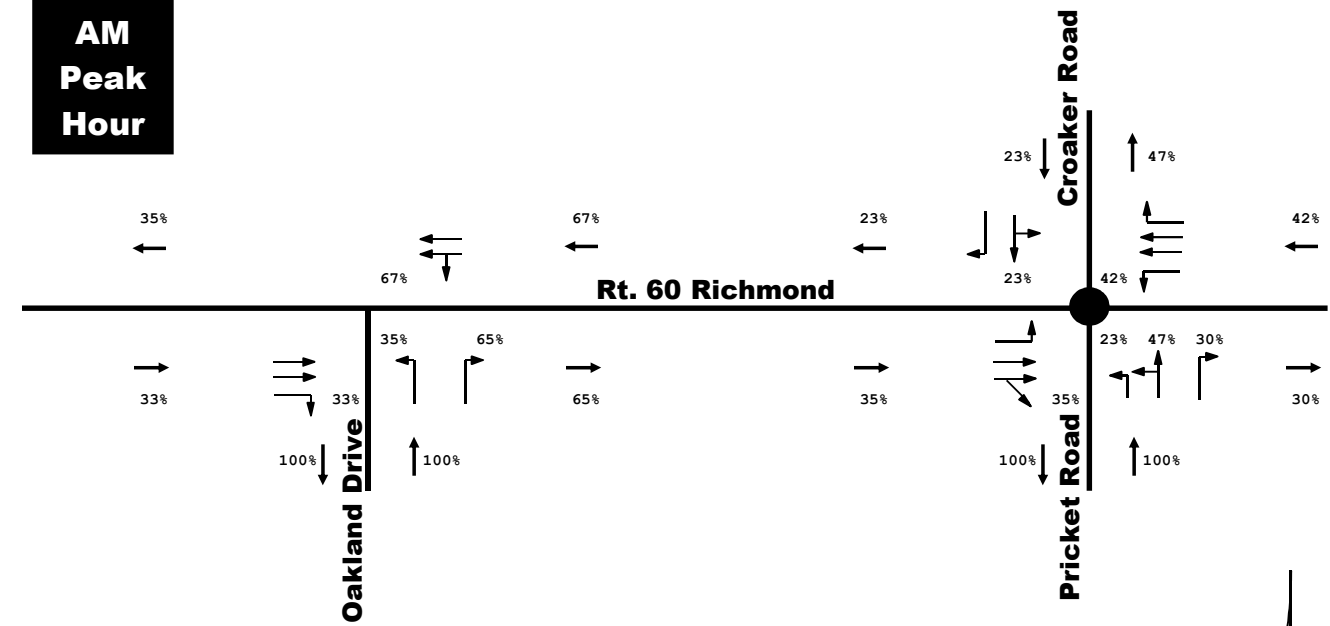
Exhibit
Reference

2017 PEAK HOUR COUNTS
WITHOUT BALANCE

DRW Consultants, LLC
804-794-7312

Exhibit D

**AM
Peak
Hour**



TO →

**PM
Peak
Hour**

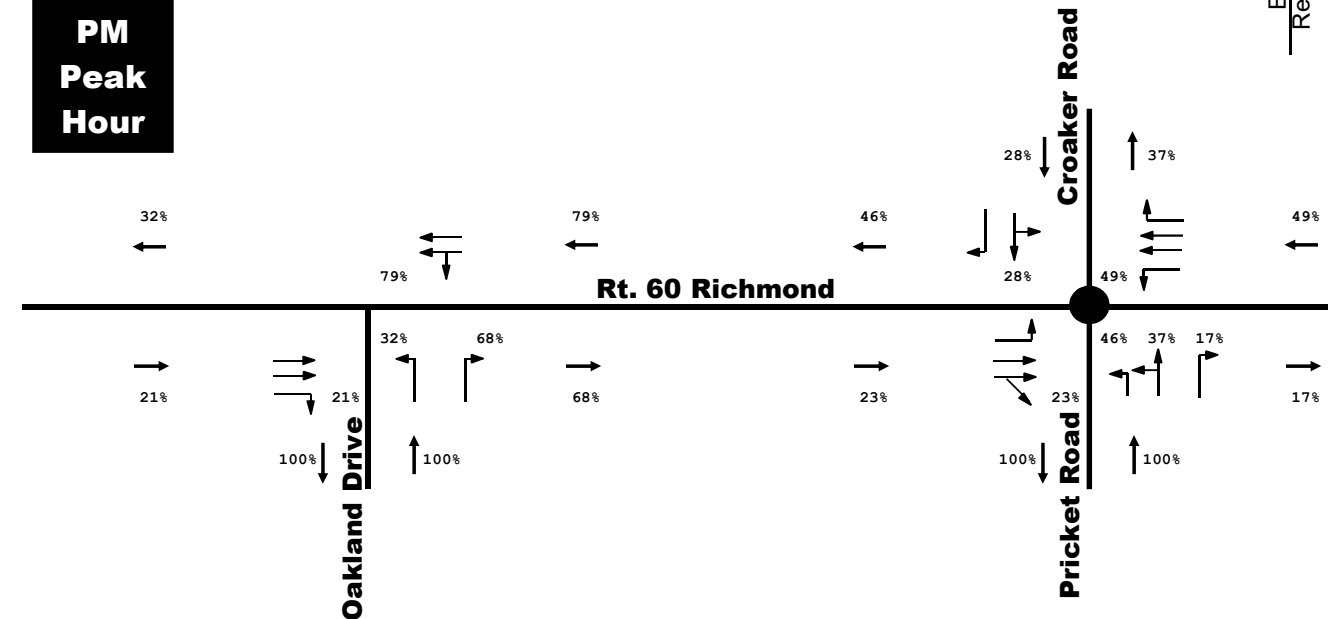


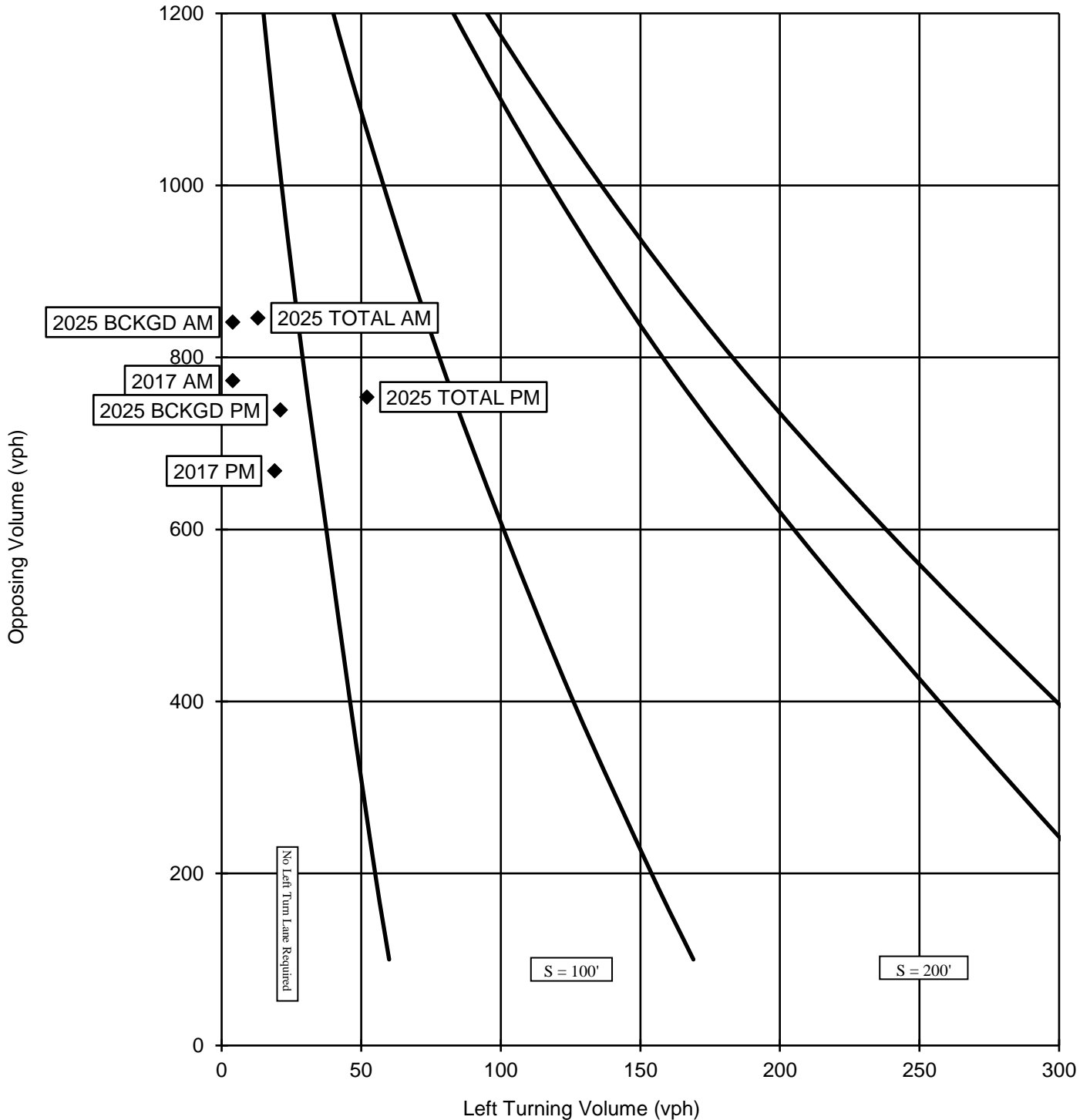
Exhibit
Reference

2017 PEAK HOUR COUNTS
TRIP DISTRIBUTION

DRW Consultants, LLC
804-794-7312

Exhibit E

LEFT TURN LANE WARRANT
FOUR LANE HIGHWAY
DIVIDED
S = Left Turn Storage



Source: VDOT Road Design Manual, Appendix C, derived from Highway Research Record Number 211
























VDOT LEFT TURN LANE WARRANT
WESTBOUND LEFT TURN ON RT. 60
AT OAKLAND DRIVE

DRW Consultants, LLC
804-794-7312

Exhibit F
























HCM Signalized Intersection Capacity Analysis

1: Croaker Road & Rt. 60/Richmond Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	538	23	27	284	148	15	31	20	188	15	134
Future Volume (vph)	221	538	23	27	284	148	15	31	20	188	15	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1671	3438	1282	3155	3438	1509	1429	1556	1615		1727	1455
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1671	3438	1282	3155	3438	1509	1429	1556	1615		1727	1455
Peak-hour factor, PHF	0.86	0.86	0.86	0.87	0.87	0.87	0.75	0.75	0.75	0.83	0.83	0.83
Adj. Flow (vph)	257	626	27	31	326	170	20	41	27	227	18	161
RTOR Reduction (vph)	0	0	16	0	0	127	0	0	25	0	0	134
Lane Group Flow (vph)	257	626	11	31	326	43	20	41	2	0	245	27
Heavy Vehicles (%)	8%	5%	26%	11%	5%	7%	20%	16%	0%	4%	20%	11%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			3
Actuated Green, G (s)	15.4	34.6	34.6	1.8	21.5	21.5	5.5	5.5	5.5		14.3	14.3
Effective Green, g (s)	15.4	34.6	34.6	1.8	21.5	21.5	5.5	5.5	5.5		14.3	14.3
Actuated g/C Ratio	0.18	0.41	0.41	0.02	0.25	0.25	0.06	0.06	0.06		0.17	0.17
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	303	1404	523	67	872	383	92	101	104		291	245
v/s Ratio Prot	c0.15	c0.18		0.01	0.09		0.01	c0.03			c0.14	
v/s Ratio Perm			0.01			0.03			0.00			0.02
v/c Ratio	0.85	0.45	0.02	0.46	0.37	0.11	0.22	0.41	0.02		0.84	0.11
Uniform Delay, d1	33.5	18.1	14.9	41.0	26.1	24.3	37.6	38.0	37.1		34.1	29.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	18.6	0.3	0.0	1.8	0.3	0.2	0.4	1.0	0.0		18.6	0.1
Delay (s)	52.1	18.4	15.0	42.8	26.4	24.4	38.0	39.0	37.1		52.7	29.9
Level of Service	D	B	B	D	C	C	D	D	D		D	C
Approach Delay (s)		27.8			26.7			38.2			43.7	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			31.3									
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			84.7									
Intersection Capacity Utilization			60.1%									
Analysis Period (min)			15									
c Critical Lane Group												
























HCM Signalized Intersection Capacity Analysis

1: Croaker Road & Rt. 60/Richmond Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	504	60	130	674	303	112	92	41	247	73	167
Future Volume (vph)	114	504	60	130	674	303	112	92	41	247	73	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1815	1509
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1815	1509
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	124	548	65	141	733	329	123	101	45	260	77	176
RTOR Reduction (vph)	0	0	45	0	0	234	0	0	40	0	0	138
Lane Group Flow (vph)	124	548	20	141	733	95	123	101	5	0	337	38
Heavy Vehicles (%)	2%	2%	0%	2%	2%	1%	1%	1%	2%	1%	0%	7%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			3
Actuated Green, G (s)	9.6	30.0	30.0	7.1	28.0	28.0	10.3	10.3	10.3		20.9	20.9
Effective Green, g (s)	9.6	30.0	30.0	7.1	28.0	28.0	10.3	10.3	10.3		20.9	20.9
Actuated g/C Ratio	0.10	0.31	0.31	0.07	0.29	0.29	0.11	0.11	0.11		0.22	0.22
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	175	1096	500	251	1023	462	180	190	168		391	325
v/s Ratio Prot	c0.07	0.15		0.04	c0.21		c0.07	0.06			c0.19	
v/s Ratio Perm			0.01			0.06			0.00			0.03
v/c Ratio	0.71	0.50	0.04	0.56	0.72	0.21	0.68	0.53	0.03		0.86	0.12
Uniform Delay, d1	42.2	27.3	23.3	43.3	30.8	26.0	41.7	41.0	38.8		36.6	30.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	10.2	0.4	0.0	1.7	2.5	0.3	8.2	1.4	0.0		16.9	0.1
Delay (s)	52.5	27.7	23.4	45.1	33.3	26.3	49.9	42.4	38.8		53.5	30.6
Level of Service	D	C	C	D	C	C	D	D	D		D	C
Approach Delay (s)		31.5			32.8			45.2			45.6	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			36.1				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			96.8				Sum of lost time (s)			28.5		
Intersection Capacity Utilization			66.6%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												
























HCM Signalized Intersection Capacity Analysis

1: Croaker Road & Rt. 60/Richmond Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	581	31	36	307	160	33	47	42	203	21	145
Future Volume (vph)	239	581	31	36	307	160	33	47	42	203	21	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1671	3438	1282	3155	3438	1509	1429	1556	1615		1723	1455
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1671	3438	1282	3155	3438	1509	1429	1556	1615		1723	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	260	632	34	39	334	174	36	51	46	221	23	158
RTOR Reduction (vph)	0	0	21	0	0	132	0	0	43	0	0	131
Lane Group Flow (vph)	260	632	13	39	334	42	36	51	3	0	244	27
Heavy Vehicles (%)	8%	5%	26%	11%	5%	7%	20%	16%	0%	4%	20%	11%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			3
Actuated Green, G (s)	15.4	32.4	32.4	2.8	20.3	20.3	5.7	5.7	5.7		14.3	14.3
Effective Green, g (s)	15.4	32.4	32.4	2.8	20.3	20.3	5.7	5.7	5.7		14.3	14.3
Actuated g/C Ratio	0.18	0.39	0.39	0.03	0.24	0.24	0.07	0.07	0.07		0.17	0.17
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	307	1330	496	105	833	365	97	105	109		294	248
v/s Ratio Prot	c0.16	c0.18		0.01	0.10		0.03	c0.03			c0.14	
v/s Ratio Perm			0.01			0.03			0.00			0.02
v/c Ratio	0.85	0.48	0.03	0.37	0.40	0.12	0.37	0.49	0.03		0.83	0.11
Uniform Delay, d1	33.0	19.3	15.9	39.6	26.6	24.7	37.3	37.6	36.4		33.5	29.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	18.3	0.3	0.0	0.8	0.4	0.2	0.9	1.3	0.0		16.6	0.1
Delay (s)	51.3	19.6	15.9	40.4	27.0	24.9	38.2	38.9	36.5		50.1	29.4
Level of Service	D	B	B	D	C	C	D	D	D		D	C
Approach Delay (s)		28.3			27.3			37.8			42.0	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			31.4				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			83.7				Sum of lost time (s)		28.5			
Intersection Capacity Utilization			62.3%				ICU Level of Service		B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
























1: Croaker Road & Rt. 60/Richmond Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	544	65	140	729	327	121	98	44	267	79	180
Future Volume (vph)	123	544	65	140	729	327	121	98	44	267	79	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	7.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1815	1509
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1815	1509
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.91	0.95	0.95	0.95
Adj. Flow (vph)	134	591	71	152	792	355	132	107	48	281	83	189
RTOR Reduction (vph)	0	0	49	0	0	241	0	0	43	0	0	169
Lane Group Flow (vph)	134	591	22	152	792	114	132	107	5	0	364	20
Heavy Vehicles (%)	2%	2%	0%	2%	2%	1%	1%	1%	2%	1%	0%	7%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	custom
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			4
Actuated Green, G (s)	10.2	32.0	32.0	7.5	29.8	29.8	10.8	10.8	10.8		23.2	10.8
Effective Green, g (s)	10.2	32.0	32.0	7.5	29.8	29.8	10.8	10.8	10.8		23.2	10.8
Actuated g/C Ratio	0.10	0.31	0.31	0.07	0.29	0.29	0.11	0.11	0.11		0.23	0.11
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	7.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	177	1110	506	252	1033	467	179	189	167		412	159
v/s Ratio Prot	c0.08	0.17		0.04	c0.22		c0.08	0.06			c0.20	
v/s Ratio Perm			0.01			0.07			0.00			0.01
v/c Ratio	0.76	0.53	0.04	0.60	0.77	0.24	0.74	0.57	0.03		0.88	0.13
Uniform Delay, d1	44.7	28.8	24.4	45.8	32.9	27.5	44.2	43.4	40.9		38.1	41.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	15.0	0.6	0.0	2.8	3.6	0.3	12.7	2.3	0.0		19.1	0.1
Delay (s)	59.7	29.4	24.4	48.6	36.5	27.8	57.0	45.7	40.9		57.1	41.5
Level of Service	E	C	C	D	D	C	E	D	D		E	D
Approach Delay (s)		34.1			35.5			50.1			51.8	
Approach LOS		C			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			39.6				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			102.0				Sum of lost time (s)			28.5		
Intersection Capacity Utilization			70.1%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

1: Croaker Road & Rt. 60/Richmond Road
























09/24/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	599	31	36	312	160	33	47	42	203	21	149
Future Volume (vph)	251	599	31	36	312	160	33	47	42	203	21	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1687	3438	1282	3155	3438	1509	1429	1556	1615		1723	1455
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1687	3438	1282	3155	3438	1509	1429	1556	1615		1723	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	273	651	34	39	339	174	36	51	46	221	23	162
RTOR Reduction (vph)	0	0	21	0	0	132	0	0	43	0	0	134
Lane Group Flow (vph)	273	651	13	39	339	42	36	51	3	0	244	28
Heavy Vehicles (%)	7%	5%	26%	11%	5%	7%	20%	16%	0%	4%	20%	11%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			3
Actuated Green, G (s)	15.4	32.5	32.5	2.8	20.4	20.4	5.7	5.7	5.7		14.4	14.4
Effective Green, g (s)	15.4	32.5	32.5	2.8	20.4	20.4	5.7	5.7	5.7		14.4	14.4
Actuated g/C Ratio	0.18	0.39	0.39	0.03	0.24	0.24	0.07	0.07	0.07		0.17	0.17
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	309	1331	496	105	835	366	97	105	109		295	249
v/s Ratio Prot	c0.16	c0.19		0.01	0.10		0.03	c0.03			c0.14	
v/s Ratio Perm			0.01			0.03			0.00			0.02
v/c Ratio	0.88	0.49	0.03	0.37	0.41	0.12	0.37	0.49	0.03		0.83	0.11
Uniform Delay, d1	33.4	19.4	15.9	39.7	26.7	24.7	37.4	37.7	36.5		33.5	29.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	23.8	0.3	0.0	0.8	0.4	0.2	0.9	1.3	0.0		16.3	0.1
Delay (s)	57.2	19.8	15.9	40.5	27.0	24.9	38.3	39.0	36.6		49.9	29.4
Level of Service	E	B	B	D	C	C	D	D	D		D	C
Approach Delay (s)		30.3			27.3			37.9			41.7	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			32.2									
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			83.9									
Intersection Capacity Utilization			62.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

1: Croaker Road & Rt. 60/Richmond Road
























09/25/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	555	83	162	748	327	132	107	58	267	94	192
Future Volume (vph)	130	555	83	162	748	327	132	107	58	267	94	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1819	1509
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1819	1509
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	141	603	90	176	813	355	143	116	63	281	99	202
RTOR Reduction (vph)	0	0	63	0	0	230	0	0	56	0	0	153
Lane Group Flow (vph)	141	603	27	176	813	125	143	116	7	0	380	49
Heavy Vehicles (%)	2%	2%	0%	2%	2%	1%	1%	1%	2%	1%	0%	7%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			3
Actuated Green, G (s)	10.4	31.2	31.2	8.0	29.3	29.3	11.1	11.1	11.1		23.9	23.9
Effective Green, g (s)	10.4	31.2	31.2	8.0	29.3	29.3	11.1	11.1	11.1		23.9	23.9
Actuated g/C Ratio	0.10	0.30	0.30	0.08	0.29	0.29	0.11	0.11	0.11		0.23	0.23
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	179	1075	490	267	1009	456	183	193	171		423	351
v/s Ratio Prot	c0.08	0.17		0.05	c0.23		c0.08	0.06			c0.21	
v/s Ratio Perm			0.02			0.08			0.00			0.03
v/c Ratio	0.79	0.56	0.06	0.66	0.81	0.27	0.78	0.60	0.04		0.90	0.14
Uniform Delay, d1	45.1	30.0	25.3	46.0	34.1	28.5	44.6	43.7	41.0		38.2	31.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	18.7	0.7	0.1	4.4	4.9	0.4	17.9	3.6	0.0		20.7	0.1
Delay (s)	63.8	30.7	25.4	50.5	39.0	28.8	62.5	47.3	41.1		59.0	31.3
Level of Service	E	C	C	D	D	C	E	D	D		E	C
Approach Delay (s)		35.7			37.8			52.8			49.4	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			41.0				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			102.7				Sum of lost time (s)			28.5		
Intersection Capacity Utilization			71.8%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

1: Croaker Road & Rt. 60/Richmond Road
























09/24/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	599	31	36	312	160	33	47	42	203	21	149
Future Volume (vph)	251	599	31	36	312	160	33	47	42	203	21	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1687	3438	1282	3155	3438	1509	1429	1556	1615		1723	1455
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1687	3438	1282	3155	3438	1509	1429	1556	1615		1723	1455
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	273	651	34	39	339	174	36	51	46	221	23	162
RTOR Reduction (vph)	0	0	20	0	0	131	0	0	43	0	0	134
Lane Group Flow (vph)	273	651	14	39	339	43	36	51	3	0	244	28
Heavy Vehicles (%)	7%	5%	26%	11%	5%	7%	20%	16%	0%	4%	20%	11%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			3
Actuated Green, G (s)	16.7	35.0	35.0	2.7	21.5	21.5	5.6	5.6	5.6		15.0	15.0
Effective Green, g (s)	16.7	35.0	35.0	2.7	21.5	21.5	5.6	5.6	5.6		15.0	15.0
Actuated g/C Ratio	0.19	0.40	0.40	0.03	0.25	0.25	0.06	0.06	0.06		0.17	0.17
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	324	1386	516	98	851	373	92	100	104		297	251
v/s Ratio Prot	c0.16	c0.19		0.01	0.10		0.03	c0.03			c0.14	
v/s Ratio Perm			0.01			0.03			0.00			0.02
v/c Ratio	0.84	0.47	0.03	0.40	0.40	0.12	0.39	0.51	0.03		0.82	0.11
Uniform Delay, d1	33.8	19.1	15.6	41.3	27.3	25.3	39.0	39.3	38.1		34.6	30.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	17.1	0.3	0.0	1.0	0.4	0.2	1.0	1.8	0.0		15.8	0.1
Delay (s)	50.8	19.4	15.6	42.2	27.6	25.5	40.0	41.1	38.1		50.4	30.4
Level of Service	D	B	B	D	C	C	D	D	D		D	C
Approach Delay (s)		28.2			28.0			39.8			42.4	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			31.7				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			86.8				Sum of lost time (s)		28.5			
Intersection Capacity Utilization			62.9%				ICU Level of Service		B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

1: Croaker Road & Rt. 60/Richmond Road

09/25/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	555	83	162	748	327	132	107	58	267	94	192
Future Volume (vph)	130	555	83	162	748	327	132	107	58	267	94	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (prot)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1819	1509
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00
Satd. Flow (perm)	1770	3539	1615	3433	3539	1599	1698	1787	1583		1819	1509
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	141	603	90	176	813	355	143	116	63	281	99	202
RTOR Reduction (vph)	0	0	62	0	0	233	0	0	56	0	0	153
Lane Group Flow (vph)	141	603	28	176	813	122	143	116	7	0	380	49
Heavy Vehicles (%)	2%	2%	0%	2%	2%	1%	1%	1%	2%	1%	0%	7%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases			2			6			4			3
Actuated Green, G (s)	10.2	31.6	31.6	8.1	30.0	30.0	11.0	11.0	11.0		24.0	24.0
Effective Green, g (s)	10.2	31.6	31.6	8.1	30.0	30.0	11.0	11.0	11.0		24.0	24.0
Actuated g/C Ratio	0.10	0.31	0.31	0.08	0.29	0.29	0.11	0.11	0.11		0.23	0.23
Clearance Time (s)	7.0	6.0	6.0	7.5	6.0	6.0	7.0	7.0	7.0		8.0	8.0
Vehicle Extension (s)	0.2	3.5	3.5	0.2	3.5	3.5	0.2	0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	174	1083	494	269	1028	464	180	190	168		423	350
v/s Ratio Prot	c0.08	0.17		0.05	c0.23		c0.08	0.06			c0.21	
v/s Ratio Perm			0.02			0.08			0.00			0.03
v/c Ratio	0.81	0.56	0.06	0.65	0.79	0.26	0.79	0.61	0.04		0.90	0.14
Uniform Delay, d1	45.6	29.9	25.3	46.2	33.7	28.1	45.0	44.1	41.4		38.4	31.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	22.9	0.7	0.1	4.3	4.3	0.4	19.7	4.0	0.0		20.7	0.1
Delay (s)	68.5	30.6	25.3	50.5	38.1	28.5	64.7	48.1	41.4		59.2	31.5
Level of Service	E	C	C	D	D	C	E	D	D		E	C
Approach Delay (s)		36.5			37.2			54.2			49.6	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			41.1				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			103.2				Sum of lost time (s)			28.5		
Intersection Capacity Utilization			71.8%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Vol, veh/h	771	2	4	429	6	11
Future Vol, veh/h	771	2	4	429	6	11
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	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	61	61
Heavy Vehicles, %	7	5	0	7	17	0
Mvmt Flow	907	2	5	505	10	18
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	909	0	1170	454
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	-	-	4.1	-	7.14	6.9
Critical Hdwy Stg 1	-	-	-	-	6.14	-
Critical Hdwy Stg 2	-	-	-	-	6.14	-
Follow-up Hdwy	-	-	2.2	-	3.67	3.3
Pot Cap-1 Maneuver	-	-	757	-	165	559
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	714	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	757	-	164	559
Mov Cap-2 Maneuver	-	-	-	-	259	-
Stage 1	-	-	-	-	317	-
Stage 2	-	-	-	-	714	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		14.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	259	559	-	-	757	-
HCM Lane V/C Ratio	0.038	0.032	-	-	0.006	-
HCM Control Delay (s)	19.4	11.7	-	-	9.8	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Vol, veh/h	663	5	19	934	7	15
Future Vol, veh/h	663	5	19	934	7	15
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	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	93	93	69	69
Heavy Vehicles, %	1	40	5	3	29	7
Mvmt Flow	753	6	20	1004	10	22

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	759	0	1295	377
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	542	-
Critical Hdwy	-	-	4.2	-	7.38	7.04
Critical Hdwy Stg 1	-	-	-	-	6.38	-
Critical Hdwy Stg 2	-	-	-	-	6.38	-
Follow-up Hdwy	-	-	2.25	-	3.79	3.37
Pot Cap-1 Maneuver	-	-	829	-	122	607
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	477	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	829	-	115	607
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	477	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	230	607	-	-	829	-
HCM Lane V/C Ratio	0.044	0.036	-	-	0.025	-
HCM Control Delay (s)	21.4	11.2	-	-	9.5	0.2
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Vol, veh/h	839	2	4	481	6	12
Future Vol, veh/h	839	2	4	481	6	12
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	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	5	0	7	17	0
Mvmt Flow	912	2	4	523	7	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	914	0	1182	456
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	270	-
Critical Hdwy	-	-	4.1	-	7.14	6.9
Critical Hdwy Stg 1	-	-	-	-	6.14	-
Critical Hdwy Stg 2	-	-	-	-	6.14	-
Follow-up Hdwy	-	-	2.2	-	3.67	3.3
Pot Cap-1 Maneuver	-	-	754	-	162	557
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	708	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	754	-	161	557
Mov Cap-2 Maneuver	-	-	-	-	257	-
Stage 1	-	-	-	-	316	-
Stage 2	-	-	-	-	708	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		14.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	257	557	-	-	754	-
HCM Lane V/C Ratio	0.025	0.023	-	-	0.006	-
HCM Control Delay (s)	19.4	11.6	-	-	9.8	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Vol, veh/h	716	5	21	1009	8	16
Future Vol, veh/h	716	5	21	1009	8	16
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	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	40	5	3	29	7
Mvmt Flow	778	5	23	1097	9	17
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	783	0	1373	389
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	-	-	4.2	-	7.38	7.04
Critical Hdwy Stg 1	-	-	-	-	6.38	-
Critical Hdwy Stg 2	-	-	-	-	6.38	-
Follow-up Hdwy	-	-	2.25	-	3.79	3.37
Pot Cap-1 Maneuver	-	-	812	-	108	596
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	445	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	812	-	100	596
Mov Cap-2 Maneuver	-	-	-	-	212	-
Stage 1	-	-	-	-	325	-
Stage 2	-	-	-	-	445	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		15	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	212	596	-	-	812	-
HCM Lane V/C Ratio	0.041	0.029	-	-	0.028	-
HCM Control Delay (s)	22.7	11.2	-	-	9.6	0.3
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

HCM 6th TWSC
2: Oakland Drive/Crossover & Rt. 60

09/24/2018

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗					↑	↗		↗	
Traffic Vol, veh/h	0	839	7	0	0	0	0	21	42	0	13	0
Future Vol, veh/h	0	839	7	0	0	0	0	21	42	0	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	7	5	0	7	2	0	17	0	2	2	2
Mvmt Flow	0	912	8	0	0	0	0	23	46	0	14	0
Major/Minor	Major1						Minor1			Minor2		
Conflicting Flow All	-	0	0				-	912	456	468	920	-
Stage 1	-	-	-				-	912	-	0	0	-
Stage 2	-	-	-				-	0	-	468	920	-
Critical Hdwy	-	-	-				-	6.84	6.9	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-				-	5.84	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.54	5.54	-
Follow-up Hdwy	-	-	-				-	4.17	3.3	3.52	4.02	-
Pot Cap-1 Maneuver	0	-	-				0	247	557	478	269	0
Stage 1	0	-	-				0	318	-	-	-	0
Stage 2	0	-	-				0	-	-	545	348	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	-	-	-				-	247	557	414	269	-
Mov Cap-2 Maneuver	-	-	-				-	316	-	414	269	-
Stage 1	-	-	-				-	318	-	-	-	-
Stage 2	-	-	-				-	-	-	464	348	-
Approach	EB						NB			SB		
HCM Control Delay, s	0						13.8			19.1		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	SBLn1							
Capacity (veh/h)	316	557	-	-	269							
HCM Lane V/C Ratio	0.072	0.082	-	-	0.053							
HCM Control Delay (s)	17.3	12	-	-	19.1							
HCM Lane LOS	C	B	-	-	C							
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.2							

HCM 6th TWSC
3: Crossover & WB Rt. 60

09/24/2018

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↱	↱↱	↱	
Traffic Vol, veh/h	0	0	13	481	21	0
Future Vol, veh/h	0	0	13	481	21	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	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	7	17	2
Mvmt Flow	0	0	14	523	23	0
Major/Minor		Major2		Minor1		
Conflicting Flow All		0	0	290	-	-
Stage 1		-	-	0	-	-
Stage 2		-	-	290	-	-
Critical Hdwy		4.1	-	7.14	-	-
Critical Hdwy Stg 1		-	-	-	-	-
Critical Hdwy Stg 2		-	-	6.14	-	-
Follow-up Hdwy		2.2	-	3.67	-	-
Pot Cap-1 Maneuver		-	-	637	0	-
Stage 1		-	-	-	0	-
Stage 2		-	-	691	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver		-	-	637	-	-
Mov Cap-2 Maneuver		-	-	637	-	-
Stage 1		-	-	-	-	-
Stage 2		-	-	691	-	-
Approach		WB		NB		
HCM Control Delay, s				10.9		
HCM LOS				B		
Minor Lane/Major Mvmt	NBLn1	WBL	WBT			
Capacity (veh/h)	637	-	-			
HCM Lane V/C Ratio	0.036	-	-			
HCM Control Delay (s)	10.9	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

HCM 6th TWSC
2: Oakland Drive/Crossover & Rt. 60

09/25/2018




Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗					↑	↗		↗	
Traffic Vol, veh/h	0	734	20	0	0	0	0	17	34	0	52	0
Future Vol, veh/h	0	734	20	0	0	0	0	17	34	0	52	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	93	93	92	69	92	92	92	92	92
Heavy Vehicles, %	2	1	40	5	3	2	2	29	7	5	5	2
Mvmt Flow	0	798	22	0	0	0	0	18	37	0	57	0
Major/Minor	Major1						Minor1			Minor2		
Conflicting Flow All	-	0	0				-	798	399	408	820	-
Stage 1	-	-	-				-	798	-	0	0	-
Stage 2	-	-	-				-	0	-	408	820	-
Critical Hdwy	-	-	-				-	7.08	7.04	7.6	6.6	-
Critical Hdwy Stg 1	-	-	-				-	6.08	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.6	5.6	-
Follow-up Hdwy	-	-	-				-	4.29	3.37	3.55	4.05	-
Pot Cap-1 Maneuver	0	-	-				0	271	587	521	303	0
Stage 1	0	-	-				0	338	-	-	-	0
Stage 2	0	-	-				0	-	-	583	380	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	-	-	-				-	271	587	467	303	-
Mov Cap-2 Maneuver	-	-	-				-	328	-	467	303	-
Stage 1	-	-	-				-	338	-	-	-	-
Stage 2	-	-	-				-	-	-	516	380	-
Approach	EB						NB			SB		
HCM Control Delay, s	0						13.2			19.6		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBT	EBR	SBLn1						
Capacity (veh/h)	328		587	-	-	303						
HCM Lane V/C Ratio	0.056		0.063	-	-	0.187						
HCM Control Delay (s)	16.6		11.5	-	-	19.6						
HCM Lane LOS	C		B	-	-	C						
HCM 95th %tile Q(veh)	0.2		0.2	-	-	0.7						

HCM 6th TWSC 3: Crossover & WB Rt. 60

09/25/2018

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	52	1020	17	0
Future Vol, veh/h	0	0	52	1020	17	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	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	40	5	3	29	7
Mvmt Flow	0	0	57	1109	18	0

Major/Minor	Major2	Minor1
Conflicting Flow All	0	0 669 -
Stage 1	-	- 0 -
Stage 2	-	- 669 -
Critical Hdwy	4.2	- 7.38 -
Critical Hdwy Stg 1	-	- - -
Critical Hdwy Stg 2	-	- 6.38 -
Follow-up Hdwy	2.25	- 3.79 -
Pot Cap-1 Maneuver	-	- 336 0
Stage 1	-	- - 0
Stage 2	-	- 404 0
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	- 336 -
Mov Cap-2 Maneuver	-	- 336 -
Stage 1	-	- - -
Stage 2	-	- 404 -

Approach	WB	NB
HCM Control Delay, s		16.3
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	336	-	-
HCM Lane V/C Ratio	0.055	-	-
HCM Control Delay (s)	16.3	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.2	-	-

HCM 6th TWSC
2: Oakland Drive/Crossover & Rt. 60

09/24/2018

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗					↑	↗		↖	
Traffic Vol, veh/h	0	839	7	0	0	0	0	21	42	0	13	0
Future Vol, veh/h	0	839	7	0	0	0	0	21	42	0	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	7	5	0	7	2	0	17	0	2	2	2
Mvmt Flow	0	912	8	0	0	0	0	23	46	0	14	0
Major/Minor	Major1						Minor1			Minor2		
Conflicting Flow All	-	0	0				-	912	456	468	920	-
Stage 1	-	-	-				-	912	-	0	0	-
Stage 2	-	-	-				-	0	-	468	920	-
Critical Hdwy	-	-	-				-	6.84	6.9	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-				-	5.84	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.54	5.54	-
Follow-up Hdwy	-	-	-				-	4.17	3.3	3.52	4.02	-
Pot Cap-1 Maneuver	0	-	-				0	247	557	478	269	0
Stage 1	0	-	-				0	318	-	-	-	0
Stage 2	0	-	-				0	-	-	545	348	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	-	-	-				-	247	557	414	269	-
Mov Cap-2 Maneuver	-	-	-				-	316	-	414	269	-
Stage 1	-	-	-				-	318	-	-	-	-
Stage 2	-	-	-				-	-	-	464	348	-
Approach	EB						NB			SB		
HCM Control Delay, s	0						13.8			19.1		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBT	EBR	SBLn1						
Capacity (veh/h)	316		557	-	-	269						
HCM Lane V/C Ratio	0.072		0.082	-	-	0.053						
HCM Control Delay (s)	17.3		12	-	-	19.1						
HCM Lane LOS	C		B	-	-	C						
HCM 95th %tile Q(veh)	0.2		0.3	-	-	0.2						

HCM 6th TWSC

3: Crossover & WB Rt. 60

09/24/2018

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↱	↱↱	↱	
Traffic Vol, veh/h	0	0	13	481	21	0
Future Vol, veh/h	0	0	13	481	21	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	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	7	17	2
Mvmt Flow	0	0	14	523	23	0
Major/Minor		Major2		Minor1		
Conflicting Flow All		0	0	290	-	-
Stage 1		-	-	0	-	-
Stage 2		-	-	290	-	-
Critical Hdwy		4.1	-	7.14	-	-
Critical Hdwy Stg 1		-	-	-	-	-
Critical Hdwy Stg 2		-	-	6.14	-	-
Follow-up Hdwy		2.2	-	3.67	-	-
Pot Cap-1 Maneuver		-	-	637	0	-
Stage 1		-	-	-	0	-
Stage 2		-	-	691	0	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver		-	-	637	-	-
Mov Cap-2 Maneuver		-	-	637	-	-
Stage 1		-	-	-	-	-
Stage 2		-	-	691	-	-
Approach		WB		NB		
HCM Control Delay, s				10.9		
HCM LOS				B		
Minor Lane/Major Mvmt	NBLn1	WBL	WBT			
Capacity (veh/h)	637	-	-			
HCM Lane V/C Ratio	0.036	-	-			
HCM Control Delay (s)	10.9	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

HCM 6th TWSC

2: Oakland Drive/Crossover & Rt. 60

09/25/2018




Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗					↑	↗		↗	
Traffic Vol, veh/h	0	734	20	0	0	0	0	17	34	0	52	0
Future Vol, veh/h	0	734	20	0	0	0	0	17	34	0	52	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	93	93	92	69	92	92	92	92	92
Heavy Vehicles, %	2	1	40	5	3	2	2	29	7	5	5	2
Mvmt Flow	0	798	22	0	0	0	0	18	37	0	57	0
Major/Minor	Major1						Minor1			Minor2		
Conflicting Flow All	-	0	0				-	798	399	408	820	-
Stage 1	-	-	-				-	798	-	0	0	-
Stage 2	-	-	-				-	0	-	408	820	-
Critical Hdwy	-	-	-				-	7.08	7.04	7.6	6.6	-
Critical Hdwy Stg 1	-	-	-				-	6.08	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	6.6	5.6	-
Follow-up Hdwy	-	-	-				-	4.29	3.37	3.55	4.05	-
Pot Cap-1 Maneuver	0	-	-				0	271	587	521	303	0
Stage 1	0	-	-				0	338	-	-	-	0
Stage 2	0	-	-				0	-	-	583	380	0
Platoon blocked, %		-	-									
Mov Cap-1 Maneuver	-	-	-				-	271	587	467	303	-
Mov Cap-2 Maneuver	-	-	-				-	328	-	467	303	-
Stage 1	-	-	-				-	338	-	-	-	-
Stage 2	-	-	-				-	-	-	516	380	-
Approach	EB						NB			SB		
HCM Control Delay, s	0						13.2			19.6		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBT	EBR	SBLn1						
Capacity (veh/h)	328		587	-	-	303						
HCM Lane V/C Ratio	0.056		0.063	-	-	0.187						
HCM Control Delay (s)	16.6		11.5	-	-	19.6						
HCM Lane LOS	C		B	-	-	C						
HCM 95th %tile Q(veh)	0.2		0.2	-	-	0.7						

HCM 6th TWSC 3: Crossover & WB Rt. 60

09/25/2018

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	52	1020	17	0
Future Vol, veh/h	0	0	52	1020	17	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	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	40	5	3	29	7
Mvmt Flow	0	0	57	1109	18	0












Major/Minor	Major2	Minor1
Conflicting Flow All	0	0 669 -
Stage 1	-	- 0 -
Stage 2	-	- 669 -
Critical Hdwy	4.2	- 7.38 -
Critical Hdwy Stg 1	-	- - -
Critical Hdwy Stg 2	-	- 6.38 -
Follow-up Hdwy	2.25	- 3.79 -
Pot Cap-1 Maneuver	-	- 336 0
Stage 1	-	- - 0
Stage 2	-	- 404 0
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	- 336 -
Mov Cap-2 Maneuver	-	- 336 -
Stage 1	-	- - -
Stage 2	-	- 404 -

Approach	WB	NB
HCM Control Delay, s		16.3
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	336	-	-
HCM Lane V/C Ratio	0.055	-	-
HCM Control Delay (s)	16.3	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Queues

1: Croaker Road & Rt. 60/Richmond Road

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	257	626	27	31	326	170	20	41	27	245	161
v/c Ratio	0.79	0.41	0.04	0.15	0.45	0.37	0.15	0.28	0.09	0.78	0.40
Control Delay	52.3	20.0	0.1	41.0	31.3	6.6	40.1	42.6	0.6	48.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	20.0	0.1	41.0	31.3	6.6	40.1	42.6	0.6	48.9	7.9
Queue Length 50th (ft)	123	101	0	7	76	0	9	20	0	117	0
Queue Length 95th (ft)	#286	208	0	23	127	40	29	49	0	189	36
Internal Link Dist (ft)	1267			1429			615			808	
Turn Bay Length (ft)	200		10	200		200	165		150		200
Base Capacity (vph)	327	1616	700	598	1528	773	280	305	457	519	553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.39	0.04	0.05	0.21	0.22	0.07	0.13	0.06	0.47	0.29












Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

1: Croaker Road & Rt. 60/Richmond Road

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	124	548	65	141	733	329	123	101	45	337	176
v/c Ratio	0.71	0.50	0.10	0.57	0.72	0.47	0.69	0.53	0.14	0.87	0.38
Control Delay	67.2	29.8	0.3	55.9	36.7	5.8	64.8	55.3	0.9	61.9	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	29.8	0.3	55.9	36.7	5.8	64.8	55.3	0.9	61.9	8.5
Queue Length 50th (ft)	78	147	0	45	219	0	82	66	0	205	0
Queue Length 95th (ft)	150	220	0	85	323	66	157	132	0	#422	59
Internal Link Dist (ft)	1267			1429			615			808	
Turn Bay Length (ft)	200		10	200		200	165		150		200
Base Capacity (vph)	279	1314	716	523	1264	782	267	281	396	439	498
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.42	0.09	0.27	0.58	0.42	0.46	0.36	0.11	0.77	0.35












Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

1: Croaker Road & Rt. 60/Richmond Road

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	260	632	34	39	334	174	36	51	46	244	158
v/c Ratio	0.80	0.45	0.05	0.19	0.46	0.37	0.26	0.34	0.15	0.78	0.40
Control Delay	53.7	22.2	0.2	41.8	31.5	6.9	42.8	44.4	1.0	49.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	22.2	0.2	41.8	31.5	6.9	42.8	44.4	1.0	49.8	7.7
Queue Length 50th (ft)	125	137	0	9	78	0	17	25	0	117	0
Queue Length 95th (ft)	#321	227	0	28	136	47	54	70	0	214	45
Internal Link Dist (ft)	1267			1429			615			808	
Turn Bay Length (ft)	200		10	200		200	165		150		200
Base Capacity (vph)	326	1583	690	595	1521	770	278	303	456	515	552
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.40	0.05	0.07	0.22	0.23	0.13	0.17	0.10	0.47	0.29












Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

1: Croaker Road & Rt. 60/Richmond Road

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	134	591	71	152	792	355	132	107	48	364	189
v/c Ratio	0.76	0.53	0.11	0.61	0.77	0.50	0.74	0.57	0.15	0.89	0.58
Control Delay	72.9	31.1	0.4	58.7	39.5	6.7	70.2	57.6	1.0	64.7	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.9	31.1	0.4	58.7	39.5	6.7	70.2	57.6	1.0	64.7	14.2
Queue Length 50th (ft)	89	165	0	52	248	7	92	73	0	242	0
Queue Length 95th (ft)	162	241	0	90	353	79	168	138	0	#470	67
Internal Link Dist (ft)	1267			1429			615			808	
Turn Bay Length (ft)	200		10	200		200	165		150		200
Base Capacity (vph)	262	1250	690	492	1191	764	252	265	384	413	384
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.47	0.10	0.31	0.66	0.46	0.52	0.40	0.13	0.88	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

1: Croaker Road & Rt. 60/Richmond Road

09/24/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	273	651	34	39	339	174	36	51	46	244	162
v/c Ratio	0.83	0.46	0.05	0.19	0.46	0.37	0.26	0.34	0.15	0.78	0.41
Control Delay	57.3	22.4	0.2	42.0	31.5	6.8	43.0	44.6	1.0	49.7	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	22.4	0.2	42.0	31.5	6.8	43.0	44.6	1.0	49.7	8.1
Queue Length 50th (ft)	132	143	0	9	80	0	17	25	0	117	0
Queue Length 95th (ft)	#341	234	0	28	138	46	54	71	0	215	48
Internal Link Dist (ft)	943		1429				615			808	
Turn Bay Length (ft)	400	10		200	200		165	150		200	
Base Capacity (vph)	328	1580	689	594	1518	769	278	303	455	514	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.41	0.05	0.07	0.22	0.23	0.13	0.17	0.10	0.47	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

1: Croaker Road & Rt. 60/Richmond Road

09/25/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	141	603	90	176	813	355	143	116	63	380	202
v/c Ratio	0.79	0.57	0.15	0.66	0.81	0.52	0.79	0.61	0.19	0.90	0.40
Control Delay	77.9	33.9	0.5	60.7	43.1	8.4	76.4	60.7	1.3	65.5	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.9	33.9	0.5	60.7	43.1	8.4	76.4	60.7	1.3	65.5	7.6
Queue Length 50th (ft)	99	186	0	63	282	17	105	84	0	260	1
Queue Length 95th (ft)	#193	262	0	102	377	98	#208	151	0	#422	60
Internal Link Dist (ft)		654			1429			615		808	
Turn Bay Length (ft)	300		10	200		200	165		150		200
Base Capacity (vph)	228	1173	659	374	1104	720	227	238	363	522	576
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.51	0.14	0.47	0.74	0.49	0.63	0.49	0.17	0.73	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

1: Croaker Road & Rt. 60/Richmond Road

09/24/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	273	651	34	39	339	174	36	51	46	244	162
v/c Ratio	0.80	0.45	0.05	0.19	0.47	0.34	0.27	0.34	0.12	0.78	0.36
Control Delay	51.5	21.6	0.2	46.7	35.0	2.6	48.0	49.5	0.7	52.0	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	21.6	0.2	46.7	35.0	2.6	48.0	49.5	0.7	52.0	3.2
Queue Length 50th (ft)	133	145	0	9	83	0	18	26	0	120	0
Queue Length 95th (ft)	269	239	0	32	166	10	63	81	0	247	11
Internal Link Dist (ft)		943			1429			615		808	
Turn Bay Length (ft)	400		10	200		200	165		150		200
Base Capacity (vph)	658	2013	827	225	939	594	167	182	402	605	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.32	0.04	0.17	0.36	0.29	0.22	0.28	0.11	0.40	0.25

Intersection Summary

Queues

1: Croaker Road & Rt. 60/Richmond Road

09/25/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	141	603	90	176	813	355	143	116	63	380	202
v/c Ratio	0.82	0.56	0.15	0.66	0.80	0.51	0.80	0.61	0.19	0.90	0.40
Control Delay	82.0	33.7	0.5	61.1	41.9	7.7	78.4	61.7	1.3	65.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.0	33.7	0.5	61.1	41.9	7.7	78.4	61.7	1.3	65.8	7.6
Queue Length 50th (ft)	101	188	0	65	285	14	107	85	0	266	1
Queue Length 95th (ft)	#205	260	0	102	370	91	#214	152	0	#422	60
Internal Link Dist (ft)		654			1429			615		808	
Turn Bay Length (ft)	300		10	200		200	165		150		200
Base Capacity (vph)	209	1194	667	368	1151	741	217	229	355	520	574
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.51	0.13	0.48	0.71	0.48	0.66	0.51	0.18	0.73	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	229	109	112	25	5	44	111	67	66	8	52	13
Average Queue (ft)	144	69	66	6	1	20	75	43	36	2	27	7
95th Queue (ft)	254	119	126	27	9	55	120	80	70	14	67	20
Link Distance (ft)		1278	1278				1450	1450			618	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			10	200	200			200	165		150
Storage Blk Time (%)	7		22	1								
Queuing Penalty (veh)	18		5	1								

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	174	58
Average Queue (ft)	120	31
95th Queue (ft)	186	65
Link Distance (ft)	797	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	2	
Queuing Penalty (veh)	3	

Intersection: 2: Oakland Drive & Rt. 60

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	19	19
Average Queue (ft)	4	7
95th Queue (ft)	21	22
Link Distance (ft)	1186	1186
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 27

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	162	153	151	52	59	127	257	237	147	196	240	41
Average Queue (ft)	72	91	87	20	16	64	146	120	61	53	125	15
95th Queue (ft)	126	140	141	46	44	111	222	203	109	157	208	34
Link Distance (ft)		1278	1278				1450	1450			618	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			10	200	200			200	165		150
Storage Blk Time (%)	0		37	4			2	0	0	0	9	
Queuing Penalty (veh)	0		22	9			2	1	0	0	9	

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	842	831
Average Queue (ft)	733	541
95th Queue (ft)	986	1145
Link Distance (ft)	797	797
Upstream Blk Time (%)	60	42
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Oakland Drive & Rt. 60

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	56	36	31
Average Queue (ft)	11	4	9
95th Queue (ft)	40	21	26
Link Distance (ft)	1278	1186	1186
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 45

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	LT	R	LT
Maximum Queue (ft)	221	152	150	42	57	94	70	68	12	84	27	302
Average Queue (ft)	177	102	98	18	27	69	41	48	3	50	14	197
95th Queue (ft)	273	213	159	57	60	104	72	81	14	93	33	434
Link Distance (ft)		1278	1278			1450	1450			618		797
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			10	200			200	165		150	
Storage Blk Time (%)	19	0	37	2								16
Queuing Penalty (veh)	55	1	12	5								23

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB
Directions Served	R
Maximum Queue (ft)	118
Average Queue (ft)	66
95th Queue (ft)	248
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	200
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Oakland Drive & Rt. 60

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	5	26	20
Average Queue (ft)	2	9	9
95th Queue (ft)	14	44	25
Link Distance (ft)	1278	1186	1186
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 95

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	158	190	208	88	110	150	233	204	178	197	251	158
Average Queue (ft)	76	108	105	25	20	71	149	122	69	60	139	26
95th Queue (ft)	136	172	175	62	65	122	216	191	131	172	225	90
Link Distance (ft)		1278	1278				1450	1450			618	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			10	200	200			200	165		150
Storage Blk Time (%)	0	0	42	4		0	1	0	0	0	12	
Queuing Penalty (veh)	0	0	27	12		0	2	1	1	0	12	

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	835	828
Average Queue (ft)	782	701
95th Queue (ft)	950	1146
Link Distance (ft)	797	797
Upstream Blk Time (%)	81	58
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Oakland Drive & Rt. 60

Movement	WB	WB	NB	NB
Directions Served	LT	T	L	R
Maximum Queue (ft)	86	43	47	44
Average Queue (ft)	16	3	8	10
95th Queue (ft)	59	29	32	31
Link Distance (ft)	1278	1278	1186	1186
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 55

Queuing and Blocking Report

Baseline

09/24/2018

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	313	122	112	48	3	58	130	103	65	36	112	24
Average Queue (ft)	232	83	87	13	1	28	89	53	42	8	61	12
95th Queue (ft)	409	132	122	47	5	63	153	118	75	51	119	29
Link Distance (ft)		948	948				1450	1450			618	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			10	200	200			200	165		150
Storage Blk Time (%)	2		32	1			0				1	
Queuing Penalty (veh)	5		10	4			0				1	

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	241	105
Average Queue (ft)	169	54
95th Queue (ft)	290	206
Link Distance (ft)	797	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	7	
Queuing Penalty (veh)	11	

Intersection: 2: Oakland Drive/Crossover & Rt. 60

Movement	NB	NB	SB
Directions Served	T	R	LT
Maximum Queue (ft)	27	17	30
Average Queue (ft)	11	12	11
95th Queue (ft)	32	24	34
Link Distance (ft)	1212	1212	24
Upstream Blk Time (%)			2
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Baseline

09/24/2018

Intersection: 3: Crossover & WB Rt. 60

Movement	NB
Directions Served	L
Maximum Queue (ft)	34
Average Queue (ft)	14
95th Queue (ft)	41
Link Distance (ft)	24
Upstream Blk Time (%)	2
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Rt. 60 & WB Rt. 60

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 30

Queuing and Blocking Report

Baseline

09/25/2018

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	214	174	184	91	126	153	249	220	154	219	283	162
Average Queue (ft)	92	108	105	30	34	85	155	130	72	60	141	32
95th Queue (ft)	170	165	161	64	89	138	226	204	123	171	235	109
Link Distance (ft)		659	659				1450	1450			618	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			10	200	200			200	165		150
Storage Blk Time (%)			43	7			1	0	0	0	11	0
Queuing Penalty (veh)			36	18			2	1	0	0	14	0

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	846	365
Average Queue (ft)	793	332
95th Queue (ft)	948	499
Link Distance (ft)	797	
Upstream Blk Time (%)	84	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		200
Storage Blk Time (%)	93	1
Queuing Penalty (veh)	179	2

Intersection: 2: Oakland Drive/Crossover & Rt. 60

Movement	EB	EB	NB	NB	SB
Directions Served	T	T	T	R	LT
Maximum Queue (ft)	15	10	74	44	60
Average Queue (ft)	0	0	17	14	27
95th Queue (ft)	8	7	50	32	51
Link Distance (ft)	1052	1052	1212	1212	24
Upstream Blk Time (%)					8
Queuing Penalty (veh)					4
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report

Baseline

09/25/2018

Intersection: 3: Crossover & WB Rt. 60

Movement	WB	NB
Directions Served	L	L
Maximum Queue (ft)	43	71
Average Queue (ft)	8	20
95th Queue (ft)	33	57
Link Distance (ft)		24
Upstream Blk Time (%)		4
Queuing Penalty (veh)		1
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Rt. 60 & WB Rt. 60

Movement	EB
Directions Served	T
Maximum Queue (ft)	11
Average Queue (ft)	0
95th Queue (ft)	8
Link Distance (ft)	256
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 258

Queuing and Blocking Report

Baseline

09/25/2018

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	312	228	200	44	14	57	104	75	71	5	104	23
Average Queue (ft)	233	119	95	11	3	32	80	42	44	1	51	13
95th Queue (ft)	413	349	258	42	15	69	131	92	78	10	116	29
Link Distance (ft)		948	948				1450	1450			618	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			10	200	200			200	165		150
Storage Blk Time (%)	7	0	28	1							0	
Queuing Penalty (veh)	21	0	9	4							0	

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	178	41
Average Queue (ft)	136	24
95th Queue (ft)	212	47
Link Distance (ft)	797	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	1	
Queuing Penalty (veh)	2	

Intersection: 2: Oakland Drive/Crossover & Rt. 60

Movement	NB	NB	SB
Directions Served	T	R	LT
Maximum Queue (ft)	30	25	24
Average Queue (ft)	9	14	9
95th Queue (ft)	31	33	32
Link Distance (ft)	1212	1212	24
Upstream Blk Time (%)			3
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Baseline

09/25/2018

Intersection: 3: Crossover & WB Rt. 60

Movement	NB
Directions Served	L
Maximum Queue (ft)	33
Average Queue (ft)	10
95th Queue (ft)	34
Link Distance (ft)	24
Upstream Blk Time (%)	2
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Rt. 60 & WB Rt. 60

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 36

Queuing and Blocking Report

Baseline

09/25/2018

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	190	181	192	114	111	129	249	239	185	240	322	196
Average Queue (ft)	85	105	102	30	26	74	155	133	74	68	149	35
95th Queue (ft)	156	163	165	73	68	119	227	212	133	185	255	121
Link Distance (ft)		659	659				1450	1450			618	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300			10	200	200			200	165		150
Storage Blk Time (%)			42	6			2	1	0	0	14	
Queuing Penalty (veh)			35	17			3	3	0	1	17	

Intersection: 1: Croaker Road & Rt. 60/Richmond Road

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	849	365
Average Queue (ft)	784	328
95th Queue (ft)	969	499
Link Distance (ft)	797	
Upstream Blk Time (%)	82	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		200
Storage Blk Time (%)	91	0
Queuing Penalty (veh)	175	0

Intersection: 2: Oakland Drive/Crossover & Rt. 60

Movement	EB	EB	NB	NB	SB
Directions Served	T	T	T	R	LT
Maximum Queue (ft)	15	4	60	45	48
Average Queue (ft)	1	0	14	15	24
95th Queue (ft)	8	3	42	34	46
Link Distance (ft)	1052	1052	1212	1212	24
Upstream Blk Time (%)					6
Queuing Penalty (veh)					3
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report

Baseline

09/25/2018

Intersection: 3: Crossover & WB Rt. 60

Movement	WB	NB
Directions Served	L	L
Maximum Queue (ft)	48	68
Average Queue (ft)	6	17
95th Queue (ft)	28	50
Link Distance (ft)		24
Upstream Blk Time (%)		3
Queuing Penalty (veh)		1
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Rt. 60 & WB Rt. 60

Movement	B11
Directions Served	T
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	659
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 256

Attachment 7. Level of Service Information

Richmond Road and Oakland Drive Intersection

	2025 No Buildout		2025 Buildout		2025 Buildout, with Optimized Signal Timing Adjustment at the Richmond and Croaker/Pricket intersection	
	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour
Northbound Through	B	B	C	C	C	C
Northbound Right	n/a (included in the northbound through movement)	n/a (included in the northbound through movement)	B	B	B	B
Southbound Left/Through	n/a (included in the westbound left movement)	n/a (included in the westbound left movement)	C	C	C	C
Westbound Left	A	A	n/a (free- flow movement into median)	n/a (free- flow movement into median)	n/a (free- flow movement into median)	n/a (free- flow movement into median)
Northbound Left	C	C	B	C	B	C

Attachment 8. Level of Service Information

Richmond Road at the Croaker Road/Pricket Road Intersection

	2025 No Buildout		2025 Buildout		2025 Buildout, with Optimized Signal Timing Adjustment	
	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour
Overall Intersection	C	D	C	D	C	D
Eastbound Left	D	E	E	E	D	E
Eastbound Through	B	C	B	C	B	C
Eastbound Right	B	C	B	C	B	C
Westbound Left	D	D	D	D	D	D
Westbound Through	C	D	C	D	C	D
Westbound Right	C	C	C	C	C	C
Northbound Left	D	E	D	E	D	E
Northbound Left/Through	D	D	D	D	D	D
Northbound Right	D	D	D	D	D	D
Southbound Left/Through	D	E	D	E	D	E
Southbound Right	C	D	C	C	C	C

JCC TAX ID NOS: # 2310100002
CONSIDERATION: \$1.00

THIS DEED IS EXEMPT FROM TAXATION UNDER VIRGINIA CODE
§§ 58.1-811 (A)(3)

DEED OF EASEMENT

THIS DEED OF EASEMENT ("Deed") is made this _____ day of _____, 2018, by and between LISA JOY P. MARSTON, Trustee of the LISA JOY P. MARSTON REVOCABLE TRUST DATED September 13, 2010 (the "Grantor") and the COUNTY OF JAMES CITY, VIRGINIA, a political subdivision of the Commonwealth of Virginia, (the "County" or the "Grantee" and, together with the Grantor, the "Parties").

WITNESSETH:

WHEREAS, Grantor is the owner in fee simple of a parcel of property located at 7581 Richmond Road in James City County, Virginia and further identified as James City County Real Estate Tax Parcel Number 2310100002 as more particularly described in Exhibit A attached hereto (the "Property");

WHEREAS, the Grantor desires to ensure that development of the Property, under certain conditions, be limited to affordable housing and accessory uses as more particularly described herein and have the Property be subject to the terms, limitations, and obligations of this Deed;

WHEREAS, Grantor desires density bonuses for development of the Property, which must be secured by a document approved by the county attorney.

NOW, THEREFORE, in consideration of the recitals and the mutual benefits, the covenants and terms herein contained, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Grantor hereby grants, conveys, covenants, and agrees as follows:

1. GRANT AND CONVEYANCE OF EASEMENT. The Grantor hereby grants and conveys to the Grantee a perpetual easement, in gross, (the "Easement") prohibiting development of the property for any use more intense than would be permitted under the County's General Agricultural, A-1, zoning district, unless:

(a) Such development is in accordance with the Virginia Housing and Development Authority's Low Income Housing Tax Credit Program, or a comparable or successor governmental program, or such other affordable housing regime as the County's Director of Planning may approve (the "Use");

(b) The buildings constructed on the Property are designed and constructed substantially consistent, subject to only minor changes, with the architectural elevations entitled “Proposed Oakland Pointe Apartments,” dated October 18, 2017, prepared by Parks-Player Architecture & Planning, LLC, a copy of which is on file with the County’s Director of Planning. Prior to site plan approval for the Use, final building elevations for the Use shall be submitted to the County’s Director of Planning for review and approval for consistency with this Section 1(b);

(c) The owner of the Property achieves EarthCraft/Viridian gold certification, or equivalent certification as determined by the County’s Director of Planning for all buildings to be constructed on the Property, as shown on the master plan titled “Master Plan for Oakland Pointe,” prepared by AES Consulting Engineers and dated October 25, 2017, last revised September 26, 2018 (the “Master Plan”), a copy of which is on file with the County’s Director of Planning. Proof of EarthCraft/Viridian gold certification, or equivalent certification, shall be provided to the County’s Director of Planning within one month of issuance of a Certificate of Occupancy for the Use or such other time as is agreed to in writing in advance by the County’s Director of Planning;

(d) The owner of the Property develops water conservation standards to be submitted to and approved by the James City Service Authority prior to final site plan approval, and subsequently enforces these standards. The standards shall address such water conservation measures as limitations on the installation and use of approved landscaping design and materials to promote water conservation and minimize the use of public water resources;

(e) Any offsite traffic improvements specified in a final Traffic Impact Study for the Use, approved by the County’s Director of Planning and the Virginia Department of Transportation, are installed or, in the discretion of the County’s Director of Planning, guaranteed in accordance with Section 19-74 of the James City County Code, prior to issuance of a Certificate of Occupancy for the Use. A copy of the final Traffic Impact Study shall be on file with the County’s Director of Planning;

(f) Prior to issuance of a Certificate of Occupancy for the Use, the owner (i) constructs and agrees to maintain in good order and repair a five foot wide concrete sidewalk upon that certain property located adjacent to the Property and commonly known as 7575 Richmond Road in James City County, Virginia and further identified as James City County Real Estate Tax Parcel Number 2321100001B (the “Adjacent Parcel”) as shown generally on the Master Plan, and (ii) obtains an easement from the owner of the Adjacent Parcel for pedestrian travel over and upon such sidewalk; and

(g) The owner of the Property works with an agent of the Virginia Cooperative Extension Office (“VCEO”) or, if a VCEO agent is unavailable, a soil scientist licensed in the Commonwealth of Virginia or other qualified professional approved by the County’s Director of Planning, to conduct soil tests and to develop, based upon the results of the soil tests, a customized nutrient management plan (“Nutrient Management Plan”) for all turf areas of the Property. The Nutrient Management Plan shall be submitted to the County Stormwater & Resource Protection Director for review and approval prior to the issuance of a Certificate of Occupancy for the Use. Upon approval, the owner of the Property shall be responsible for ensuring that any nutrients

applied to the turf areas on the Property be applied in accordance with the applicable Nutrient Management Plan or any updates or amendments thereto as may be approved by the County Stormwater & Resource Protection Director.

2. MISCELLANEOUS PROVISIONS.

(a) *No public right-of-access to Property.* This Deed does not create, and shall not be construed to create, any right of the public to enter upon or to use the Property or any portion thereof.

(b) *Continuation.* The covenants, terms, conditions, servitudes, and restrictions of this Deed shall apply to the Property as a whole, and shall run with the land perpetually and be binding upon the parties, their successors, assigns, personal representatives, and heirs, and be considered a servitude running with the land in perpetuity. Notwithstanding any provision of this Deed and any current or subsequent zoning classification of the Property, the Grantee shall, upon written request of the Grantor, initiate the process necessary to terminate the Easement if the following conditions exist: upon the last day of the sixth (6) month following the date of this Deed, the Property may only be developed in accordance with density limitations and restrictions at least as restricted as the criteria and restrictions applicable to the James City County Zoning Ordinance A-1 zoning classification then-in-effect,. Upon termination, a document evidencing said termination shall be recorded in the Clerk's Office of the Circuit Court for the City of Williamsburg and the County of James City, Virginia.

(c) *Action at law inadequate remedy.* The Parties agree that monetary damages would not be an adequate remedy for the breach of any terms, conditions, and restrictions herein contained and, therefore, in the event that the Grantor, their successors or assigns, violate or breach any of the terms, conditions, and restrictions herein contained, the Grantee, in addition to all other remedies available at law and in equity, may institute a suit, and shall be entitled to enjoin such violation by *ex parte* temporary injunction and/or permanent injunction.

(d) *Failure to enforce does not waive right to enforce.* The failure of the Grantee to enforce any right, provision, covenant, restriction, term, or condition of this Deed shall not constitute a waiver of the right of the Grantee to enforce such right, provision, covenant, restriction, term, or condition in the future. All rights, remedies, and privileges granted to the Grantee pursuant to any term, provision, covenant, restriction, or condition of this Deed shall be deemed to be cumulative and the exercise of any one or more thereof shall not be deemed to constitute an election of remedies, nor shall it preclude the Grantee from exercising such other privileges as may be granted by this Deed, at law, or in equity. Furthermore, the Grantor hereby waives any defense of laches, estoppel, or prescription.

(e) *No right of enforcement by the public.* This Deed does not create, and shall not be construed to create, any right of any member of the public exclusive of the County itself to maintain a suit, for any damages, against the Grantor for any violation of this Deed. This Deed does not

intend any third party beneficiary and there shall be no right for any third party to enforce any of the terms hereof.

(f) *Severability.* If any provision of this Deed is determined to be invalid by a court of competent jurisdiction, the remainder of this Deed shall not be affected thereby.

(g) *Recordation.* Upon execution by the Parties, this Deed shall be recorded with the record of land titles in the Clerk's Office of the Circuit Court for the City of Williamsburg and the County of James City, Virginia.

(h) *Authority to convey easement.* The Grantor covenants that it is vested with good title to the Property and enter into this Deed.

(i) *No Assignment.* Neither Grantee nor its successors may assign or transfer the Easement established and conveyed hereby.

(j) *Controlling law.* The interpretation and performance of this Deed shall be governed by the laws of the Commonwealth of Virginia. The proper venue for any legal proceeding regarding this Deed shall be in the circuit court for the City of Williamsburg and County of James City, Virginia.

(k) *Entire agreement.* This instrument sets forth the entire agreement of the Parties with respect to this Deed and supersedes all prior discussions, negotiations, understandings, or agreements relating to this Deed, all of which are merged herein.

(l) *Amendments.* This Deed may be amended only with the written consent of the Grantee and the, then-owner of the Property, and such amendment shall be duly recorded. Any amendment shall be at the sole discretion of the Grantee.

(Remainder of page left blank. Signature pages to follow)

[Signature Page to Deed of Easement]

WITNESS the following signature and seal:

LISA JOY P. MARSTON, Trustee of the
LISA JOY P. MARSTON REVOCABLE TRUST DATED September 13, 2010

COMMONWEALTH OF VIRGINIA

City/County of _____, to-wit:

The foregoing instrument was signed, sworn to and acknowledged before me this _____
day of _____, 2018, by LISA JOY P. MARSTON, Trustee of the LISA JOY P. MARSTON
REVOCABLE TRUST DATED September 13, 2010, Grantor.

WITNESS my signature and notarial seal.

Notary Public

Registration # _____

Expiration Date _____

[Signature Page to Deed of Easement]

GRANTEE: THE COUNTY OF JAMES CITY, VIRGINIA

Acceptance of this Deed of Easement is approved and, pursuant to a Resolution of the Board of Supervisors of James City County, Virginia, duly adopted on the 14th day of July 2015, this conveyance is hereby accepted on behalf of Grantee.

By:
Title: County Administrator

STATE/Commonwealth of _____
CITY/COUNTY OF _____, to-wit:

The foregoing instrument was acknowledged before me this ____ day of _____, 2018, by _____ as County Administrator of James City County, Virginia.

Notary Public

My commission expires: _____
Notary Registration No. _____

Approved as to form:

COUNTY ATTORNEY

EXHIBIT A

LEGAL DESCRIPTION

All that certain lot, piece or parcel of land containing 14.54 acres, set out and shown as Parcel B of Oakland Farm on a plat entitled "A SURVEY FOR CONVEYANCE TO SOUTHPOINT PROPERTIES 326.89 AC +/-, PARCEL A, LYING IN POWHATAN DISTRICT, JAMES CITY COUNTY, VIRGINIA", dated December 21, 1973, made by L.V. Woodson & Associates, Inc. Engineers, Surveyors and Planners, recorded in James City County Plat Book 32, page 2 on March 28, 1974 and to which plat reference is here made for a more complete description.

HEIGHT LIMITATION WAIVER

- **The R-5 Zoning District allows structures to be built up to 35 feet in height.** The request is for a 5-foot height waiver to allow building(s) to be constructed up to 40 feet in height above finished grade.
- Section 24-310(g) of the Zoning Ordinance states that structures in excess of 35 feet may be erected only upon the granting of a height limitation waiver by the Board of Supervisors, upon finding that:
 1. Structure will not obstruct light from adjacent property;
Staff finding: The structures will be located a minimum of 120 feet from any property lines. Therefore, staff finds the proposed structures will not obstruct light from adjacent property.
 2. Structure will not impair the enjoyment of historic attractions and areas of significant historic interest and surrounding developments;
Staff finding: Staff did not identify any historic attractions or areas of significant historic interest in close proximity to this project. The closest current surrounding developments are the CrossWalk Church and the Village at Candle Station, both of which would be several hundred feet from the closest structure and would be visually screened by the Resource Protection Area buffer. The other current surrounding development is the Oakland neighborhood which uses Oakland Drive as its entrance. The proposed structures may be visible from Oakland Drive, but would also be screened by the proposed perimeter buffer landscaping.
 3. Structure will not impair property values in the area;
Staff finding: The Director of Real Estate Assessments reviewed the proposal and determined that buildings will not negatively affect the surrounding property values.
 4. Structure is adequately designed and served from the standpoint of safety and the County Fire Chief finds the fire safety equipment installed is adequately designed and that the structure is reasonably well located in relation to fire stations and equipment, so as to offer adequate protection to life and property;
Staff finding: The Building Safety and Permits Division and the Fire Department have reviewed the height waiver request and did not indicate any concerns.
 5. Such structure will not be contrary to the public health, safety and general welfare.
Staff finding: Staff finds that the proposed buildings will not adversely affect the public health, safety or general welfare.

The proposed Height Limitation Waiver conditions are attached to this staff report.

Draft Height Limitation Waiver Conditions

- 1. Height Limitations:** This Height Limitation Waiver (the “Waiver”) shall be valid for a five (5) foot waiver to the height limitation requirements set forth in the James City County Zoning Ordinance to allow for the erection of buildings up to forty (40) feet above ground level (the “Buildings”) on property zoned R-5, Multifamily Residential located at 7581 Richmond Road, and further identified as James City County Real Estate Tax Map Parcel No. 2310100002. The height of the Buildings shall be calculated in accordance with the Zoning Ordinance definition for “Building, height of” in effect as of the adoption date of the Waiver.
- 2. Master Plan:** The Buildings shall be located as generally shown on the plan prepared by AES Consulting Engineers, dated October 25, 2017 and revised on September 26, 2018 and entitled “Master Plan for Oakland Pointe A Multi-Family Community.”
- 3. As-Built Survey:** An as-built survey shall be submitted to and approved by the Director of Planning for any building exceeding the permitted building height in the zoning district prior to final certificate of occupancy. The intent of this condition is to ensure compliance with the Waiver.
- 4. Severability:** The Waiver is not severable. Invalidation of any word, phrase, clause, sentence or paragraph shall invalidate the remainder.

Low Income Housing Tax Credit Program Information

The low-income housing tax credit was enacted by Congress to encourage new construction and rehabilitation of existing rental housing for low-income households and to increase the amount of affordable rental housing for households whose income is at or below specified income levels. In establishing the tax credit incentive, Congress recognized that a private sector developer may not receive enough rental income from a low-income housing project to: 1) cover the costs of developing and operating the project, and 2) provide a return to investors sufficient to attract the equity investment needed for development. More specifically, the LIHTC is a dollar-for-dollar reduction in tax liability to the owner of a qualified low-income housing development for the acquisition, rehabilitation (“rehab”), or construction of low-income rental housing units. To qualify for tax credits, a development must meet a number of conditions set forth in Section 42 of the Internal Revenue Code (IRC). In particular, the development must provide low-income housing units that meet certain occupancy and rent requirements. After the state allocates tax credits to developers, the developers typically sell the credits to private investors. The private investors use the tax credits to offset taxes otherwise owed on their tax returns. The money private investors pay for the credits is paid into the projects as equity financing. This equity financing is used to fill the gap between the development costs for a project and the nontax credit financing sources, such as mortgages, that could be expected to be repaid from rental income. For a LIHTC project, a minimum of 20% of the units must be occupied by households with incomes at or below 50% of the area median gross income (AMGI), as adjusted for family size; or a minimum of 40% of the units must be occupied by households, with incomes at or below 60% of the AMGI, adjusted for family size. The owner must irrevocably elect to comply with either the 20-50 or the 40-60 tests. The gross rent charged for a low-income unit may not exceed 30% of the household’s income. The LIHTC program requires that these rent restrictions remain in place for 30 years.

Jose Ribeiro

From: John Risinger
Sent: Tuesday, November 27, 2018 4:21 PM
To: Jose Ribeiro
Subject: FW: Oakland Pointe

From: Francis Ryan
Sent: Tuesday, November 27, 2018 3:45 PM
To: Planning
Subject: Oakland Pointe

To whom it may concern,

My name is Francis Ryan and I am a resident of Toano in the Hunter's Creek Neighborhood. I'd like to strongly voice my concern about the Oakland Pointe Apartments . My wife and I decided to purchase our first home in James City County (specifically Toano) to get away from the congestion and growing population in Williamsburg. We bought this home with the plan of staying for a long time and raising a family. Allowing a large scale apartment complex is the exact type of thing that would shorten our stay in James City County. The committee needs to consider why people move to the outer rim of the county in the first place and that is for the more rural type of setting it offers. There's already been so much development in the area with Candle Station, expanding White Hall, and even adding the O Rielly Auto Parts right in the same area as the proposed site. This is the first step in developing this area which will only continue. My family would strongly consider moving to surrounding counties that offer the type of environment we are looking for. I hope you take this into consideration with your planning. I plan on attending the town meeting to also voice my displeasure. Thanks, have a great day!

--

Francis Ryan
7621 Turlington Rd
Toano, VA 23168

Jose Ribeiro

From: John Risinger
Sent: Tuesday, November 27, 2018 8:13 AM
To: Jose Ribeiro
Subject: FW: Oakland Point

-----Original Message-----

From: Karen Toone Stemann <ktstemann@aol.com>
Sent: Monday, November 26, 2018 7:11 PM
To: Planning <planning@jamescitycountyva.gov>
Subject: Oakland Point

Vote no on Oakland Point.
Sent from my iPhone

Paul Holt

From: Stephen Koval <stepdonnahan@msn.com>
Sent: Monday, November 26, 2018 6:40 PM
To: Ruth Larson; Sue Sadler; Heath Richardson; Beth Klapper; Paul Holt; Board Only; Jim Icenhour; John McGlennon; Michael Hipple; Planning; Jose Ribeiro; PlanComm; Community Development
Cc: Donna Koval; info@wydaily.com; letters@vagazette.com
Subject: Concerns with Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe
Attachments: Koval Concerns 26Nov18-Oakland Pointe.pdf

Dear JCC Board of Supervisors, Planning Commission and Community Development Members:

Please see attached concerns of subject case to add to community input bin.

Don't hesitate to contact us if necessary.

Sincerely,
Stephen & Donna Koval

Stephen & Donna Koval
102 Crescent Drive
Williamsburg, VA 23188

November 26, 2018

James City County Board of Supervisors, Planning Commission and Community
Development
101 Mounts Bay Road
Building D, F & A
Williamsburg, VA 23185

Subject: Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-
2008) Oakland Pointe

Dear James City County (JCC) Board of Supervisors, Planning Commission and Community
Development Members:

Thank you for the responses to our request for a Dec 05 Planning Commission deferment
of subject proposal. Please add our following frustrations to your citizen input file:

The Planning Commission is derelict in their duties, NOT following procedures outlined
for rezoning Master Plans. As detailed on JCC website:

Additionally, a sign will be placed on the property indicating that an application has been
filed. This sign will be posted 2 weeks before the Planning Commission public hearing.
An advertisement for a public hearing will be run in a local newspaper both 2 weeks and
1 week before the Planning Commission public hearing. Also, written notice will be sent
to all adjacent property owners at least 1 week prior to the Planning Commission public
hearing.

As of today, Nov 26, (9 days before Dec 05 hearing) there is NO sign in sight of Richmond
Rd and Oakland Dr.

This neighborhood believes after 14 months of accommodating the landowner/developer,
this proposal is now being rammed through during the holidays to minimize our ability to
organize and diminish public participation. To counter our arguments and 'educate' upper
James City County, we see the County is full-press promoting their pro-affordable housing
campaign with WY Daily articles; tweets and FB posts. It's our turn.

Sincerely,

Stephen & Donna Koval

Paul Holt

Subject: FW: Oakland Pointe Meeting

Subject: Important Oakland Pointe meeting at the Norge Library 28 November at 7pm.

Happy Thanksgiving all. Hope it was peaceful.

As you are aware the Oakland Point issue is ramping up quickly even as we plan for and celebrate the holidays with our families. Thanks to all of you who have contacted the Planning Commission and Board of Supervisors with your comments. As you know, most recently we have requested a delay of the Planning Commission vote on Oakland Pointe to get us through the holidays peacefully and give opportunity for the county to become better informed. As of now it appears they will not delay and the topic "must be opened" at the 5 December meeting.

To that end; we are planning a joint community meeting for those opposed to Oakland Pointe at the Norge Public Library, in the Grace and Stanley Kitzinger Room at 7pm on November 28th. We will be updating the community on current actions and strategies as well as other initiatives.

I know, its awful hard to get worked up about something like this during the holiday season. The Oakland Pointe legal team and developers know this. They know the easiest path for approval of Oakland Pointe is to get it done during the holiday period which began this week. I'll say this, that of the meetings we've had this year, this one by far is the most important one to attend. It is only through a coordinated county wide resident effort that we will be able to slow and stop Oakland Pointe from becoming a reality. To make that happen we need everyone focused, everyone committed, everyone there. The meeting on the 28th will be designed for that.

We normally blind copy everyone on these E-Mails to provide privacy. Know that this E-Mail is reaching well over 70 homes in the county; some of whom will forward to other members in their community/organizations. We are growing, so take hope in that. The county will not ignore a large public turn out, and a strong focused opposition at its meetings. Spread the word in your neighborhoods and bring friends and neighbors on the 28th.

Paul Holt

Subject:

FW: Marston Property Proposal

On Nov 26, 2018, at 12:19 PM, Allison <aotey@lawsonenterprisesinc.com> wrote:

To All Concerned,

We are property owners in Oakland Estates and would like to see the above proposal pushed back to February, 2019. Since the property owners (Marston's)/developers have been afforded this courtesy for several months now, we do not feel that this is an unreasonable request. Thank you for your consideration.

Allison H. Otey

Vice President

Lawson Enterprises, Inc.

1310 Garrison Drive

Williamsburg, VA 23185

(757) 229-6047

Paul Holt

Subject:

FW: Oakland & Upper County Growth

From: Dee Sulenski <puffinroost@me.com>

Date: November 21, 2018 at 9:45:38 AM EST

To: sue.sadler@jamescitycountyva.gov

Subject: Oakland & Upper County Growth

Good morning & wishes for a Happy Thanksgiving to you & yours,

I am writing to express my concerns over the apartment complex being discussed for Oakland. Please, please, please vote to help maintain the rural character of our little hamlet of Toano. Specifically, my concern is the traffic that will be created and the very dangerous situation that will be, permanently, in place with many cars needing to make U-turns in both directions on Route 60.

Also, please register my aversion, distaste & horror at wanting further "grow" our rural community! Williamsburg is already building a complex that mirrors one on Jefferson Ave. in Newport News. Please do not allow greed to permanently damage what remains of our eco-environment! Water is ready an issue, with citizens being asked to conserve (believe me, water conservation is a way of life in this household), while golf courses continue to waste water and developments are built with sprinkler systems assumed. Trees produce needed oxygen!

People who move into this area decades ago did so because we love the rural character; please preserve this for the citizens who are already here and worry less about luring others. We all know there are empty business spaces in the county, already plenty of houses for sale, and apartments available. Instead of wanting to expand and build why not focus on increasing services for those already here? There is a need for affordable housing, yet the county seems to focus only on the development of more "luxury" housing.

Please do not allow the destruction of this small piece of the county that remains rural & quiet!

Sincerely,
Dee Sulenski

Sent from my iPad

Jose Ribeiro

From: Patrick McCaffery <patrickmccaffery@msn.com>
Sent: Tuesday, November 20, 2018 1:56 PM
To: Jose Ribeiro
Subject: Re: Marston Project - Oakland Pointe

Hello Jose- your favorite Norge Resident had some additional questions.

1. Who within James City County is responsible for enforcement of the Easement Agreement terms? Is that cost included in the calculation for the net costs of the development to the County (around \$450K from what I remember). To ensure there are funds available to remediate the property if the Easement Agreement is violated, is the developer required to post a surety? If not, where would those funds come from if the developer does not pay?
2. Under the Federal Low Income Housing Tax Credit Program (LIHTC) administered by VHDA in the Commonwealth, the overall development costs are lowered by "selling" tax credits to investors. Question- does JCC know who these investors are? Do you know where I could find out?

Thanks Jose. As you probably know, we have asked for a postponement on the vote from the Planning Commission. According to the Commission's requirements, that won't happen if the application is complete. As a result, it looks like we are heading for the December 5 vote. This doesn't give us a lot of time to get the word out in the community.

Best Regards,

Patrick McCaffery

From: Patrick McCaffery
Sent: Saturday, October 27, 2018 5:00 PM
To: Jose Ribeiro
Subject: Marston Project - Oakland Pointe

Hello Jose- as promised, i have reviewed the available documents, and had some questions i was hoping you could help me with:

1. Did i miss the Easement Agreement? I didn't see it on the site with the revised proposal.
2. One of the issues concerns the fact that the Multi-Use Field is partially located in the 75' Buffer. It states that this will require Planning Director approval. Who is that, and what criteria will they use for this decision?
3. In calculating the unit density, I am unclear on a couple of numbers. The overall parcel size is 14.54 acres. The Net Developable Area is 12.93. The Gross Developable area is 10.02 (with 20% of the Gross Developable Area as 2.91). The Net Non-Developable Area is listed at 4.52 acres, which is also the same as the RPA Buffers (4.52). It looks like the proposed density is at 9.75, which is derived from the 126 units divided by Net Developable Area at 12.93. Question- if the RPA Buffers will "consume" 4.52 acres, why isn't the Unit Density calculated off the 10.02 number? This would seem logical, especially since a

Jose Ribeiro

From: Frank Polster
Sent: Sunday, November 18, 2018 9:03 AM
To: Jose Ribeiro
Cc: Paul Holt; Ellen Cook; John Haldeman; Richard Krapf; Tim OConnor; Danny Schmidt; Heath Richardson; Julia Leverenz
Subject: Oakland Pointe
Attachments: Koval Environment Soil Stormwater Final Concerns-Oakland Pointe Z-18-0004 HW-18-0002.pdf; Koval Traffic Concerns-Oakland Pointe Z-18-0004 HW-18-0002.pdf

Mr. Riberio,

I have several questions on the Koval's two emails dated 9 and 11 November; Subject: Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe. (attached)

The concerns expressed were on the Yarmouth Creek Watershed and traffic congestion, delays, and safety. I would appreciate staffs or the appropriate agency comments on the following -

1. Yarmouth Creek Watershed -

a. The Kovals state, "They propose Special Stormwater Criteria measures of forebays other potential VRRM requirements to protect the ecosystems and waterways; but will that be enough? "

The question for staff is will it be enough and what are the other conditions in the proposed rezoning proposal that will mitigate and protect the ecosystem?

b. I notice that a third forebay was added to the proposal. What was the reasoning for the additional forebay?

c. Viewing the watershed as an ecosystem (Yarmouth Creek subwatershed 103), what role will the existing and planned stormwater management facilities adjacent to Oakland Pointe located at Norge Village at Candle Station and CrossWalk Church At Norge contribute to ecosystem's protection and is it enough?

d. Will the addition of Oakland Pointe with the Village at Candle Station and the CrossWalk Church At Norge potentially exacerbate the current degradation of the Yarmouth Creek subwatershed 103? Is the Yarmouth Creek subwatershed 103 degraded currently?

e. Will the removal or disturbance of the Oakland Point soils lead to further erosion and impact the Chesapeake Bay Preservation and stormwater pollution prevention plans? Are there currently erosion and sediment issue in the Yarmouth Creek subwatershed 103?

f. On the subject of the "Oakland Estates Stream Stabilization Drainage Improvements" project (referenced by the Kovals) in the Yarmouth Creek subwatershed 103, did it occur that the "filling up with silt and debris" was attributable to new developments" and if so was it attributable to the Norge Village at Candle Station, or CrossWalk Church at Norge or the CVS and Food Lion projects or for some other reason like Oakland Estates?

2. Traffic congestion, delays, and safety.

Paul Holt

Subject: FW: Oakland Pointe Apartment Proposal Meeting

From: "Susan J. Grainer (sjgrainer)" <sjgrainer@henrico.k12.va.us>

Date: November 16, 2018 at 1:45:03 PM EST

To: "ruth.larson@jamescitycountyva.gov" <ruth.larson@jamescitycountyva.gov>,
"james.icenhour@jamescitycountyva.gov" <james.icenhour@jamescitycountyva.gov>,
"john.mcglennon@jamescitycountyva.gov" <john.mcglennon@jamescitycountyva.gov>,
"michael.hipple@jamescitycountyva.gov" <michael.hipple@jamescitycountyva.gov>,
"sue.sadler@jamescitycountyva.gov" <sue.sadler@jamescitycountyva.gov>

Subject: Oakland Pointe Apartment Proposal Meeting

Good afternoon.

My name is Susan Grainer and I live at 111 Crescent Drive within the Oakland Estates subdivision. My neighborhood sits adjacent to the Marston property, which has been proposed for re-zoning from A-1 General Agriculture to R-5 Multi-family Residential District for the purpose of developing the property into a 126-unit apartment complex. Over the last 9 months or so, multiple JCC Planning Commission meetings have been scheduled for consideration but changed due to changes in the initial proposal and rezoning considerations. As I understand the information that I have received most recently about a revised proposal, this potential apartment complex is being suggested to enter and exit through the same intersection as my Oakland Estates neighborhood, which is located at Richmond Road/Oakland Drive (JCC Planning Commission case Z-18-0004/HW-18-0002 Oakland Pointe). I mention that I'm getting this information from neighbors, but I have yet to see a proposed rezoning sign attached to this identified land for the apartment access. If I'm to understand the proposal(s) at this point, there is now 2 rezoning aspects to consider, the actual land for the apartment complex and the land for the entrance/exit to the property. Again, I have not seen any actual JCC Rezoning signage to date at either site.

In discussions with various members of the community in the past week, we have become increasingly concerned with the timing of this application. This Oakland Pointe proposal has been scheduled for consideration at multiple Planning Commission meetings. We understand that it will again be scheduled for a vote by the JCC Planning Commission at the December 5th meeting, but again, there has been no signage confirming this proposal review. Our concerns with this scheduling is two-fold. First, it takes a fair amount of time and effort to raise community awareness for participation at Planning Commission meetings, and this challenge has been heightened by the number of "false starts" on this application. Considering the complexities involved, as well as the number of reviews and analyses that must be completed, we understand that these postponements are inherent in the process. However, it has caused many in the community to take a "wait and see" attitude on scheduling, and we understand that the official agenda for the December 5th meeting won't be publicized until next week. That means that we will have two weeks to communicate the importance of the meeting with the broader community, with the announcement itself falling on the week of Thanksgiving. Secondly, many of us in the community are wondering about the limited notice and lack of official signage. If the proposed schedule were to follow the predicted Commission and Supervisor meetings. i.e. Dec Planning Commission followed by early January Supervisor meeting, then considering that we are entering the holiday season, this timing will no doubt have the potential to adversely affect community involvement in each of these meetings.

For these reasons, we request that the Planning Commission set a February date for review of the Oakland Pointe proposal. I am told that there is some precedent for this action, as the Planning Commission has moved review dates in the past to accommodate community requests.

Paul Holt

Subject: FW: Oakland Pointe Rezoning Consideration

From: Jane Marioneaux <jmarioneaux@cox.net>

Date: November 16, 2018 at 10:06:28 AM EST

To: <ruth.larson@jamescitycountyva.gov>, <james.icenhour@jamescitycountyva.gov>, <john.mcglennon@jamescitycountyva.gov>, <michael.hipple@jamescitycountyva.gov>, <sue.sadler@jamescitycountyva.gov>

Subject: Oakland Pointe Rezoning Consideration

I support moving the Planning Commission consideration of the Oakland Pointe proposal to February of 2019 to ensure the community has the opportunity to be heard. Having it on the agenda in December means that residents who are against the proposal will not be able to attend due to factors such as inadequate time to notify all of the many people who oppose this and the fact that the meeting was placed in the middle of the holiday season when opponents will be unable to attend even if notified. Almost everyone in all of the surrounding neighborhoods opposes this proposition and we feel that the December date is a political move to divide and weaken our presence.

Thank you for your work as our elected Representatives.

Jane Marioneaux

Resident – Oakland Estates

Paul Holt

Subject: FW: Oakland Pointe

From: thompsonsgang@aol.com

Date: November 16, 2018 at 9:14:13 AM EST

To: ruth.larson@jamescitycountyva.gov,
james.icenhour@jamescitycountyva.gov, john.mcglennon@jamescitycountyva.gov, michael.hipple@jamescitycountyva.gov, sue.sadler@jamescitycountyva.gov

Subject: Oakland Pointe

Dear Board of Supervisors,

We live at 101 Woodmont Place in Oakland Subdivision. We are requesting that the Marston Rezoning for Oakland Pointe Apts be scheduled for vote in February/March 2019. We have been encouraged as a community to participate and come out to the meetings. On 3 occasions we have spoke with others in the surrounding neighborhoods who will also be effected by the increase in traffic etc and encourage them to come out only for those meeting to be postponed. With the holidays where families are preoccupied, we feel like December and January will make for less community involvement in the meetings. For these reasons, we would very much appreciate if the Planning Commission would set a February date for review of the Oakland Pointe proposal.

Sincerely,

Gary and Melonie Thompson

Paul Holt

Subject:

FW: Deferment Request for Oakland Pointe Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008)

On Nov 16, 2018, at 9:15 AM, Stephen Koval <stepdonnahren@msn.com> wrote:

Dear Board of Supervisors:

Please petition the Planning Commission to defer the Oakland Pointe plan from Dec 2018 until their Feb 2019 meeting. I have contacted them directly but also wanted to alert you to our dilemma.

My fellow Oakland neighbors and other communities require additional time to raise awareness of revised proposal. In addition, the Feb 2019 timeframe will enable maximum community participation after the holidays.

Thank you for your time and consideration in this matter.

Sincerely,

Stephen & Donna Koval

Paul Holt

Subject: FW: Deferment Request for Oakland Pointe Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008)

From: Stephen Koval <stepdonnahren@msn.com>

Date: November 16, 2018 at 9:15:00 AM EST

To: "board@jamescitycountyva.gov" <board@jamescitycountyva.gov>, "ruth.larson@jamescitycountyva.gov" <ruth.larson@jamescitycountyva.gov>, "james.icenhour@jamescitycountyva.gov" <james.icenhour@jamescitycountyva.gov>, "john.mcglennon@jamescitycountyva.gov" <john.mcglennon@jamescitycountyva.gov>, "michael.hipple@jamescitycountyva.gov" <michael.hipple@jamescitycountyva.gov>, "sue.sadler@jamescitycountyva.gov" <sue.sadler@jamescitycountyva.gov>

Cc: Donna Koval <donstephenna@msn.com>

Subject: Deferment Request for Oakland Pointe Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008)

Dear Board of Supervisors:

Please petition the Planning Commission to defer the Oakland Pointe plan from Dec 2018 until their Feb 2019 meeting. I have contacted them directly but also wanted to alert you to our dilemma.

My fellow Oakland neighbors and other communities require additional time to raise awareness of revised proposal. In addition, the Feb 2019 timeframe will enable maximum community participation after the holidays.

Thank you for your time and consideration in this matter.

Sincerely,

Stephen & Donna Koval

Paul Holt

Subject: FW: Oakland Pointe Apartment Proposal Meeting

From: Susan J. Grainer (sjgrainer) <sjgrainer@henrico.k12.va.us>

Sent: Thursday, November 15, 2018 10:25 AM

To: Danny Schmidt; Heath Richardson; Tim OConnor; Julia Leverenz; John Haldeman; Frank Polster; Richard Krapf

Subject: Oakland Pointe Apartment Proposal Meeting

Good morning Honorable Chairman, Vice-Chairman, and Members of the Planning Commission:

My name is Susan Grainer and I live at 111 Crescent Drive within the Oakland Estates subdivision. My neighborhood sits adjacent to the Marston property, which has been proposed for re-zoning from A-1 General Agriculture to R-5 Multi-family Residential District for the purpose of developing the property into a 126-unit apartment complex. As I understand the information that I have received about the revised proposal, this potential apartment complex is being suggested to access through the same intersection as Oakland Estates, which is located at Richmond Road/Oakland Drive (JCC Planning Commission case Z-18-0004/HW-18-0002 Oakland Pointe). I mention that I'm getting this information from neighbors, but I have yet to see a proposed rezoning sign attached to this identified land for the apartment access.

In discussions with various members of the community in the past week, we have become increasingly concerned with the timing of this application. This Oakland Pointe proposal has been scheduled for consideration at multiple Planning Commission meetings. We understand that it will again be scheduled for a vote by the Commission at the December 5th meeting, but again, there has been no signage confirming this proposal review. Our concerns with this scheduling are two-fold. First, it takes a fair amount of time and effort to raise community awareness for participation at Planning Commission meetings, and this challenge has been heightened by the number of "false starts" on this application. Considering the complexities involved, as well as the number of reviews and analyses that must be completed, we understand that these postponements are inherent in the process. However, it has caused many in the community to take a "wait and see" attitude on scheduling, and we understand that the official agenda for the December 5th meeting won't be publicized until next week. That means that we will have two weeks to communicate the importance of the meeting with the broader community, with the announcement itself falling on the week of Thanksgiving. Many of us in the community are wondering about the limited notice and lack of official signage. If the proposed schedule were to follow the predicted Commission and Supervisor meetings. i.e. Dec Planning Commission followed by early January Supervisor meeting, then considering that we are entering the holiday season, this timing will no doubt have the potential to adversely affect community involvement in each of these meetings.

Jose Ribeiro

From: Adrienne <adrienne-gary@cox.net>
Sent: Thursday, November 15, 2018 10:09 AM
To: Tim OConnor; Julia Leverenz; Richard Krapf; Heath Richardson; John Haldeman; Danny Schmidt; Frank Polster
Cc: Jose Ribeiro
Subject: Oakland Pointe

Dear JCC Planning Commission,

I understand that the Oakland Pointe apartment complex proposal is on the Planning Commission's agenda for December 5th. I am very concerned to hear this.

In order to find out about the agenda, I had to search through documents on the JCC website, and found a letter to Arch Marston. This was not easy to find for someone who is unfamiliar with the process.

I was under the impression that a **red rezoning sign** would be posted for the community to see the location of a proposed development. I have not seen a rezoning sign.

I do not feel that adequate notice has been given. How is the community able to respond to significant development proposals when they do not know about them?

Please postpone the hearing for a few months so that adequate notice can be given to the community. Please post a sign on Route 60 and Oakland Drive, and provide adequate notice of the hearing date.

Thank you

Adrienne Frank

114 Crescent Drive, Williamsburg VA 23188

Paul Holt

Subject: FW: Oakland Pointe

From: jack lubore <jalubore@widomaker.com>
Sent: Thursday, November 15, 2018 11:04 AM
To: Heath Richardson
Cc: Richard Krapf; Danny Schmidt; Tim OConnor; Julia Leverenz; John Haldeman; Frank Polster
Subject: Oakland Pointe

Mr. Chairman, Mr. Vice Chairman, Members Planning Commission

My name is Jack Lubore i live at 208 Crescent Dr. Williamsburg. It is my understanding the Oakland Pointe project may be on the Planning Commission's Dec. agenda. I respectfully request to delay this hearing until after the holidays.

As you are aware this is an important issue to many who will be affected. The timing for the Dec. meeting after many delays and a subsequent hearing by the Board of Supervisors right after the holidays may not afford some citizens to fully participate in the process. I have already witnessed the boards efforts to be transparent in this and other projects and it is appreciated. With that in mind, I also understand this is now considered a new zoning app however to my knowledge no new zoning sign has been posted.

I am not one to normally write to my representatives in fact this may be my first time but feel certain this project, while noble, is not at all well suited for this location. Traffic congestion, while a given problem, and will get worse, traffic safety is an overriding concern of mine. My career has allowed me some knowledge of auto accidents, their creation and results and I feel strongly we could create a very unsafe condition for Oakland, and potentially Oakland Pointe residences alike.

Last point while I am at it. I have lived in Oakland Estates for over 27 years and one of a few who's property borders what I believe is called the Yarmouth Creek or watershed. Only in the last couple of years the water is visible during the winter just standing from our deck on a sunny day. While not scientific it does give us concern the effect of development and future development will have on what I have come to understand is an important area. I know the county or someone spent a sizable sum to manage the watershed behind our neighborhood some years ago. I hope this was not for naught or will again need further investment and mitigation.

Respectfully

Jack Lubore

Paul Holt

Subject: FW: Oakland Pointe Apartment Proposal Meeting

From: Susan J. Grainer (sjgrainer) <sjgrainer@henrico.k12.va.us>

Sent: Thursday, November 15, 2018 10:25 AM

To: Danny Schmidt; Heath Richardson; Tim OConnor; Julia Leverenz; John Haldeman; Frank Polster; Richard Krapf

Subject: Oakland Pointe Apartment Proposal Meeting

Good morning Honorable Chairman, Vice-Chairman, and Members of the Planning Commission:

My name is Susan Grainer and I live at 111 Crescent Drive within the Oakland Estates subdivision. My neighborhood sits adjacent to the Marston property, which has been proposed for re-zoning from A-1 General Agriculture to R-5 Multi-family Residential District for the purpose of developing the property into a 126-unit apartment complex. As I understand the information that I have received about the revised proposal, this potential apartment complex is being suggested to access through the same intersection as Oakland Estates, which is located at Richmond Road/Oakland Drive (JCC Planning Commission case Z-18-0004/HW-18-0002 Oakland Pointe). I mention that I'm getting this information from neighbors, but I have yet to see a proposed rezoning sign attached to this identified land for the apartment access.

In discussions with various members of the community in the past week, we have become increasingly concerned with the timing of this application. This Oakland Pointe proposal has been scheduled for consideration at multiple Planning Commission meetings. We understand that it will again be scheduled for a vote by the Commission at the December 5th meeting, but again, there has been no signage confirming this proposal review. Our concerns with this scheduling are two-fold. First, it takes a fair amount of time and effort to raise community awareness for participation at Planning Commission meetings, and this challenge has been heightened by the number of "false starts" on this application. Considering the complexities involved, as well as the number of reviews and analyses that must be completed, we understand that these postponements are inherent in the process. However, it has caused many in the community to take a "wait and see" attitude on scheduling, and we understand that the official agenda for the December 5th meeting won't be publicized until next week. That means that we will have two weeks to communicate the importance of the meeting with the broader community, with the announcement itself falling on the week of Thanksgiving. Many of us in the community are wondering about the limited notice and lack of official signage. If the proposed schedule were to follow the predicted Commission and Supervisor meetings. i.e. Dec Planning Commission followed by early January Supervisor meeting, then considering that we are entering the holiday season, this timing will no doubt have the potential to adversely affect community involvement in each of these meetings.

For these reasons, we request that the Planning Commission set a February date for review of the Oakland Pointe proposal. I am told that there is some precedent for this action, as the Planning Commission has moved review dates in the past to accommodate community requests.

Paul Holt

Subject: FW: Deferment Request for Oakland Pointe Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008)

From: Stephen Koval <stepdonnahan@msn.com>

Sent: Thursday, November 15, 2018 9:32:28 AM

To: Planning; Heath Richardson; Danny Schmidt

Cc: Donna Koval

Subject: Deferment Request for Oakland Pointe Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008)

Dear Planning Commission Members:

Please defer the Oakland Pointe plan until your Feb 2019 meeting. My fellow Oakland neighbors and other communities require additional time to raise awareness of revised proposal. In addition, the Feb 2019 timeframe will enable maximum community participation after the holidays.

Thank you for your time and consideration in this matter.

Sincerely,
Stephen & Donna Koval

Paul Holt

Subject: FW: Oakland Pointe

From: Adrienne <adrienne-gary@cox.net>

Sent: Thursday, November 15, 2018 10:08:31 AM

To: Tim OConnor; Julia Leverenz; Richard Krapf; Heath Richardson; John Haldeman; Danny Schmidt; Frank Polster

Cc: Jose Ribeiro

Subject: Oakland Pointe

Dear JCC Planning Commission,

I understand that the Oakland Pointe apartment complex proposal is on the Planning Commission's agenda for December 5th. I am very concerned to hear this.

In order to find out about the agenda, I had to search through documents on the JCC website, and found a letter to Arch Marston. This was not easy to find for someone who is unfamiliar with the process.

I was under the impression that a **red rezoning sign** would be posted for the community to see the location of a proposed development. I have not seen a rezoning sign.

I do not feel that adequate notice has been given. How is the community able to respond to significant development proposals when they do not know about them?

Please postpone the hearing for a few months so that adequate notice can be given to the community. Please post a sign on Route 60 and Oakland Drive, and provide adequate notice of the hearing date.

Thank you

Adrienne Frank

114 Crescent Drive, Williamsburg VA 23188

Paul Holt

Subject: FW: Oakland Pointe

From: Adrienne <adrienne-gary@cox.net>
Sent: Thursday, November 15, 2018 10:08:31 AM
To: Tim OConnor; Julia Leverenz; Richard Krapf; Heath Richardson; John Haldeman; Danny Schmidt; Frank Polster
Cc: Jose Ribeiro
Subject: Oakland Pointe

Dear JCC Planning Commission,

I understand that the Oakland Pointe apartment complex proposal is on the Planning Commission's agenda for December 5th. I am very concerned to hear this.

In order to find out about the agenda, I had to search through documents on the JCC website, and found a letter to Arch Marston. This was not easy to find for someone who is unfamiliar with the process.

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Thank you

Adrienne Frank

114 Crescent Drive, Williamsburg VA 23188

Paul Holt

Subject:

FW: Deferment Request for Oakland Pointe Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008)

From: Stephen Koval <stepdonnahan@msn.com>

Sent: Thursday, November 15, 2018 9:32:28 AM

To: Planning; Heath Richardson; Danny Schmidt

Cc: Donna Koval

Subject: Deferment Request for Oakland Pointe Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008)

Dear Planning Commission Members:

Please defer the Oakland Pointe plan until your Feb 2019 meeting. My fellow Oakland neighbors and other communities require additional time to raise awareness of revised proposal. In addition, the Feb 2019 timeframe will enable maximum community participation after the holidays.

Thank you for your time and consideration in this matter.

Sincerely,

Stephen & Donna Koval

Paul Holt

Subject: FW: Marston Property Rezoning

From: thompsonsgang@aol.com <thompsonsgang@aol.com>

Sent: Wednesday, November 14, 2018 9:57 PM

To: Danny Schmidt; Heath Richardson

Subject: Marston Property Rezoning

Mr. Schmidt and Mr Richardson,

We live at 101 Woodmont Place in Oakland Subdivision. We are requesting that the Marston Rezoning issue be scheduled for vote in February 2019. We have been encouraged as a community to participate and come out to the meetings. On 3 occasions we have spoke with others in the surrounding neighborhoods who will also be effected by the increase in traffic etc and encourage them to come out only for those meeting to be postponed. With the holidays where families are preoccupied, we feel like December and January will make for less community involvement in the meetings. For these reasons, we would very much appreciate if the Planning Commission would set a February date for review of the Oakland Pointe proposal.

Sincerely,

Gary and Melonie Thompson

Paul Holt

Subject: FW: JCC Planning Commission case Z-18-0004/HW-18-0002 Oakland Pointe

From: Patrick McCaffery <patrickmccaffery@msn.com>

Sent: Wednesday, November 14, 2018 9:00 PM

To: Heath Richardson; Danny Schmidt; Richard Krapf; Tim OConnor; Julia Leverenz; John Haldeman; Frank Polster; Adrienne; laexa1103@aol.com

Subject: JCC Planning Commission case Z-18-0004/HW-18-0002 Oakland Pointe

Mr. Chairman, Vice-Chairman, and Members of the Planning Commission:

Good evening. My name is Patrick McCaffery, I live at 124 Crescent Drive within the Oakland Estates subdivision. As you know, this subdivision is in close proximity to the Marston property, which has been proposed for re-zoning from A-1 General Agriculture to R-5 Multi-family Residential District for the purpose of developing the property into a 126-unit apartment complex. According to the revised proposal, this complex will access the same entrance/egress intersection as Oakland Estates, which is located at Richmond Road/Oakland Drive (JCC Planning Commission case Z-18-0004/HW-18-0002 Oakland Pointe).

In discussions with various members of the community in the past week, we have become increasingly concerned with the timing of this application. This Oakland Pointe proposal has been scheduled for consideration at a number of Planning Commission meetings (at least three by my count). We understand that it will again be scheduled for a vote by the Commission at the December 5th meeting. Our concerns with this scheduling are two-fold. First, it takes a fair amount of time and effort to raise community awareness for participation at Planning Commission meetings, and this challenge has been heightened by the number of "false starts" on this application. Considering the complexities involved, as well as the number of reviews and analyses that must be completed, we understand that these postponements are inherent in the process. However, it has caused many in the community to take a "wait and see" attitude on scheduling, and we understand that the official agenda for the December 5th meeting won't be publicized until next week. That means that we will have two weeks to communicate the importance of the meeting with the broader community, with the announcement itself falling on the week of Thanksgiving. In addition, according to this schedule, the proposal will be heard on December 5th by the Planning Commission, and then in early January by the Board of Supervisors. Considering that we are entering the holiday season, we believe this timing will also adversely affect community involvement in each of these meetings.

For these reasons, we request that the Planning Commission set a February date for review of the Oakland Pointe proposal. I understand that there is some precedent for this action, as the Planning Commission has moved review dates in the past to accommodate community requests.

I hope you will seriously consider this request. At the February 7, 2018 Planning Commission meeting (which I believe was the first scheduled review as well as the first postponement of the Oakland Pointe matter), many of the members of the community that attended the meeting were heartened at the statements of the Commission members on the importance for the community to attend and have their voices heard. I have referenced these comments many times in the months since in various community settings where this matter was discussed. Unfortunately, after a number of delays and postponements, and with the holidays approaching, I feel that the meeting will not be as well attended by the community as it should be, and that the Planning Commission will thereby not be afforded an accurate reflection of the community's concerns. As a result, we request that the Planning Commission schedule the proposal for review in

Paul Holt

Subject: FW: Final Concerns with Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe
Attachments: Koval Environment Soil Stormwater Final Concerns-Oakland Pointe Z-18-0004 HW-18-0002.pdf

From: Stephen Koval <stepdonnahan@msn.com>

Sent: Monday, November 12, 2018 7:54 AM

To: Board Only; Ruth Larson; Jim Icenhour; John McGlennon; Michael Hipple; Sue Sadler; Planning; Heath Richardson; Jose Ribeiro

Cc: Donna Koval

Subject: Final Concerns with Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe

Dear JCC Board of Supervisors and Planning Commission Members:

Please see attached document explaining our environmental and water runoff concerns, as well as our final observation.

Thank you for listening.

Sincerely,
Stephen & Donna Koval

Stephen & Donna Koval
102 Crescent Drive
Williamsburg, VA 23188

November 11, 2018

James City County Board of Supervisors
James City County Planning Commission
101 Mounts Bay Road
Building D & F
Williamsburg, VA 23185

Subject: Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe

Dear James City County (JCC) Board of Supervisors and Planning Commission Members:

In addition to our previous letters of traffic concerns and fiscal impacts, please analyze the proposed remediation of storm water management issues; the environmental impact to the Yarmouth Creek Watershed and our Final Observation:

1) Water Runoff

The developer will be clearing and land-disturbing woods; natural ground cover and native soils. They propose Special Storm water Criteria measures of forebays and other potential VRRM requirements to protect the ecosystems and waterways; but will that be enough? Compounding this dire situation is drainage from recent developments i.e., Village at Candle Station; Crosswalk Church parking lot expansion; Norge Station; Norge Center and the Candle factory shopping center. Runoff from the proposed largest high-rise apartment complex in this area will potentially exacerbate current degradation of the Yarmouth Creek watershed. Please reaffirm your commitment to the 2035 Comprehensive Plan Environment to improve the quality of water in County watersheds, wetlands and waterways.

2) Soil

A considerable amount of Hydrosol Group A & B will be removed or disturbed, leading to further erosion and impact to the Chesapeake Bay Preservation and storm water pollution prevention plans.

Paul Holt

Subject: FW: Additional Concerns with Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe
Attachments: Koval Fiscal School Easement HW Concerns-Oakland Pointe Z-18-0004 HW-18-0002.pdf

From: Stephen Koval <stepdonnahan@msn.com>

Sent: Saturday, November 10, 2018 9:16 AM

To: Board Only; Ruth Larson; Jim Icenhour; John McGlennon; Michael Hipple; Sue Sadler; Planning; Heath Richardson; Jose Ribeiro

Cc: Donna Koval

Subject: Additional Concerns with Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe

Dear JCC Board of Supervisors and Planning Commission Members:

Please see attached document detailing our fiscal, easement and height waiver concerns with subject case.

Don't hesitate to contact us if necessary.

Sincerely,
Stephen & Donna Koval

Stephen & Donna Koval
102 Crescent Drive
Williamsburg, VA 23188

November 10, 2018

James City County Board of Supervisors
James City County Planning Commission
101 Mounts Bay Road
Building D & F
Williamsburg, VA 23185

Subject: Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe

Dear James City County (JCC) Board of Supervisors and Planning Commission Members:

In addition to our previous letter of traffic concerns, please scrutinize details of the fiscal burden to James City County; impacts to public facilities and services; easement assurances and height waiver specifics:

1) Fiscal Impact Study

The alarming annual fiscal impact to JCC taxpayers has been revised downward from \$636k to \$464k (a reduction of 27%). The total non-school expenses dropped by \$157k and per student total expenses by \$15k. However, the number of apartments (126) and the total of estimated students (39.06) have not changed so I am confounded by this reduction.

A comparable development nearby, the Station at Norge, reportedly has 39 students for 104 apartments. Calculating the comparison of 17%, Oakland Pointe would generate 46 students (39 plus 17%) for 126 apartments. The fiscal impact to JCC taxpayers would range from \$744k (original \$636k plus 17%) to \$543k (revised \$464k plus 17%).

2) Schools

The proposal states students will attend Norge Elementary School, Toano Middle School and Warhill High School. They also report all of these schools are currently operating below capacity. According to the WJCC School Board 2018/19 enrollment % of building capacity, two of the three schools are over capacity (Toano 110% and Warhill 92%) with Norge nearing capacity at 86%. Building of a new middle school

Paul Holt

Subject: FW: Our Concerns with Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/
HW-0004-2017/ LU-0041-2008) Oakland Pointe

Attachments: Koval Traffic Concerns-Oakland Pointe Z-18-0004 HW-18-0002.pdf; ATT00001.htm

From: Stephen Koval <stepdonnahren@msn.com>

Date: November 9, 2018 at 8:00:14 PM EST

To: "board@jamescitycountyva.gov" <board@jamescitycountyva.gov>, "ruth.larson@jamescitycountyva.gov" <ruth.larson@jamescitycountyva.gov>, "james.icenhour@jamescitycountyva.gov" <james.icenhour@jamescitycountyva.gov>, "john.mcglennon@jamescitycountyva.gov" <john.mcglennon@jamescitycountyva.gov>, "michael.hipple@jamescitycountyva.gov" <michael.hipple@jamescitycountyva.gov>, "sue.sadler@jamescitycountyva.gov" <sue.sadler@jamescitycountyva.gov>, "planning@jamescitycountyva.gov" <planning@jamescitycountyva.gov>, "heath.richardson@jamescitycountyva.gov" <heath.richardson@jamescitycountyva.gov>, "Jose.Ribeiro@jamescitycountyva.gov" <Jose.Ribeiro@jamescitycountyva.gov>

Cc: Donna Koval <donstephenna@msn.com>

Subject: Our Concerns with Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe

Dear JCC Board of Supervisors and Planning Commission Members:

Please see attached document detailing our traffic concerns with subject case.

Don't hesitate to contact us if necessary.

Sincerely,

Stephen & Donna Koval

Stephen & Donna Koval
102 Crescent Drive
Williamsburg, VA 23188

November 09, 2018

James City County Board of Supervisors
James City County Planning Commission
101 Mounts Bay Road
Building D & F
Williamsburg, VA 23185

Subject: Z-18-0004/ HW-18-0002 (formerly, Z-0003-2017/ HW-0004-2017/ LU-0041-2008) Oakland Pointe

Dear James City County (JCC) Board of Supervisors and Planning Commission Members:

My wife and I urge the commission to deny the rezoning application/ height waiver request of subject cases from A-1 to R-5 for (126) 3-story affordable apartment units. We have owned a home nearby for approximately 20 years and echo the concerns of our Oakland Estate neighbors adamantly opposing Oakland Pointe.

Please scrutinize troubling matters of traffic congestion, delays and safety concerns:

1) Richmond Road and Oakland Drive un-signalized intersection

- a.) The "improvements" in the latest proposal is to widen this crossover; add yield bars and a double yellow centerline. Don't be VDOH-fooled! This type of crossover works fine at other locations along Richmond Road because the road is level at these locations and there are no obstructions in the median impeding your sightline. At our intersection, westbound Richmond Road has an incline approaching crossover and the median is heavily wooded. See Photo 1 Eastbound Richmond Road median has obstructions of high grass and woods near Olive Branch Christian Church in the background. See Photo 2
- b.) Virginia Department of Transportation (VDOT)'s "comment letter" dated 12/22/17 confirmed current delays Oakland Estates residents currently experience turning left from Oakland Drive onto Richmond Road. Add to that proposed Oakland Pointe residents and delays will turn into accidents. VDOT also questioned whether the developer's traffic study captures drivers waiting in the median to turn left onto Richmond Road.



Photo 2

Sincerely,

Stephen & Donna Koval

Paul Holt

Subject: FW: Oakland Pointe Apartments

From: <hguinn@cox.net>

Date: November 6, 2018 at 4:01:34 PM EST

To: "sue.sadler@jamescitycountyva.gov" <sue.sadler@jamescitycountyva.gov>

Subject: Oakland Pointe Apartments

Dear Ms. Sadler:

My husband and I are residents of Toano Woods and would like to express our concern regarding the proposed the potential building of Oalkand Pointe Apartments. As we are sure that you are aware, the addition of this one-hundred-and-twenty six unit complex will not only overcrowd roadways along Route 60 and Croaker Road, it will also put at risk many who are residents of Oakland, which is situated

My husband and I are residents of Toano Woods and would like to express our concern regarding the proposed building of the Oakland Pointe complex. As we are sure that you are aware, the addition of this one-hundred-and-twenty-six-unit complex will not only overcrowd roadways along Route 60 and Croaker Road, it will also put at risk many who are residents of Oakland Estates in their attempt to both enter and exit this development. As one who has lived in Toano Woods since 1994, I have watched our traffic grow exponentially from a sleepy two-lane road to one where it is, at times, bordering on a racetrack. Ms. Sadler, I am asking you to please take this matter under advisement and to vote "no" to yet another complex.

I thank you for your time and your consideration.

Sincerely,
Hope and Shawn Guinn
7648 Thacher Drive, Toano, VA 23168

Paul Holt

Subject: FW: Oakland Point Opposition

From: Brad <bradstewart71@gmail.com>
Date: November 2, 2018 at 9:03:11 AM EDT
To: Sue Sadler <Sue.Sadler@jamescitycountyva.gov>
Cc: Planning <planning@jamescitycountyva.gov>
Subject: Oakland Point Opposition

Hi Sue,

You knocked on my door when you were originally running for your position, and the personal touch impressed me, which is why I voted for you.

I'm asking for more of that personal touch now, with the upcoming discussions on the Oakland Point development.

Since arriving in Williamsburg in 2003 from my hometown of Pittsburgh, I knew I wanted to live in Williamsburg and raise a family when I graduated from William and Mary. Williamsburg was not crowded and overrun like suburban Pittsburgh is, and we love this area, especially the rural part of Toano and previously Croaker.

After graduation, I stayed in town and my wife and I have now started our family and grown roots here with our 15 month old son, Levi. We lived in Ware Creek Manor from 2011 to 2016, and we now live in Toano Woods, and have to get off of exit 231 each day to head towards Richmond Road. This commute is already getting longer and longer with the increased population from Candle Station Townes development and I fear would be multiplied exponentially with more traffic from Oakland Point.

I am VERY concerned that this development will make this intersection not only worse, but more dangerous. On my morning commute I frequently see people pushing the limits to beat the light in an effort to get to work on time. The added traffic will only make this worse.

I've attached a few photos from our commute last Friday, where it took almost 12 minutes to get from the Rochambeau stoplight/Croaker Library to Richmond road. There was no accident on 64 to cause this backup, and we've encountered it more frequently in the past few years. (I was not nearly as frustrated as my wife was since Levi was crying and screaming in the back seat of our van, since I was alone ahead of her in our pickup truck!)

I understand the concern the county has for affordable housing for all of our citizens, but the infrastructure in this area will not accommodate this concentration of additional residents. I've seen the traffic monitors and cars studying the traffic, but those are isolated studies and do not take into account daily traffic variations, let alone summer traffic incidents spilling over from I-64. There must be somewhere else to place Oakland Point.

I'm asking for your help to stop this development. Please help us by opposing this. I plan on being at the November 7th meeting to echo my sentiments once more, and please let me know if I can help voice my opposition in any other constructive way. I know my neighbors share my opinion, but I fear they won't take the time to write to you or the planning board, who I've copied on this email.

Thank you for your time in reading this and your support for our community.



Brad Stewart
3633 Marlbrook Drive
Toano, VA 23168
757-667-1560

Paul Holt

Subject: FW: Oakland Pointe Apartment Complex

From: Brent Forys <bforys@vt.edu>

Date: October 31, 2018 at 12:06:57 PM EDT

To: <planning@jamescitycountyva.gov>, <sue.sadler@jamescitycountyva.gov>

Subject: Oakland Pointe Apartment Complex

Greetings,

I would like to voice my disapproval of the proposed Oakland Pointe Apartment Complex. The two primary reasons are as follows:

- Financial burden to the county of over \$460K. Any proposed developments should be at worst, close to revenue neutral and ideally a net gain for the county. The additional taxpayer funds required to support this complex could potentially be used as a pretext to raise taxes in the county. This would be unacceptable in my opinion.
- Public Safety would be negatively affected with the additional traffic at the intersection leading into the complex from Route 60. This is a dangerous intersection for that volume of traffic. I do not think a traffic light would be appropriate as it would restrict the flow of traffic unnecessarily. It would make more sense if the entrance to the complex was from the area behind the Food Lion where recent townhouses have already been constructed. This would provide a safer, more orderly crossing of Rt 60.

Another objection is that a height waiver should not be granted when no similar structures are in the vicinity. The structure would look out of place in the context of the surrounding area.

Thank you for your consideration.

Regards,

Brent Forys

Jose Ribeiro

From: Adrienne <adrienne-gary@cox.net>
Sent: Friday, October 26, 2018 7:45 PM
To: Jose Ribeiro
Subject: Oakland Pointe

Dear Mr. Jose Ribeiro:

Please do not recommend that the Oakland Pointe apartment complex receive rezoning. I have looked through the developer's documents, and I do not see a significant difference in their plans since the last submission. They have created a new entrance on Oakland drive, but have not reduced the number of apartments (126 units) nor vehicular trips (887).

The location of the complex is a major concern, primarily due to the hazardous Route 60 and Oakland intersections. The developer's new plan has removed continuous U-Turns but crossing the median is the more significant hazard. The intersection cannot withstand more than 1000 turning vehicles per day, even with the proposed tapers.

Currently, residents from the Oakland Neighborhood find the intersections unsafe, and four times as many trips per day will certainly increase traffic accidents. In addition, traffic from growth farther out in the county will only increase the traffic burden over time. The intersection needs improvement now, even without additional traffic.

Route 60 is a major corridor for commuters. During rush hour, the cars speed and hug the left lane making it very difficult to enter or exit Oakland Drive. My husband and I have been lucky not to have an accident, but we have had a few close ones.

The huge increase in vehicle trips across Route make the intersection unacceptable. The amount of turns through the Route 60 median should be enough to deny the application for rezoning.

Sincerely,

Adrienne Frank

114 Crescent Drive

Williamsburg, VA 23188

Jose Ribeiro

From: John Risinger
Sent: Thursday, October 25, 2018 8:22 AM
To: Jose Ribeiro
Subject: FW: NO!!!!!!!!!!

From: watersedge@cox.net
Sent: Wednesday, October 24, 2018 9:06 PM
To: Planning
Subject: NO!!!!!!!!!!

No to the Oakland apartment complex I have live here all my life and have seen what apt. complexes can do and end up as. On Centerville road the county ended up tearing down due to drug infested apartments and then taking taxpayers monies to rebuilding it.. I don't think we are any better than anyone else but look back and do some research and reasoning in this situation.

No !!!!!!!

Jose Ribeiro

From: John Risinger
Sent: Tuesday, October 23, 2018 8:13 AM
To: Jose Ribeiro
Subject: FW: No to Oakland Pointe

From: Libby Tabor
Sent: Monday, October 22, 2018 6:23 PM
To: Sue Sadler ; Ruth Larson ; Jim Icenhour ; john.mcglennon@jamescitycounty.gov; mike.hipple@jamescitycounty.gov; Planning
Subject: No to Oakland Pointe

I oppose this housing development. I don't think this is the right property for this. It will increase traffic at an already dangerous intersection. It has the potential to negatively affect an environmentally sensitive area, Yarmouth Creek. I hope you vote no. Thank you.

Libby Tabor

Jose Ribeiro

From: John Risinger
Sent: Tuesday, October 23, 2018 10:40 AM
To: Jose Ribeiro
Subject: FW: Oakland Pointe

From: Lobus, Mike
Sent: Tuesday, October 23, 2018 9:40 AM
To: Planning ; Sue Sadler
Subject: Oakland Pointe

Good morning!

In the end of 1997, my family and I relocated to the area and bought a home in Hunters Creek in little ole Toano Va. We used be able come home at night with little to no traffic. Locals said that seven mile ride to Williamsburg was waaaay too long.

Fast forward to 2018. Just pulling onto Rte. 60 reminds you of being on 64. This small tranquil community is starting to match the Tidewater area. Do we really want that in James City County? Do we really want to see crop lands become apartments? What about that nice community right behind there? Do they deserve to be rewarded with apartments in their front yards? Those are nice homes! It would be different if that field in question would be an extension of that neighborhood with more nice homes.

What about the roads and volume of traffic? I can hear the sirens of police cars and fire trucks more than ever when I'm outside. Rte. 60 can't support 126 unit complex and that side road and intersection will now be an accident and death trap.

Folks, this is a lovely area and a fantastic place to raise a family. Adding an apartment complex full of renters does nothing to improve it. Nothing! Myself and many others are asking you to not allow this to go forward.

Mike Lobus
Area Sales Manager
Schmidt's Baking Company
MLobus@schmidtbaking.com
Cell Phone: 757-817-6215



Jose Ribeiro

From: John Risinger
Sent: Tuesday, October 23, 2018 8:14 AM
To: Jose Ribeiro
Subject: FW: No to Oakland Apartments

From: Maria Paluzsay
Sent: Monday, October 22, 2018 9:41 PM
To: Planning
Subject: No to Oakland Apartments

Dear Planning Commission:

I urge you to vote no to the Oakland Apartments. As a JCC native and a local Realtor for 20+ years, I understand the need for affordable housing. James City has done an excellent job of continuing the situation we have always had, with our labor coming from outside the county. Unfortunately, this apartment complex will not relieve that, as hourly wage workers still won't be able to afford them, and will still come from CC, Surry, and NN. As a rental situation, it does nothing to promote upward mobility or pride of homeownership. Add to that that it requires a height variance - let's leave the tall ugly buildings to Monticello, please - and cannot support the infrastructure it requires.

There is no reason to support these apartments, and that is coming from a Stewart Taylor-styled land rights native. Please vote no.

Sincerely,

Maria R. Paluzsay
128 Shellbank Drive

Maria R. Paluzsay
757-871-4667
Associate Broker
RE/MAX Capital
1166 Jamestown Road
Williamsburg, VA 23185
licensed Realtor in Virginia

Paul Holt

Subject:

FW: VOTE NO

From: James Kennedy <jimkennedy1@me.com>

Date: October 22, 2018 at 2:42:35 PM EDT

To: JCC Board <JCCBoard@jamescitycountyva.gov>

Subject: VOTE NO

VOTE NO ON THE OAKLAND POINTE APARTMENTS...If you keep raising taxes, and increasing spending at the current rate you'll need to raise real estate taxes again in 2 years.....the annual net losses should be an indicator this is not the right project, and the area has traffic issues already.

Jim Kennedy

Stonehouse District

Jose Ribeiro

From: John Risinger
Sent: Monday, October 22, 2018 1:07 PM
To: Jose Ribeiro
Subject: FW: Oakland Pointe Apartments Objection

From: Dawn T
Sent: Monday, October 22, 2018 12:26 PM
To: Planning ; Ruth Larson ; Sue Sadler ; Jim Icenhour ; john.mclennon@jamescitycountyva.gov;
mike.hipple@jamescitycountyva.gov
Subject: Oakland Pointe Apartments Objection

As a James City County tax payer and homeowner in the Villages of Candle Station, I'm writing to express my strong objection to the building of the Oakland Pointe Apartments for the following reasons:

- Traffic congestion at the Rt. 60/Croaker Rd. intersection
- Increased crime
- Decreased property values
- Impact to environment, specifically the Yarmouth Creek watershed
- Increased cost to taxpayers for additional educational support (\$464K annually per county planners.)
- Decreased green space in the upper county

Thank you for your consideration when voting "NO" to this proposed construction.

Dawn Taylor
757-404-0211
7428 Wicks Rd.
Williamsburg VA 23188

Jose Ribeiro

From: John Risinger
Sent: Monday, October 22, 2018 1:58 PM
To: Jose Ribeiro
Subject: FW: Oakland Pointe Apartments

-----Original Message-----

From: amstanley77@gmail.com <amstanley77@gmail.com>
Sent: Monday, October 22, 2018 1:42 PM
To: Planning <planning@jamescitycountyva.gov>; Ruth Larson <Ruth.Larson@jamescitycountyva.gov>; Sue Sadler <Sue.Sadler@jamescitycountyva.gov>; Jim Icenhour <Jim.Icenhour@jamescitycountyva.gov>; john.mclennon@jamescitycountyva.gov; mike.hipple@jamescitycountyva.gov
Subject: Oakland Pointe Apartments

As a James City County tax payer and homeowner in the Villages of Candle Station, I'm writing to express my strong objection to the building of the Oakland Pointe Apartments for the following reasons:

- Traffic congestion at the Rt. 60/Croaker Rd. intersection
- Increased crime
- Decreased property values
- Impact to environment, specifically the Yarmouth Creek watershed
- Increased cost to taxpayers for additional educational support (\$464K annually per county planners.)
- Decreased green space in the upper county

Thank you for your consideration when voting "NO" to this proposed construction.
Sent from my iPhone

AnnMarie Stanley
7523 Tealight Way
Williamsburg VA 23188

Paul Holt

Subject:

FW: Traffic Hazards Associated With Oakland Pointe Apartments Development and Zoning Change

From: Ferrell McClain <ferrellmclain@gmail.com>

Date: October 21, 2018 at 1:21:16 PM EDT

To: board@jamescitycountyva.gov

Subject: Traffic Hazards Associated With Oakland Pointe Apartments Development and Zoning Change

Traffic Hazards Associated With Oakland Pointe Apartments Development and Zoning Change

I moved to the Oakland community earlier this year. Having worked in Fairfax County for thirty years, I chose the Norge/Toano because of the rural environment with the advantage of being close to the amenities of Williamsburg. I was not aware of the proposal to rezone two parcels, adjacent to Oakland, of agricultural land to allow for high-density apartments.

I have several significant concerns regarding traffic safety. First of all is the intersection of Oakland Rd and Rt 60. The Oakland neighborhood was developed in the early 80s and the intersection was more capable of handling traffic than it is now. From the stop sign at the end of Oakland Drive at Rt 60,

(1) visibility to the left, the lanes coming from Toano, is reduced due to a hill and dip as well as shadows that shade the road.

(2) To turn from Oakland Drive to go toward Toano, visibility of traffic headed westbound is zero. In fact, one must proceed into the crossover and sneak a peek to the right back toward Norge to determine if there is any traffic coming westbound. And to make matters worse, if a car headed westbound on Rt 60 intends to turn left into the crossover to get into Oakland, that driver has zero visibility of cars coming out of Oakland into the crossover. In the short time I have lived here I have had several close calls just due to this design deficiency.

The households in the proposed apartments will quadruple the volume of traffic exiting Oakland Dr onto Rt 60.

Another deficiency of the crossover is that the distance between eastbound and westbound Rt 60 is only big enough for two cars or one truck or one small truck with trailer in tow.

Any additional cars intending to turn left into Oakland Dr from westbound Rt 60 have to stop in the travel lanes of westbound Rt 60. There is no deceleration turn lane, so they are stuck blocking traffic on RT 60 in front of other vehicles, which are accelerating away from the traffic light at Croaker Rd.

R. Ferrell McLain
122 Crescent Drive
804-580-0307

Paul Holt

Subject: FW: Oakland Pointe apartments

From: Caroline Whiteed <carol.whiteed@gmail.com>

Date: October 19, 2018 at 7:43:19 PM EDT

To: sue.sadler@jamescitycountyva.gov

Subject: Oakland Pointe apartments

My husband and I recently purchased property in Oakland Estates to build our retirement home. We love the rural setting and were so pleased to find a community that suited our needs. We are so disappointed to learn of the proposed apartment complex that will turn beautiful green space into a development that will cause extra traffic and share the only access to this neighborhood.

Please vote NO on this apartment complex to keep the rural atmosphere of this portion of James City County.

Thank you.

Caroline Whiteed

Jose Ribeiro

From: John Risinger
Sent: Thursday, October 18, 2018 12:41 PM
To: Jose Ribeiro
Subject: FW: Please vote no:

-----Original Message-----

From: Karen Toone Stemmann <ktstemann@aol.com>
Sent: Thursday, October 18, 2018 11:31 AM
To: Planning <planning@jamescitycountyva.gov>
Subject: Please vote no:

No on Oakland Point development. Thank you.

Sent from my iPhone

Jose Ribeiro

From: John Risinger
Sent: Thursday, October 18, 2018 12:41 PM
To: Jose Ribeiro
Subject: FW: Please Vote NO on the Oakland Pointe complex

-----Original Message-----

From: k.i.beaumont@cox.net <k.i.beaumont@cox.net>
Sent: Thursday, October 18, 2018 10:35 AM
To: Planning <planning@jamescitycountyva.gov>; Sue Sadler <Sue.Sadler@jamescitycountyva.gov>
Subject: Please Vote NO on the Oakland Pointe complex

This area has traffic issues already and this would exacerbate it. There are often bicyclist riding in marathons in the summer the police have to patrol the intersection. Just this simple thing backs up traffic all the way into Toano. Now you want to add another left turn across the median?

Even without something like that or traffic stopped on the interstate the traffic is very heavy. I moved into a rural area, I pay taxes here because I wanted a rural community. You keep adding more people and that brings with it urban issues. Please use common sense a vote no on this.

Unless destroying the rural beauty of the area is what your going for.

Jose Ribeiro

From: John Risinger
Sent: Thursday, October 18, 2018 8:13 AM
To: Jose Ribeiro
Subject: FW: please vote NO on Oakland Pointe proposal

From: Lynne Groeger
Sent: Wednesday, October 17, 2018 5:44 PM
To: Planning
Subject: please vote NO on Oakland Pointe proposal

Dear Planning Commission Members,

I am opposed to the proposal to build a 126 unit apartment complex on Richmond Road near Croaker Road.

County planners say it will generate 887 car trips per day in and out of the complex, increasing the traffic volume at the Croaker and Route 60 intersection. Each trip will require crossing the Route 60 median onto Oakland Drive, a highly dangerous intersection due to fast-moving cars and poor visibility. I am very concerned about the traffic impact and the safety of drivers in the area.

The proposed cost to taxpayers is estimated at \$464,000+ annually. This is just one of several proposals (the building near TK Antiquities on Jamestown Road is another) that will increase our tax burden.

This proposed development will also decrease green space while creating environmental problems. Oakland Farm property has an earthen dam that drains into the environmentally sensitive Yarmouth Creek. Construction on the site and continual run-off will adversely impact this watershed.

I understand that Williamsburg/James City County needs low to moderate income housing but this is not a good location at all for it. In addition to the traffic safety concerns, it is too far from the major employers of lower paying jobs such as the hotel area, Colonial Williamsburg, and the College of William and Mary, whose employees may depend on public transit. It could take an hour or more by bus to get to those jobs.

I sincerely hope you will take these concerns into consideration.

Thank you for your attention.

Lynne Groeger

ITEM SUMMARY

DATE: 12/5/2018

TO: The Planning Commission

FROM: Louis Pancotti, Senior Zoning Officer

SUBJECT: Case No. ORD18-0007. Consideration of a Zoning Ordinance Amendment to Authorize the Board of Zoning Appeals to Grant a Reasonable Modification in Accordance with the Americans with Disabilities Act or State and Federal Fair Housing Laws, as Applicable

ATTACHMENTS:

	Description	Type
▣	Memorandum	Cover Memo
▣	Draft Ordinance	Ordinance
▣	2018 General Assembly Session - HB 796	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/28/2018 - 8:23 AM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 8:23 AM
Publication Management	Daniel, Martha	Approved	11/28/2018 - 8:59 AM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 1:01 PM

MEMORANDUM

DATE: December 5, 2018

TO: The Planning Commission

FROM: Louis Pancotti, Senior Zoning Officer

SUBJECT: Case No. ORD18-0007. Consideration of a Zoning Ordinance Amendment to Authorize the Board of Zoning Appeals to Grant a Reasonable Modification in Accordance with the Americans with Disabilities Act or State and Federal Fair Housing Laws, as Applicable

Overview

During the 2018 session of the General Assembly, amendments were made to Section 15.2-2309 of the Code of Virginia. The amendment provides authority to the Board of Zoning Appeals (BZA) to alleviate a hardship by granting a reasonable modification to a property or improvement thereon requested by, or on behalf of, a person with a disability in accordance with the Americans with Disabilities Act or state and federal fair housing laws, as applicable.

Unlike rezonings and Special Use Permits, a consideration of applications for variances is reviewed by the BZA instead of the Planning Commission and Board of Supervisors. The BZA is composed of five County residents appointed by the Circuit Court after endorsement by the Board of Supervisors. The Code of Virginia empowers the BZA to hear and decide appeals of determinations made by the Zoning Administrator and gives them the ability to grant a variance.

A variance is permission to depart from the literal requirements of a Zoning Ordinance, as they relate to height, area and size of a structure. The Code of Virginia further provides criteria that must be met in order for the BZA to grant a variance, and since it is a quasi-judicial body, the scope of its approvals must strictly follow those criteria.

Section 24-650 of the Zoning Ordinance currently establishes the criteria that the BZA must find in order to grant a variance. Since the General Assembly often reviews and modifies BZA powers and duties, staff recommends that Section 24-650 be modified to simply adopt the powers granted by the Code of Virginia by referencing Section 15.2-2309 of the Code of Virginia. This change would alleviate future amendments as the BZA is only empowered to act in accordance with the criteria prescribed by statute. The draft Ordinance language showing this change is included as Attachment No. 1.

Recommendation

At its November 8, 2018 meeting, the Policy Committee reviewed the draft Ordinance language and voted 4-0 to approve the amendments. At its November 7, 2018 meeting, the Planning Commission adopted an initiating resolution.

Staff recommends that the Planning Commission recommend approval of the attached Zoning Ordinance amendment to the Board of Supervisors.

LP/nb
ORD18-07FHousLaws-mem

Attachments:

1. Draft Ordinance
2. 2018 General Assembly Session - HB 796

ORDINANCE NO. _____

AN ORDINANCE TO AMEND AND REORDAIN CHAPTER 24, ZONING OF THE CODE OF JAMES CITY COUNTY BY AMENDING ARTICLE VIII, APPEALS, DIVISION 2, BOARD OF ZONING APPEALS, SECTION 24-650, POWERS AND DUTIES; GRANTING OF VARIANCES, BY AMENDING SUBSECTIONS 24-650(2)(a.) AND 24-650(2)(b.) TO ESTABLISH THAT VARIANCES WILL ONLY BE GRANTED IN ACCORDANCE WITH THE REQUIREMENTS OF VIRGINIA CODE § 15.2-2309.

BE IT ORDAINED by the Board of Supervisors of the County of James City Virginia, that Chapter 24, Zoning, is hereby amended and reordained by amending Article VIII, Appeals, Division 2, Board of Zoning Appeals, Section 24-650, Powers and duties; granting of variances.

Chapter 24. Zoning

Article VIII. Appeals

Section 24-650. Powers and duties; granting of variances.

The board of zoning appeals shall have the following powers and duties:

- (1) To hear and decide appeals from any order, requirement, decision or determination made by an administrative officer in the administration or enforcement of this chapter or of any ordinance adopted pursuant thereto.
- (2) To grant upon appeal or original application in specific cases a variance as defined in Va. Code § 15.2-2201 and section 24-2 of the County Code; provided that the burden of proof shall be on the applicant for a variance to prove by a preponderance of the evidence that his application meets the defined standard for a variance and the following criteria:
 - a. A variance shall be granted ~~if the evidence shows that the strict application of the terms of the ordinance would unreasonably restrict the utilization of the property or that the granting of a variance would alleviate a hardship due to a physical condition relating to the property or improvements thereon at the time of the effective date of the ordinance, and:~~ *only in accordance with Va. Code § 15.2-2309.*
 1. ~~The property interest for which the variance is being requested was acquired in good faith and any hardship was not created by the applicant for the variance;~~
 2. ~~The granting of the variance will not be of substantial detriment to adjacent property and nearby properties in the proximity of that geographical area;~~
 3. ~~The condition or situation of the property concerned is not of so general or recurring a nature as to make reasonably practicable the formulation of a general regulation to be adopted as an amendment to the ordinance;~~
 4. ~~The granting of the variance does not result in a use that is not otherwise permitted on such property or a change in the zoning classification of the property;~~

- ~~5. The relief or remedy sought by the variance application is not available through the process for modification of a zoning ordinance pursuant to section 24-644 of the County Code at the time of the filing of the variance application.~~
- b. No such variance shall be considered except after notice and hearing as required by ~~section 15.2-2204 of the Code of Virginia~~ *Va. Code § 15.2-2204*.
- c. In granting a variance the board may impose such conditions regarding the location, character and other features of the proposed structure for use as it may deem necessary in the public interest and may require a guarantee or bond to ensure that the conditions imposed are being and will continue to be complied with.
- (3) To hear and decide appeals from the decision of the zoning administrator.
- (4) To hear and decide applications for interpretation of the district map where there is any uncertainty as to the location of a district boundary. After notice to the owners of the property affected by any such question, and after a public hearing with notice as required by Va. Code § 15.2-2204 , the board may interpret the map in such way as to carry out the intent and purpose of this chapter for the particular section or district in question. The board shall not have the power, however, to rezone property or substantially to change the locations of district boundaries as established by ordinance.

VIRGINIA ACTS OF ASSEMBLY -- 2018 SESSION

CHAPTER 757

An Act to amend and reenact §§ 15.2-2283 and 15.2-2309 of the Code of Virginia, relating to zoning; disabilities.

[H 796]

Approved April 4, 2018

Be it enacted by the General Assembly of Virginia:

1. That §§ 15.2-2283 and 15.2-2309 of the Code of Virginia are amended and reenacted as follows:

§ 15.2-2283. Purpose of zoning ordinances.

Zoning ordinances shall be for the general purpose of promoting the health, safety or general welfare of the public and of further accomplishing the objectives of § 15.2-2200. To these ends, such ordinances shall be designed to give reasonable consideration to each of the following purposes, where applicable: (i) to provide for adequate light, air, convenience of access, and safety from fire, flood, impounding structure failure, crime and other dangers; (ii) to reduce or prevent congestion in the public streets; (iii) to facilitate the creation of a convenient, attractive and harmonious community; (iv) to facilitate the provision of adequate police and fire protection, disaster evacuation, civil defense, transportation, water, sewerage, flood protection, schools, parks, forests, playgrounds, recreational facilities, airports and other public requirements; (v) to protect against destruction of or encroachment upon historic areas and working waterfront development areas; (vi) to protect against one or more of the following: overcrowding of land, undue density of population in relation to the community facilities existing or available, obstruction of light and air, danger and congestion in travel and transportation, or loss of life, health, or property from fire, flood, impounding structure failure, panic or other dangers; (vii) to encourage economic development activities that provide desirable employment and enlarge the tax base; (viii) to provide for the preservation of agricultural and forestal lands and other lands of significance for the protection of the natural environment; (ix) to protect approach slopes and other safety areas of licensed airports, including United States government and military air facilities; (x) to promote the creation and preservation of affordable housing suitable for meeting the current and future needs of the locality as well as a reasonable proportion of the current and future needs of the planning district within which the locality is situated; ~~and~~ (xi) to provide reasonable protection against encroachment upon military bases, military installations, and military airports and their adjacent safety areas, excluding armories operated by the Virginia National Guard; *and (xii) to provide reasonable modifications in accordance with the Americans with Disabilities Act of 1990 (42 U.S.C. § 12131 et seq.) or state and federal fair housing laws, as applicable.* Such ordinance may also include reasonable provisions, not inconsistent with applicable state water quality standards, to protect surface water and ground water as defined in § 62.1-255.

§ 15.2-2309. Powers and duties of boards of zoning appeals.

Boards of zoning appeals shall have the following powers and duties:

1. To hear and decide appeals from any order, requirement, decision, or determination made by an administrative officer in the administration or enforcement of this article or of any ordinance adopted pursuant thereto. The decision on such appeal shall be based on the board's judgment of whether the administrative officer was correct. The determination of the administrative officer shall be presumed to be correct. At a hearing on an appeal, the administrative officer shall explain the basis for his determination after which the appellant has the burden of proof to rebut such presumption of correctness by a preponderance of the evidence. The board shall consider any applicable ordinances, laws, and regulations in making its decision. For purposes of this section, determination means any order, requirement, decision or determination made by an administrative officer. Any appeal of a determination to the board shall be in compliance with this section, notwithstanding any other provision of law, general or special.

2. Notwithstanding any other provision of law, general or special, to grant upon appeal or original application in specific cases a variance as defined in § 15.2-2201, provided that the burden of proof shall be on the applicant for a variance to prove by a preponderance of the evidence that his application meets the standard for a variance as defined in § 15.2-2201 and the criteria set out in this section.

Notwithstanding any other provision of law, general or special, a variance shall be granted if the evidence shows that the strict application of the terms of the ordinance would unreasonably restrict the utilization of the property or that the granting of the variance would alleviate a hardship due to a physical condition relating to the property or improvements thereon at the time of the effective date of the ordinance, *or alleviate a hardship by granting a reasonable modification to a property or improvements thereon requested by, or on behalf of, a person with a disability*, and (i) the property interest for which the variance is being requested was acquired in good faith and any hardship was not

created by the applicant for the variance; (ii) the granting of the variance will not be of substantial detriment to adjacent property and nearby properties in the proximity of that geographical area; (iii) the condition or situation of the property concerned is not of so general or recurring a nature as to make reasonably practicable the formulation of a general regulation to be adopted as an amendment to the ordinance; (iv) the granting of the variance does not result in a use that is not otherwise permitted on such property or a change in the zoning classification of the property; and (v) the relief or remedy sought by the variance application is not available through a special exception process that is authorized in the ordinance pursuant to subdivision 6 of § 15.2-2309 or the process for modification of a zoning ordinance pursuant to subdivision A 4 of § 15.2-2286 at the time of the filing of the variance application. *Any variance granted to provide a reasonable modification to a property or improvements thereon requested by, or on behalf of, a person with a disability may expire when the person benefited by it is no longer in need of the modification to such property or improvements provided by the variance, subject to the provisions of state and federal fair housing laws, or the Americans with Disabilities Act of 1990 (42 U.S.C. § 12131 et seq.), as applicable. If a request for a reasonable modification is made to a locality and is appropriate under the provisions of state and federal fair housing laws, or the Americans with Disabilities Act of 1990 (42 U.S.C. § 12131 et seq.), as applicable, such request shall be granted by the locality unless a variance from the board of zoning appeals under this section is required in order for such request to be granted.*

No variance shall be considered except after notice and hearing as required by § 15.2-2204. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail.

In granting a variance, the board may impose such conditions regarding the location, character, and other features of the proposed structure or use as it may deem necessary in the public interest and may require a guarantee or bond to ensure that the conditions imposed are being and will continue to be complied with. Notwithstanding any other provision of law, general or special, the property upon which a property owner has been granted a variance shall be treated as conforming for all purposes under state law and local ordinance; however, the structure permitted by the variance may not be expanded unless the expansion is within an area of the site or part of the structure for which no variance is required under the ordinance. Where the expansion is proposed within an area of the site or part of the structure for which a variance is required, the approval of an additional variance shall be required.

3. To hear and decide appeals from the decision of the zoning administrator after notice and hearing as provided by § 15.2-2204. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail.

4. To hear and decide applications for interpretation of the district map where there is any uncertainty as to the location of a district boundary. After notice to the owners of the property affected by the question, and after public hearing with notice as required by § 15.2-2204, the board may interpret the map in such way as to carry out the intent and purpose of the ordinance for the particular section or district in question. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail. The board shall not have the power to change substantially the locations of district boundaries as established by ordinance.

5. No provision of this section shall be construed as granting any board the power to rezone property or to base board decisions on the merits of the purpose and intent of local ordinances duly adopted by the governing body.

6. To hear and decide applications for special exceptions as may be authorized in the ordinance. The board may impose such conditions relating to the use for which a permit is granted as it may deem necessary in the public interest, including limiting the duration of a permit, and may require a guarantee or bond to ensure that the conditions imposed are being and will continue to be complied with.

No special exception may be granted except after notice and hearing as provided by § 15.2-2204. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail.

7. To revoke a special exception previously granted by the board of zoning appeals if the board determines that there has not been compliance with the terms or conditions of the permit. No special exception may be revoked except after notice and hearing as provided by § 15.2-2204. However, when giving any required notice to the owners, their agents or the occupants of abutting property and property immediately across the street or road from the property affected, the board may give such notice by first-class mail rather than by registered or certified mail. If a governing body reserves unto itself the right to issue special exceptions pursuant to § 15.2-2286, and, if the governing body determines that there has not been compliance with the terms and conditions of the permit, then it may also revoke special exceptions in the manner provided by this subdivision.

8. The board by resolution may fix a schedule of regular meetings, and may also fix the day or days to which any meeting shall be continued if the chairman, or vice-chairman if the chairman is unable to act, finds and declares that weather or other conditions are such that it is hazardous for members to attend the meeting. Such finding shall be communicated to the members and the press as promptly as possible. All hearings and other matters previously advertised for such meeting in accordance with § 15.2-2312 shall be conducted at the continued meeting and no further advertisement is required.

ITEM SUMMARY

DATE: 12/5/2018

TO: The Planning Commission

FROM: Jose Ribeiro, Senior Planner II

SUBJECT: Case Nos. ORD-18-0010 and ORD-18-0011. Amendments to Address a Code of Virginia Change Prohibiting Mandatory Conceptual Plans

ATTACHMENTS:

	Description	Type
☐	Staff Memo	Staff Report
☐	Attachment 1. Staff Report for Ordinance Changes in 2016	Backup Material
☐	Attachment 2. Proposed Amended Sections 24-144, 24-147, 24-148	Backup Material
☐	Attachment 3. Proposed Amended Section 19-19	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/28/2018 - 1:57 PM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 1:57 PM
Publication Management	Burcham, Nan	Approved	11/28/2018 - 3:08 PM
Planning Commission	Holt, Paul	Approved	11/28/2018 - 3:09 PM

M E M O R A N D U M

DATE: December 5, 2018

TO: The Planning Commission

FROM: Jose Ribeiro, Senior Planner II

SUBJECT: Case Nos. ORD-18-0010 and ORD-18-0011. Amendments to Address a Code of Virginia Change Prohibiting Mandatory Conceptual Plans

Overview

During the 2018 session of the General Assembly, amendments were made to Section 15.2-2259 of the Code of Virginia. The amended language states: “the local planning commission or other agent shall not delay the official submission of any proposed plat, site plan, or plan of development by requiring presubmission conferences, meetings, or reviews.” After consultation with the County Attorney’s office, it is staff’s understanding that this language prohibiting the requirement of “presubmission reviews” would also prohibit the requirement for conceptual plan submissions.

A process for submission and review of conceptual plan has been a part of the County’s site plan and subdivision Ordinances for many years. For most of that time, the sections covering conceptual plans were worded to encourage their submission, but not require it. However, in 2016 the site plan section of the Zoning Ordinance was amended to require “enhanced conceptual plans” prior to the submission of a site plan when the proposal was for certain types of development that triggered review by the Development Review Committee (DRC) and Planning Commission (PC). This change in 2016 was proposed to help make the plan review process more efficient and predictable, without compromising review integrity. Unfortunately, this language is now out of compliance with the State Code.

In order to comply with the State Code, staff recommends reverting to the language of Sections 24-147 and 24-148 as they existed prior to the amendments made in 2016. This reversion would mean that for the types of development triggering review by the DRC and PC, this review would again occur at the site plan stage unless the applicant(s) voluntarily chose the option of submitting an enhanced conceptual plan for review by the DRC/PC. This process remains a functional and feasible process, if not one that fully achieves the objectives stated in 2016.

In addition, in order to comply with the State Code, staff recommends a change to Section 24-144 of the Zoning Ordinance and Section 19-19 of the Subdivision Ordinance, the sections which contain the provisions for conceptual plans, to delete a sentence that states “Unless required by the planning director, a resubmittal of conceptual plans shall not be necessary.”

At its October 11, 2018 meeting, the Policy Committee reviewed the draft Ordinance language and voted 3-0 to approve the amendments. At its November 7, 2017 meeting, the Planning Commission adopted an initiating resolution.

Draft Ordinance Language

The draft language is included as Attachment Nos. 2 and 3 and accomplishes the following:

- In the Zoning Ordinance, it amends Section 24-144 (Preapplication conference and submission of conceptual plan):

- This revision deletes language referencing the resubmittal of conceptual plans if required by the planning director.
- In the Zoning Ordinance, it amends Section 24-147 (Criteria for review):
 - This revision replaces language referencing required review by the DRC of enhanced conceptual plans with language referencing site plans and reorganizes this section.
- In the Zoning Ordinance, it amends Section 24-148 (Procedure for commission review of enhanced conceptual plans):
 - This revision replaces language referencing enhanced conceptual plans with language referencing site plans and adds language describing the voluntary submittal of enhanced conceptual plans and review procedures by the DRC.
- In the Subdivision Ordinance, it amends Section 19-19 (Preapplication conference and submission of conceptual plan):
 - This revision deletes language referencing the resubmittal of conceptual plans if required by the planning director.

Recommendation

Staff recommends the Planning Commission recommend approval of the attached Subdivision and Zoning Ordinance revisions to the Board of Supervisors.

JR/md
CodeVA-MandCPlan-mem

Attachments:

1. Staff Report for Ordinance Changes in 2016
2. Proposed Amended Sections 24-144, 24-147, 24-148
3. Proposed Amended Section 19-19

MEMORANDUM

DATE: July 26, 2016

TO: The Board of Supervisors

FROM: Roberta Sulouff, Planner

SUBJECT: ZO-0004-2016 and SO-0003-2016. Amendments to the Zoning and Subdivision Ordinances Regarding Development Review Committee Review Criteria and Processes

Over the past several years, much work has been done to ensure a more predictable and flexible plan review process. Staff has worked to incorporate recommendations from the Business Climate Task Force, both through small process changes and through the most recent comprehensive Zoning Ordinance update in 2012. As a result of these changes, the Development Review Committee (DRC) has become more of a strategic body; beyond master plan consistency and other proffered and conditioned reviews, the DRC now primarily serves as an appellate body. Given these shifts in purpose, and with additional direction from the Comprehensive Plan, staff proposed revisiting Zoning and Subdivision Ordinance DRC review triggers at the May 2016 Policy Committee meeting. At this meeting, Policy Committee members considered options for procedural changes and draft ordinance language. Staff used feedback from that meeting to draft the attached materials. Staff believes that the proposed changes further accomplish the goals set during earlier ordinance revisions and continue the trend of making the plan review process more efficient and predictable, without compromising review integrity.

Proposed Revisions

In response to feedback received at the May 12, 2016, Policy Committee meeting, staff has prepared revisions which reflect a streamlined approach to DRC review of site plans and major subdivisions:

- Zoning Ordinance, Article III, Site Plan: Per Section 24-147, Site Plan - Criteria for review, the current ordinance requires DRC review for any plans which meet the following criteria: a non-master planned multi-family development of 10 or more units, a shopping center or a single building or complex exceeding 30,000 square feet (excluding certain industrial uses). Current code also allows applicants to submit an enhanced conceptual plan, which could gain preliminary approval through the DRC and proceed through the review process administratively.

Staff is proposing that the current, full site plan review process for applications fitting the above criteria be replaced with a mandatory enhanced conceptual plan review. This option is designed to allow a less costly way to identify any cost prohibitive or complicated issues in advance of submitting a fully engineered site plan. Review of the conceptual plan by the DRC also allows feedback as early in the process as possible, which will make the full site plan process more efficient and predictable. Enhanced conceptual applications reviewed by the DRC would not have to be reviewed by the DRC at the site plan stage.

- Subdivision Ordinance, Article II, Procedures and Documents to Be Filed: Per Section 19-23 of the Subdivision Ordinance, Procedure for preliminary plan review for major subdivisions, the current code requires DRC review for any major subdivision. This requirement applies regardless of any previous legislative master plan approval. Currently, the Planning Director may waive this requirement for any subdivision proposing fewer than 50 lots.

July 26, 2016

Page 2

In an effort to eliminate a step in the process, staff is proposing to remove language requiring DRC review of major subdivisions. In practice, DRC review of subdivisions under 50 lots is very rare, unless otherwise required by proffer or Special Use Permit conditions. Additionally, State Code mandates that any major subdivision of 50 or more lots must gain preliminary approval via the Planning Commission, with or without DRC review and thus major subdivisions will still be reviewed by the Commission.

Recommendation

On June 1, 2016, the Planning Commission voted to recommend approval of the proposed amendments by a vote of 7-0. Staff recommends the James City County Board of Supervisors approve these amendments to County Code Sections 24-147, 24-148 and 19-23.

RS/nb

ZO-04-16 SO-03-16Amend-mem

Attachments:

1. Zoning Ordinance (strikethrough version)
2. Zoning Ordinance (clean version)
3. Subdivision Ordinance (strikethrough version)
4. Subdivision Ordinance (clean version)
5. Approved minutes from the June 1, 2016, Planning Commission meeting

ORDINANCE NO. _____

AN ORDINANCE TO AMEND AND REORDAIN CHAPTER 24, ZONING, OF THE CODE OF THE COUNTY OF JAMES CITY, VIRGINIA, BY AMENDING ARTICLE III, SITE PLAN; SECTION 24-147, CRITERIA FOR REVIEW, AND SECTION 24-148, PROCEDURE FOR COMMISSION REVIEW OF SITE PLANS.

BE IT ORDAINED by the Board of Supervisors of the County of James City, Virginia, that Chapter 24, Zoning, is hereby amended and reordained by amending Article III, Site Plan; Section 24-147, Criteria for review, and Section 24-148, Procedure for commission review of site plans.

Chapter 24. Zoning

Article III. Site Plan

Sec. 24-147. Criteria for review.

(a) The development review committee (DRC) and the commission, or the commission's designee(s), shall consider ~~site plans~~ *applications submitted for review* if any of the following conditions are present:

(1) The ~~site plan~~ *application* proposes:

- a. a multi-family development of ten or more units which is not subject to a binding legislatively approved master plan; or
- b. a shopping center; or
- c. a single building or group of buildings which contain a total floor area that exceeds 30,000 square feet which are not predominantly to be used as a warehouse, distribution center, office, or for other industrial or manufacturing purpose. The term predominantly shall be defined as 85 percent of the total square feet of the building or more.

(2) ~~There are unresolved conflicts between the applicant, adjacent property owners and/or any departmental reviewing agency. Unresolved conflicts shall be defined as disagreements in the interpretation or application of ordinance requirements which have a material impact on the proposed development's off-site impacts and/or density, as determined by the planning director. Applications that meet any of the conditions listed above shall be reviewed by the DRC and the commission as an enhanced conceptual plan in accordance with section 24-148 prior to any application for site plan approval. However, the commission's designee may consider and review, pursuant to section 24-149, any plan that is determined by the economic development director to create or significantly expand a use which contributes to the achievement of the economic development goals of the Comprehensive Plan.~~

(b) ~~Site plans which meet any of the conditions listed above shall generally be reviewed by the DRC and the commission in accordance with section 24-148. However, the commission's designee may consider and review, pursuant to section 24-149, any site plan which the economic development director determines to create or significantly expand a use which contributes to the achievement of the economic development goals of the Comprehensive Plan. The DRC and the commission shall consider site plans if there are unresolved conflicts between the applicant, adjacent property owners and/or any departmental reviewing agency. Unresolved conflicts shall be defined as disagreements in the interpretation or application of ordinance requirements which have a material impact on the proposed development's off-site impacts and/or density, as determined by the planning director.~~

(c) If site plans do not qualify for review by the commission or its designees under this section, they may be considered and reviewed administratively by the zoning administrator under the terms of section 24-150.

Sec. 24-148. - Procedure for commission review of ~~site plans~~ *enhanced conceptual plans*.

(a) The applicant shall submit to the planning director, or his designee, ten copies of the ~~site plan~~ *enhanced conceptual plan* and pay the appropriate application fee. Plans shall first be reviewed by the DRC who shall forward a recommendation to the commission. In order for ~~site~~ plans to be considered by the DRC at one of its regularly scheduled monthly meetings, such ~~site~~ plans shall be received by the planning division at least five weeks in advance of the respective DRC meeting.

(b) Upon meeting all submittal requirements *of section 24-148(e)*, the ~~site~~ *enhanced conceptual* plan shall be reviewed by the planning division and other agencies of the county, state, and/or federal governments as deemed necessary by the planning director. The planning division shall prepare a composite report on the proposed site plan which shall include review comments and requirements by other agencies and determine consistency with all applicable zoning ordinance requirements, policies, and regulations. The DRC shall consider the composite report and the ~~site~~ *enhanced conceptual plan* and make a recommendation to the commission.

(c) The commission shall consider the recommendation of the DRC and either grant preliminary approval, defer or disapprove the ~~site~~ *enhanced conceptual plan*. The ~~site~~ plan may be granted preliminary approval with conditions that must be satisfied prior to final approval by the zoning administrator. The planning division shall notify the applicant of the commission's findings within ten working days of the commission meeting. Such notice shall state any actions, changes, conditions, or additional information that shall be required to secure preliminary or final approval. If disapproved, the notice shall state the specific reasons for disapproval.

(d) ~~The applicant may, at their discretion, submit an enhanced conceptual plan for review by the planning division, other agencies of the county, state and/or federal government as deemed necessary by the planning director in advance of preparation of fully engineered plans. The planning division shall prepare a composite report on the proposed plans which shall include review comments and requirements by other agencies and determine consistency with all applicable zoning ordinance requirements, policies and regulations. The composite report and the enhanced conceptual plan shall be considered by the DRC at one of its regularly scheduled monthly meetings to make its recommendation to the commission. The commission shall consider the recommendation of the DRC and either grant preliminary approval, defer or disapprove the plan. The plan may be granted preliminary approval with conditions that must be satisfied prior to final approval by the zoning administrator. The planning division shall notify the applicant of the commission's findings within ten working days of the commission meeting. Such notice shall state any actions, changes, conditions or additional information that shall be required to secure preliminary or final approval. If disapproved, such notice shall state the specific reasons for disapproval. Plans granted preliminary approval by the commission at the conceptual stage can move forward into full design for further~~ *administrative* review ~~administratively~~ by the planning division and other agencies as deemed necessary by the planning director. ~~In order for enhanced conceptual plans to be considered by the DRC at one of its regularly scheduled monthly meetings, such plans shall be received by the planning division at least five weeks in advance of the respective DRC meeting.~~

(e) The enhanced conceptual plan shall at a minimum contain:

- (1) Project title, title block, legends, north arrow and graphic scale labeled;
- (2) Vicinity and location maps and site address;
- (3) Site owner and developer information;
- (4) County tax parcel number, site boundary and parcel size information;
- (5) Setbacks (Building, Landscape) and Buffers (RPA, Community Character Corridor);
- (6) Adjacent property information;

- (7) Existing site features such as property lines, roads, buildings, driveways, and utilities;
- (8) Existing topography using county base mapping (five (5) foot contours) or other mapping sources or surveys. Spot elevations shall be shown at topographical low or high points;
- (9) Existing and proposed rights-of-way and easements;
- (10) Layout of proposed improvements showing design placement, circulation, parking spaces, handicapped parking spaces, loading spaces, parking islands, recreation areas, and streetlights;
- (11) Landscape plan identifying general location of plantings and buffer/perimeter screening plantings;
- (12) Narrative indicating the purpose of the project and compliance with any proffer and master plan requirements;
- (13) Location and size of existing water mains and proposed connection point(s);
- (14) Proposed location of water meters, waterlines, and fire hydrants;
- (15) Proposed building usage and number of floors;
- (16) Preliminary water demands based on proposed use and required fire flow;
- (17) Fire flow test performed to determine adequate capacity;
- (18) Location of all existing or proposed private wells;
- (19) Location and size of existing sanitary sewer lines and manholes and proposed connection point(s);
- (20) Proposed sanitary sewer, pump or lift stations, and grinder pump(s);
- (21) Verification of sewer flow acceptance;
- (22) Location of primary and secondary onsite disposal system;
- (23) Narrative description of project, including usage and size to determine appropriate ITE code(s) and compliance with Chapter 527 Traffic Impact Analysis Regulations and Access Management Regulations;
- (24) Proposed entrance location(s) and distance to nearest existing intersections, crossovers, and/or adjacent intersections;
- (25) Proposed build out year and phasing information;
- (26) Typical road sections including street widths, curb type, shoulders, sidewalks, bike lanes, planting strips, right-of-way lines, proposed utility locations, centerline curve data;
- (27) Traffic Impact Study for projects that propose 100 or more lots, uses that generate in excess of 100 peak hour trips;
- (28) Proposed design features or elements for which waivers will be sought;
- (29) Project site area, disturbed area, impervious cover and percent impervious estimates;
- (30) Applicable FEMA FIRM panel information and zone designations;
- (31) County watershed, subwatershed and catchment;
- (32) Identify if the site is subject to the county's Special Stormwater Criteria (SSC);
- (33) Overall soils map for the site along with general soil descriptions for each soil mapping unit present on the site, including preliminary locations of highly erodible, hydric, permeable and hydrologic soil groups A and B soils;
- (34) Full environmental inventory consistent with section 23-10(2) of the county's Chesapeake Bay Preservation ordinance containing a perennial stream assessment, delineated wetlands confirmed by applicable federal and/or state agencies, limits of work, a table listing all inventory components, whether they are present on the site and quantified impacts, and offsite work areas, if proposed;
- (35) Demonstration that the project complies with section 23-9(b)(1), (2) and (3) of the county's Chesapeake Bay Preservation ordinance to limit land disturbing, preserve existing vegetation and minimize impervious cover consistent with the proposed land use or permitted development;
- (36) Locations of existing and proposed stormwater management/BMP facilities, with county BMP ID code numbers and labels to show intended BMP type in accordance with designations in the county BMP manual;

- (37) Identify location of areas intended to be dedicated in conservation easement for natural open space, BMP worksheet or stormwater compliance purposes;
- (38) Demonstration that the project complies with the county's 10-point system for water quality and stream channel protection, and minimum standard number 19 of the Virginia Erosion and Sediment Control regulations by provision of a worksheet for BMP point system;
- (39) Demonstration that storm drainage systems and BMP outfalls must outlet into adequate, defined natural or man-made receiving channels;
- (40) Identify preliminary location of primary proposed stormwater drainage system conveyances such as inlets, storm drainage piping, culverts and stormwater conveyance channels for primary systems;
- (41) List of all known federal, state and local permits that are required for the project as well as any exceptions, variances or waivers that must be obtained or pursued.

ATTEST:

Bryan J. Hill
Clerk to the Board

Michael J. Hipple
Chairman, Board of Supervisors

	VOTES		
	<u>AYE</u>	<u>NAY</u>	<u>ABSTAIN</u>
MCGLENNON	_____	_____	_____
LARSON	_____	_____	_____
ONIZUK	_____	_____	_____
SADLER	_____	_____	_____
HIPPLE	_____	_____	_____

Adopted by the Board of Supervisors of James City County, Virginia, this 26th day of July, 2016.

Ch24-ZoningArtII-ord

ORDINANCE NO. _____

AN ORDINANCE TO AMEND AND REORDAIN CHAPTER 24, ZONING, OF THE CODE OF THE COUNTY OF JAMES CITY, VIRGINIA, BY AMENDING ARTICLE III, SITE PLAN, BY AMENDING SECTION 24-144, PREAPPLICATION CONFERENCE AND SUBMISSION OF CONCEPTUAL PLAN; AND SECTION 24-147, CRITERIA FOR REVIEW; AND BY AMENDING AND RENAMING SECTION 24-148, PROCEDURE FOR COMMISSION REVIEW OF ENHANCED CONCEPTUAL PLANS WITH NEW NAME PROCEDURE FOR COMMISSION REVIEW OF SITE PLANS AND ENHANCED CONCEPTUAL PLANS.

BE IT ORDAINED by the Board of Supervisors of the County of James City, Virginia, that Chapter 24, Zoning, is hereby amended and reordained by amending Article III, Site Plan, Section 24-144, Preapplication conference and submission of conceptual plan; Section 24-147, Criteria for review; and Section 24-148, Procedure for commission review of site plans and enhanced conceptual plans.

Chapter 24. Zoning

Article III. Site Plan

Sec. 24-144. Preapplication conference and submission of conceptual plan.

- (a) Before filing an application for approval of a site development plan, the applicant is advised to confer with the planning director or his designee, and such other agencies of the county, state and/or federal governments as the planning director suggests to be advisable concerning the general proposal.
- (b) Prior to the submission of a site plan, the applicant or his representative is advised to submit three copies of a conceptual plan for review by the planning director, or his designee; such action does not constitute the submission of a site plan and is not to be construed as an application for approval in computing time limitations in relation thereto. The planning division shall transmit comments to the applicant within 21 calendar days of submittal of a conceptual plan which meets all applicable submittal criteria.
- (c) The conceptual plan may be granted conceptual plan approval with conditions that should be satisfied prior to final site plan approval by the zoning administrator; such action does not constitute site plan approval or preliminary approval. ~~Unless required by the planning director, a resubmittal of conceptual plans shall not be necessary.~~
- (d) Conceptual plans shall, at a minimum, identify or contain:
 - (1) Project title, title block, legend, north arrow and graphic scale, zoning and zoning of surrounding properties;
 - (2) Vicinity and location maps and site address;
 - (3) County tax parcel identification number, site boundary, and parcel size information;

- (4) Building locations and orientation, location of buildings on adjacent properties, building and landscape setbacks, buffers such as those associated with Resource Protection Areas (RPA) and CCC (Community Character Corridors);
 - (5) Entrances/exits/access to the site (vehicular, pedestrian, greenway, etc.);
 - (6) Greenway connections (on-site and those adjacent to the subject property);
 - (7) Narrative description of the proposed use of site;
 - (8) Location of stormwater management facilities;
 - (9) Recorded easements (conservation, utility, rights-of-way, etc.);
 - (10) Unique natural/visual features (viewsheds, water features, wetlands, etc.);
 - (11) Unique natural/visual features to be preserved (specimen trees, known archaeological sites, etc.);
 - (12) List of currently binding proffers or SUP conditions;
 - (13) Location of entry signs; and
 - (14) Existing topography using county base mapping (two (2) foot contour or greater with the prior approval of the Engineering and Resource Protection Director) or other mapping sources or resources.
- (e) If the planning director determines that one or more of the above submittal requirements is not applicable to the proposed project, the planning director may waive those requirements.

Sec. 24-147. Criteria for review.

- (a) The development review committee (DRC) and the commission, or the commission's designee(s), shall consider ~~applications submitted for review~~ *site plans* if any of the following conditions are present:
 - (1) The ~~application~~ *site plan* proposes:
 - a. A multi-family development of ten or more units which is not subject to a binding legislatively approved master plan; or
 - b. A shopping center; or
 - c. A single building or group of buildings which contain a total floor area that exceeds 30,000 square feet which are not predominantly to be used as a warehouse, distribution center, office, or for other industrial or manufacturing purpose. The term predominantly shall be defined as 85 percent of the total square feet of the building or more.
 - (2) ~~Applications that meet any of the conditions listed above shall be reviewed by the DRC and the commission as an enhanced conceptual plan in accordance with section 24-148 prior to any application for site plan approval. However, the commission's designee may consider and review, pursuant to section 24-149, any plan that is determined by the economic development director to create or significantly expand a use which contributes to the achievement of the economic development goals of the Comprehensive Plan. There are unresolved conflicts between the applicant, adjacent property owners and/or any departmental reviewing agency. Unresolved conflicts shall be defined as disagreements in the interpretation or application of ordinance requirements which have a material impact on the proposed development's off-site impacts and/or density, as determined by the planning director.~~

- (b) ~~The DRC and the commission shall consider site plans if there are unresolved conflicts between the applicant, adjacent property owners and/or any departmental reviewing agency. Unresolved conflicts shall be defined as disagreements in the interpretation or application of ordinance requirements which have a material impact on the proposed development's off site impacts and/or density, as determined by the planning director. Site plans that meet any of the conditions listed above shall generally be reviewed by the DRC and the commission in accordance with section 24-148; however, the commission's designee may consider and review, pursuant to section 24-149, any site plan on behalf of the commission that the economic development director determines to create or significantly expand a use that contributes to the achievement of the economic development goals of the Comprehensive Plan.~~
- (c) If site plans do not qualify for review by the commission or its designees under this section, they may be considered and reviewed administratively by the zoning administrator under the terms of section 24-150.

Sec. 24-148. Procedure for commission review of *site plans and* enhanced conceptual plans.

- (a) The applicant shall submit to the planning director, or his designee, ten copies of the ~~enhanced conceptual plan~~ *site plan* and pay the appropriate application fee. Plans shall first be reviewed by the DRC who shall forward a recommendation to the commission. In order for plans to be considered by the DRC at one of its regularly scheduled monthly meetings, such plans shall be received by the planning division at least five weeks in advance of the respective DRC meeting.
- (b) Upon meeting all submittal requirements ~~of section 24-148(e), the enhanced conceptual plan~~ *site plan* shall be reviewed by the planning division and other agencies of the county, state, and/or federal governments as deemed necessary by the planning director. The planning division shall prepare a composite report on the proposed site plan which shall include review comments and requirements by other agencies and determine consistency with all applicable zoning ordinance requirements, policies, and regulations. The DRC shall consider the composite report and the ~~enhanced conceptual plan~~ *site plan* and make a recommendation to the commission.
- (c) The commission shall consider the recommendation of the DRC and either grant preliminary approval, defer or disapprove the ~~enhanced conceptual plan~~ *site plan*. The *site plan* may be granted preliminary approval with conditions that must be satisfied prior to final approval by the zoning administrator. The planning division shall notify the applicant of the commission's findings within ten working days of the commission meeting. Such notice shall state any actions, changes, conditions, or additional information that shall be required to secure preliminary or final approval. If disapproved, the notice shall state the specific reasons for disapproval.
- (d) *The applicant may, at their discretion, submit an enhanced conceptual plan for review by the planning division, other agencies of the county, state and/or federal government as deemed necessary by the planning director in advance of preparation of fully engineered plans. The planning division shall prepare a composite report on the proposed plans which shall include review comments and requirements by other agencies and determine consistency with all applicable zoning ordinance requirements, policies, and regulations. The composite report and the enhanced conceptual plan shall be considered by the DRC at one of its regularly scheduled monthly meetings to make its recommendation to the commission. The commission shall consider the recommendation of the DRC and either grant preliminary approval, defer, or disapprove the enhanced conceptual plan. The enhanced conceptual plan may be granted preliminary approval with conditions that must be satisfied prior to final approval by the zoning administrator. The planning division shall notify the applicant of the commission's findings within ten working days of the commission meeting. Such*

notice shall state any actions, changes, conditions, or additional information that shall be required to secure preliminary or final approval. If disapproved, such notice shall state the specific reasons for disapproval. Plans granted preliminary approval by the commission at the conceptual stage can move forward into full design for further administrative review *administratively* by the planning division and other agencies as deemed necessary by the planning director. *In order for enhanced conceptual plans to be considered by the DRC at one of its regularly scheduled monthly meetings, such plans shall be received by the planning division at least five weeks in advance of the respective DRC meeting.*

- (e) The enhanced conceptual plan shall at a minimum contain:
- (1) Project title, title block, legends, north arrow and graphic scale labeled;
 - (2) Vicinity and location maps and site address;
 - (3) Site owner and developer information;
 - (4) County tax parcel number, site boundary and parcel size information;
 - (5) Setbacks (Building, Landscape) and Buffers (RPA, Community Character Corridor);
 - (6) Adjacent property information;
 - (7) Existing site features such as property lines, roads, buildings, driveways, and utilities;
 - (8) Existing topography using county base mapping (5-foot contours) or other mapping sources or surveys. Spot elevations shall be shown at topographical low or high points;
 - (9) Existing and proposed rights-of-way and easements;
 - (10) Layout of proposed improvements showing design placement, circulation, parking spaces, handicapped parking spaces, loading spaces, parking islands, recreation areas, and streetlights;
 - (11) Landscape plan identifying general location of plantings and buffer/perimeter screening plantings;
 - (12) Narrative indicating the purpose of the project and compliance with any proffer and master plan requirements;
 - (13) Location and size of existing water mains and proposed connection point(s);
 - (14) Proposed location of water meters, waterlines, and fire hydrants;
 - (15) Proposed building usage and number of floors;
 - (16) Preliminary water demands based on proposed use and required fire flow;
 - (17) Fire flow test performed to determine adequate capacity;
 - (18) Location of all existing or proposed private wells;
 - (19) Location and size of existing sanitary sewer lines and manholes and proposed connection point(s);
 - (20) Proposed sanitary sewer, pump or lift stations, and grinder pump(s);
 - (21) Verification of sewer flow acceptance;
 - (22) Location of primary and secondary onsite disposal system;
 - (23) Narrative description of project, including usage and size to determine appropriate ITE code(s) and compliance with Chapter 527 Traffic Impact Analysis Regulations and Access Management Regulations;

- (24) Proposed entrance location(s) and distance to nearest existing intersections, crossovers, and/or adjacent intersections;
- (25) Proposed build out year and phasing information;
- (26) Typical road sections including street widths, curb type, shoulders, sidewalks, bike lanes, planting strips, right-of-way lines, proposed utility locations, centerline curve data;
- (27) Traffic Impact Study for projects that propose 100 or more lots, uses that generate in excess of 100 peak hour trips;
- (28) Proposed design features or elements for which waivers will be sought;
- (29) Project site area, disturbed area, impervious cover and percent impervious estimates;
- (30) Applicable FEMA FIRM panel information and zone designations;
- (31) County watershed, subwatershed and catchment;
- (32) Identify if the site is subject to the county's Special Stormwater Criteria (SSC);
- (33) Overall soils map for the site along with general soil descriptions for each soil mapping unit present on the site, including preliminary locations of highly erodible, hydric, permeable and hydrologic soil groups A and B soils;
- (34) Full environmental inventory consistent with section 23-10(2) of the county's Chesapeake Bay Preservation ordinance containing a perennial stream assessment, delineated wetlands confirmed by applicable federal and/or state agencies, limits of work, a table listing all inventory components, whether they are present on the site and quantified impacts, and offsite work areas, if proposed;
- (35) Demonstration that the project complies with section 23-9(b)(1), (2) and (3) of the county's Chesapeake Bay Preservation ordinance to limit land disturbing, preserve existing vegetation and minimize impervious cover consistent with the proposed land use or permitted development;
- (36) Locations of existing and proposed stormwater management/BMP facilities, with county BMP ID code numbers and labels to show intended BMP type in accordance with designations in the county BMP manual;
- (37) Identify location of areas intended to be dedicated in conservation easement for natural open space, BMP worksheet or stormwater compliance purposes;
- (38) Demonstration that the project complies with the county's 10-point system for water quality and stream channel protection, and minimum standard number 19 of the Virginia Erosion and Sediment Control regulations by provision of a worksheet for BMP point system;
- (39) Demonstration that storm drainage systems and BMP outfalls must outlet into adequate, defined natural or man-made receiving channels;
- (40) Identify preliminary location of primary proposed stormwater drainage system conveyances such as inlets, storm drainage piping, culverts and stormwater conveyance channels for primary systems;
- (41) List of all known federal, state and local permits that are required for the project as well as any exceptions, variances or waivers that must be obtained or pursued.

ORDINANCE NO. _____

AN ORDINANCE TO AMEND AND REORDAIN CHAPTER 19, SUBDIVISIONS, OF THE CODE OF THE COUNTY OF JAMES CITY, VIRGINIA, BY AMENDING ARTICLE II, PROCEDURES AND DOCUMENTS TO BE FILED, SECTION 19-19, PREAPPLICATION CONFERENCE AND SUBMISSION OF CONCEPTUAL PLAN

BE IT ORDAINED by the Board of Supervisors of the County of James City, Virginia, that Chapter 19, Subdivisions, is hereby amended and reordained by amending Article II, Procedures and Documents to be Filed, Section 19-19, Preapplication conference and submission of conceptual plan.

Chapter 19. Subdivisions

Article II. Procedures and Documents to the Filed.

Sec. 19-19. - Preapplication conference and submission of conceptual plan.

- (a) Before submittal of any preliminary or final subdivision plan, the applicant is advised to confer with the subdivision agent and such other agencies of the state and county as the agent deems advisable concerning the proposed subdivision.
- (b) Prior to the submission of any major subdivision plan, the applicant or his representative is advised to submit three copies of a conceptual plan for review by the planning director, or his designee; such action does not constitute the submission of a preliminary plan and is not to be construed as an application for approval in computing time limitations in relation thereto. The planning division shall transmit comments to the applicant within 21 calendar days of submittal of a conceptual plan which meets all applicable submittal criteria.
- (c) The conceptual plan may be granted conceptual plan approval with conditions that should be satisfied prior to final plan approval by the zoning administrator; such action does not constitute final subdivision approval or preliminary plan approval. ~~Unless required by the planning director, a resubmittal of conceptual plans shall not be necessary.~~
- (d) Conceptual plans shall, at a minimum, identify or contain:
 - (1) property lines, project title, title block, legend, north arrow and graphic scale, zoning and zoning of surrounding properties
 - (2) vicinity and location maps and site address
 - (3) county tax parcel identification number, site boundary and parcel site information
 - (4) building location and orientation, location of buildings on adjacent properties, building and landscape setbacks, buffers such as resource protection areas (RPA) and community character corridors (CCC)
 - (5) entrances/exits/access to the site (vehicular, pedestrian, greenway, etc.) and location of nearby roads
 - (6) greenway connections (on-site and those adjacent to the subject property)
 - (7) narrative description of the proposed use of site

- (8) location of stormwater management facilities
 - (9) recorded easements (conservation, utility, rights-of-way, etc.)
 - (10) unique natural/visual features (viewsheds, water features, wetlands, etc.)
 - (11) unique natural/visual features to be preserved (mature or specimen trees, known archaeological sites, etc.)
 - (12) list of currently binding proffers or special use permit conditions
 - (13) location of entry signs
 - (14) existing topography of site using county base mapping (five foot contour) or other mapping sources or surveys
- (e) If the planning director determines that one or more of the above submittal requirements is not applicable to the proposed project, the planning director may waive those requirements.

ITEM SUMMARY

DATE: 12/5/2018

TO: The Planning Commission

FROM: Paul D. Holt, III, Director of Community Development and Planning

SUBJECT: Planning Director's Report - December 2018

ATTACHMENTS:

	Description	Type
☐	Memorandum	Cover Memo
☐	Spreadsheet Listing New Applications Received	Exhibit

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/27/2018 - 11:01 AM
Planning Commission	Holt, Paul	Approved	11/27/2018 - 11:01 AM
Publication Management	Burcham, Nan	Approved	11/27/2018 - 11:05 AM
Planning Commission	Holt, Paul	Approved	11/27/2018 - 6:06 PM

PLANNING DIRECTOR'S REPORT

December 2018

This report summarizes the status of selected Department of Community Development activities during the past month.

- **Planning**

- **Monthly Case Report:** For a list of all cases received in the last month, please see the attached documents.
- **Board Action Results:**
 - **November 09, 2018**
 - SUP-18-0024. Christ Community Church Multipurpose Building (Approved 5-0)
 - SUP-18-0011 750 Blow Flats Road Borrow Pit Renewal (Approved 5-0)
 - SUP-18-0023 700 Blow Flats Road Borrow Pit Renewal (Approved 5-0)

- **Building Safety and Permits**

- Tom Coghill attended the International Code Council (ICC) Annual Conference in Richmond. While there he participated in numerous seminars on topics related to the development of the various codes. Currently, there are 55 member countries participating or collaborating with ICC. Tom nominated Virginia Building and Code Officials Association (VBCOA) for ICC Chapter of the Year. The VBCOA was selected as the first place winner out of approximately 360 entries at the Annual Awards Ceremony. ICC noted in their award presentation that Virginia leads the nation with a little over a quarter of the total high schools participating in their High School Technical Training Program. Tom wrapped up the week by participating in the code change hearings as a voting member.

- **Community Development**

- Special Event Permits have been issued for the following:
 - 11/24/2018 – Big Turkey Burn 5K and Turkey Trot at Billsburg
 - 12/9/2018 – Sentara Sleighbell 8K
- Tammy Rosario, José Ribeiro and Beth Klapper from Community Development, Sergeant Thomas “TJ” Johnson from the Police Department and Ken Shannon from VDOT met with the Scott’s Pond Homeowner’s Association on November 5 to review the results of a speed study conducted over the summer, hear about the neighborhood’s traffic safety concerns and discuss potential traffic calming measures. Next steps will include a review of the meeting notes and developing a list of viable traffic calming options.

New Cases for December 2018

Case Type	Plan Number	Case Title	Address	Description	Assigned To	District
Variance	BZA-18-0009	5124 West Grace Building Setback Reduction	5124 West GRACE CT	Request for variance to construct a sunroom and deck at a residential property.	Rogerson, John	Powhatan
Conceptual Plan	C-18-0097	115 Constance Lane Detached Accessory Apartments and Tourist Home	115 CONSTANCE AVE	Proposed accessory apartments and tourist home.	Haynes, Tori	Berkeley
	C-18-0098	Veterans Memorial at Veterans Park Draft Master Plan	3793 IRONBOUND RD 3830100010	Draft master plan for the Veterans Memorial at Veterans Park.	Whyte, Scott	Berkeley
	C-18-0099	114 Barlows Run Tourist Home	114 BARLOWS RUN	Proposed Airbnb at 114 Barlows Run.	Leininger, Thomas	Stonehouse
	C-18-0100	James River Commerce Center Drainage Improvements	8925 COLUMBIA DR 5920100045	Proposed drainage improvements at James River Commerce Center.	Ribeiro, Jose	Roberts
	C-18-0101	7131 Merrimac Trail Drive Thru	7131 MERRIMAC TRL 4130100005	Proposed drive thru only restaurant at 7131 Merrimac Trail.	Leininger, Thomas	Roberts
	C-18-0102	145 Old Stage Road Event Facility	145 OLD STAGE RD	Proposed event facility at 145 Old Stage Road.	Ribeiro, Jose	Stonehouse
	C-18-0103	Life Pointe Christian Church Preliminary E&S Plan	8851 RICHMOND RD 1110100030A	Preliminary E&S plan for Life Pointe Christian Church.	Baruch, Alex	Powhatan
	C-18-0110	Hazelwood Farms	301 OLD STAGE RD	Proposed rezoning and special use permit for Hazelwood Farms properties.	Cook, Ellen	Stonehouse
	C-18-0111	3020 Ironbound Rd Airbnb	3020 IRONBOUND RD	Proposed Airbnb at 3020 Ironbound road.	Haynes, Tori	Berkeley
Master Plan	MP-18-0003	Powhatan Secondary MP Amend.	4501 NEWS RD	Master Plan Amendment for Powhatan Secondary submitted with Z-18-0005 4501 News Road Rezoning.	Haynes, Tori	Jamestown
Subdivision	S-18-0079	275 Neck O Land Road BLA	275 NECK O LAND RD	Boundary Line Adjustment for 275 Neck O Land Road.	Haynes, Tori	Berkeley
	S-18-0081	The Promenade at John Tyler Phase 6 - Courthouse Plat	5304 JOHN TYLER HWY 4812200029	Courthouse Plat for The Promenade at John Tyler Phase 6.	Cook, Ellen	Berkeley
	S-18-0082	5501 Discovery Park Blvd. Subdivision	5501 DISCOVERY PARK BLVD	2 lot subdivision at 5501 Discovery Park Blvd.	Baruch, Alex	Jamestown
Site Plan	SP-18-0116	4338 and 4400 Centerville Rd. Tower SP Amend.	4338 CENTERVILLE RD	Antenna replacement and additions on existing tower at 4338 & 4400 Centerville Road.	Haynes, Tori	Powhatan
	SP-18-0120	1701 Endeavor Drive Commonwealth Building Materials SP Amend.	1701 ENDEAVOR DR	Installation of diesel tank at 1701 Endeavor Drive.	Ribeiro, Jose	Roberts
	SP-18-0121	11750 Humelsine Pkwy Verizon Tower Co-location SP Amend.	11750 HUMELSINE PKWY	Antenna co-location on existing tower at 11750 Humelsine Parkway.	Baruch, Alex	Jamestown
	SP-18-0126	Spoke and Art Provisions Porch SP Amend.	3449 JOHN TYLER HWY 4520100005B	Constructing a covered porch at Spoke and Art Provisions.	Ribeiro, Jose	Berkeley
	SP-18-0127	New Town Sec. 7, Parcel C Townhomes SP Amend.	5300 BEVERLY LN	Site Plan Amendment for BMP at New Town Sec. 7, Parcel C.	Baruch, Alex	Jamestown
	SP-18-0128	1117 Old Colony Ln. Handicap Ramp SP Amend.	1117-B OLD COLONY LN B	Construction of a handicap ramp for ABC Health Care.	Whyte, Scott	Roberts
	SP-18-0130	Outdoor Flea Market at 6623 Richmond Road	6623-A RICHMOND RD A	Outdoor Flea Market at 6623 Richmond Road	Ribeiro, Jose	Stonehouse
	SP-18-0131	Five Forks Shopping Center Ice Vending Machine SP Amend.	4496 JOHN TYLER HWY	Installation of aapprox. 90 SF concrete pad for new water/ice vending machine at Five Forks Shopping Center.	Haynes, Tori	Jamestown
	SP-18-0133	Lightfoot Marketplace Building 4 Landscape SP Amend.	6401 RICHMOND RD 2430100038	Landscape plan amendment for Lightfoot Marketplace Building 4.	Whyte, Scott	Stonehouse
	SP-18-0135	JCSA Grinder Pump and Force Main and Water Service installation	7686 RICHMOND RD	Installation of grinder pump and force main at 7686 Richmond Road.	Leininger, Thomas	Stonehouse
Subdivision Construction Plan	SPLN-18-0009	Liberty Ridge Subdivision Construction Plan Amend.	5365 CENTERVILLE RD	Subdivision construction plan amendment for Liberty Ridge.	Ribeiro, Jose	Powhatan
Special Use Permit	SUP-18-0026	6096 Centerville Road Detached Accessory Apartment	6096 CENTERVILLE RD	Special use permit for detached accessory apartment at 6096 Centerville Road.	Baruch, Alex	Powhatan
	SUP-18-0027	121 Leisure Road, Luxterra Electric Inc.	121 LEISURE RD	Special use permit for electrical contractor at 121 Leisure Road..	Whyte, Scott	Stonehouse
	SUP-18-0029	7206 Merrimac Trail, Rental of Rooms	7206 MERRIMAC TRL	Special use permit renewal for 7206 Merrimac Trail, Rental of Rooms.	Costello, Terry	Roberts
	SUP-18-0030	6446 Richmond Rd. Wawa	6446 RICHMOND RD	Special use permit for Wawa at 6446 Richmond Road.	Baruch, Alex	Stonehouse
Rezoning	Z-18-0005	4501 News Road Rezoning	4501 NEWS RD	Rezoning from R-4 to B-1 for mini storage at 4501 News Road.	Haynes, Tori	Jamestown
	Z-18-0006	Ironbound Crossing Rezoning	4007 IRONBOUND RD	Rezoning from R-8 to B-1 at 4007 & 4002 Ironbound Road.	Leininger, Thomas	Jamestown