

**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**  
**September 6, 2017**  
**7:00 PM**

**A. CALL TO ORDER**

**B. ROLL CALL**

**C. PUBLIC COMMENT**

**D. REPORTS OF THE COMMISSION**

**E. CONSENT AGENDA**

1. Minutes Adoption - July 5, 2017 Regular Meeting
2. Development Review Committee Action Item: Case No. C-0058-2017, Norge Food Lion Dumpster Enclosures

**F. PUBLIC HEARINGS**

1. SUP-0016-2016, 7-Eleven Convenience Store with Gas Pumps and Drive-Through Restaurant at Quarterpath

**G. PLANNING COMMISSION CONSIDERATIONS**

**H. PLANNING DIRECTOR'S REPORT**

1. Planning Director's Report - September 2017

**I. PLANNING COMMISSION DISCUSSION AND REQUESTS**

**J. ADJOURNMENT**

**ITEM SUMMARY**

DATE: 9/6/2017

TO: The Planning Commission

FROM: Paul D. Holt, III, Secretary

SUBJECT: Minutes Adoption - July 5, 2017 Regular Meeting

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**ATTACHMENTS:**

	Description	Type
▣	Minutes of the July 5, 2017 Regular Meeting	Minutes

**REVIEWERS:**

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	8/28/2017 - 4:36 PM
Planning Commission	Holt, Paul	Approved	8/28/2017 - 4:36 PM
Publication Management	Burcham, Nan	Approved	8/28/2017 - 4:39 PM
Planning Commission	Holt, Paul	Approved	8/29/2017 - 12:08 PM

**MINUTES**  
**JAMES CITY COUNTY PLANNING COMMISSION**  
**REGULAR MEETING**  
**County Government Center Board Room**  
**101 Mounts Bay Road, Williamsburg VA 23185**  
**July 5, 2017**  
**7:00 PM**

**A. CALL TO ORDER**

Mr. Rich Krapf called the meeting to order at 7:00 p.m.

**B. ROLL CALL**

**Planning Commissioners**

**Present:**

Rich Krapf  
Tim O'Connor  
Robin Bledsoe  
Jack Haldeman  
Danny Schmidt

**Absent:**

John Wright  
Heath Richardson

**Staff Present:**

Paul Holt, Director of Community Development and Planning

Mr. Krapf noted that the Commission's thoughts and prayers were with the Wright family.

**C. PUBLIC COMMENT**

Mr. Krapf opened Public Comment.

Mr. Andrew Lloyd Williams, 120 Captaine Graves, County Resident, addressed the Commission on concerns with the impact of the Hampton Roads Sanitation District (HRSD) pipeline replacement along the Country Road. Mr. Lloyd Williams requested that the County ensure that the area would be appropriately restored.

Mr. Krapf closed Public Comment.

Mr. Krapf inquired what oversight the County has for the project.

Mr. Paul Holt stated that staff would make continued inspections of the site and that the County holds surety that will not be released until the work is completed in accordance with the approved site plan. Mr. Holt further stated that it would also be necessary for the project to be in compliance with the Special Use Permit ("SUP") conditions.

## **D. REPORTS OF THE COMMISSION**

Mr. Danny Schmidt stated that the Development Review Committee (“DRC”) met on June 23 to consider C-0014-2017, 6515 Richmond Road, Lidl Grocery Store. Mr. Schmidt stated that the Committee reviewed additional elevations and revisions to the Conceptual Plan which were based on feedback received at the April DRC meeting. Mr. Schmidt noted that the main change was an increased buffer along Richmond Road which reduced the number of parking spaces by five; however, parking requirements would still be met. Mr. Schmidt stated that the elevations provided a better understanding of the materials to be used on the exterior of the building. Mr. Schmidt stated that the Committee also reviewed plans for stormwater management. Mr. Schmidt noted that an SUP application for the project had been submitted.

Ms. Robin Bledsoe stated that the Policy Committee did not meet in June. Ms. Bledsoe noted that she had attended a review of new laws passed by the General Assembly for 2017. Ms. Bledsoe stated that a handout had been provided to each Commissioner summarizing the legislation. Ms. Bledsoe stated that she and Mr. Haldeman attended a presentation by the Coalition of High Growth Communities on proffer regulations. Ms. Bledsoe noted that it was interesting to hear how various localities are addressing the challenges.

## **E. CONSENT AGENDA**

1. Minutes Adoption - June 7, 2017 Regular Meeting
2. S-0010-2017. Colonial Heritage Phase 3, Section 2, Construction Plan

Ms. Bledsoe requested to pull S-0010-2017, Colonial Heritage Ph. 3 Section 2 Constructions Plan for discussion.

Mr. Tim O’Connor stated that he would recuse himself from discussion and vote on the matter.

Ms. Bledsoe stated that this was one of the larger projects impacted by the Zoning Ordinance amendment which allowed certain cases to be heard directly by the Planning Commission rather than going through the DRC. Ms. Bledsoe noted that she is impressed with the level of detail provided in the staff report. Ms. Bledsoe requested that Mr. Holt provide an overview of how the process would be followed.

Mr. Holt stated that the Rezoning was previously approved and the development is subject to an approved Master Plan. Mr. Holt noted that the subdivision process takes place almost exclusively at staff level and the plan is reviewed against the County’s adopted Subdivision Ordinance and other ordinances as they pertain to the plan. Mr. Holt stated that the Subdivision Ordinance states that the Planning Commission must review major subdivision and the subdivision meets those parameters because it exceeds 50 lots. Mr. Holt further stated that State Code requires that the Planning Commission act on the plan within 60 days of the time it is submitted for review. Mr. Holt stated that this is rarely enough time to review all the engineering details. Mr. Holt stated that the Commission’s role is to either deny the plan because it does not meet the ordinance requirements or to issue preliminary approval subject to revised plans based on staff and external agency review. Mr. Holt stated once staff ensures that the plan is



satisfactory and all the technical comments are addressed, staff will issue final approval. Mr. Holt stated that for the case before the Commission, staff finds that the project is consistent with the Master Plan and recommends approval.

Mr. Haldeman made a motion to approve the Minutes of the June 7, 2017 meeting.

On a voice vote, the Commission voted to approve the Minutes of the June 7, 2017 meeting (5-0).

Ms. Bledsoe made a motion to approve S-0010-2017, Colonial Heritage Ph. 3 Section 2 Constructions Plan.

On a voice vote, the Commission voted to approve S-0010-2017 (4-1-0), Mr. O'Connor abstaining.

#### **F. PUBLIC HEARINGS**

There were no Public Hearings.

#### **G. PLANNING COMMISSION CONSIDERATIONS**

There were no Considerations.

#### **H. PLANNING DIRECTOR'S REPORT**

##### **1. Planning Director's Report - July 2017**

Mr. Holt stated he had no further items to add to the report provided in the packet materials.

#### **I. PLANNING COMMISSION DISCUSSION AND REQUESTS**

Mr. Krapf congratulated Mr. Haldeman and Mr. Schmidt on graduating from the certified Planning Commissioner program. Mr. Krapf noted that everyone on the Commission has participated in that program.

Mr. Krapf noted that he would cover the July Board of Supervisors meetings.

#### **J. ADJOURNMENT**

Mr. Haldeman made a motion to Adjourn.

The meeting was adjourned at approximately 7:20 p.m.

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Mr. Rich Krapf, Chairman

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Mr. Paul Holt, Secretary

**ITEM SUMMARY**

DATE: 9/6/2017

TO: The Planning Commission

FROM: Jose Ribeiro, Senior Planner II

SUBJECT: Development Review Committee Action Item: Case No. C-0058-2017, Norge Food Lion Dumpster Enclosures

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The applicant is proposing to build two enclosed dumpsters behind the existing Food Lion grocery store.

Special Use Permit (SUP) Condition No. 1 from Case No. SUP-0002-2010, adopted by the Board of Supervisors on May 25, 2010, states that development of the property shall be generally in accordance with and bound by the Master Plan entitled “CVS and Food Lion Master Plan,” with such minor changes as the Development Review Committee (DRC) determines does not change the basic concept or character of the development.

Link to DRC Agenda and Staff Report:  
<https://jamescity.novusagenda.com/AgendaPublic/CoverSheet.aspx?ItemID=2819&MeetingID=604>

DRC Recommendation on August 23: Approval of the conceptual plan as being consistent with the Master Plan (3-0).

**REVIEWERS:**

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	8/30/2017 - 4:52 PM
Planning Commission	Holt, Paul	Approved	8/30/2017 - 4:52 PM
Publication Management	Burcham, Nan	Approved	8/30/2017 - 4:54 PM
Planning Commission	Holt, Paul	Approved	8/31/2017 - 8:04 AM

**ITEM SUMMARY**

DATE: 9/5/2017

TO: The Planning Commission

FROM: Alex Baruch, Planner

SUBJECT: SUP-0016-2016, 7-Eleven Convenience Store with Gas Pumps and Drive-Through Restaurant at Quarterpath

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**ATTACHMENTS:**

	Description	Type
▣	Staff Report	Staff Report
▣	Proposed SUP Conditions	Backup Material
▣	Location Map	Backup Material
▣	Master Plan Exhibit	Backup Material
▣	Community Impact Study and Elevations	Backup Material
▣	Traffic Study	Backup Material
▣	SUP-21-91, Pocahontas Trail 7-Eleven Gas Pump Addition	Backup Material
▣	Mixed Use 2035 Comprehensive Plan Route 60/143/199 Interchanges Land Use Description	Backup Material

**REVIEWERS:**

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	8/31/2017 - 11:38 AM
Planning Commission	Holt, Paul	Approved	8/31/2017 - 11:38 AM
Publication Management	Burcham, Nan	Approved	8/31/2017 - 11:48 AM
Planning Commission	Holt, Paul	Approved	8/31/2017 - 11:53 AM

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**SPECIAL USE PERMIT-0016-2016. 7-Eleven Convenience Store with Gas Pumps and Drive-Through Restaurant at Quarterpath**  
**Staff Report for the September 6, 2017, Planning Commission Public Hearing**

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**SUMMARY FACTS**

Applicant: Mr. Mark Richardson, Timmons Group

Land Owner: Southland Corporation and Quarterpath Williamsburg, LLC.

Proposal: To construct a +/- 2,940-square-foot convenience store with gas pumps and a +/- 4,000-square-foot drive-through restaurant. This request will also amend, supersede and replace previously approved SUP-21-1991.

Locations: 3000 Battery Boulevard, 7327, 7337 and 7341 Pocahontas Trail

Tax Map/Parcel Nos.: 5020100075A, 5020100030, 5020100030A and 5020700004B

Project Acreage: +/- 3.77 acres

Zoning: B-1, General Business

Comprehensive Plan: Mixed Use

Primary Service Area: Inside

Staff Contact: Alex Baruch, Planner

**PUBLIC HEARING DATES**

Planning Commission: September 6, 2017, 7:00 p.m.  
Board of Supervisors: October 10, 2017, 5:00 p.m. (tentative)

**FACTORS FAVORABLE**

1. With the proposed conditions, staff finds the proposal compatible with surrounding zoning and development.
2. With the proposed conditions, staff finds the proposal consistent with the recommendations of the 2035 Comprehensive Plan.
3. The proposal would bring the existing operation into conformance with the Zoning Ordinance.

**FACTORS UNFAVORABLE**

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

**SUMMARY STAFF RECOMMENDATION**

Approval, subject to the proposed conditions.

**PROJECT DESCRIPTION**

- The applicant is requesting an SUP to construct a +/- 2,940-square-foot convenience store with gas pumps and a +/- 4,000-square-foot drive-through restaurant. The proposal includes 18 parking spaces to serve the convenience store and 42 parking spaces for the restaurant.
- An SUP is required for convenience stores with gas pumps in B-1. Drive-through restaurants are a permitted use in B-1. However, the traffic generation of the site exceeds 100 peak hour trips; therefore, requiring a commercial SUP per Sec. 24-11 of the Zoning Ordinance.

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*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.*

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**SPECIAL USE PERMIT-0016-2016. 7-Eleven Convenience Store with Gas Pumps and Drive-Through Restaurant at Quarterpath**  
**Staff Report for the September 6, 2017, Planning Commission Public Hearing**

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- This request will also amend, supersede and replace previously approved SUP-21-1991, which permitted the addition of gas pumps and canopy to the convenience store.

### **PLANNING AND ZONING HISTORY**

The parcel that contains the existing 7-Eleven currently has an SUP (SUP-21-91) for the addition of gas pumps and a canopy to the current convenience store site. The convenience store commercial use does not have an SUP, which is currently required because the convenience store use is a specially permitted use in the B-1 zoning district and also a requirement under 24-11 commercial SUP section of the Ordinance. Quarterpath, LLC owns the adjacent parcels which have historically been wooded and are currently undeveloped.

### **SURROUNDING ZONING AND DEVELOPMENT**

- Properties on either side of this parcel are zoned B-1, General Business, while property across the street is zoned R-2, General Residential. The property to the rear is in the City of Williamsburg and is zoned ED Conditional, Economic Development with Conditions.
- The subject property is partially developed and partially undeveloped. It fronts onto Pocahontas Trail and Battery Boulevard, which is maintained by the City of Williamsburg.

### **COMPREHENSIVE PLAN**

The property is designated Mixed Use on the 2035 Comprehensive Plan Land Use Map. The Mixed Use area in the Comprehensive Plan called Routes 60/143/199 Interchanges describes principle uses that include commercial and office development with moderate density residential as a secondary use.

The Comprehensive Plan states that future development should be integrated with and complement the design guidelines and layout of development planned in the City of Williamsburg including uses, architecture, landscaping, historic resources and pedestrian amenities; many of which have been addressed in the proposed SUP Conditions.

The applicant has submitted information in the Community Impact Statement showing the intended materials and colors for the development. Should the SUP be approved, staff is proposing Conditions Nos. 11 and 12 to ensure that further architectural detailing for the building and gas canopy be provided at the site plan stage.

### **PUBLIC IMPACTS**

#### **1. Anticipated Impact on Public Facilities and Services:**

- *Streets:* A traffic study was completed for this proposal, which recommends the installation of only one entrance/exit off Pocahontas Trail until a traffic light is warranted. At the time it is warranted the existing entrance will become an entrance only and an additional egress only point can be built. A landscaped median along the center of Pocahontas Trail will also need to be installed or guaranteed before the first Certificate of Occupancy. Conditions are proposed for the completion of these improvements (Condition No. 11).
  - The Pedestrian Accommodations Master Plan shows a sidewalk along the frontage of Pocahontas Trail and the Regional Bikeway Map requires a bicycle lane in the road along Pocahontas Trail. The bicycle lane was installed as a part of the Quarterpath development. Condition No. 10 guarantees that the bicycle lane is installed properly and for the entire length of the proposed development before the issuance of a Certificate of Occupancy. Condition No.

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**SPECIAL USE PERMIT-0016-2016. 7-Eleven Convenience Store with Gas Pumps and Drive-Through Restaurant at Quarterpath**

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**Staff Report for the September 6, 2017, Planning Commission Public Hearing**

10 also states that at minimum a sidewalk shall be constructed along the frontage of Pocahontas Trail. If the applicant would like to install a multi-use path in lieu of a sidewalk, it shall be consistent with other multi-use paths in the Quarterpath at Williamsburg development.

- Internal pedestrian accommodations between the two sites will need to be provided as shown on the Master Plan as stated in Condition No. 9.

- *School/Fire/Utilities:* No impacts anticipated for schools. The closest fire station in James City County to the property is Fire Station 2, located at 8421 Pocahontas Trail, just over 2.4 miles southeast of this project site. The site is served by Newport News Waterworks for water and James City Service Authority for sewer.

2. Environmental/Cultural/Historical: No impacts anticipated. Engineering and Resource Protection requested SUP Conditions related to stormwater management and a spill prevention control and countermeasures plan (Condition Nos. 7 and 8). There is a Resource Protection Area at the rear of the parcels located at 7327 and 7341 Pocahontas Trail and 3000 Battery Boulevard. No development is proposed within this area.

3. Cultural/Historic: A Phase I Archaeological Study has been included as an SUP Condition and will be reviewed before land disturbance (Condition No. 3).

4. Anticipated Impact on Nearby and Surrounding Properties:

- As described above, the properties are surrounded by business zoning. The residentially zoned properties are further away across the railroad and Merrimac Trail.

- Many of the potential impacts are being mitigated through SUP Conditions such as lighting, noise, screening of site features and architectural review.

**PROPOSED SUP CONDITIONS**

- Draft text of proposed conditions is provided as Attachment No. 1.

**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 Planning Commission recommend approval of this application to the Board of Supervisors, subject to the attached conditions.

AB/gt

SUP16-16PocTr7-11

Attachments:

1. Proposed SUP Conditions
2. Location Map
3. Master Plan Exhibit
4. Community Impact Study and Elevations
5. Traffic Study
6. SUP-21-91, Pocahontas Trail 7-Eleven Gas Pump Addition
7. Mixed Use 2035 Comprehensive Plan Route 60/143/199 Interchanges Land Use Description

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*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.*

1. **Master Plan:** This Special Use Permit (“SUP”) shall apply to that certain properties located at 3000 Battery Blvd, and 7327, 7337, and 7341 Pocahontas Trail, which are further identified as James City County Tax Map Parcel Nos. 5020100075A, 5020100030, 5020100030A, and 5020700004B, respectively (the “Property”). The SUP shall be valid for a convenience store of up to 2,940 square feet which sells and dispenses fuel (the “Convenience Store”), and a drive-through fast food restaurant of up to 4,000 square feet (the “Restaurant”). All final development plans shall be consistent with the master plan entitled, “7-11 Convenience Store with Gas and Drive-Thru Restaurant Conceptual Master Plan” prepared by Timmons Group, dated August 25, 2017 (the “Master Plan”) as determined by the Director of Planning with any deviations considered per Section 24-23(a)(2) of the Zoning Ordinance, as amended.
2. **Gas Pumps:** There shall be no more than six (6) fueling islands on the Property as shown on the Master Plan.
3. **Archeological Study:** A Phase I historic and archaeological study for the Property shall be submitted to the Director of Planning, or his designee, for review and approval prior to land disturbance. A treatment plan shall be submitted and approved by the Director of Planning for all sites in the Phase I study that are recommended for a Phase II evaluation and/or identified as eligible for inclusion on the National Register of Historic Places. If a Phase II study is undertaken, such a study shall be approved by the Director of Planning and a treatment plan for said sites shall be submitted to, and approved by, the Director of Planning for sites that are determined to be eligible for conclusion on the National Register of Historic Places and/or those sites that require a Phase III study. If in the Phase III study, a site is determined eligible for nomination to the National Register of Historic Places and said site is to be preserved in place, the treatment plan shall include nomination of the site to the National Register of Historic Places. If a Phase III study is undertaken for said sites, such studies shall be approved by the Director of Planning prior to land disturbance within the study areas. All Phase I, II, and III studies shall meet the Virginia Department of Historic Resources' *Guidelines for Preparing Archaeological Resource Management Reports* and the Secretary of the Interior's *Standards and Guidelines for Archaeological Documentation*, as applicable, and shall be conducted under the supervision of a qualified archaeologist who meets the qualifications set forth in the Secretary of the Interior's *Professional Qualification Standards*. All approved treatment plans shall be incorporated into the plan of development for the Property and the clearing, grading or construction activities thereon.
4. **Phasing of improvements between the different principal uses:** Prior to the issuance of any site plan approvals for the Restaurant, all shared improvements (including but not limited to all entrance improvements to/from Pocahontas Trail and Battery Boulevard, shared parking, shared stormwater management features and internal circulation improvements) shall be constructed and completed. Should development of the Restaurant precede development of the Convenience Store, the Director of Planning may approve an alternative phasing plan to ensure compliance and consistency with the Master Plan.
5. **Phasing of the convenience store and gas pumps:** Redevelopment of the gas pump canopy (the “Canopy”) and gas pumps in a manner consistent with the Master Plan and these conditions shall occur prior to the issuance of any Certificate of Occupancy for the Convenience Store. The intent of this condition is to ensure that the existing gas pumps and existing canopy are not left in their existing location and condition.
6. **Existing Fueling Islands:** Prior to the issuance of a Certificate of Occupancy for the Convenience Store, all unused gasoline and diesel pumps, canopies, and underground fuel tanks shall be removed

from the Property.

7. **Spill Prevention, Control and Countermeasures (SPCC) Plan:** Prior to the issuance of a Land Disturbing Permit, a Spill Prevention, Control and Countermeasures Plan shall be reviewed and approved by the Director of Stormwater and Resource Protection.
8. **Stormwater Management:** Unless otherwise approved by the Director of Stormwater and Resource Protection, development of the Property shall comply with the City of Williamsburg-approved Stormwater Management Master Plan (revised January 28, 2013) and Best Management Practices Land Bay Design Guidelines (January 7, 2013) reports for Quarterpath at Williamsburg.
9. **Internal Pedestrian Accommodations:** The owner of each property shall provide internal pedestrian connections to include, but not limited to, wherever sidewalk enters the parking area or crosses any entrance to the Property or drive-through lane and shall provide safe connections from the existing Williamsburg Area Transit Authority (WATA) bus stop. The connections shall be clearly delineated by use of a different color of pavement, brick pavers, or some other method determined to be acceptable by the Director of Planning.
10. **Pedestrian and Bicycle Accommodations:** In accordance with the Regional Bikeway Map, a bike lane shall be provided along the Property's Pocahontas Trail frontage. In accordance with the adopted Pedestrian Accommodations Master Plan, a sidewalk shall be provided along the Property's Pocahontas Trail frontage. In lieu of a sidewalk, the owner shall have the option of installing a multi-use trail to be consistent with other multi-use trails that may be a part of the larger Quarterpath at Williamsburg master plan; however, should the owner elect to install a multi-use trail, a bike lane must still be provided. Pedestrian and bike accommodations shall be installed or bonded prior to the issuance of a Certificate of Occupancy for any building on the Property.
11. **Traffic Improvements.** Until a traffic signal is operational at the intersection of Pocahontas Trail and Battery Boulevard (the "Intersection"), access to the Property shall be limited to one ingress/egress entrance on Pocahontas Trail and one ingress/egress entrance on Battery Boulevard, as more specifically shown on the Master Plan. "Operational" is defined as electrified and controlling the movement of traffic at the Intersection. At such time that a traffic signal at the Intersection is operational, a second egress-only exit may be constructed on Pocahontas Trail, as more specifically shown on the Master Plan. Prior to the first Certificate of Occupancy for the Property, a raised landscape median on Pocahontas Trail across the Pocahontas Trail frontage of the Property as shown on the Master Plan shall be constructed or guaranteed by the owners of the Property in a manner acceptable to the County Attorney. The design of the raised landscape median shall be shown on the initial site plan. If the traffic light is not warranted within ten (10) years from approval of this SUP the raised landscape median referenced above shall not be required.
12. **Architectural Review.** Prior to issuance of a building permit for each structure shown on the Master Plan (to also specifically include the Canopy), the Director of Planning, or his designee, shall review and approve the final building elevations and architectural design for such structure. Exterior building materials and colors for all structures shall be generally consistent with the drawing entitled "Riverside Doctors' Hospital Williamsburg Exterior Mock-up 03-09-2012" as contained within the Community Impact Statement. Determination of substantial architectural consistency shall be determined by the Director of Planning or his designee. In the event the Director of Planning disapproves the architectural elevations, the applicant may appeal the decision to the DRC which shall forward a recommendation to the Planning Commission. Samples of such building materials and colors shall be approved by the Director of Planning prior to final site plan approval.



13. **Architectural Review – Gas Pump Canopy.** The architecture of the Canopy, including any columns, shall match the design and exterior building materials of the Convenience Store. The Canopy shall have a maximum height of fifteen (15) feet measured from the finished grade to the underside of the Canopy. No more than two signs shall be allowed on the Canopy. The Canopy shall not include gas pricing signs.
14. **Screening of Site Features.** All dumpsters and ground-mounted HVAC and mechanical units shall be screened by an enclosure composed of masonry, closed cell PVC, prefinished metal, or cementitious panels in detail and colors to blend with adjacent building materials. Where present, such features shall be shown on the site plan for the adjacent building, and shall be reviewed and approved by the Director of Planning for consistency with this condition.
15. **Outside display, sale, or storage:** Unless otherwise stated in this condition, no outside display, sale, or storage of merchandise shall be permitted at the Property. As used for this condition, the term “merchandise” shall include but not be limited to ice, soda, candy, and/or snack machines. For the Convenience Store, only one outside vending machine and one outside ice chest shall be permitted and, if used, shall be situated against the exterior wall that faces the drive-through window of the Restaurant and both shall be screened with building materials similar in type and color with the site architecture to minimize visual impacts from adjacent road rights-of-way. Final screening design shall be approved by the Director of Planning.
16. **Intercom and Speaker Noise:** All intercom and other speaker systems on the Property shall operate in such a manner that they shall not be audible from adjacent properties.
17. **Lighting:** There shall be no light trespass, defined as light intensity measured at .1 footcandle or higher extending beyond any property line or into the public right-of-way. All lights, including any lighting on the Canopy, shall have recessed fixtures with no bulb, lens, or globe extending below the casing or the Canopy ceiling. Light poles in the parking lot shall not exceed twenty (20) feet in height. The lighting for the Property, to include the Canopy lighting, shall be reviewed and approved by the Director of Planning prior to final site plan approval.
18. **Williamsburg Area Transit Authority Facilities:** Any change or relocation of existing WATA facilities shall be subject to approval by the Director of Planning prior to final site plan approval.
19. **Signage:** All building face signage shall only be externally illuminated. In addition to any building face signage as permitted by the Zoning Ordinance, the Convenience Store and the Restaurant may each have one exterior freestanding sign. Freestanding signs shall be externally illuminated monument style signs not to exceed eight (8) feet in height and the base of the signs shall be brick or shall use materials similar in type and color with the site architecture.
20. **Sustainable Design Initiatives:**
  - a. Sustainable design initiatives shall be implemented during development of the Property as shown on the Master Plan to achieve the equivalent of 36 points from the leadership in energy and Environmental Design (LEED) for New Construction and Major Renovations (based on 2017 guidelines)(the “Credits”). Prerequisite items in the LEED 2017 guidelines shall not be required to be completed in addition to the Credits. In addition, documentation of the building energy performance shall be provided by a mechanical engineer to the Director of Planning before the certificate of occupancy for the initial building to demonstrate an improvement in efficiency of the building’s thermal envelope, mechanical

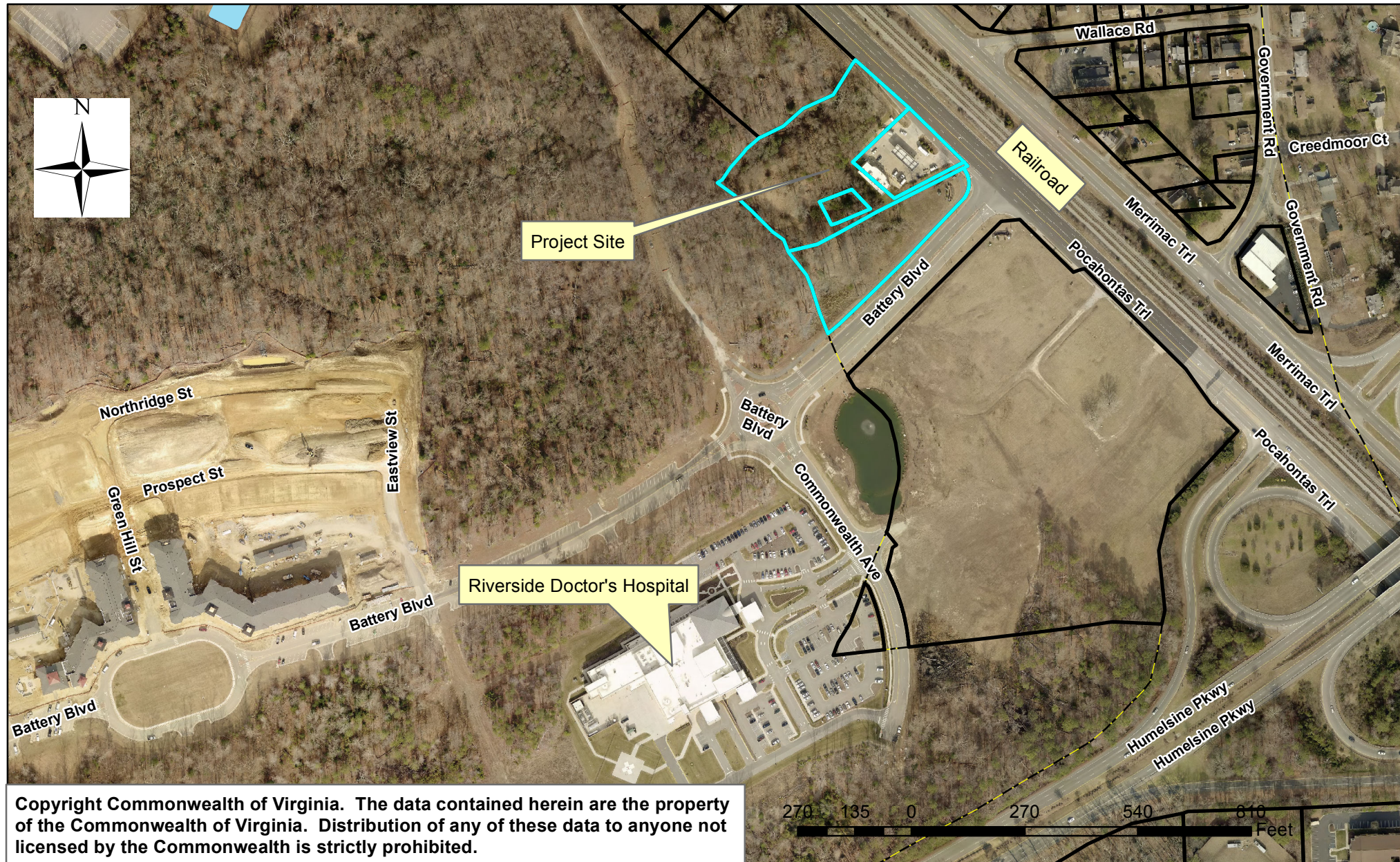
systems, and electrical systems over code-required baseline performance.

- b. The strategies to achieve the Credits will be incorporated into the construction documents either as part of the design, or as requirements for the contractor to substantiate during the course of construction. Compliance with the Credit requirements will be validated in a straightforward way through things like, but not limited to, review of contractor submittals, submission of design calculations, and letters certifying that requirements have been met. This validation will be overseen by a LEED-accredited professional and approved by the Director of Planning or his designee with Credits related to the design of the project approved prior to issuance of the final site plan approval, and Credits related to the construction of the project approved prior to issuance any Certificate of Occupancy.
21. **Commencement for Convenience Store and Gas Pump.** Construction on the Convenience Store and the Canopy shall commence within thirty-six (36) months from the date of approval of this special use permit or this permit shall be void. Construction shall be defined as obtaining building permits and an approved footing inspection and/or foundation inspection.
22. **Commencement for Drive-Through Restaurant.** Construction on the Restaurant shall commence within thirty-six (36) months from the date of approval of this special use permit. Construction shall be defined as obtaining building permits and an approved footing inspection and/or foundation inspection.
23. **Severance Clause.** This special use permit is not severable. Invalidation of any word, phrase, clause, sentence or paragraph shall invalidate the remainder.



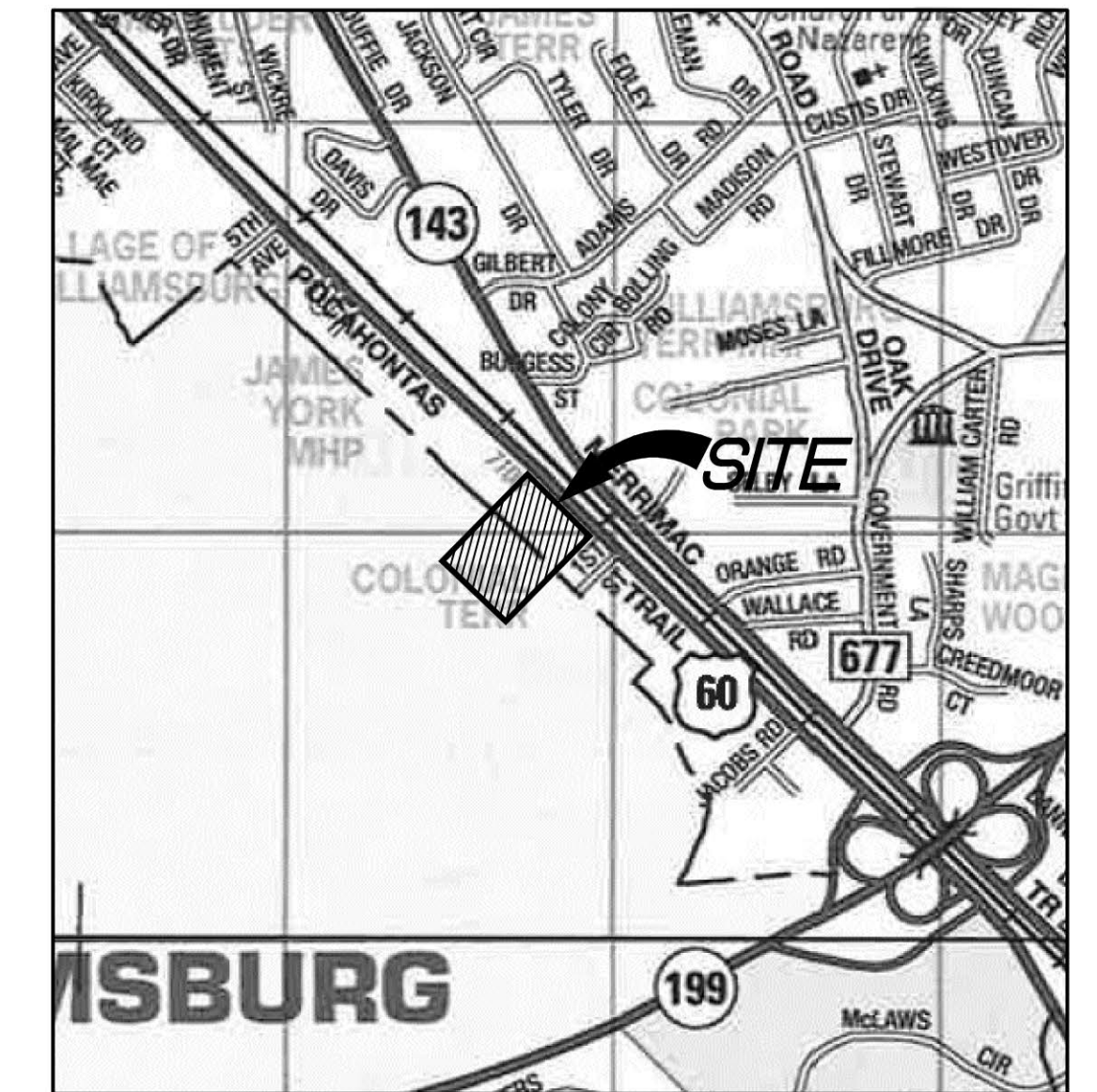
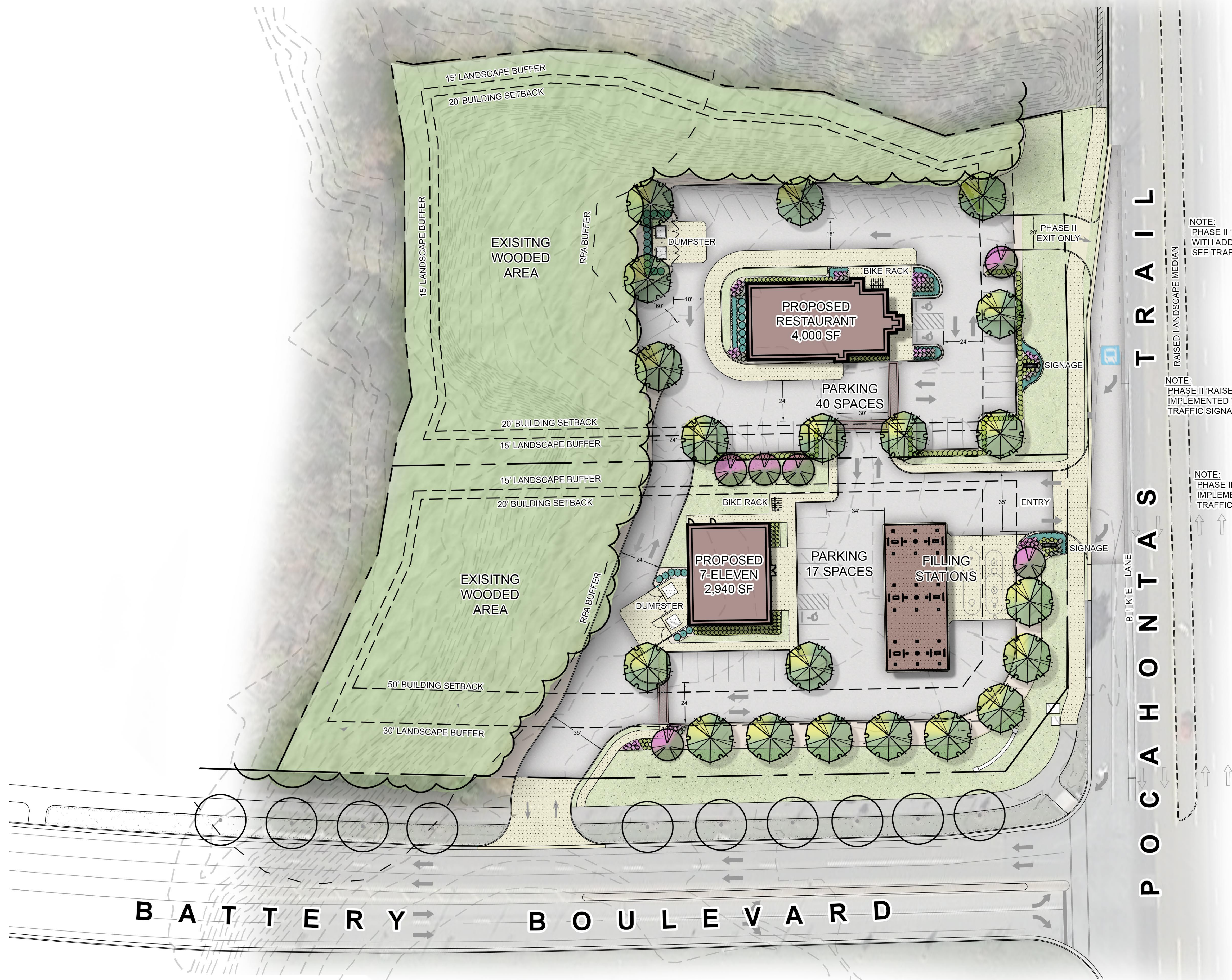
# JCC-SUP-0016-2016

## 7-Eleven Convenience Store with Gas Pumps and Drive-Thru Restaurant at Quarterpath



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**VICINITY MAP**  
SCALE: 1" = 1000'

**SITE INFORMATION**

**SITE ZONED:** B-1

**RESTAURANT:** 85,980.13 SF / 1.97 ACRES  
**7-ELEVEN:** 78,828.13 SF / 1.80 ACRES

**TOTAL SITE:** 164,808.26 SF / 3.77 ACRES

**FLOOR AREA RATIO:**

**GROSS FLOOR AREA / BUILDABLE LAND AREA**  
**RESTAURANT:** 4,000 SF / 52,284.41 SF = 0.08 FAR  
**7-11:** 2,940 SF / 52,671.72 = 0.06 FAR

**IMPERVIOUS AREA:**

**RESTAURANT:**  
**EXISTING:** 7,813 SF  
**PROPOSED:** 29,210 SF / 0.67 ACRES  
(34% IMPERVIOUS)

**7-ELEVEN:**  
**EXISTING:** 14,304 SF  
**PROPOSED:** 35,247 SF / 0.80 ACRES  
(45% IMPERVIOUS)

**TOTAL EXIST. IMPERVIOUS:** 22,117 SF / 0.5 ACRES  
**TOTAL IMPERVIOUS:** 64,457 SF / 1.48 ACRES

**REQUIRED PARKING:**

**RESTAURANT:** 4,000 SF (1 SPACE / 4 SEATS)  
**PARKING REQUIRED:** (130 seats / 4) 33 spaces  
**PARKING PROVIDED:** 40 spaces  
**ACCESSIBLE SPACES REQUIRED:** 2 spaces  
**ACCESSIBLE SPACES PROVIDED:** 2 spaces

**7-ELEVEN BUILDING:** 2,940 SF (1 SPACE / 200 SF)  
**PARKING REQUIRED:** (2,940 / 200) 15 spaces  
**PARKING PROVIDED:** 17 spaces  
**ACCESSIBLE SPACES REQUIRED:** 1 space  
**ACCESSIBLE SPACES PROVIDED:** 1 space

**TOTAL PARKING REQUIRED:** 48 spaces  
**TOTAL PARKING PROVIDED:** 57 spaces  
(MAX 120%: 48 x 1.2 = 57.6 SPACES)

# QUARTERPATH AT WILLIAMSBURG

7-11 CONVENIENCE STORE WITH GAS AND DRIVE-THRU RESTAURANT  
CONCEPTUAL MASTER PLAN - August 25, 2017

SCALE 1" = 30'  
0 30' 60'





# COMMUNITY IMPACT STUDY

Quarterpath, Williamsburg



Pocahontas Trail and Battery Boulevard

James City County, Virginia

August 24th, 2017

JCC SUP-0016-2016



## OVERVIEW

Southland Corporation currently owns and operates a store at 7337 Pocahontas Trail (Parcel ID 5020100030A). They desire to replace their existing store and are proposing a boundary line adjustment with Quarterpath of Williamsburg. Quarterpath of Williamsburg owns 7327 Pocahontas Trail (Parcel ID 5020100030), 7341 Pocahontas Trail (Parcel ID 5020700004B) and 3000 Battery Boulevard (Parcel ID 5020100075A). The future configuration of parcels will contain a new 7-Eleven and a drive thru restaurant. All parcels are currently zoned B-1 General Business and total 3.9 acres. The B1 designation requires a Special Use Permit when a drive thru restaurant will generate more than 100 peak hour trips and when a convenience store sells and dispenses fuel in accordance with Section 24-38.

The comprehensive plan identifies the properties as mixed use. The parcels size, shape, and environmental constraints preclude a mixed use development. The overall Quarterpath development is mixed use.



### **TRAFFIC IMPACT ANALYSIS**

Ingress/egress is currently provided to the existing 7-Eleven by two curb cuts on Pocahontas Trail. The proposed condition will include one curb cut to a joint access for the 7-Eleven and restaurant site. Both parcels will maintain internal circulation with a shared access to Battery Boulevard. A traffic study was conducted by DRW Consultants, LLC. (Submitted separately)

### **WATER AND SEWER IMPACTS**

The project site lies within the JCSA Primary Service Area (PSA). Water to the site is provided by means of a 16" waterline in Pocahontas Trail owned and operated by Newport News Waterworks. Wastewater is collected via a gravity sewer line in Pocahontas Trail owned and operated by JCSA. This site will utilize less than 15,500 gallons average daily flow, therefore an impact study was not conducted.

### **ENVIRONMENTAL CONSTRAINTS**

An environmental constraints analysis was conducted by Stantec dated February 26<sup>th</sup>, 2016. (See appendix) The project site lies within the College Creek Watershed. The FEMA flood zone designation is X. Storm drainage currently travels first by sheet flow then via channel flow to Tutter's Neck Pond. Tutter's Neck Pond is the regional stormwater management facility for Quarterpath of Williamsburg.

### **PUBLIC FACILITIES**

It is not anticipated that this project will increase the need for public facilities.

### **HISTORICAL AND ARCHAEOLOGICAL**

This site is not identified as highly-sensitive on the James City County Archeological assessment. There are no known historical or archaeological elements at this site.

### **ENVIROMENTAL INVENTORY**

An environmental inventory has been provided in the appendix.

### **FISCAL IMPACT ANALYSIS**

Not applicable.

### **PARKS AND RECREATION**

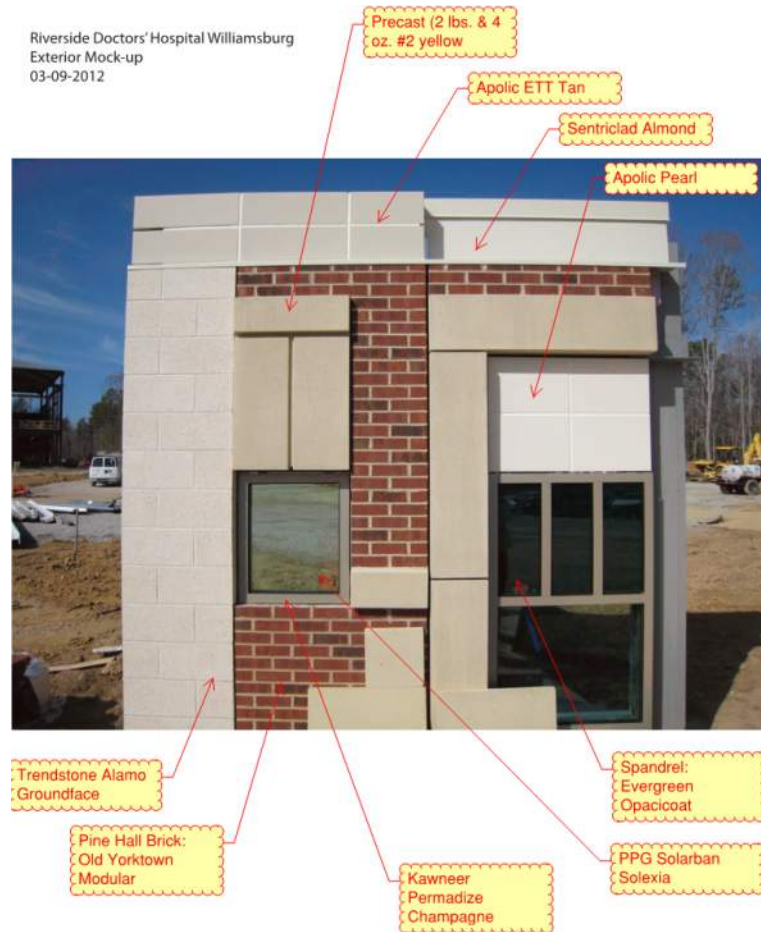
Not applicable.

# 7-Eleven

## Colors and Materials



A prototypical building will be used for the 7-Eleven. A color rendering of the materials has been provided in the appendix. The fast food restaurant has yet to be identified, but materials will be consistent with the Riverside Hospital building.





# 7-Eleven LEED Checklist



# LEED v4 for BD+C: New Construction and Major Renovation Project Checklist

Project Name:  
Date:

Y	?	N	Credit	Integrative Process	1
0	0	0	Location and Transportation		16
			Credit	LEED for Neighborhood Development Location	16
			Credit	Sensitive Land Protection	1
			Credit	High Priority Site	2
			Credit	Surrounding Density and Diverse Uses	5
			Credit	Access to Quality Transit	5
			Credit	Bicycle Facilities	1
			Credit	Reduced Parking Footprint	1
			Credit	Green Vehicles	1
0	0	0	Sustainable Sites		10
Y			Prereq	Construction Activity Pollution Prevention	Required
			Credit	Site Assessment	1
			Credit	Site Development - Protect or Restore Habitat	2
			Credit	Open Space	1
			Credit	Rainwater Management	3
			Credit	Heat Island Reduction	2
			Credit	Light Pollution Reduction	1
0	0	0	Water Efficiency		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
			Credit	Outdoor Water Use Reduction	2
			Credit	Indoor Water Use Reduction <b>Low flow plumbing fixtures</b>	6
			Credit	Cooling Tower Water Use	2
			Credit	Water Metering	1
0	0	0	Energy and Atmosphere		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
			Credit	Enhanced Commissioning	6
			Credit	Optimize Energy Performance <b>EMS system</b>	18
			Credit	Advanced Energy Metering	1
			Credit	Demand Response	2
			Credit	Renewable Energy Production	3
			Credit	Enhanced Refrigerant Management	1
			Credit	Green Power and Carbon Offsets	2

0	0	0	Materials and Resources	13
Y			Prereq Storage and Collection of Recyclables	Required
Y			Prereq Construction and Demolition Waste Management Planning	Required
			Credit Building Life-Cycle Impact Reduction	5
			Credit Building Product Disclosure and Optimization - Environmental Product Declarations	2
			Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
			Credit Building Product Disclosure and Optimization - Material Ingredients	2
			Credit Construction and Demolition Waste Management <b>Demo contractor recycles 90-100% of waste</b>	2
0	0	0	Indoor Environmental Quality	16
Y			Prereq Minimum Indoor Air Quality Performance	Required
Y			Prereq Environmental Tobacco Smoke Control	Required
			Credit Enhanced Indoor Air Quality Strategies	2
			Credit Low-Emitting Materials	3
			Credit Construction Indoor Air Quality Management Plan	1
			Credit Indoor Air Quality Assessment	2
			Credit Thermal Comfort	1
			Credit Interior Lighting <b>LED light fixtures</b>	2
			Credit Daylight <b>Skylights</b>	3
			Credit Quality Views	1
			Credit Acoustic Performance	1
0	0	0	Innovation	6
			Credit Innovation	5
			Credit LEED Accredited Professional	1
0	0	0	Regional Priority	4
			Credit Regional Priority: Specific Credit	1
			Credit Regional Priority: Specific Credit	1
			Credit Regional Priority: Specific Credit	1
			Credit Regional Priority: Specific Credit	1
0	0	0	TOTALS	Possible Points: 110
			Certified: 40 to 49 points, <b>Silver:</b> 50 to 59 points, <b>Gold:</b> 60 to 79 points, <b>Platinum:</b> 80 to 110	

# Environmental Constraints Analysis



Stantec Consulting Services Inc.  
5209 Center Street, Williamsburg Virginia 23188-2680

February 26, 2016  
File: 203400690

**Attention: Ms. Molly Trant**  
Riverside Health System  
Fountain Plaza One  
701 Town Center Drive, Suite 1000  
Newport News Virginia 23606-4286

Dear Ms. Trant:

Reference: **Letter of Findings – Environmental Constraints Analysis**  
**Quarterpath 7-11 Parcel, James City County, Virginia**  
**Latitude: 37°15'14.60"N      Longitude: 76°40'01.47"W**

This report presents the results of an environmental constraints analysis conducted by Stantec Consulting Services, Inc. (Stantec) on the above-referenced project. The approximate 4.46-acre site is located within the Tutters Neck Pond drainage basin in James City County, Virginia (Figure 1). The site is situated southwest of Route 60, northwest of Battery Boulevard, and can be accessed via Battery Boulevard (Figure 2). The purpose of the study was to determine on-site environmental constraints by conducting a detailed delineation of wetlands and other waters of the U.S. (WOUS), a resource protection area (RPA) determination, and a threatened and endangered species habitat assessment. Site visits were conducted on February 22<sup>nd</sup> and 23<sup>rd</sup>, 2016. The following describes Stantec's findings.

### *Delineation of Waters of the U.S.*

#### *Off-site Evaluation*

Prior to conducting fieldwork, Stantec consulted the U.S. Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map for Williamsburg, Virginia (1984), the National Wetlands Inventory Interactive Mapper (NWI), administered by the U.S. Fish and Wildlife Service (USFWS), and the Web Soil Survey, administered by the Natural Resources Conservation Service (NRCS). The USGS quad map shows a partially forested study area with moderately sloping terrain. An unmanned intermittent stream channel is depicted along the southwestern project limits generally flowing to the northwest. The NWI map (Appendix B) depicts forested wetlands within the northwestern portion of the property. Additionally, the soil survey indicates that the site is underlain primarily by Slagle fine sandy loam, Craven-Uchee complex, Emporia complex, and Johnston complex. Johnston is classified as hydric, Slagle and Emporia as predominantly non-hydric, and Craven-Uchee as non-hydric by NRCS in James City County, Virginia.





February 26, 2016  
Ms. Molly Trant  
Page 2 of 7

**Reference: Quarterpath 7-11 Parcel**

### *On-site Evaluation*

The WOUS delineation was conducted using the Routine Determination Method as outlined in the 1987 *Corps of Engineers Wetland Delineation Manual* and methods described in the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain (Version 2.0)*. Wetland flags were placed in the field by Stantec and sequentially numbered to provide an on-site record of the delineation. Jurisdictional features identified by Stantec include forested wetlands and non-vegetated stream channels. Wetland vegetation is typified by green ash (*Fraxinus pennsylvanica*), loblolly pine (*Pinus taeda*), sycamore (*Platanus occidentalis*), ironwood (*Carpinus caroliniana*), netted-chain fern (*Woodwardia areolata*), Nepalese browntop (*Microstegium vimineum*), and greenbrier (*Smilax rotundifolia*). Soils within the wetlands are typically very dark brown to grayish brown (10YR 2/2 to 2.5Y 5/2 in Munsell color notation), with redoximorphic features, a color and condition indicative of hydric soils. Indicators of hydrology include saturation within the upper 12 inches of the soil surface, water stained leaves, and oxidized rhizospheres on living roots. The attached Environmental Constraints Analysis Map (Figure 3) shows the GPS located limits of the WOUS. These limits have not been confirmed by the U.S. Army Corps of Engineers (Corps), and should be considered preliminary.

### *Resource Protection Area Determination*

#### *Methodology*

Following the delineation of WOUS within the project boundaries, Stantec performed an RPA determination on the Quarterpath 7-11 Parcel. Pursuant to Section 23-8 of the Chesapeake Bay Preservation Ordinance of the James City County Code, site-specific field evaluations shall be used to determine the boundaries of RPA buffers. According to Section 23-10(2) the RPA buffer is defined as, "a 100-foot buffer area located adjacent to and landward of tidal wetlands, tidal shores, and non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow (i.e., RPA wetlands), and along both sides of any water body with perennial flow." Therefore, Stantec applied the Perennial Stream Field Protocol developed by James City County (JCC), also known as the "JCC Method", to three reaches within the study limits in order to clarify the limits of RPA within the Quarterpath 7-11 Parcel project limits.

The JCC Method uses primary and secondary field indicators of hydrological, physical, and biological parameters to identify the break between perennial and intermittent stream channels and has also been tested and approved to identify breaks between intermittent and ephemeral streams in the Coastal Plain of Virginia. A point value of 18 is generally used as a threshold above which a stream is considered to retain attributes of a perennial system.



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Ms. Molly Trant  
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**Reference: Quarterpath 7-11 Parcel**

A point value of 10 is generally accepted as the threshold above which a system is considered to retain attributes of an intermittent stream. For streams scoring between 10 and 18 points, the JCC Method assigns the perennial flow threshold of 14 points with a range of +/- 2 points. Therefore, streams scoring 14 points or higher are generally assumed to be perennial and those below will be classified as intermittent. However, the threshold range recognizes that when the score is within 2 points of the threshold value, it is possible that the determination may not be made strictly on the threshold value. As such, a stream may be determined to be perennial with a score of 12 or intermittent with a score of 16 if a preponderance of the evidence and professional judgment indicate that is the appropriate determination.

In addition, pursuant to 9 VAC 10-20-10 et seq. and Section 23-10(2) of the James City County Code, non-tidal wetlands are considered RPA resources when such features are "...connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow." Stantec conducted ground reconnaissance along these features identified within the study limits and within 100-feet of the project limits to determine the extent to which wetland areas within the study limits are truly contiguous (i.e. not separated by upland berms or levees) and surficially connected to the conveyance features within the study limits or other known RPA features.

Field data collection was completed on February 22 and 23, 2016. According to the JCC Method, "It is necessary to discern stormwater inflow resulting from precipitation within the past 48 hours from groundwater inputs. [Therefore] flow observations should be taken at least 48 hours after the last rainfall." Weather data obtained from National Climatic Data Center station Williamsburg 0.9 NNW, VA US indicates 0.14" of rainfall was recorded in the 48 hours preceding fieldwork conducted on February 22, 2016. While the precipitation occurred within 48 hours within the site visit, it is not likely to have led to erroneous perennial stream scores because of the presence or absence of other indicators supporting the final determination. Reaches are defined based on geomorphology, hydrology, biology, or other arbitrary points (i.e. property lines) and data are collected along the entire designated reach length, and scores for physical and biological parameters are assigned.

### *Results*

Based on the application of the JCC Method and conditions observed in the field, RPA resources and the associated RPA buffers identified within the Quarterpath 7-11 Parcel project area are consistent with the previous RPA determination conducted which was subsequently verified by James City County in August, 2007. Reaches 1 and 2 are perennial conveyances. The reaches are characterized by mostly moderate to strong indicators of geomorphology and hydrology. Conversely, Reach 3 is a non-perennial conveyance. The





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Ms. Molly Trant  
Page 4 of 7

**Reference: Quarterpath 7-11 Parcel**

reach is characterized by mostly weak to moderate geomorphology and a lack of biological indicators associated with a perennial system. The location of the evaluated reaches and resulting RPA buffers are depicted on the attached Environmental Constraints Analysis Map.

### *Threatened and Endangered Species Habitat Review*

#### *Off-site Review*

Prior to conducting fieldwork, a database search was conducted for the property on February 19, 2016 using the Information, Planning and Conservation System (IPaC) which is maintained by the U.S. Fish and Wildlife Service (FWS) and the Virginia Fish and Wildlife Information Service (VaFWIS) administered by the Virginia Department of Game and Inland Fisheries (VDGIF). The results of these on-line searches showed the federally threatened small whorled pogonia (*Isotria medeoloides*) and federally threatened northern long-eared bat (*Myotis septentrionalis*, NLEB) as potentially being within the project vicinity. However, further review of the VDGIF NLEB map does not depict any known occupied maternity roosts or known hibernaculum sites within the vicinity of the project area. It should be noted Stantec also reference the Center for Conservation Biology Eagle Nest data to determine the likely presence of a bald eagle (*Haliaeetus leucocophalus*) nest within the project area. No nests were reported. The following sections present a brief species description, the methodology utilized, and survey results.

#### *Species Descriptions / Habitat Factors*

**Small Whorled Pogonia** – SWP is a self-pollinating perennial orchid (Family: Orchidaceae), four to twelve inches in height, with a characteristic whorl of five to seven leaves at the summit of a singular, hollow, pale green stem with one or two pale yellowish-green irregular flowers (Mehrhoff 1983, Gleason and Cronquist 1991, Vitt and Campbell 1997). Morphologically similar species include large whorled pogonia (*Isotria verticillata*) and Indian cucumber (*Medeola virginiana*), the former distinguished from SWP by a reddish-purple stem and the latter by a wiry stem with cotton-like hairs (Ware 1991).

SWP occupies a very specific habitat type within its range. In particular, the species seems to require the following conditions: mature, mixed hardwood, upland forests; generally open understory conditions with minimal aggressive ground level species; generally level to moderately sloping land within shallow upland draws often of northerly or easterly exposure; scattered ground-level sunlight; and, acidic, sandy loam soils (Ware 1991, Gleason and Cronquist 1991, Weakley 2006). In addition, many professionals have noted a prevalence of decaying logs and a well-developed detritus layer on the forest floor. These attributes tend to



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Ms. Molly Trant  
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**Reference: Quarterpath 7-11 Parcel**

be present with the species when found, although the exact mechanisms associated with each affinity are not understood (Ware 1991).

Certain indicator species, among others, may also be helpful in identifying SWP habitat, such as large whorled pogonia, strawberry bush (*Euonymus americanus*), tick trefoil (*Desmodium* spp.), and wintergreen (*Chimaphila maculata*). These species may be considered associates, and often occur near documented SWP colonies. It should be noted that the absence of one or even several of the above-referenced habitat criteria does not necessarily preclude the species from occurring on a particular site. A habitat determination should therefore be based upon the experience of a qualified professional.

**Northern Long-eared Bat** – NLEB is a medium-sized bat 3 to 3.7 inches in length but with a wingspan of 9 to 10 inches. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*, which are actually bats noted for their small ears (*Myotis* means mouse-eared). The northern long-eared bat is found across much of the eastern and north central United States and all Canadian provinces from the Atlantic coast west to the southern Northwest Territories and eastern British Columbia. The species' range includes 37 states. White-nose syndrome, a fungal disease known to affect bats, is currently the predominant threat to this bat, especially throughout the Northeast where the species has declined by up to 99 percent from pre-white-nose syndrome levels at many hibernation sites. Although the disease has not yet spread throughout the northern long-eared bat's entire range (white-nose syndrome is currently found in at least 25 of 37 states where the northern long-eared bat occurs), it continues to spread. Experts expect that where it spreads, it will have the same impact as seen in the Northeast.

*Methodology*

Following the review of the off-site reference materials, a habitat assessment was conducted on the Quarterpath 7-11 Parcel. Habitat survey methods typically included general reconnaissance within the study area using the nesting, breeding, and/or known habitat requirements for each of the above-mentioned target species to determine the location and extent of potential habitat.

It should be noted that the normal SWP vegetative cycle is late spring to mid-summer. Therefore, the FWS will only accept detailed survey data collected within a certain season (May 25-July 15 in James City County). Outside of this time frame, qualified survey contacts may conduct habitat surveys using the guidelines listed above to determine whether a particular site contains potential habitat for the species. Therefore, this habitat survey for the small whorled pogonia (SWP) was conducted by Scott Kupiec of Stantec, who is recognized as a SWP survey contact by the FWS. The purpose for this type of survey is to identify portions



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Ms. Molly Trant  
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**Reference: Quarterpath 7-11 Parcel**

of the site that may require in-season detailed surveys for the species and to estimate the likelihood of SWP occurrence.

In addition, for the purposes of the NLEB, all forested portions were evaluated specifically for tree species with diameter at breast height (DBH) greater than 3 inches. Typically, semi-mature to mature forest communities with open to somewhat open understory are considered to provide appropriate habitat for NLEB.

*Results*

**No suitable SWP habitat was found within the Quarterpath 7-11 Parcel project area.** The majority of the project area consists of developed land or immature forest communities. The immature forest communities lack a stratified canopy, thick duff, and associates correlated with suitable SWP habitat, and contain significant historic disturbance associated with mound and debris fields. Furthermore, these areas contain dense understory and herbaceous layers. Also, non-tidal wetlands and streams identified during the wetland delineation are present within the project area, and these features are considered to provide unsuitable habitat conditions for SWP due to persistent inundation or seasonally high water tables. It should be noted a small portion of the site along the southwestern project limits falls within a more mature mixed-hardwood community. However, this part of the project area occurs along a steep slope with little or no duff and is unsuitable habitat for SWP.

**Based on the evaluation of the forested areas within the study limits, NLEB habitat is likely present.** However, review of the VDGIF NLEB habitat map does not depict any known occupied maternity roosts or known hibernaculum sites within the vicinity of the project area.

*Conclusion*

Stantec conducted an environmental constraints analysis on the Quarterpath 7-11 Parcel project including a delineation of WOUS, RPA determination, and threatened and endangered species habitat assessment. Based on a detailed delineation of WOUS, wetlands and non-vegetated stream channels are present within the Quarterpath 7-11 Parcel project area. Stantec recommends these findings be submitted to the Army Corps of Engineers to obtain a confirmation prior to any land disturbing activities.

Following the delineation of WOUS, three on-site reaches were scored using the JCC Method to determine perennial breaks and the resultant RPA buffer. Based on Stantec's findings Reaches 1 and 2 are perennial streams and should be included as RPA resources along with the associated connected and contiguous wetlands. Reach 3 is a non-perennial conveyance. However, it should be noted flowing water was observed in Reach 3 during the time of the study. While it is Stantec's opinion that this stream is non-perennial and should not



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Ms. Molly Trant  
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**Reference: Quarterpath 7-11 Parcel**

be included as an RPA resource based on moderate to weak scores for geomorphology and an absence of biology associated with a perennial system, Stantec recommends the stream be rescored during a drier time of the year to verify these findings, and the results confirmed by James City County.

Finally, a threatened and endangered database review indicated the potential presence of SWP and NLEB potentially occurring within the project boundaries. Based on habitat review, no suitable habitat for SWP is present. However, potential habitat for NLEB is present. As such, time of year restrictions may be requested prior to any tree clearing, should it be required. Furthermore, if it is determined that state or federal permits are required for the project, formal consultation with USFWS may be recommended.

Please let me know if you have any questions regarding this correspondence.

Regards,

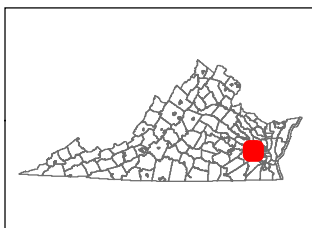
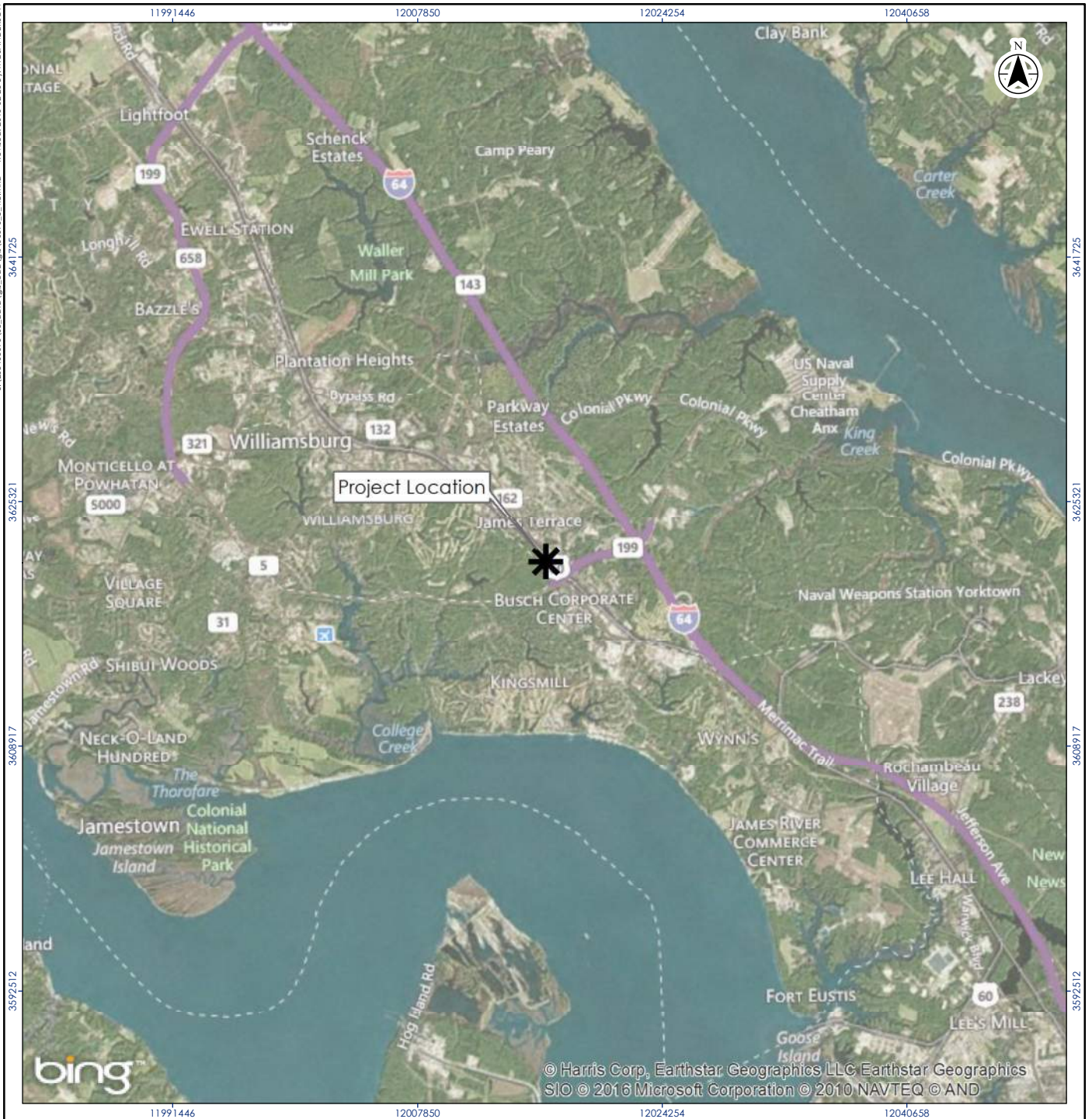
**Stantec Consulting Services**

Scott Kupiec, PWD  
Senior Ecologist  
Phone: (757) 220-6869  
Fax: (757) 229-4507  
scott.kupiec@stantec.com

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**Notes**

1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
2. Project limits created from James City County GIS Parcels, 2016
3. Orthoimagery © Bing Maps
4. Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

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Feet  
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Project Location 203400690

James City County, VA Prepared by EAS on 2016-02-24  
Technical Review by IPS on 2016-02-24  
Independent Review by CSK on 2016-02-24

Client/Project

Quaterpath 7-11 Parcel

Submitted: 2016-02-26

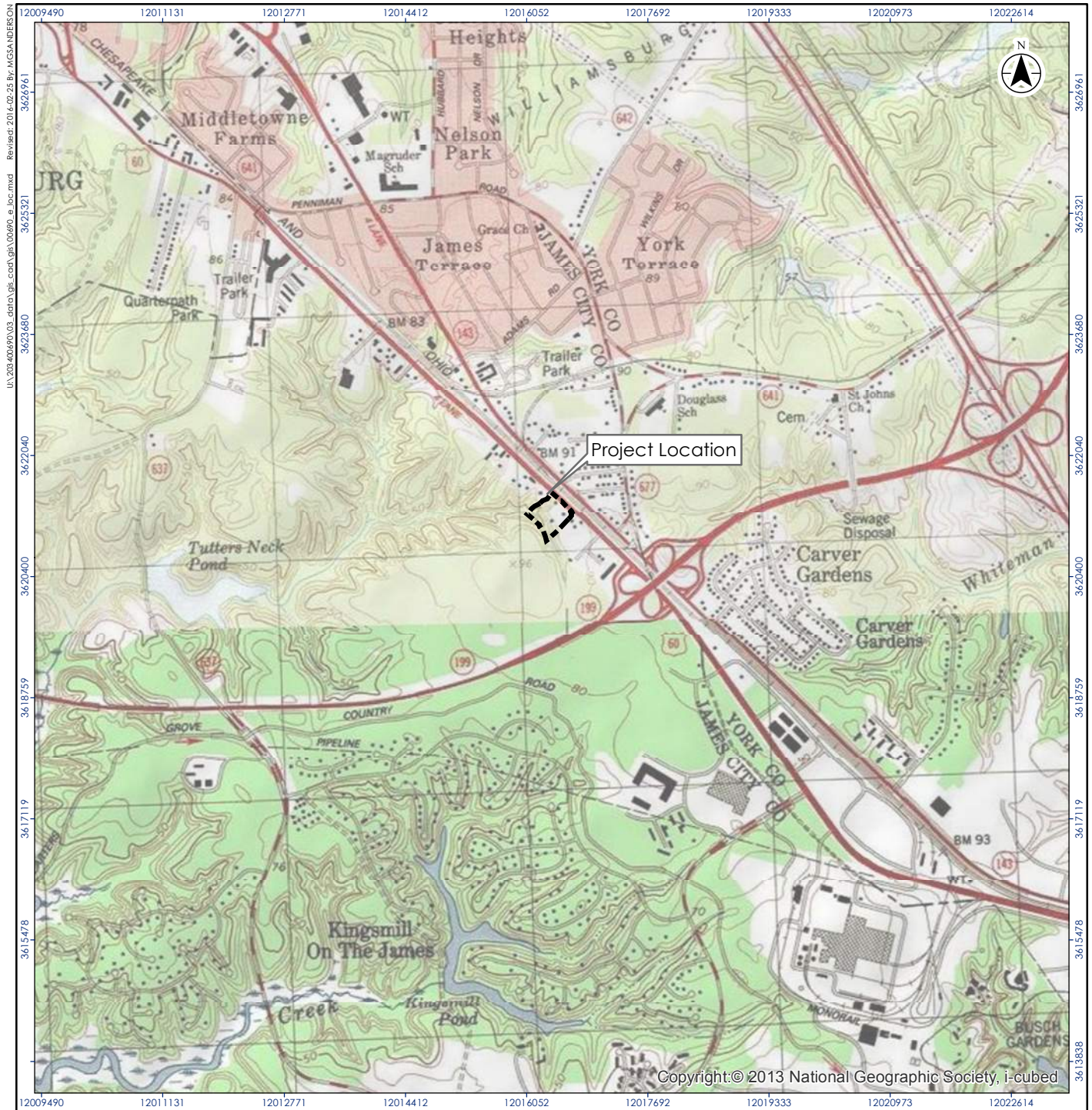
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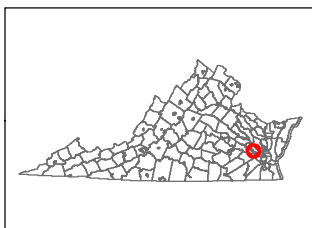
Title

**Project Vicinity Map**





Copyright © 2013 National Geographic Society, i-cubed



Latitude: 37°15'14.60" N  
Longitude: 76°40'01.47" W

0 1,000 2,000  
Feet  
1:24,000 (at original document size of 8.5x11)



Project Location 203400690  
James City County, VA Prepared by MGS on 2016-02-24  
Technical Review by IPS on 2016-02-24  
Independent Review by CSK on 2016-02-24

Client/Project  
Quaterpath 7-11 Parcel Submitted: 2016-02-26

Figure No.  
**2**

Title  
**Project Location Map**

- Notes**
1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
  2. Project limits created from James City County GIS Parcels, 2016
  3. Topographic Map © USGS 7.5 Minute Series Topographic Map

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Site Data

Project Area	4.46 Acres ±
Palustrine Forested Wetlands (PFO)	0.16 Acres ±
Upper Perennial Stream Channels (R3)	0.05 Acres ± (503 L.F. ±)
Intermittent Stream Channels (R4)	0.03 Acres ± (215 L.F. ±)

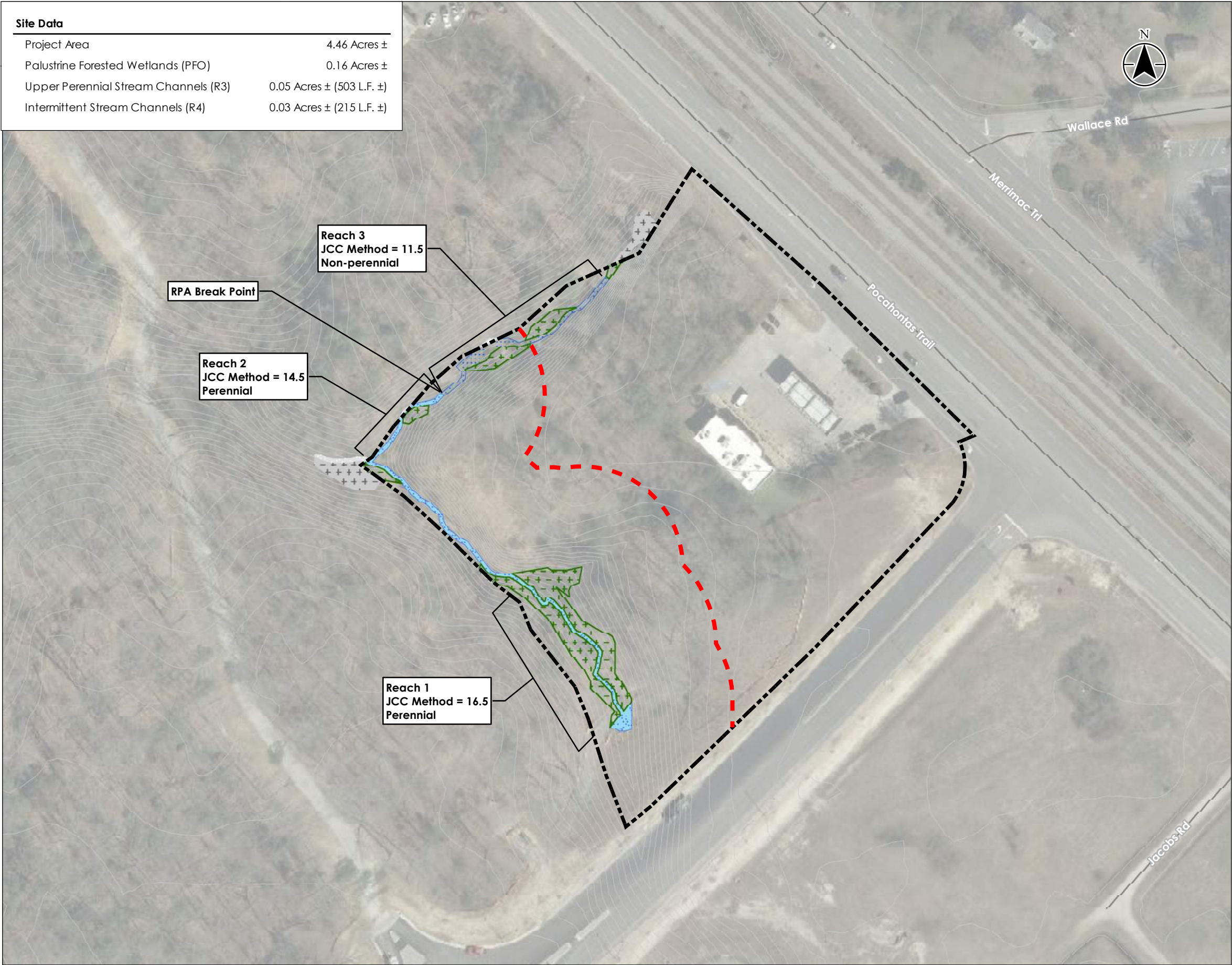


Figure No.  
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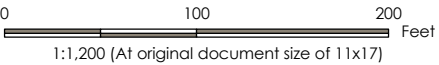
Title  
**Environmental Constraints Map**

Submitted: 2016-02-26

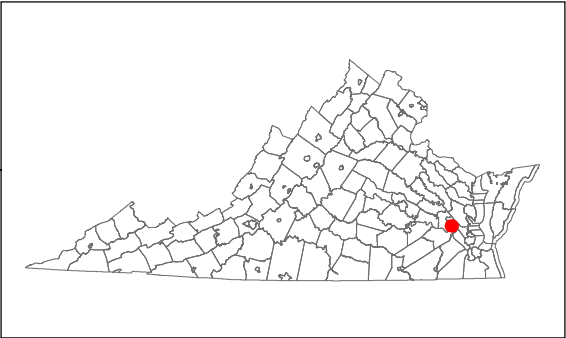
Client/Project  
  
Quaterpath 7-11 Parcel

Project Location  
James City County, Virginia

203400690  
Prepared by MGS on 2016-02-18  
Technical Review by TPS on 2016-02-24  
Independent Review by CSK on 2016-02-24



- Legend
- RPA Buffer Limits
  - Approximate Palustrine Forested Wetland Limits (PFO)
  - Approximate Upper Perennial Stream Channel Limits (R3)
  - Approximate Intermittent Stream Channel Limits (R4)
  - Offsite-Approximate Palustrine Forested Wetland Limits (PFO)
  - Offsite-Approximate Upper Perennial Stream Channel Limits (R3)
  - Offsite-Approximate Intermittent Stream Channel Limits (R4)
  - Project Limits
  - 2-Foot Contour



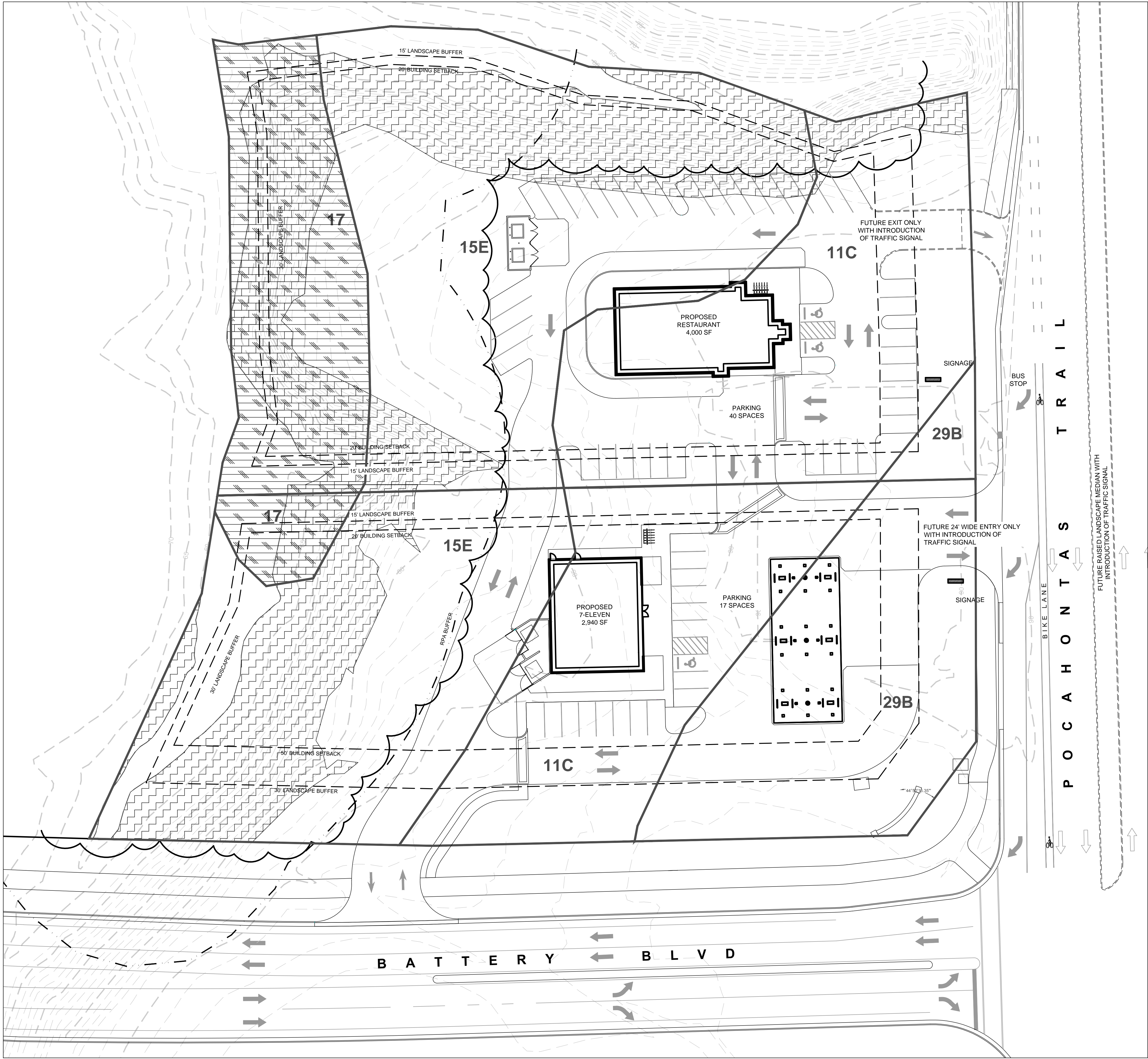
- Notes
- Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet
  - The limits of waters of the U.S., including wetlands, shown on this map have been field located by means of sub-meter GPS technology and are for planning purposes only.
  - Project limits created from James City County GIS Parcels, 2016
  - Topography provided by James City County GIS 2013
  - Orthoimagery © VGIN 2013



# Environmental Inventory



R:\1410262\2-11 at Quarterpath\DWG\2017-2018\2017-2018.dwg, Printed on 8/24/2017 2:08:24 PM, by David Collins



NOTES

- PROJECT DESCRIPTION**  
 THIS PROJECT PROVIDES FOR THE INSTALLATION OF A 7-11 AT THE CORNER OF BATTERY BOULEVARD AND POCAHONTAS TRAIL AND THE ADJACENT PROPERTY. THE PROJECT WILL ALSO INCLUDE THE PARTIAL DEMOLITION OF THE EXISTING IMPERVIOUS SURFACE WITHIN THE SITE LIMITS. THE TOTAL PROJECT AREA IS APPROXIMATELY 3.8 ACRES.
- EXISTING CONDITIONS**  
 THE EASTERN PORTION OF THE SITE IS CURRENTLY IMPERVIOUS SURFACE FROM AN EXISTING GAS STATION. THE REMAINDER OF THE SITE IS GRASSED AREA THAT DRAINS TO FOREST AREA TO THE WEST AND NORTH. ELEVATIONS ON SITE VARY BETWEEN 58'-90'. STORMWATER RUNOFF CURRENTLY FLOWS ACROSS THE SITE AND INTO THE SURROUNDING FORESTED AREA.
- STORMWATER MANAGEMENT**  
 STORMWATER MANAGEMENT IS INCLUDED IN THE QUARTERPATH MASTERPLAN.
- SOILS DESCRIPTION**  
 SEE THIS SHEET.
- CRITICAL AREAS**
- THIS PROJECT WILL NOT IMPACT EXISTING WETLANDS OR THE SURROUNDING 100' RPA BUFFER.
  - SOILS THAT ARE CLASSIFIED AS HYDRIC WILL NOT BE AFFECTED.
  - THIS PROJECT WILL NOT IMPACT SLOPES EXCEEDING.

**EROSION AND SEDIMENT CONTROL MEASURES**  
 TO PREVENT SEDIMENT FROM LEAVING THE SITE AND ENTERING THE SURROUNDING FORESTS, MEASURES SUCH AS SILT FENCE, CHECK DAMS, A CONSTRUCTION ENTRANCE, AND TEMPORARY SEEDING WILL BE IMPLEMENTED. INSTALLATION AND MAINTENANCE OF TEMPORARY MEASURES WILL CONFORM TO THE GUIDELINES PUBLISHED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

**PERMANENT SEEDING**  
 PERMANENT SEEDING, LANDSCAPING, AND TURF WILL BE USED TO STABILIZE THE SITE AFTER CONSTRUCTION IS COMPLETE.

**TEMPORARY OFFSET AREAS**  
 THERE ARE NO ADDITIONAL OFF-SITE LAND DISTURBANCES PROPOSED WITH THIS PROJECT.

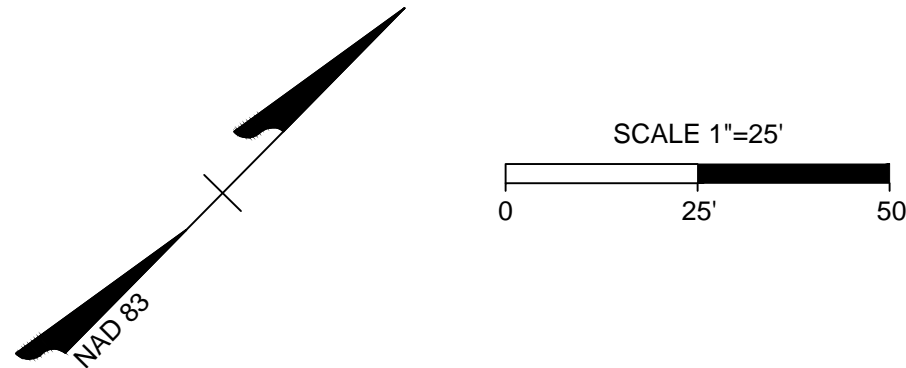
ENVIRONMENTAL INVENTORY IMPACTS

TIDAL WETLANDS: NONE ON SITE  
 TIDAL SHORES: NONE ON SITE  
 NON-TIDAL WETLANDS: NONE ON SITE  
 100-FT RPA BUFFER: NONE ON SITE  
 HYDRIC SOILS: NONE ON SITE  
 25% SLOPES OR GREATER: NONE ON SITE

LEGEND

- HYDRIC SOILS
- DENOTES 25% OR GREATER SLOPES
- 25% SLOPE IMPACTS
- HYDRIC SOIL IMPACTS

ON-SITE SOILS TABULATION					
SOIL NO.	SOIL NAME	HYDROLOGICAL GROUP	TYPICAL SLOPES	EROSION FACTOR (K)	EROSION FACTOR (T)
11C	GRAVENHURCH COMPLEX	D	6-10%	0.29	4
15E	EMPIRIA COMPLEX	B	15-25%	0.39	5
17	JOHNSTON COMPLEX	A/D	-	0.37	5
29B	SLAGLE FINE SANDY LOAM	C	2-6%	0.24	5



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DATE	
8/21/2017	
DRAWN BY	D.DUNCAN
DESIGNED BY	M.RICHARDSON
CHECKED BY	M.RICHARDSON
SCALE	1" = 25'

TIMMONS GROUP

7-11 AT QUARTERPATH

JAMES CITY COUNTY, VIRGINIA  
ENVIRONMENTAL INVENTORY

JOB NO.  
-  
SHEET NO.  
INV

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# **Traffic Analysis For 7-Eleven/Restaurant SUP And AMR Exception**

**JAMES CITY COUNTY, VIRGINIA**

*For:*  
**Quarterpath At Williamsburg**

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

**March 13, 2017**

August 17, 2017 Edited Version

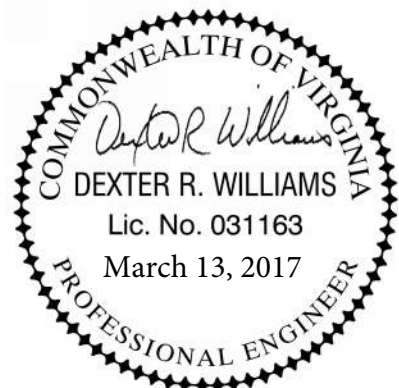
# **Traffic Analysis For 7-Eleven/Restaurant SUP And AMR Exception**

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**March 13, 2017**



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# **REPORT TEXT**

## INTRODUCTION AND SCOPE

Quarterpath At Williamsburg (QAW) has filed a Special Use Permit (SUP) for redevelopment of the northwest corner of Rt. 60 Pocahontas Trail and Battery Boulevard. (Note: In this report Rt. 60 is north/south orientation; Battery Boulevard is east/west orientation). The upper section of Exhibit 1 shows the site location in the VDOT Hampton Roads District. The lower section of Exhibit 1 shows the area around the site in James City County.

The SUP area consists of three undeveloped parcels of land owned by QAW and a fourth parcel of land with an existing 7-Eleven (7-11) convenience store with gas (2,560 sq. ft. store with 6 vehicle fueling positions). The existing 7-Eleven and SUP property development property boundary is shown on Exhibit 2a. The existing 7-11 has two entrances on Rt. 60. The south entrance is located 149 feet from Battery Boulevard. The north entrance is located 89 feet from the south entrance (all measurements centerline to centerline).

The proposed SUP is shown on Exhibit 2b. Redevelopment of the site includes the following:

1. 2,940 sq. ft. 7-11 convenience store with 12 vehicle fueling positions.
2. 4,000 sq. ft. fast food with drive through
3. Rt. 60 entrance located 229 feet from Battery Boulevard (centerline to centerline).
4. A 70 foot full with right turn lane with 79 foot taper at the Rt. 60 entrance.
5. Battery Boulevard entrance located 306 feet from Rt. 60 (corner clearance curb to curb).
6. Construction of a shared use path across the property frontage
7. A sidewalk connection between the shared use path and the existing sidewalk north of the property.

This traffic study has been prepared to document existing and future traffic conditions with the SUP approval. The following existing intersections were identified for traffic counts and analysis as follows:

1. Rt. 60 Pocahontas Trail/Battery Boulevard
2. Rt. 60 Pocahontas Trail/South Entrance
3. Rt. 60 Pocahontas Trail/North Entrance

All three intersections are stop sign controlled on the eastbound approaches. It should be noted that the eastern boundary of Rt. 60 Pocahontas Trail is a railroad so that there is no access on the east side of Rt. 60 Pocahontas Trail in the vicinity of this property.

The workscope includes AM and PM peak hour traffic analysis at the existing three

intersections cited above and at the Battery Boulevard/Battery Entrance for the following scenarios:

- Existing traffic
- 2024 without the SUP
- 2024 with the SUP

## ACCESS MANAGEMENT REGULATION (AMR) SPACING CRITERIA AND SITE ACCESS

Rt. 60 Pocahontas Trail is a Principal Arterial in VDOT's functional classification system. Pocahontas Trail is a divided median (flush median with northbound left turn lane) highway posted 45 mph. The existing South and North Entrances are full access: left turns permitted in and out. The AMR Minimum Spacing for full access is 565 feet from any other entrance on a principal arterial 35 to 45 mph (minimum spacing criteria are measured from centerline to centerline).

Exhibit 2a shows an aerial view of the existing 7-Eleven site on Pocahontas Trail. There are two full access entrances with entrance spacings of 149 feet (Battery Boulevard to South Entrance) and 89 feet (South Entrance to North Entrance). These entrance spacings are 26% and 16% of required 565 foot spacing (see Exhibit 2a).

Exhibit 2b shows the proposed SUP development plan prepared by The Blakeway Corporation. The single Rt. 60 entrance is located approximately where the existing North Entrance is located. Rt. 60 entrance spacing of 229 feet is 40% of required 565 foot spacing. The proposed entrance will require an exception to Access Management Regulation spacing standards. The Rt. 60 entrance includes a 70 foot full width right turn lane and a 79 foot taper.

Exhibit 2c shows Phase 2 Access for the site when the intersection of Rt. 60/Battery Boulevard is signalized. The Phase 1 full access intersection is converted to right turn in only. A right turn out entrance is added at the northern end of the site.

Exhibit 2d also shows the application of VDOT's Figure 4-3 Elements Of The Functional Area Of Intersection on southbound Pocahontas Trail at Battery Boulevard (in green) as follows:

- L1: perception-reaction time (PRT): 2.5 sec. X 66 feet per second (fps). (Note: Speed Limit 45 mph = 66 fps).
- L2: lateral movement and deceleration:  $1.8 \text{ meter/sec}^2 = 5.9 \text{ fps}^2$  per AASHTO Green Book 9.7.2. 66 fps deceleration to 30.3 fps calculated in L3.
- L3: to stop.  $2.0 \text{ meter/sec}^2 = 6.56 \text{ fps}^2$ . 30.3 fps to stop in 70 feet available.
- L4: Storage: 100 feet per App. F Fig. 3-1.

Battery Boulevard is four lane road posted 30 mph. It has a divided median approximately 260 feet long beginning at Rt. 60. Battery Boulevard is not identified on VDOT Functional Classification Maps. By default, it is a local street under VDOT AMR criteria. As shown on Exhibit 2b, the Battery Boulevard entrance has 306 feet of corner clearance from Pocahontas Trail. This is in excess of the AMR minimum of 225 feet. Even as a collector street, 360 feet centerline to centerline spacing meets AMR full access entrance spacing of 225 feet for 30 mph streets. The proposed entrance is outside of the divided median.



## EXISTING TRAFFIC CONDITIONS

Intersection turning movement traffic counts were conducted at the three Rt. 60 Pocahontas Trail intersections by Peggy Malone & Assc. from 7 to 9 AM and from 4 to 6 PM on Wednesday, October 12, 2016. These counts are tabulated on the Appendix Exhibit A, B and C series. Counts without balance are shown on Appendix Exhibit D.

Exhibit 3 shows 2016 AM and PM peak hour traffic (counts with balance) on the study area road network diagram.

Synchro 9 has been used to calculate intersection levels of service. Synchro coding for turn lane dimensions on Pocahontas Trail is explained as follows:

1. Battery Boulevard
  - a. Northbound left turn lane coded continuous because of long, unimpeded center lane approach
  - b. Eastbound lanes coded continuous because of two lane approach
  - c. Southbound right turn coded continuous back to South Entrance.
2. South Entrance
  - a. Northbound left turn lane coded 50 foot left turn storage with 25 foot taper
  - b. Eastbound coded single lane
  - c. Southbound right turn coded three through/right turn shared. The southbound right turn lane at Battery Boulevard extends back to North Entrance.
3. North Entrance
  - a. Northbound left turn lane coded 25 foot left turn storage with 15 foot taper
  - b. Eastbound coded single lane
  - c. Southbound right turn coded three 10 foot storage length with 170 taper to reflect actual taper on southbound approach. The southbound right turn lane at Battery Boulevard extends back to North Entrance.

The following reports are included in the technical appendix:

1. For unsignalized intersections, HCM 2010 reports are used for LOS results and HCM2010 queuing results. See Appendix Exhibits J1 and J2 for the AM and PM peak hours, respectively.
2. SimTraffic Queuing & Blocking results are shown in Appendix Exhibits K1 and K2 series for the AM and PM peak hours, respectively.

The following table shows existing peak hour intersection levels of service and queuing results at Rt. 60 Pocahontas Trail/Battery Boulevard:

TABLE 1-1 Rt. 60 Pocahontas Trail/Battery Boulevard									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
Overall	A	1.5	A	1.4		AM	PM	AM	PM
NBL	A	8.0	A	8.5		3	5	31	37
SBT								6	7
EBL	B	13.2	C	20.2		5	10	36	53
EBR	A	9.4	B	10.2		5	5	44	39

There is LOS C or better on the Battery Boulevard eastbound approach with queues of 53 feet or less. On the northbound left turn, there is LOS A with queues of 37 feet or less. SimTraffic is showing southbound through queue of 7 feet or less.

The following table shows existing peak hour intersection levels of service and queuing results at Pocahontas Trail/South Entrance:

TABLE 1-2 Rt. 60 Pocahontas Trail/South Entrance									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
Overall	A	1.3	A	0.7		AM	PM	AM	PM
NBL	A	9.2	B	10.4	50	3	3	25	29
NBT								6	13
SBT/R								4	8
EBL/R	B	10.4	B	11.9		5	8	50	40

There is LOS B on the South Entrance eastbound approach with queues of 50 feet or less. On the northbound left turn, there is LOS A/B with queues of 29 feet or less. SimTraffic is showing northbound through queue of 13 feet or less and southbound through/right queue of 8 feet or less.

The following table shows existing peak hour intersection levels of service and queuing results at Pocahontas Trail/North Entrance:

TABLE 1-3 Rt. 60 Pocahontas Trail/North Entrance									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
Overall	A	0.6	A	0.6		AM	PM	AM	PM
NBL	A	7.9	A	8.4	25	0	3	21	31
NBT								25	35
SBR									4
EBL/R	B	10.1	B	11.6		3	5	46	41

There is LOS B on the North Entrance eastbound approach with queues of 46 feet or less. On the northbound left turn, there is LOS A with queues of 31 feet or less. SimTraffic is showing northbound through queue of 35 feet or less and southbound right queue of 4 feet or less.

## 2024 BACKGROUND TRAFFIC

There are two components of the 2024 background traffic forecast: 1) growth rate applied to existing traffic counts, and 2) site traffic forecast for approved but unbuilt condominiums and townhouses in QAW.

Exhibit 4a shows VDOT daily traffic counts (2011 through 2015) and linear regression analysis trend for Rt. 60 Pocahontas Trail from Williamsburg corporate limits to Rt. 199. Rt. 60 Pocahontas Trail shows a slightly increasing trend: 1.10 growth factor (10% growth) over the next eight years.

Exhibit 4b shows statewide vehicle miles travelled since 1975. Current rates of overall traffic growth are negligible. All statewide traffic peaked in 2007-08 with no net increase since.

A 1.10 growth factor is applied to 2016 counts at Rt. 60 Pocahontas Trail/Battery Boulevard to produce the growth factor component of 2024 background traffic for the SUP development (2018 completion plus six years).

For the townhouse and condominium units in QAW, there are 115 townhouses and 42 condominiums with site plan approval that were not yet occupied at the time of the counts. Table 5 on Exhibit 6 shows trip generation for the townhouse/condominiums using Trip Generation Manual, 9th Edition (TGM9), published by the Institute of Transportation Engineers (ITE). Townhouses and condominiums are grouped as one land use in TGM9. TGM9 and VDOT protocols recommend using the equation values for trip generation.

QAW currently has two points of access via Battery Boulevard: 1) Rt. 60 Pocahontas Trail on the east included in this study, and 2) Quarterpath Road and Rt. 199 on the west. QAW developers have advised that traffic to Quarterpath Road/Rt. 199 is at least half of traffic distribution. 35% of condominium/townhouse is assigned to Quarterpath Road/Rt. 199 on the west in Table 6 on Exhibit 6. 65% of condominium/townhouse traffic is assigned to Rt. 60 Pocahontas Trail with the north/south split based on existing traffic count splits.

This 2024 background traffic forecast is shown on Exhibit 5 and includes the 1.10 growth factor and 65% condominium/townhouse assignments at Rt. 60 Pocahontas Trail/Battery Boulevard. Traffic increases on Rt. 60 Pocahontas Trail are balanced through the South and North Entrances.

For 2024 background traffic analysis reports, see Technical Appendix as follows:

1. For unsignalized intersections, HCM 2010 reports are used for LOS results and HCM2010 queuing results. See Appendix Exhibits J3 and J4 for the AM and PM peak hours, respectively.
2. SimTraffic Queuing & Blocking results are shown in Appendix Exhibits K3 and K4 series for the AM and PM peak hours, respectively.

The following table shows existing peak hour intersection levels of service and queuing

results at Rt. 60 Pocahontas Trail/Battery Boulevard:

TABLE 2-1 Rt. 60 Pocahontas Trail/Battery Boulevard									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
Overall	A	2.0	A	1.8		AM	PM	AM	PM
NBL	A	8.1	A	8.7		3	8	36	44
SBT								4	5
EBL	B	14.5	C	24.8		8	15	44	66
EBR	A	9.7	B	10.5		8	8	48	43

There is LOS C or better on the Battery Boulevard eastbound approach with queues of 66 feet or less. On the northbound left turn, there is LOS A with queues of 44 feet or less. SimTraffic is showing southbound through queue of 5 feet or less.

The following table shows existing peak hour intersection levels of service and queuing results at Pocahontas Trail/South Entrance:

TABLE 2-2 Rt. 60 Pocahontas Trail/South Entrance									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
Overall	A	1.2	A	0.6		AM	PM	AM	PM
NBL	A	9.3	B	10.7	50	3	3	32	24
NBT								8	10
SBT/R									9
EBL/R	B	10.6	B	12.1		8	8	50	44

There is LOS B on the South Entrance eastbound approach with queues of 50 feet or less. On the northbound left turn, there is LOS A/B with queues of 32 feet or less. SimTraffic is showing northbound through queue of 10 feet or less and southbound through/right queue of 9 feet or less.

The following table shows existing peak hour intersection levels of service and queuing results at Rt. 60 Pocahontas Trail/North Entrance:

TABLE 2-3 Rt. 60 Pocahontas Trail/North Entrance									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
Overall	A	0.6	A	0.5		AM	PM	AM	PM
NBL	A	7.9	A	8.5	25	0	3	19	33
NBT								25	36
SBR									
EBL/R	B	10.4	B	12.0		3	5	44	40

There is LOS B on the North Entrance eastbound approach with queues of 44 feet or less. On the northbound left turn, there is LOS A with queues of 33 feet or less. SimTraffic is showing northbound through queue of 36 feet or less.

## SITE TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

Table 1 on Exhibit 6 shows trip generation values for the proposed 7-11 and fast food sites using Trip Generation Manual, 9th Edition (TGM9), published by the Institute of Transportation Engineers (ITE). Fast food trip generation is based on square footage and 7-11 peak hour trip generation is based on vehicle fueling positions (higher value than trip generation based on square footage of building).

Trip distribution is calculated separately for the two sites in Tables 2 and 3 on Exhibit 6. The trips are distributed based on the directional distribution of existing 7-11 traffic (see Appendix Exhibit D1).

Site trip assignment for the 7-11 is shown on Appendix Exhibit D4.

Site trip assignment for the fast food restaurant is shown on Appendix Exhibit D5.

Total site traffic assignment is shown on Exhibit 7.

## 2024 TOTAL TRAFFIC WITH SITE

Exhibit 8 shows 2024 AM and PM total peak hour traffic with development of the 7-11 and fast food restaurant.

Turn lane warrants for the site's two entrances are shown on the Appendix Exhibit F series as follows:

- Appendix Exhibit F1: Right Turn Lane Warrants, Southbound Pocahontas Trail
  - Battery Boulevard: Right turn taper is warranted at Battery Boulevard. There is a full width right turn lane at Battery Boulevard extending back to the Rt. 60 entrance
  - Rt. 60 Entrance: Right turn taper is warranted. A 70 foot full width right turn lane with 79 foot taper will be included with the entrance.
- Appendix Exhibit F2: Right Turn Lane Warrants, Northbound Battery Boulevard at Battery Entrance: Right turn lane radius only; no right turn lanes or taper warranted.
- Appendix Exhibit F3: Left Turn Lane Warrants, Southbound Battery Boulevard at Battery Entrance: No left turn lane warranted.

Synchro 9 has been used to calculate intersection levels of service. Synchro coding for new turn lane dimensions at the Rt. 60 entrance is explained as follows:

- a. Northbound left turn lane coded 100 foot left turn storage with 50 foot taper
- b. Eastbound coded single lane
- c. Southbound right turn coded 70 foot storage length with 79 foot taper

For 2024 background traffic analysis reports, see Technical Appendix as follows:

1. For unsignalized intersections, HCM 2010 reports are used for LOS results and HCM2010 queuing results. See Appendix Exhibits J5 and J6 for the AM and PM peak hours, respectively.
2. SimTraffic Queuing & Blocking results are shown in Appendix Exhibits K5 and K6 series for the AM and PM peak hours, respectively.

The following table shows existing peak hour intersection levels of service and queuing results at Rt. 60 Pocahontas Trail/Battery Boulevard:

TABLE 3-1 Rt. 60 Pocahontas Trail/Battery Boulevard									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
Overall	A	2.5	A	2.2		AM	PM	AM	PM
NBL	A	8.2	A	9.0		5	10	46	54
SBT/R								6	8
EBL	C	16.6	D	29.9		8	18	41	55
EBR	B	10.2	B	11.0		15	13	73	56

There is LOS D or better on the Battery Boulevard eastbound approach with queues of 73 feet or less. On the northbound left turn, there is LOS A with queues of 54 feet or less. SimTraffic is showing southbound through queue of 3 feet or less.

The following table shows existing peak hour intersection levels of service and queuing

results at Pocahontas Trail/Rt. 60 entrance:

TABLE 3-2 Rt. 60 Pocahontas Trail/Rt. 60 Entrance									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
	A	2.8	A	2.6		AM	PM	AM	PM
Overall	A	2.8	A	2.6	100	8	8	48	51
NBL	A	8.0	A	8.8				6	6
SBR								89	90
EBL/R	B	13.3	C	19.3		23	40		

There is LOS A/B on the Rt. 60 entrance eastbound approach with queues of 90 feet or less. On the northbound left turn, there is LOS A with queues of 51 feet or less. SimTraffic is showing southbound right queue of 6 feet.

The following table shows existing peak hour intersection levels of service and queuing results at Battery Boulevard/Battery Entrance:

TABLE 3-3 Battery Boulevard/Battery Entrance									
Traffic LOS And Seconds Delay By Lane Group					95th Percentile Queues By Lane Group				
	AM		PM		Storage Length	HCS 2010		SimTraffic Q&B	
	A	2.5	A	1.9		AM	PM	AM	PM
Overall	A	2.5	A	1.9					
EBL/T	A	7.4	A	7.6		0	0	8	6
SBL/R	A	9.8	A	9.9		8	5	53	47

There is LOS A on the Battery Entrance southbound approach with queues of 53 feet or less. On the eastbound left turn, there is LOS A with queues of 8 feet or less.

Exhibit 8a shows the higher of AM and PM peak hour queues plotted on the intersection spacing diagram.

James City County has a Traffic Impact Analysis Submittal Requirements Policy that includes the following:

*Improvements necessary to achieve an overall Level of Service “C” on adjacent roadways/signalized intersections. The Planning Director may approve movements in certain lane groups of LOS “D” in urban environments.*

All intersection tables include an overall intersection level of service (LOS). All intersections for all scenarios show overall LOS A. HCM2010 gives intersection delay in seconds, and the resulting LOS A for all intersections is based on the HCM2010 unsignalized intersection delay and LOS definitions.

Regarding the LOS D for the eastbound left turn lane group at Pocahontas Trail/Battery Boulevard for 2024, minor street left turns and through movements typically have the lowest LOS of any movement at unsignalized or signalized intersections. As traffic grows at this unsignalized intersection, this left turn is at the bottom of the right of way order and will experience the greatest effect/lowering of LOS.

When the traffic volumes and delays reach a certain level, signalization will be warranted.

What will probably be an LOS F in the future for the stop sign controlled approach will be improved with signalization, and LOS will decrease for other movements. Even with signalization, LOS D is routinely the best that can be accommodated for minor street left turns.



## SUMMARY AND CONCLUSIONS

All intersection movements at Rt. 60 Pocahontas Trail/Battery Boulevard have LOS D or better with the development. All turning movements at the Rt. 60 Pocahontas Trail entrance have LOS C or better. Left turn queues on northbound Rt. 60 at the Rt. 60 Entrance are well within available storage distance. Right turn lane full width and taper requirements are also met between intersections.

Rt. 60 Pocahontas Trail has relatively unusual traffic conditions: VDOT counts show daily traffic in the 8,000 vpd range which can be accommodated by a two lane road, but Rt. 60 is a four lane road with flush median and access only on one side of the road. Overall, traffic demand on Pocahontas Trail is more in keeping with a collector or local street than a principal arterial.

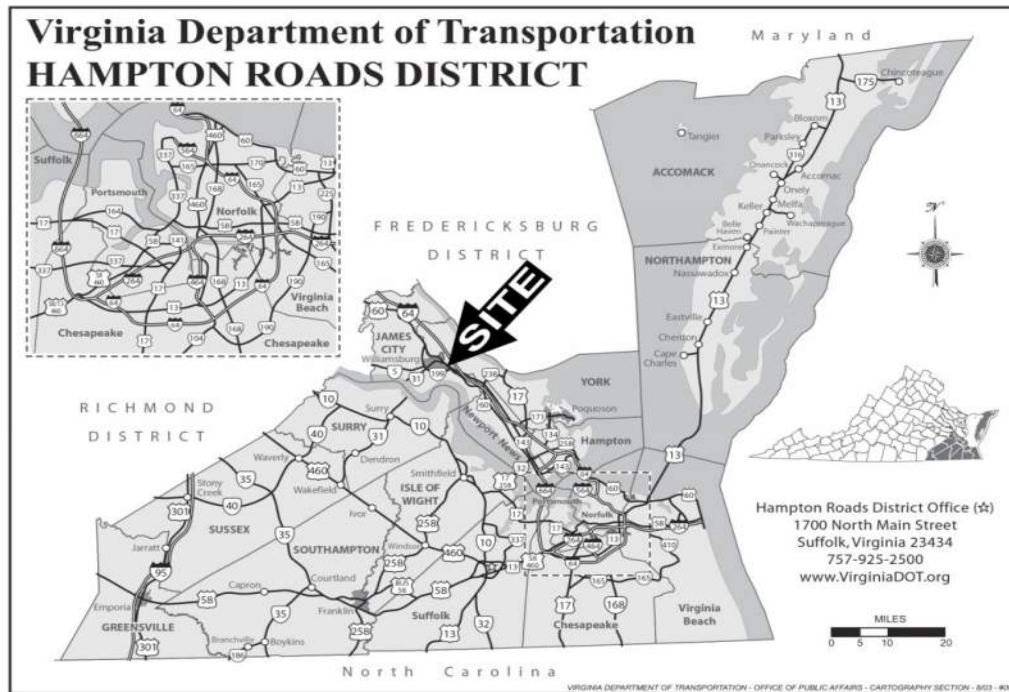
With the proposed SUP entrance location on Pocahontas Trail, left turns on Pocahontas Trail fit will within storage space which is not the case with all existing conditions. There is no lower than LOS C for any movement at the entrances with the relatively light traffic on Pocahontas Trail. The proposed entrances provide adequate accommodations for forecast traffic.

SUP proffers for this development will include the following:

1. Site plan approval to include construction of the single Rt. 60 entrance with the right turn lane and taper, shared use path and sidewalk shown on Exhibit 2b.
2. Reconstruction of Rt. 60 access to the right turn in entrance and right turn out entrance configuration on Exhibit 2c at such time that the Rt. 60/Battery Boulevard entrance is signalized.



# **REPORT EXHIBITS**

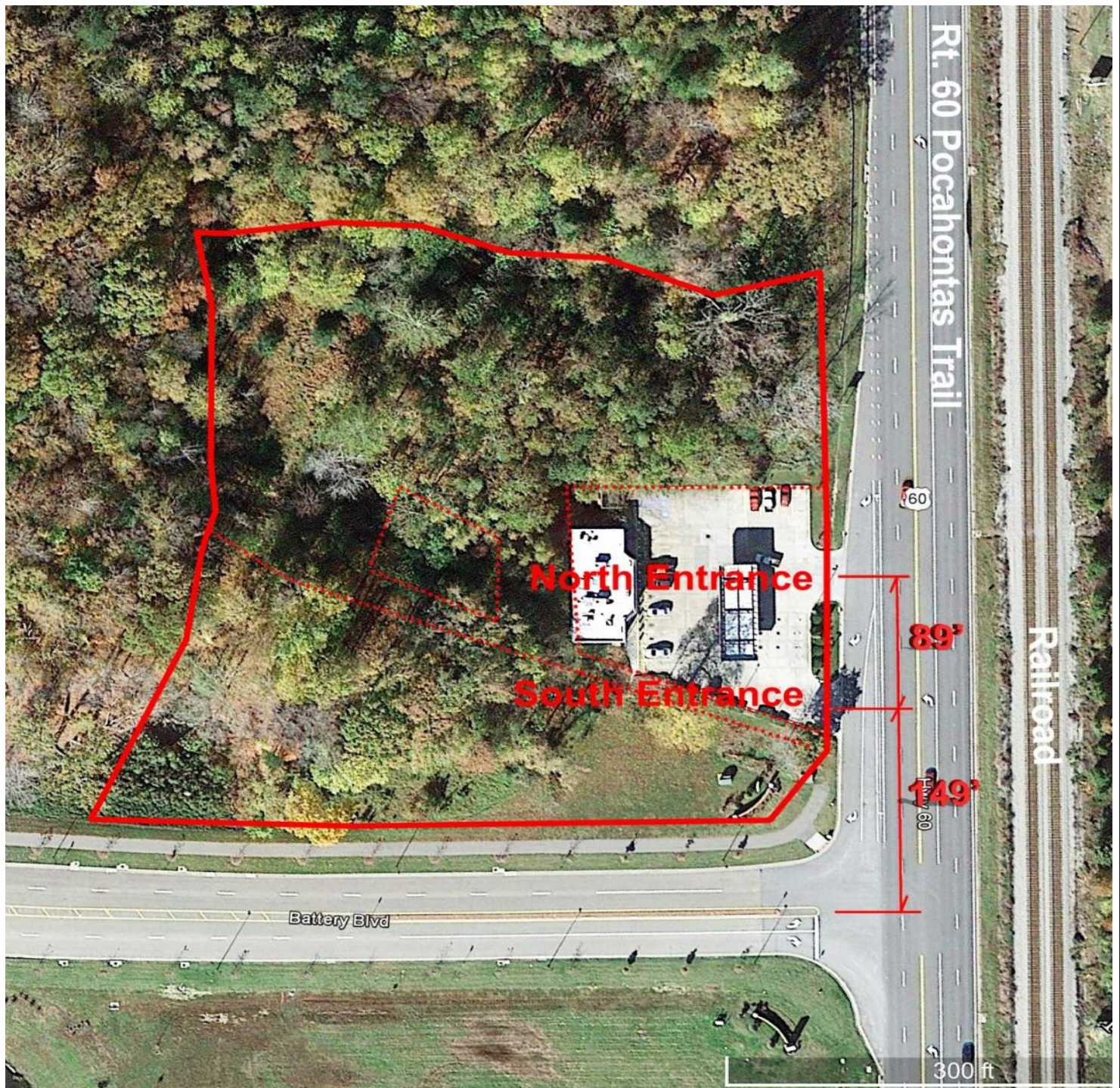


7-ELEVEN AT QUARTERPATH  
SITE REGIONAL AND AREA MAPS

DRW Consultants, LLC  
804-794-7312

Exhibit 1





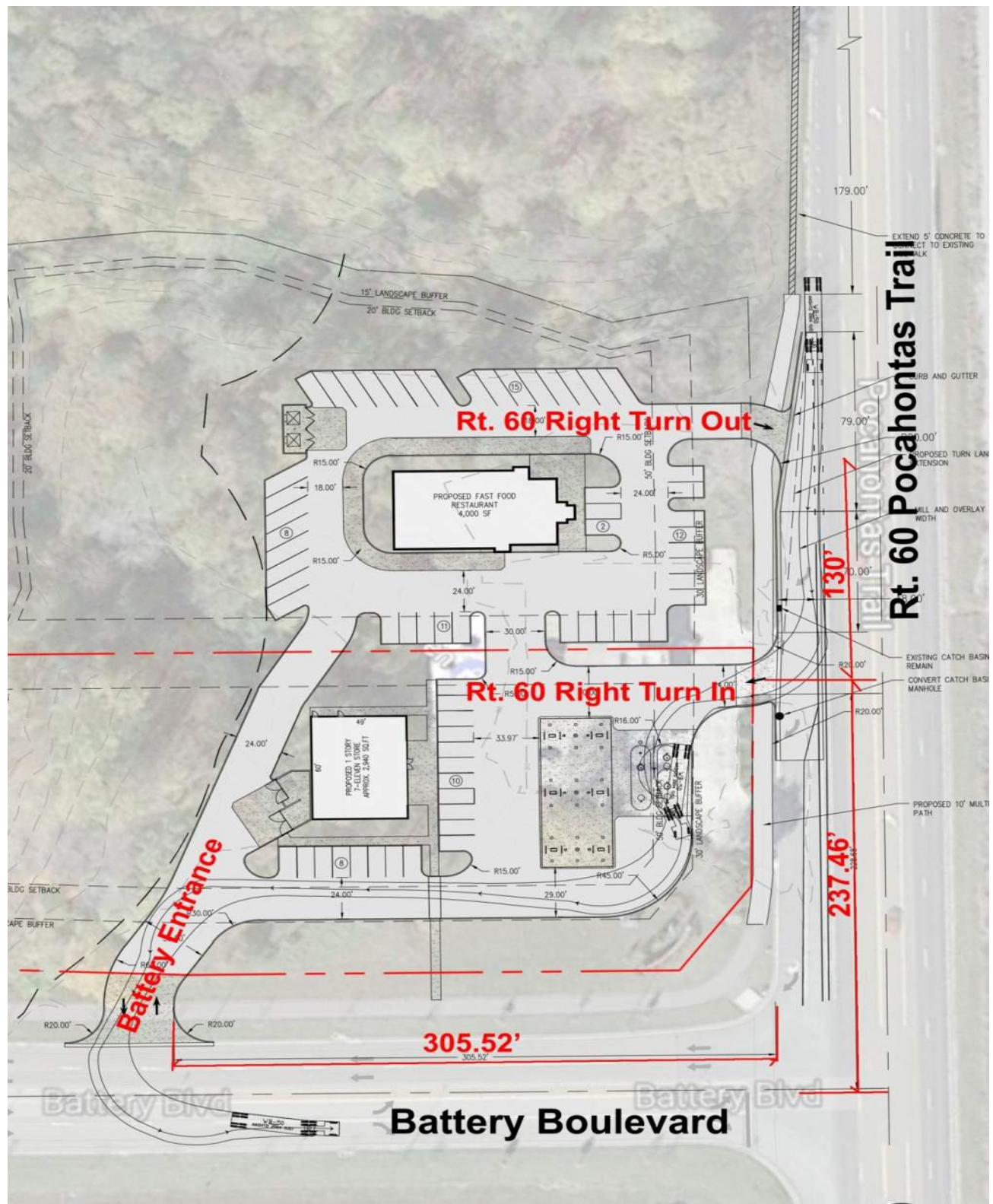
EXISTING 7-11 AND  
SUP DEVELOPMENT PROPERTY BOUNDARY

DRW Consultants, LLC  
804-794-7312

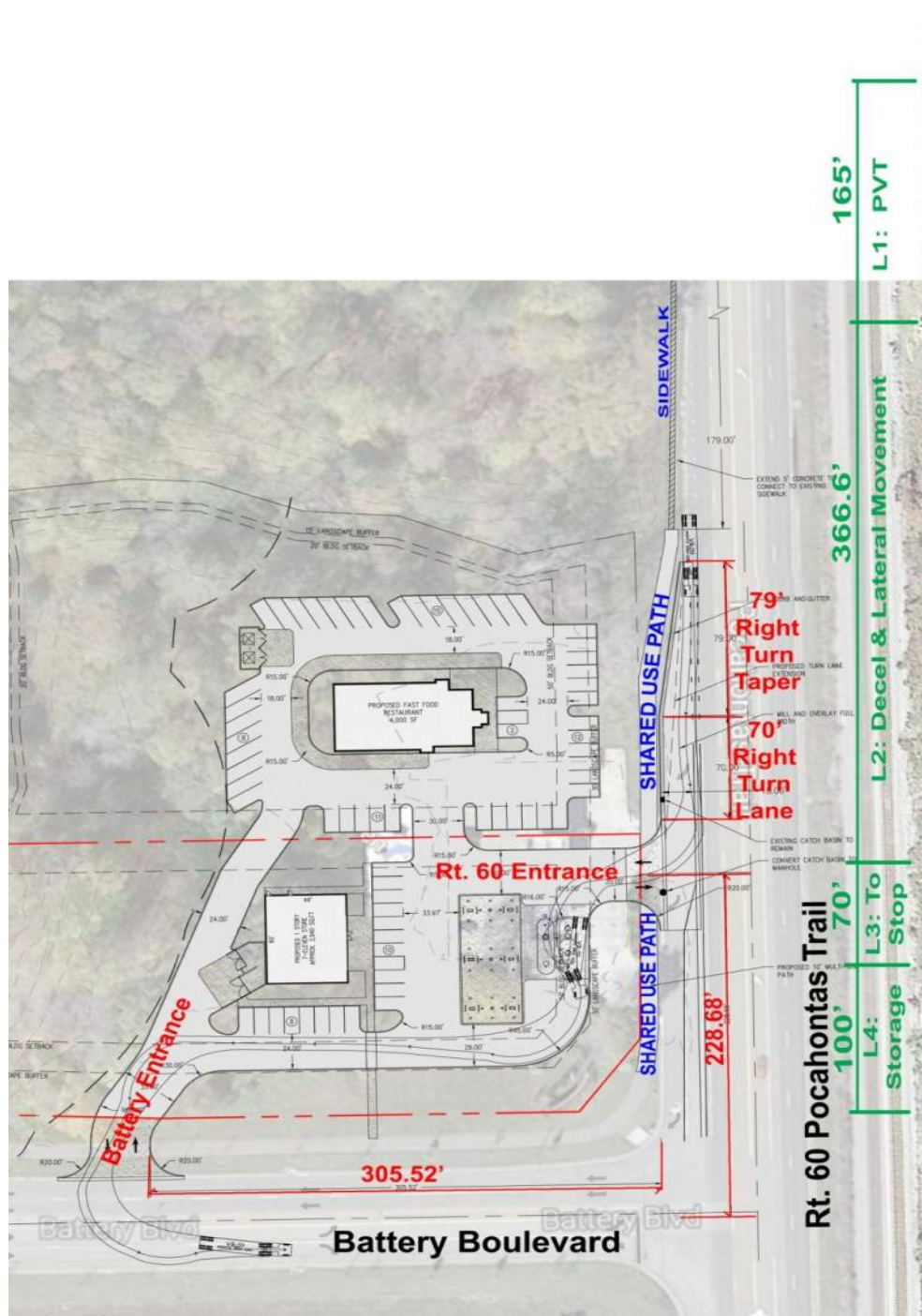
Exhibit 2a











PROPOSED DEVELOPMENT  
VDOT FIG. 4-3 FUNCTIONAL AREA OF INTERSECTION

DRW Consultants, LLC  
804-794-7312

Exhibit 2d



**AM  
PEAK  
HOUR**

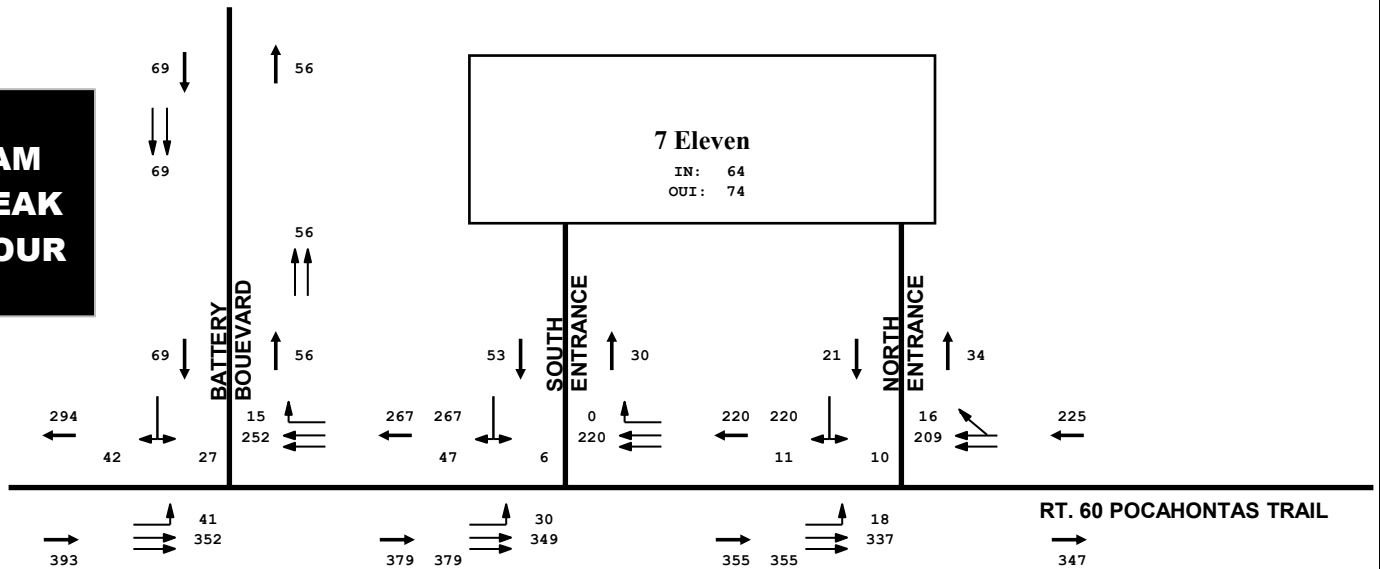
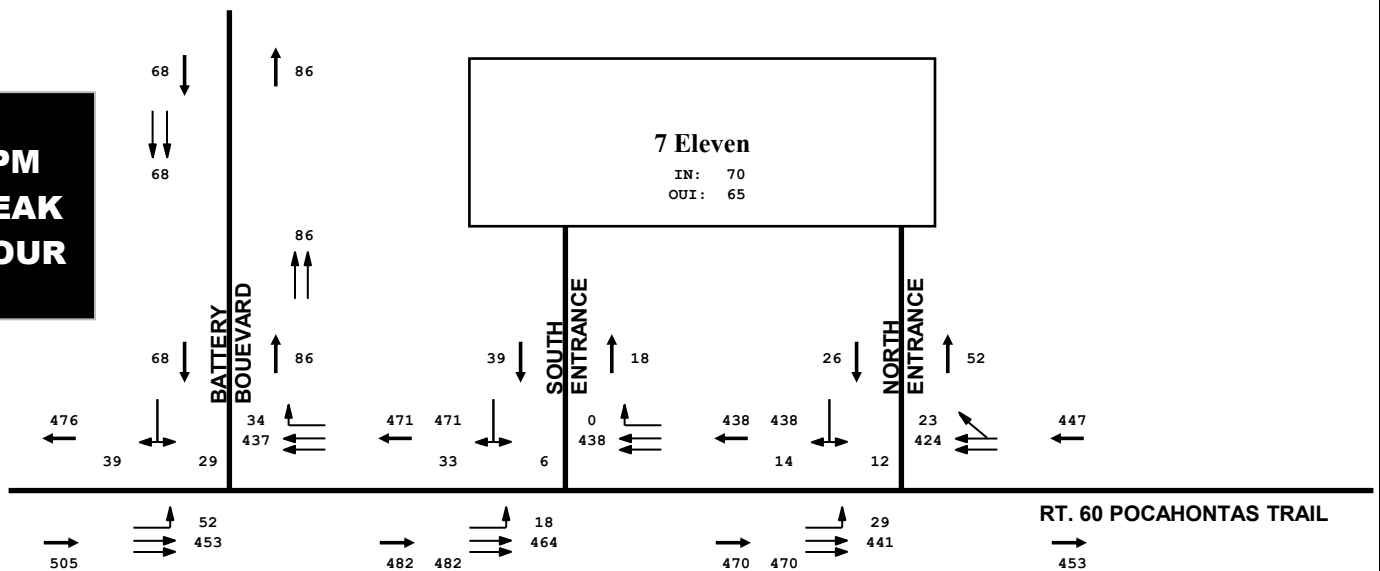


Exhibit  
Reference

**LEGEND**

- Intersection Approach Lanes
- Traffic Signal
- Link Volume

**PM  
PEAK  
HOUR**



PEAK HOUR COUNTS WITH BALANCE

DRW Consultants, LLC  
804-794-7312

Exhibit 3

Street: Rt. 60 Pocahontas Trail

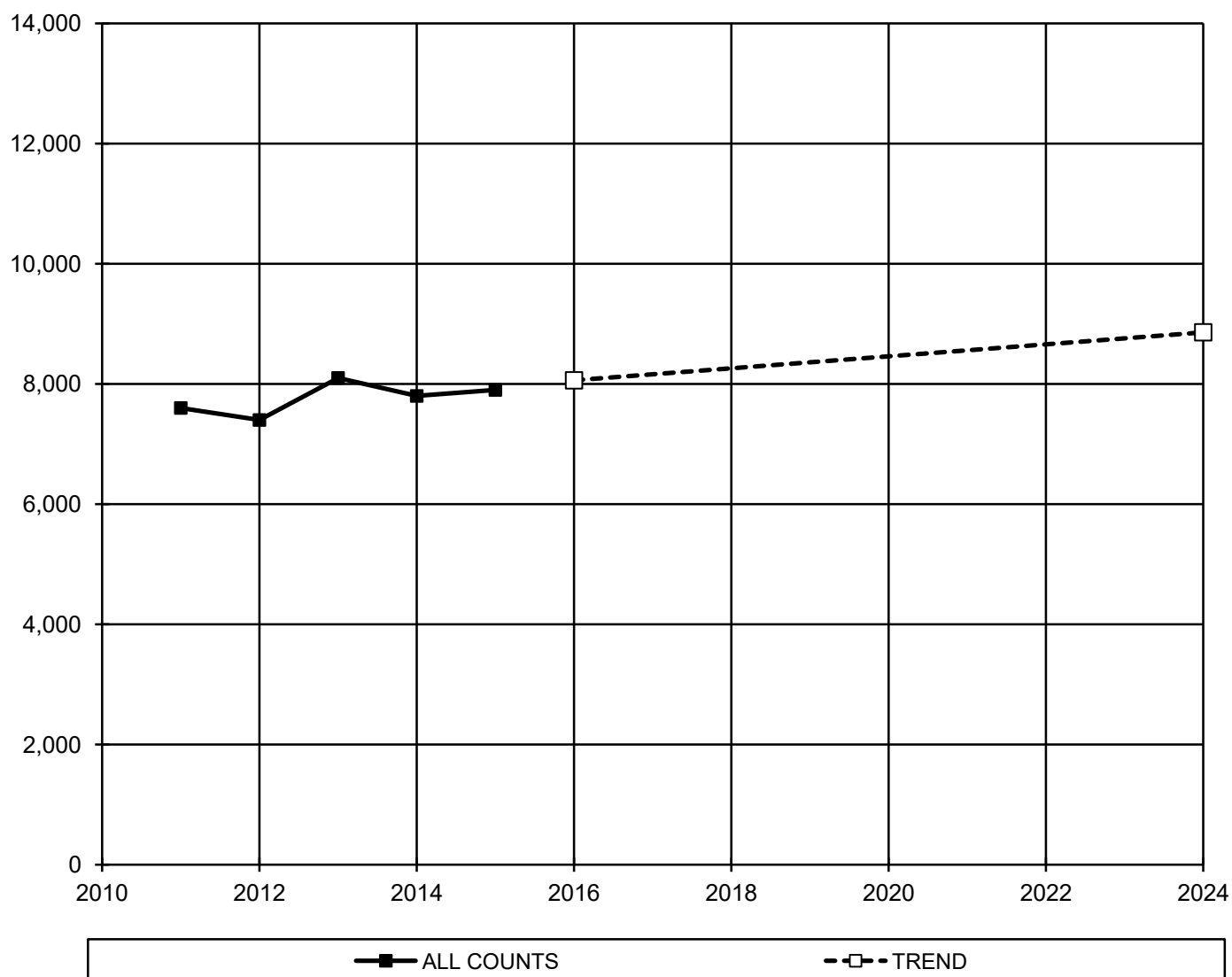
From: ECL Williamsburg

To: Rt. 199

Source: VDOT AADT

COUNTS		
Year	QA	1st
2011	G	7,600
2012	G	7,400
2013	G	8,100
2014	G	7,800
2015	G	7,900
TREND		
2016	8,060	Δ16
2024	8,860	1.10

**Rt. 60, Pocahontas Trail**

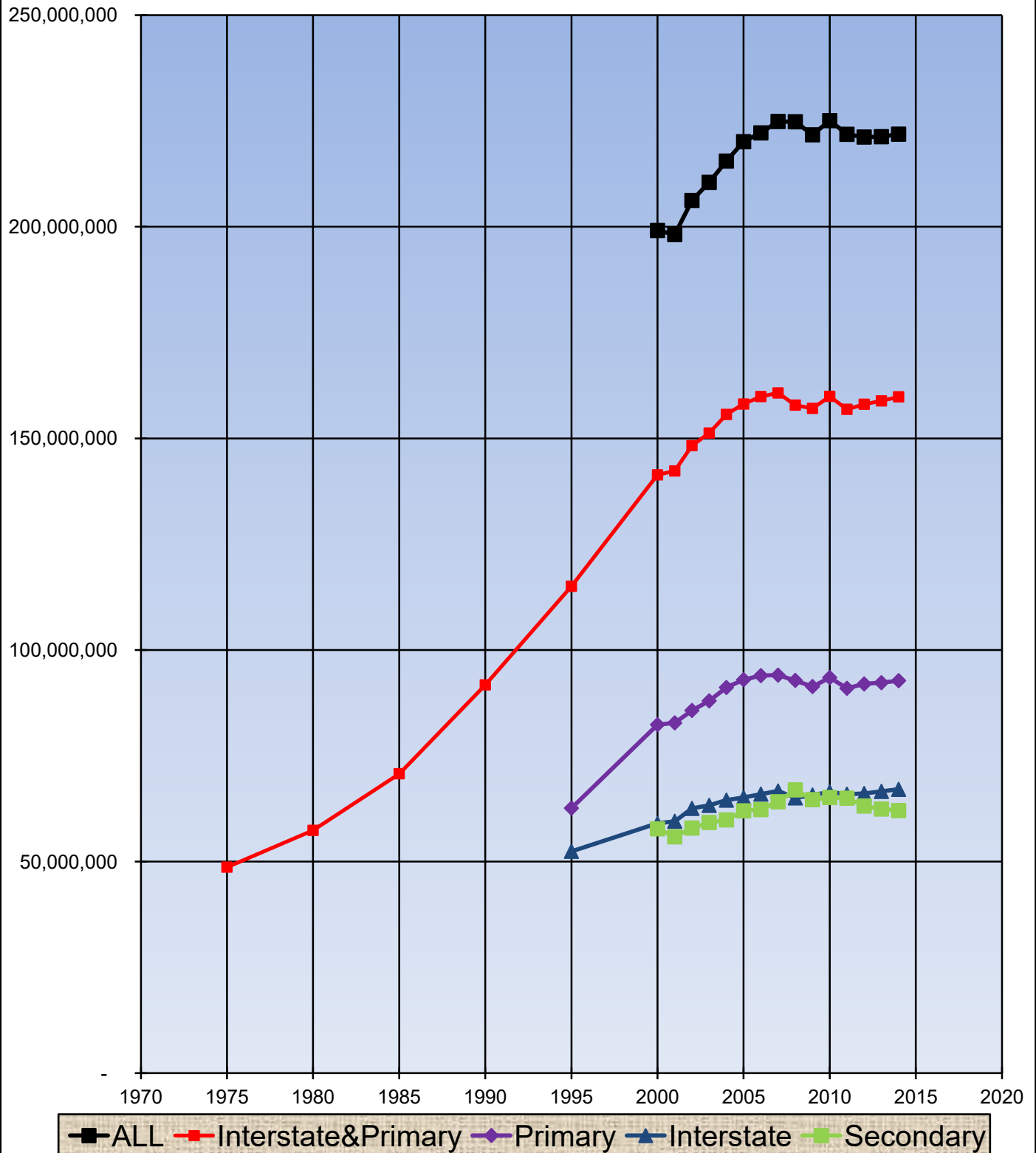


RT. 60, POCAHONTAS TRAIL  
ECL WILLIAMSBURG TO RT. 199  
DAILY TRAFFIC COUNTS AND TRENDS

*DRW Consultants, LLC*  
804-794-7312

**Exhibit 4a**

# VIRGINIA DAILY VEHICLE MILES TRAVELED



VIRGINIA DAILY VEHICLE MILES TRAVELED  
VDOT WEBSITE

DRW Consultants, LLC  
804-794-7312

Exhibit 4b

**AM  
PEAK  
HOUR**

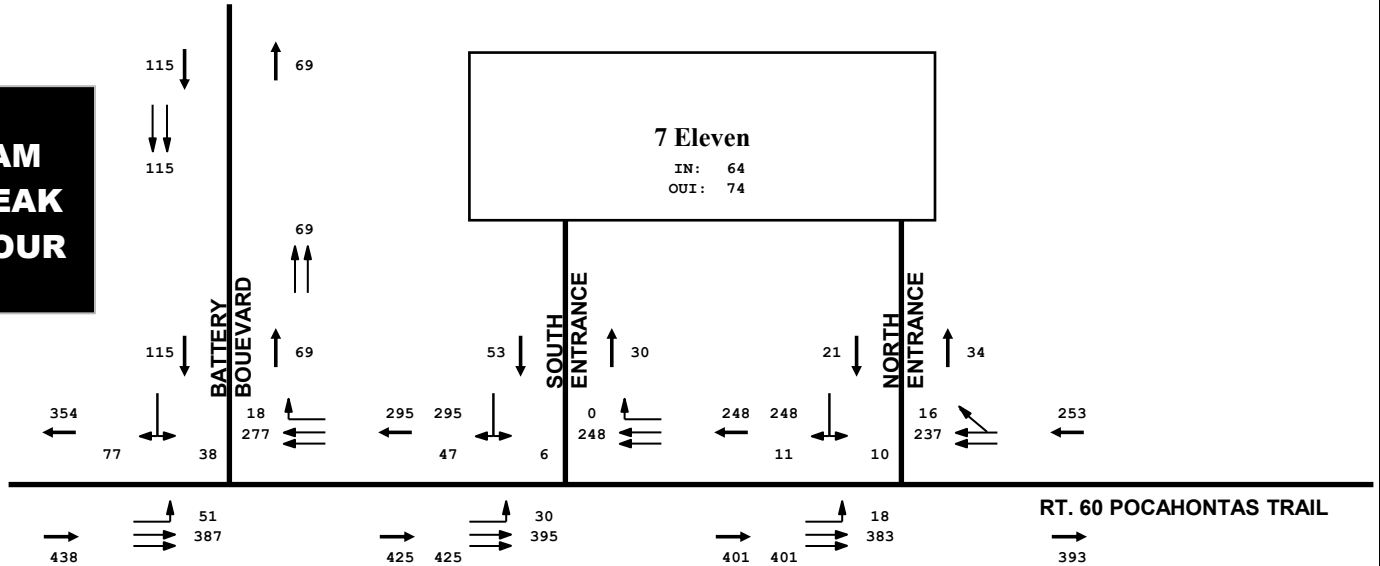


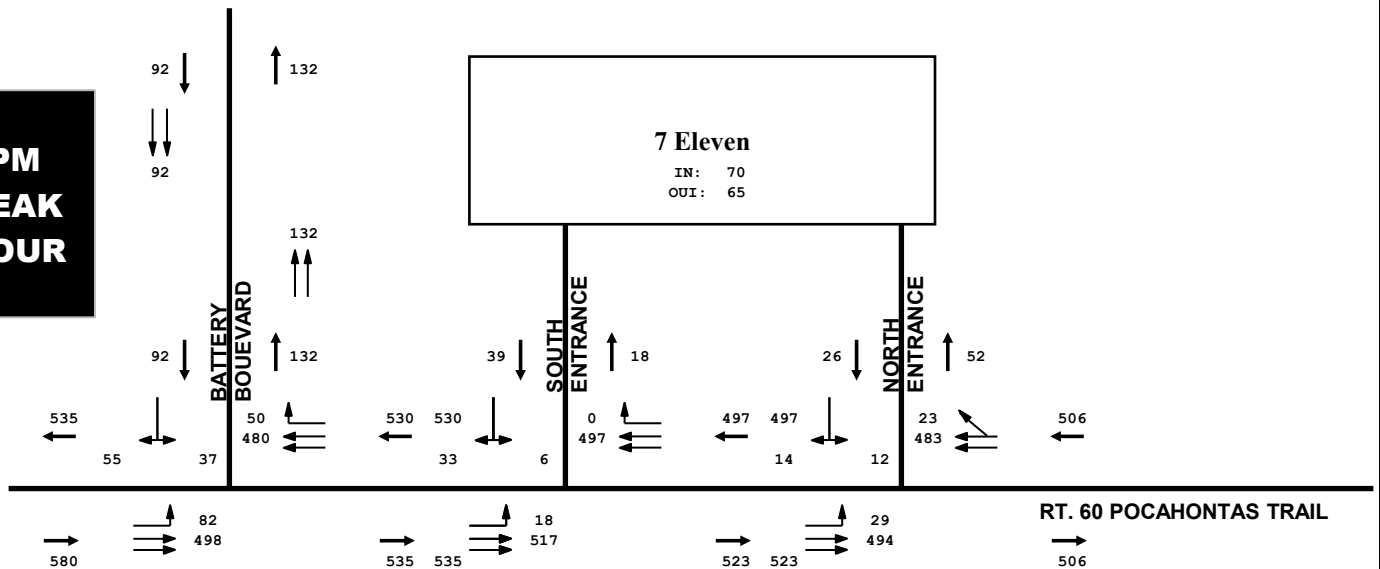
Exhibit  
Reference

GROWTH FACTOR: 1.1

**LEGEND**

- Intersection Approach Lanes
- Traffic Signal
- Link Volume

**PM  
PEAK  
HOUR**



2024 PEAK HOUR BACKGROUND TRAFFIC  
(WITH CONDO/TOWNHOUSE)

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: Site Trip Generation - Various Values										
rate-adj. st.	FF w/Dr. Thru	934	4,000 sq. ft.	93	89	182	68	63	131	1984
rate-adj. st.	Con. Mkt. W/Gas	853	12 v.f.p.	100	99	199	114	115	229	6511
rate-adj. st.	Con. Mkt. W/Gas	853	2,940 sq. ft.	60	60	120	75	75	150	2486

**Table 2: Fast Food Selected Trip Generation & Trip Distribution**

rate-adj. st.	FF w/Dr. Thru	934				93				89		182		68		63		131	
		AM Peak Hour								PM Peak Hour									
		Entering Traffic				Exiting Traffic				Entering Traffic				Exiting Traffic					
		Direction	% Dist.	Trips		% Dist.	Trips			% Dist.	Trips			% Dist.	Trips			% Dist.	Trips
		Rt. 60 North	25%	23		22%	20			33%	22			28%	18			6%	4
	Batt. Blvd. West	6%	6		5%	4			4%	3			6%	4			66%	41	
	Rt. 60 South	69%	64		73%	65			63%	43			66%	41			100%	63	
		100%	93		100%	89			100%	68			100%	63					

**Table 3: 7-Eleven Selected Trip Generation & Trip Distribution**

Table 6-7. Proposed Selected Trip Generation of Trip Distribution											
		100				99	199	114	115	229	
		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 North		25%	25	22%	22			33%	38	28%	32
Batt. Blvd. West		6%	6	5%	5			4%	5	6%	7
Rt. 60 South		69%	69	73%	72			63%	71	66%	76
		100%	100	100%	99			100%	114	100%	115

**Table 4: Existing 7-Eleven Trip Generation And Site Traffic Counts**

rate-adj. st.	Con. Mkt. W/Gas	853	6 v.f.p.	50	49	99	57	57	114	3256
rate-adj. st.	Con. Mkt. W/Gas	853	2,600 sq. ft.	53	53	106	66	66	132	2199
Site Traffic Counts				64	74	138	70	65	135	

**Table 5: Condominium/Townhouse Trip Generation**

eq.-adj. st.	Condo/Townhouse	230	157 units	13	61	74	58	29	87	952
--------------	-----------------	-----	-----------	----	----	----	----	----	----	-----

**Table 6: Condo/Townhouse Trip Distribution**

Table 67. Corridor Performance TPI Distribution															
		13				61		74		58		29		87	
		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 North		17%	2	15%	9					22%	13	19%	6		
Batt. Blvd. West (to Qpath Road)		35%	5	35%	21					35%	20	35%	10		
Rt. 60 South		48%	6	50%	31					43%	25	46%	13		
		100%	13	100%	61					100%	58	100%	29		

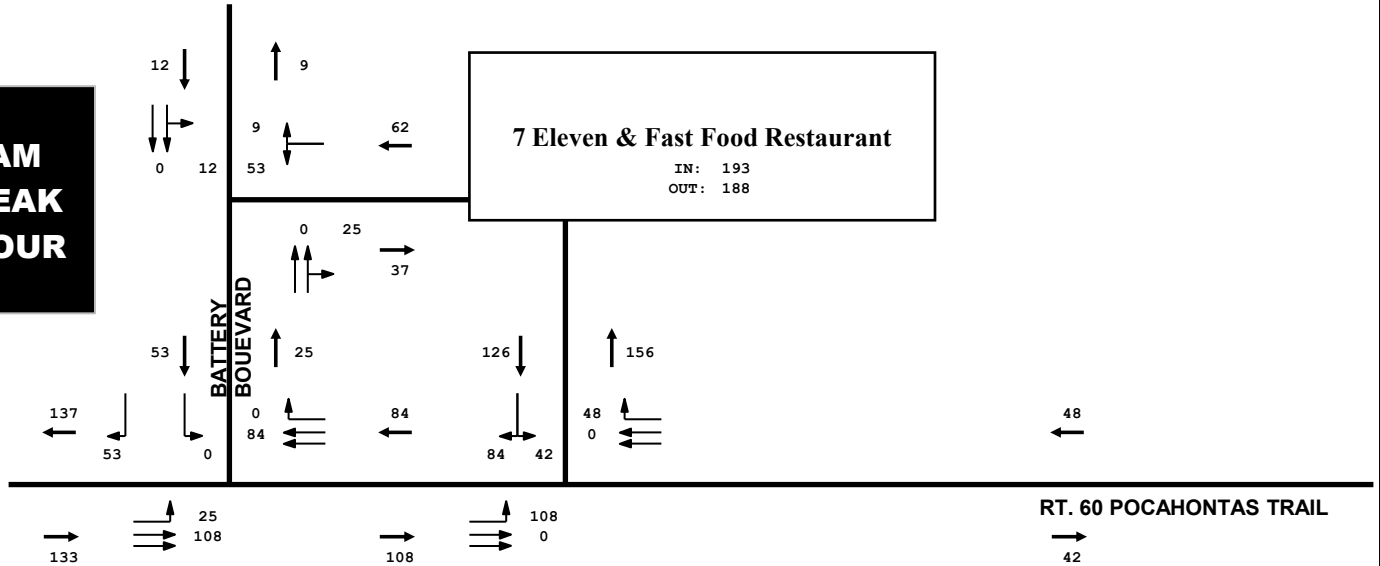
Trip generation rates from Trip Generation Manual, 9th Edition (TGM9)  
by the Institute of Transportation Engineers (ITE)

TRIP GENERATION AND DISTRIBUTION  
7 ELEVEN AT QUARTERPATH  
AND CONDOMINIUM/TOWNHOUSE

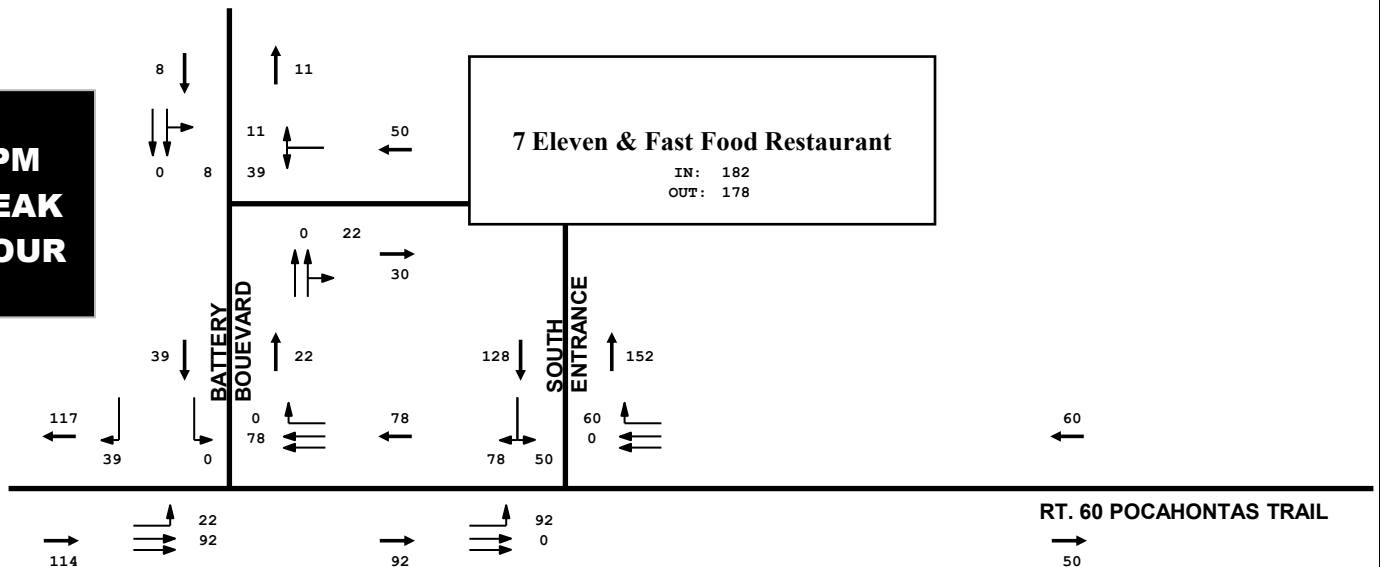
**DRW Consultants, LLC**  
804-794-7312

**Exhibit 6**

**AM  
PEAK  
HOUR**



**PM  
PEAK  
HOUR**



PEAK HOUR TRIP ASSIGNMENT  
PROPOSED 7 ELEVEN & FAST FOOD RESTAURANT

DRW Consultants, LLC  
804-794-7312

Exhibit 7

AM  
PEAK  
HOUR

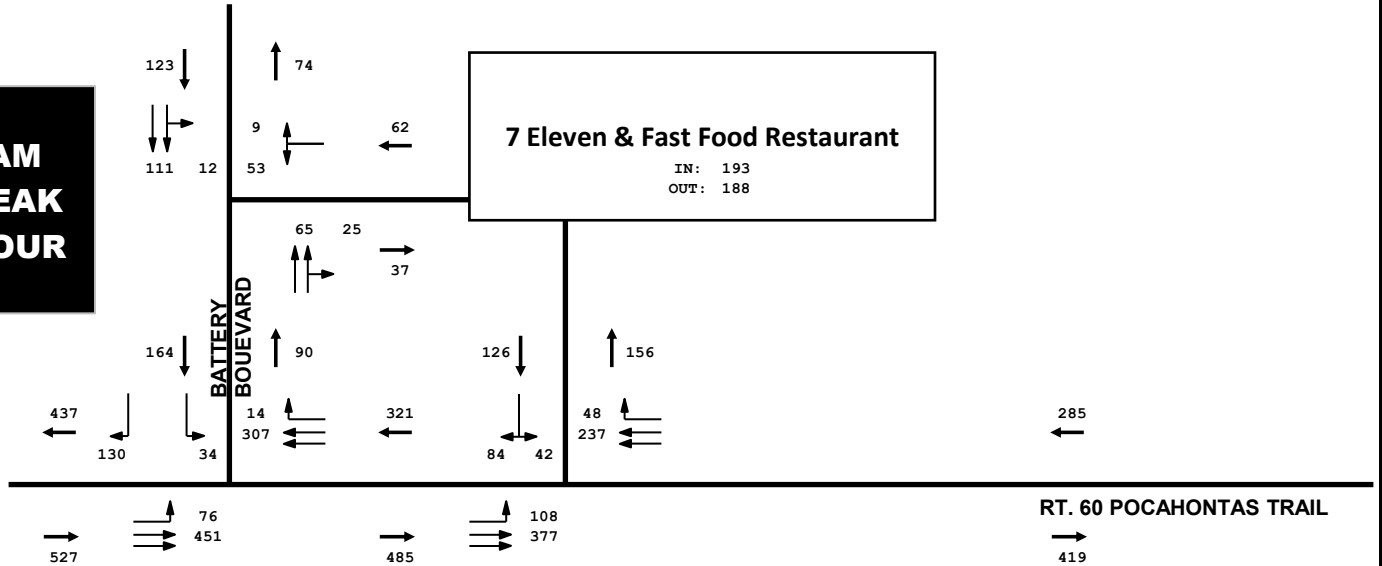
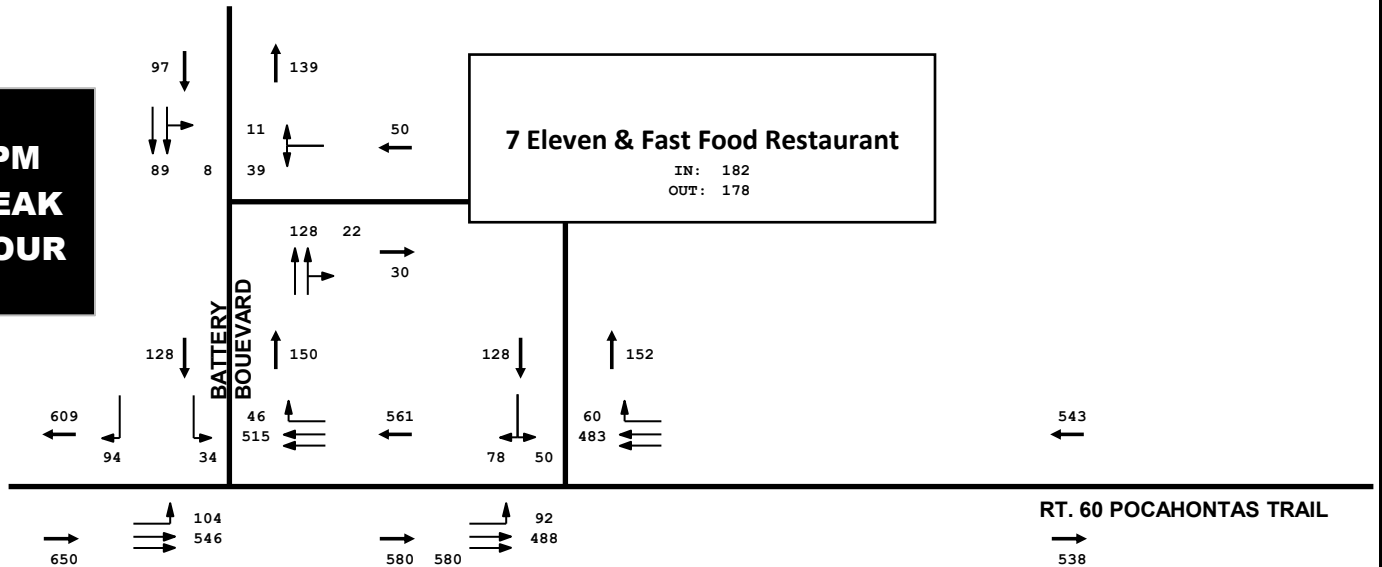


Exhibit  
Reference

LEGEND

- Intersection Approach Lanes
- Traffic Signal
- Link Volume

PM  
PEAK  
HOUR

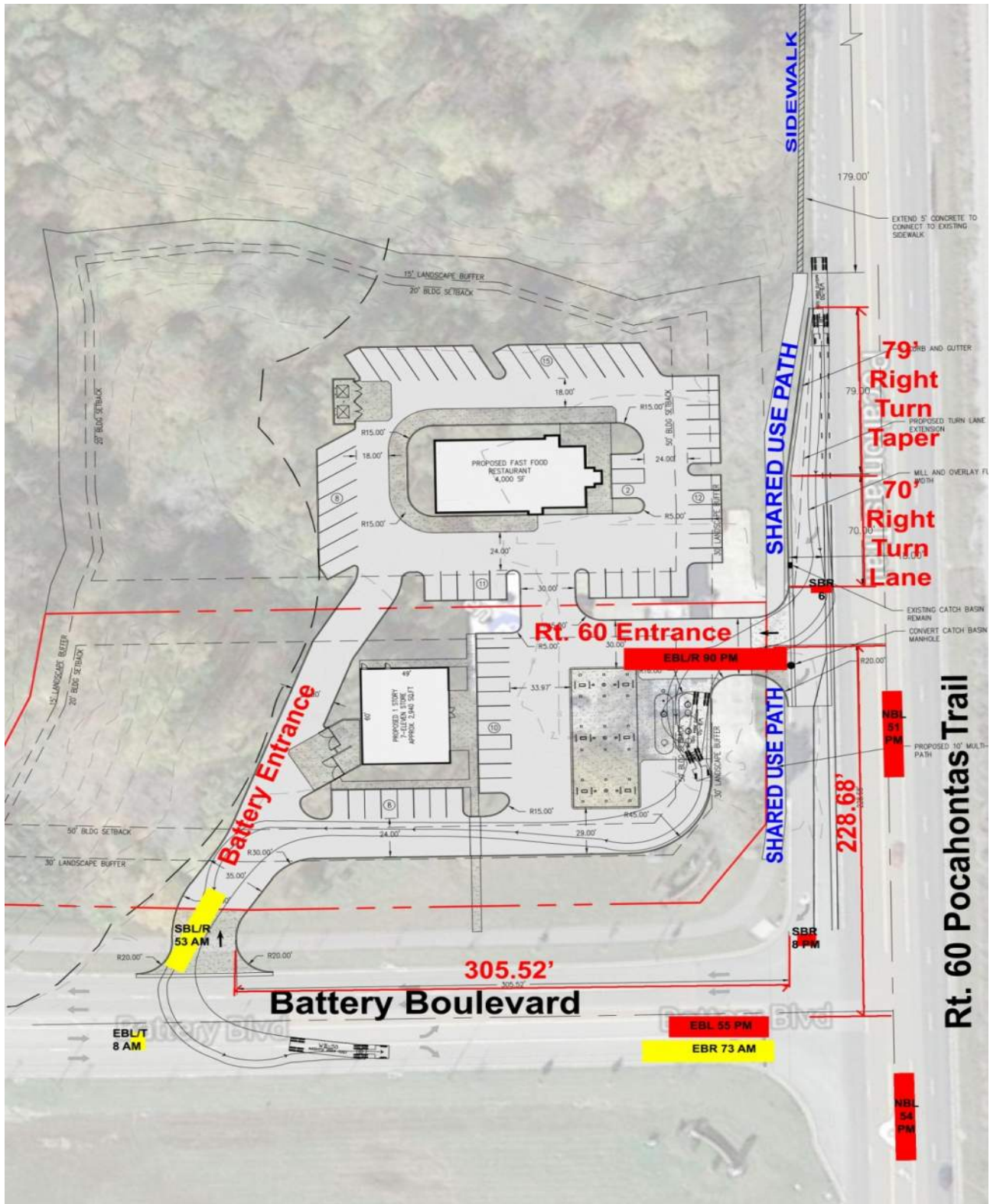


2024 PEAK HOUR TOTAL TRAFFIC

DRW Consultants, LLC  
804-794-7312

Exhibit 8





2024 TOTAL TRAFFIC  
95% PERCENTILE QUEUES  
HIGHEST OF AM/PM PEAK HOURS

DRW Consultants, LLC  
804-794-7312

Exhibit 8a



# **APPENDIX EXHIBITS**

# APPENDIX TABLE OF CONTENTS

APPENDIX EXHIBITS	Number
<b>2016 Tabulated Total Traffic Counts: .....</b>	<b>AM PM</b>
Rt. 60 Pocahontas Trail/Battery Boulevard .....	A1 A2
Rt. 60/7-11 South Entrance.....	B1 B2
Rt. 60/7-11 North Entrance.....	C1 C2
Peak Hour Counts Without Balance .....	D D
 <b>Traffic Count And Traffic Forecast Components .....</b>	
2016 7-11 Peak Hour Traffic Only .....	D1
2024 Background Only Without Existing 7-11 Peak Hour Traffic .....	D2
Condominium/Townhouse Trip Assignment.....	D3
Proposed 7-11 Trip Assignment .....	D4
Proposed Fast Food .....	D5
 <b>Turn Lane Warrants - 2024 Total Traffic</b>	
Right Turn Lane Warrants, Pocahontas Trail, All Three Intersections.....	F1
Right Turn Lane Warrants, Battery Boulevard/Battery Entrance.....	F2
Left Turn Lane Warrant, Battery Boulevard/Battery Entrance.....	F3
 <b>HCM 2010 Unsignalized Intersection LOS .....</b>	<b>AM PM</b>
Existing.....	J1 J2
Rt. 60 Pocahontas Trail/Battery Boulevard .....	Page 1
Rt. 60/7-11 South Entrance.....	Page 2
Rt. 60/7-11 North Entrance.....	Page 3
2024 Background.....	J3 J4
Rt. 60 Pocahontas Trail/Battery Boulevard .....	Page 1
Rt. 60/7-11 South Entrance.....	Page 2
Rt. 60/7-11 North Entrance.....	Page 3
2024 With Site .....	J5 J6
Rt. 60 Pocahontas Trail/Battery Boulevard .....	Page 1
Rt. 60/7-11 South Entrance.....	Page 2
Rt. 60/7-11 North Entrance.....	Page 3
Battery Boulevard/Battery Entrance .....	Page 4
 <b>SimTraffic Queuing &amp; Blocking Report.....</b>	<b>AM PM</b>
Existing.....	K1 K2
2024 Background.....	K3 K4
2024 With Site .....	K5 K6

**AM PEAK HOUR**

Date: Wed, 10/12/16

COUNTS CONDUCTED BY PEGGY MALONE &amp; ASSC.

LOCATION: Rt. 60 Pocahontas Trail/Battery Boulevard

**15 MINUTE INTERVAL COUNTS**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00 to 7:15	3		19				11	60		0	48	3	144
7:15 to 7:30	5		8				12	72		0	68	3	168
7:30 to 7:45	2		9				13	69		0	58	2	153
7:45 to 8:00	9		6				13	95		0	61	5	189
8:00 to 8:15	4		18				10	88		0	58	5	183
8:15 to 8:30	7		9				11	82		0	74	2	185
8:30 to 8:45	7		9				7	87		1	55	3	169
8:45 to 9:00	3		12				11	94		0	54	6	180

**HOUR INTERVAL**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00 to 8:00	19	0	42	0	0	0	49	296	0	0	235	13	654
7:15 to 8:15	20	0	41	0	0	0	48	324	0	0	245	15	693
7:30 to 8:30	22	0	42	0	0	0	47	334	0	0	251	14	710
7:45 to 8:45	27	0	42	0	0	0	41	352	0	1	248	15	726
8:00 to 9:00	21	0	48	0	0	0	39	351	0	1	241	16	717

**PEAK HOUR TURNING MOVEMENT VOLUMES**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:45 to 8:45	27	0	42	0	0	0	41	352	0	1	248	15	726
Truck%	0		13				8	3		0	5	6	

**PEAK HOUR FACTOR BY APPROACH**

	EB	WB	NB	SB	Total
7:00 to 7:15	22	0	71	51	144
7:15 to 7:30	13	0	84	71	168
7:30 to 7:45	11	0	82	60	153
7:45 to 8:00	15	0	108	66	189
8:00 to 8:15	22	0	98	63	183
8:15 to 8:30	16	0	93	76	185
8:30 to 8:45	16	0	94	59	169
8:45 to 9:00	15	0	105	60	180
PHF	0.78	#####	0.91	0.87	0.96

Exhibit A1

**PM PEAK HOUR**

Date: Wed, 10/12/16

COUNTS CONDUCTED BY PEGGY MALONE &amp; ASSC.

LOCATION: Rt. 60 Pocahontas Trail/Battery Boulevard

**15 MINUTE INTERVAL COUNTS**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:00 to 4:15	8		16				12	83		1	104	8	232
4:15 to 4:30	4		16				5	85		0	98	9	217
4:30 to 4:45	9		18				11	86		0	82	5	211
4:45 to 5:00	10		12				9	97		0	97	10	235
5:00 to 5:15	6		12				20	118		0	101	5	262
5:15 to 5:30	10		3				12	128		0	132	7	292
5:30 to 5:45	3		12				11	106		0	107	12	251
5:45 to 6:00	6		16				14	83		0	108	7	234

**HOUR INTERVAL**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:00 to 5:00	31	0	62	0	0	0	37	351	0	1	381	32	895
4:15 to 5:15	29	0	58	0	0	0	45	386	0	0	378	29	925
4:30 to 5:30	35	0	45	0	0	0	52	429	0	0	412	27	1000
4:45 to 5:45	29	0	39	0	0	0	52	449	0	0	437	34	1040
5:00 to 6:00	25	0	43	0	0	0	57	435	0	0	448	31	1039

**PEAK HOUR TURNING MOVEMENT VOLUMES**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:45 to 5:45	29	0	39	0	0	0	52	449	0	0	437	34	1040
Truck %	7		8				0	2		0	2	9	

**PEAK HOUR FACTOR BY APPROACH**

	EB	WB	NB	SB	Total
4:00 to 4:15	24	0	95	113	232
4:15 to 4:30	20	0	90	107	217
4:30 to 4:45	27	0	97	87	211
4:45 to 5:00	22	0	106	107	235
5:00 to 5:15	18	0	138	106	262
5:15 to 5:30	13	0	140	139	292
5:30 to 5:45	15	0	117	119	251
5:45 to 6:00	22	0	97	115	234
PHF	0.77	#####	0.89	0.85	0.89

Exhibit A2

**AM PEAK HOUR**

Date: Wed, 10/12/16

COUNTS CONDUCTED BY PEGGY MALONE &amp; ASSC.

LOCATION: Rt. 60 Pocahontas Trail/7-11 South Entrance

**15 MINUTE INTERVAL COUNTS**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00 to 7:15	0		9				5	63			40	0	117
7:15 to 7:30	1		11				4	77			59	0	152
7:30 to 7:45	3		10				5	68			51	0	137
7:45 to 8:00	3		13				7	92			53	0	168
8:00 to 8:15	0		12				12	75			50	0	149
8:15 to 8:30	3		17				2	85			59	0	166
8:30 to 8:45	0		5				9	85			54	0	153
8:45 to 9:00	1		10				2	95			49	2	159

**HOUR INTERVAL**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00 to 8:00	7	0	43	0	0	0	21	300	0	0	203	0	574
7:15 to 8:15	7	0	46	0	0	0	28	312	0	0	213	0	606
7:30 to 8:30	9	0	52	0	0	0	26	320	0	0	213	0	620
7:45 to 8:45	6	0	47	0	0	0	30	337	0	0	216	0	636
8:00 to 9:00	4	0	44	0	0	0	25	340	0	0	212	2	627

**PEAK HOUR TURNING MOVEMENT VOLUMES**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:45 to 8:45	6	0	47	0	0	0	30	337	0	0	216	0	636
Truck%	17		4				3	3			8	0	

**PEAK HOUR FACTOR BY APPROACH**

	EB	WB	NB	SB	Total
7:00 to 7:15	9	0	68	40	117
7:15 to 7:30	12	0	81	59	152
7:30 to 7:45	13	0	73	51	137
7:45 to 8:00	16	0	99	53	168
8:00 to 8:15	12	0	87	50	149
8:15 to 8:30	20	0	87	59	166
8:30 to 8:45	5	0	94	54	153
8:45 to 9:00	11	0	97	51	159
PHF	0.66	#####	0.93	0.92	0.95

Exhibit B1

**PM PEAK HOUR**

Date: Wed, 10/12/16

COUNTS CONDUCTED BY PEGGY MALONE &amp; ASSC.

LOCATION: Rt. 60 Pocahontas Trail/7-11 South Entrance

**15 MINUTE INTERVAL COUNTS**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:00 to 4:15	0		12				4	89			100	0	205
4:15 to 4:30	1		13				3	87			97	0	201
4:30 to 4:45	0		12				8	88			73	0	181
4:45 to 5:00	0		8				2	104			99	0	213
5:00 to 5:15	4		9				6	123			101	0	243
5:15 to 5:30	1		12				5	130			123	0	271
5:30 to 5:45	1		4				5	104			112	0	226
5:45 to 6:00	3		6				2	84			110	2	207

**HOUR INTERVAL**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:00 to 5:00	1	0	45	0	0	0	17	368	0	0	369	0	800
4:15 to 5:15	5	0	42	0	0	0	19	402	0	0	370	0	838
4:30 to 5:30	5	0	41	0	0	0	21	445	0	0	396	0	908
4:45 to 5:45	6	0	33	0	0	0	18	461	0	0	435	0	953
5:00 to 6:00	9	0	31	0	0	0	18	441	0	0	446	2	947

**PEAK HOUR TURNING MOVEMENT VOLUMES**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:45 to 5:45	6	0	33	0	0	0	18	461	0	0	435	0	953
Truck %	0		0				0	2			2	0	

**PEAK HOUR FACTOR BY APPROACH**

	EB	WB	NB	SB	Total
4:00 to 4:15	12	0	93	100	205
4:15 to 4:30	14	0	90	97	201
4:30 to 4:45	12	0	96	73	181
4:45 to 5:00	8	0	106	99	213
5:00 to 5:15	13	0	129	101	243
5:15 to 5:30	13	0	135	123	271
5:30 to 5:45	5	0	109	112	226
5:45 to 6:00	9	0	86	112	207
PHF	0.75	#####	0.89	0.88	0.88

Exhibit B2

**AM PEAK HOUR**

Date: Wed, 10/12/16

COUNTS CONDUCTED BY PEGGY MALONE &amp; ASSC.

LOCATION: Rt. 60 Pocahontas Trail/7-11 North Entrance

**15 MINUTE INTERVAL COUNTS**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00 to 7:15	5		1				6	57			38	5	112
7:15 to 7:30	4		2				11	66			58	5	146
7:30 to 7:45	3		0				7	61			51	6	128
7:45 to 8:00	3		2				7	90			53	4	159
8:00 to 8:15	1		3				4	74			47	4	133
8:15 to 8:30	2		4				5	85			58	6	160
8:30 to 8:45	4		2				2	84			51	2	145
8:45 to 9:00	4		1				4	93			50	6	158

**HOUR INTERVAL**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00 to 8:00	15	0	5	0	0	0	31	274	0	0	200	20	545
7:15 to 8:15	11	0	7	0	0	0	29	291	0	0	209	19	566
7:30 to 8:30	9	0	9	0	0	0	23	310	0	0	209	20	580
7:45 to 8:45	10	0	11	0	0	0	18	333	0	0	209	16	597
8:00 to 9:00	11	0	10	0	0	0	15	336	0	0	206	18	596

**PEAK HOUR TURNING MOVEMENT VOLUMES**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:45 to 8:45	10	0	11	0	0	0	18	333	0	0	209	16	597
Truck%	0		18				11	3			8	6	

**PEAK HOUR FACTOR BY APPROACH**

	EB	WB	NB	SB	Total
7:00 to 7:15	6	0	63	43	112
7:15 to 7:30	6	0	77	63	146
7:30 to 7:45	3	0	68	57	128
7:45 to 8:00	5	0	97	57	159
8:00 to 8:15	4	0	78	51	133
8:15 to 8:30	6	0	90	64	160
8:30 to 8:45	6	0	86	53	145
8:45 to 9:00	5	0	97	56	158
PHF	0.88	#####	0.90	0.88	0.93

Exhibit C1



**PM PEAK HOUR**

Date: Wed, 10/12/16

COUNTS CONDUCTED BY PEGGY MALONE &amp; ASSC.

LOCATION: Rt. 60 Pocahontas Trail/7-11 North Entrance

**15 MINUTE INTERVAL COUNTS**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:00 to 4:15	4		0				6	84			100	5	199
4:15 to 4:30	1		2				8	80			95	6	192
4:30 to 4:45	3		2				4	84			72	7	172
4:45 to 5:00	4		2				10	96			98	5	215
5:00 to 5:15	3		3				6	119			95	8	234
5:15 to 5:30	2		4				7	127			120	3	263
5:30 to 5:45	3		5				6	99			107	7	227
5:45 to 6:00	4		2				5	83			110	3	207

**HOUR INTERVAL**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:00 to 5:00	12	0	6	0	0	0	28	344	0	0	365	23	778
4:15 to 5:15	11	0	9	0	0	0	28	379	0	0	360	26	813
4:30 to 5:30	12	0	11	0	0	0	27	426	0	0	385	23	884
4:45 to 5:45	12	0	14	0	0	0	29	441	0	0	420	23	939
5:00 to 6:00	12	0	14	0	0	0	24	428	0	0	432	21	931

**PEAK HOUR TURNING MOVEMENT VOLUMES**

	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
4:45 to 5:45	12	0	14	0	0	0	29	441	0	0	420	23	939
Truck %	0		0				0	3			2	0	

**PEAK HOUR FACTOR BY APPROACH**

	EB	WB	NB	SB	Total
4:00 to 4:15	4	0	90	105	199
4:15 to 4:30	3	0	88	101	192
4:30 to 4:45	5	0	88	79	172
4:45 to 5:00	6	0	106	103	215
5:00 to 5:15	6	0	125	103	234
5:15 to 5:30	6	0	134	123	263
5:30 to 5:45	8	0	105	114	227
5:45 to 6:00	6	0	88	113	207
PHF	0.81	#####	0.88	0.90	0.89

Exhibit C2

**AM  
PEAK  
HOUR**

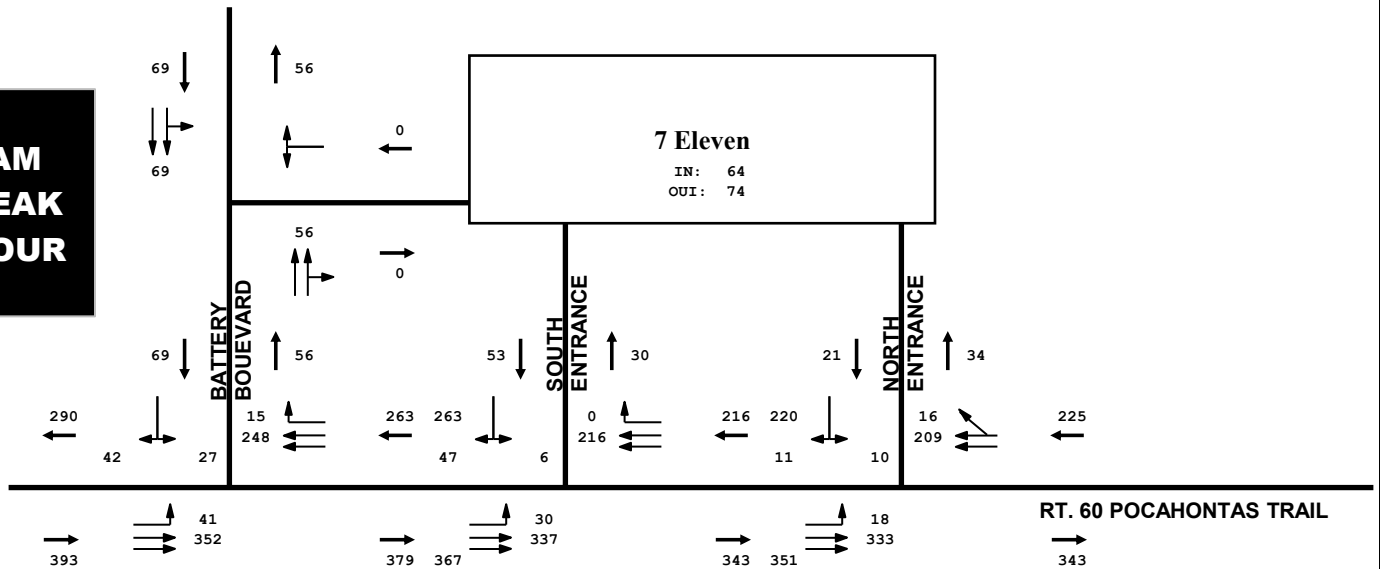
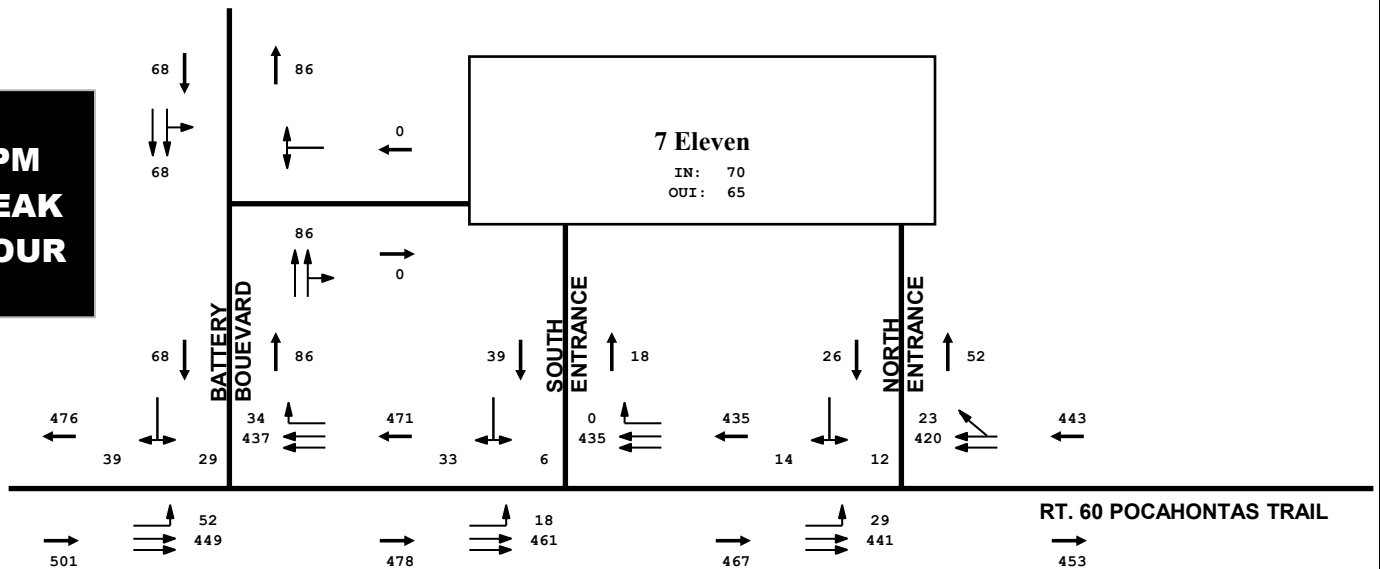


Exhibit  
Reference

**LEGEND**

- Intersection Approach Lanes
- Traffic Signal
- Link Volume

**PM  
PEAK  
HOUR**



PEAK HOUR COUNTS WITHOUT BALANCE

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Exhibit D



**AM  
PEAK  
HOUR**

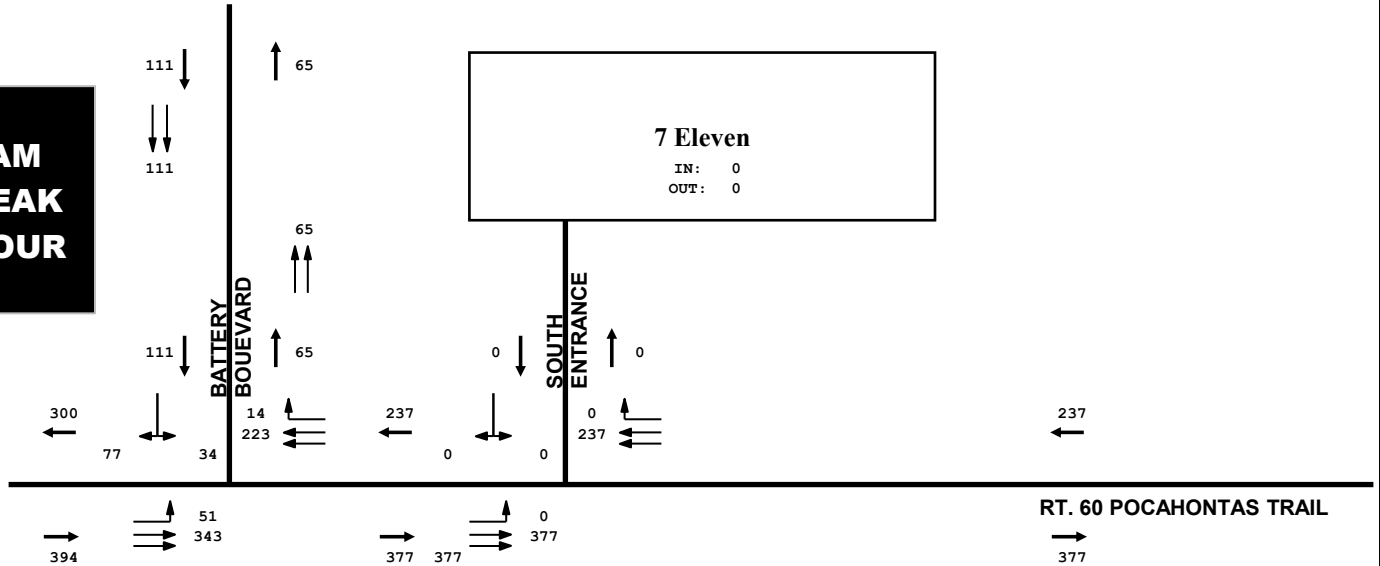


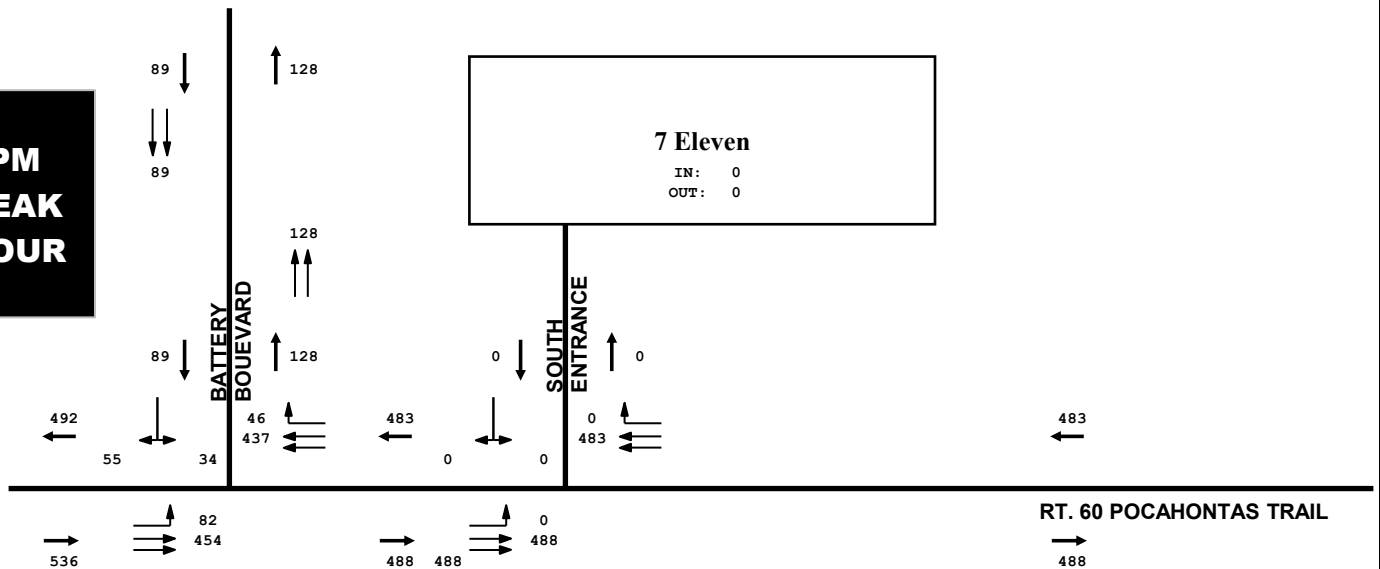
Exhibit  
Reference

GROWTH FACTOR: 1.1

**LEGEND**

- Intersection Approach Lanes
- Traffic Signal
- Link Volume

**PM  
PEAK  
HOUR**



2024 PEAK HOUR BACKGROUND TRAFFIC  
WITHOUT EXISTING 7 ELEVEN

DRW Consultants, LLC  
804-794-7312

Exhibit D2

**AM  
PEAK  
HOUR**

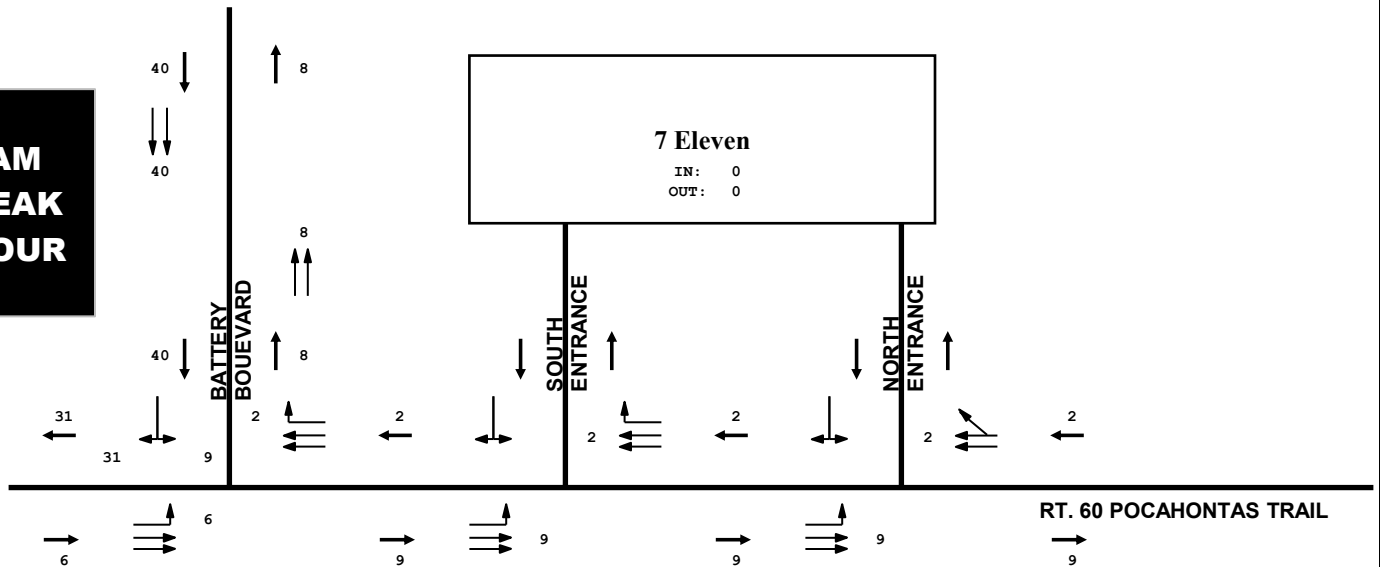
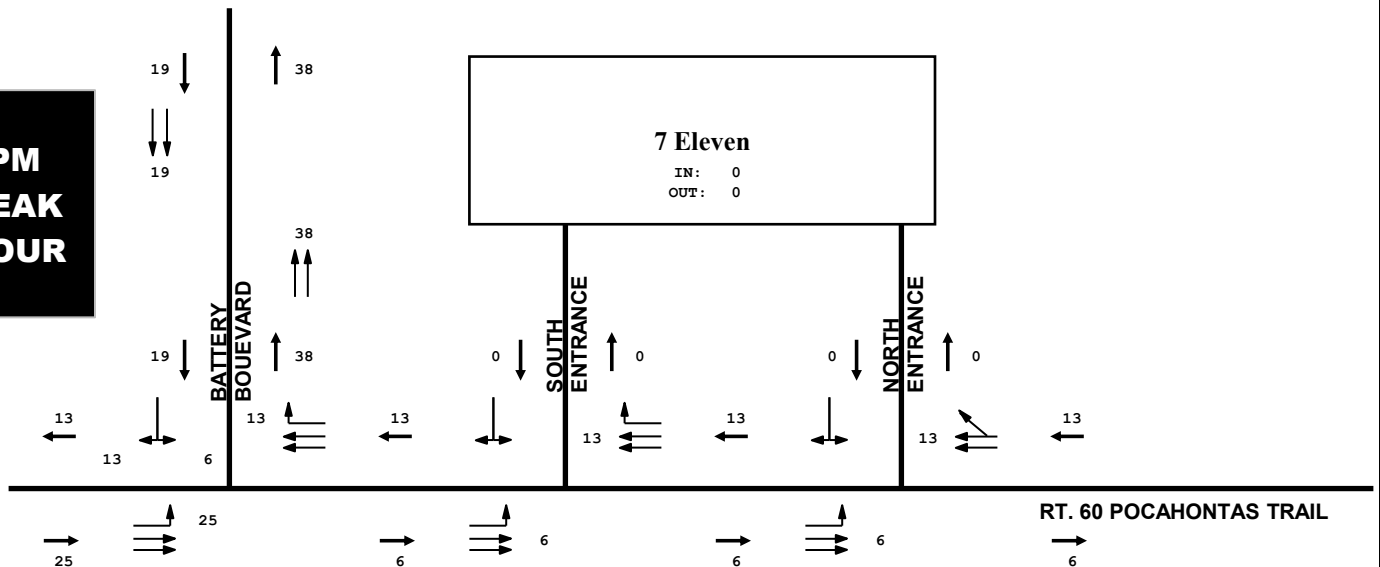


Exhibit  
Reference

**LEGEND**

- Intersection Approach Lanes
- Traffic Signal
- Link Volume

**PM  
PEAK  
HOUR**



CONDOMINIUM /TOWNHOUSE TRIP ASSIGNMENT

*DRW Consultants, LLC*  
804-794-7312

**Exhibit D3**

**AM  
PEAK  
HOUR**

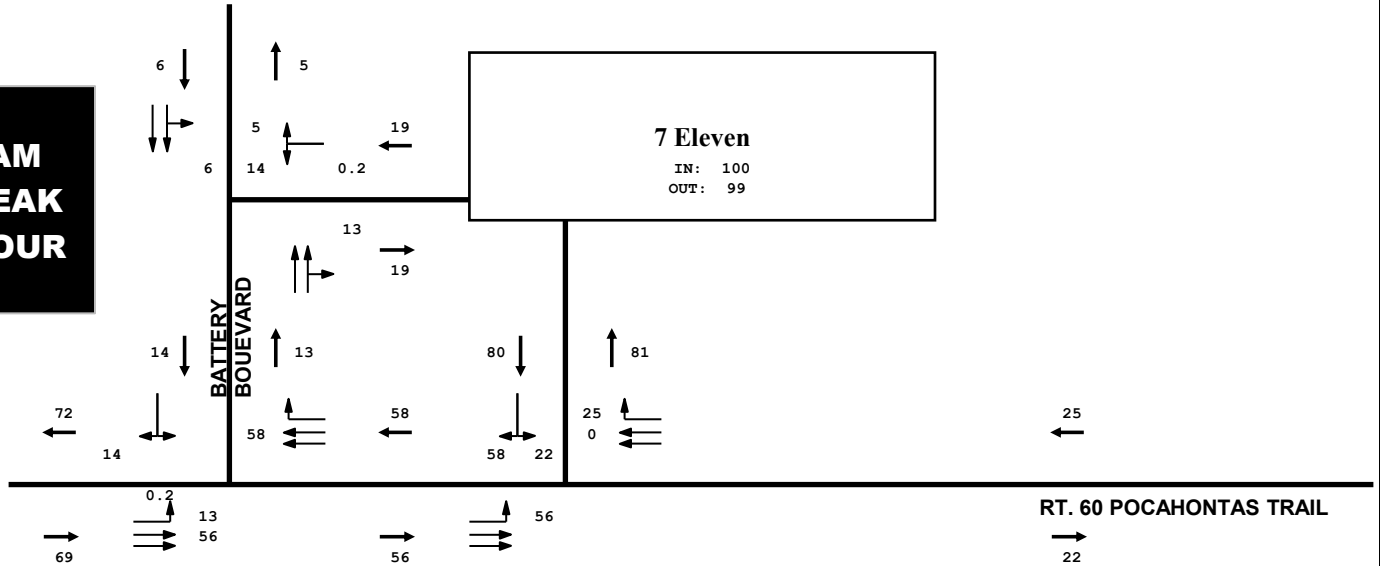


Exhibit  
Reference

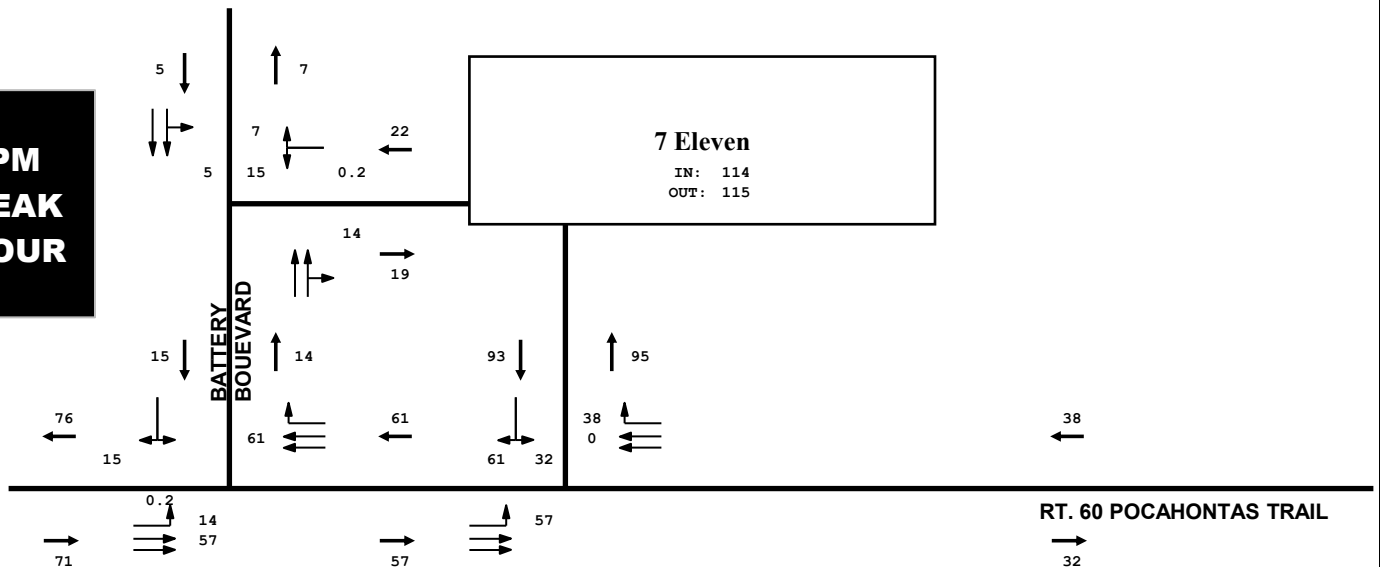
**LEGEND**

Intersection  
Approach  
Lanes

Traffic  
Signal

Link  
Volume

**PM  
PEAK  
HOUR**



PEAK HOUR TRIP ASSIGNMENT  
PROPOSED 7 ELEVEN

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**Exhibit D4**

**AM  
PEAK  
HOUR**

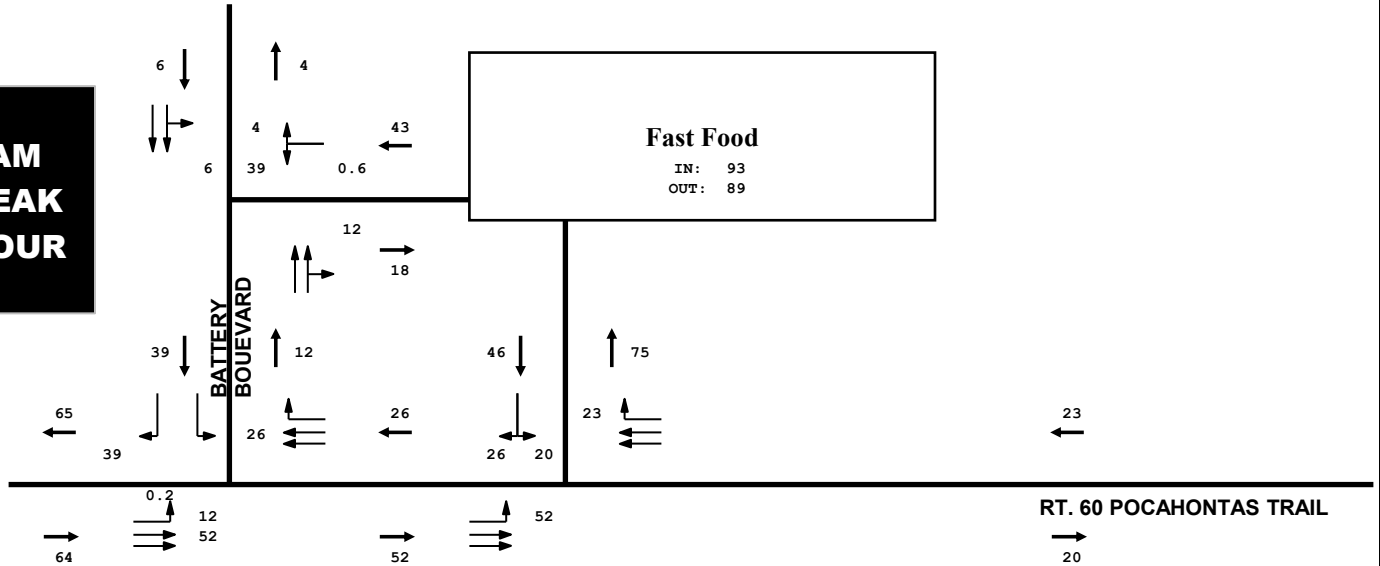


Exhibit  
Reference

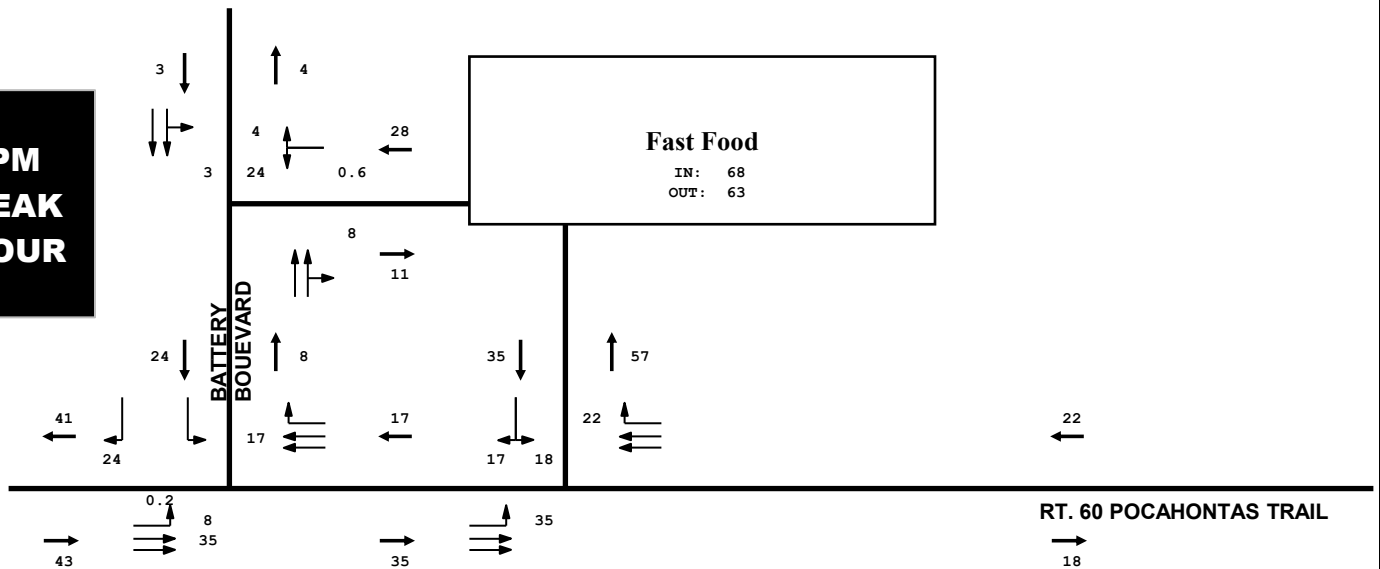
**LEGEND**

Intersection  
Approach  
Lanes

Traffic  
Signal

Link  
Volume

**PM  
PEAK  
HOUR**

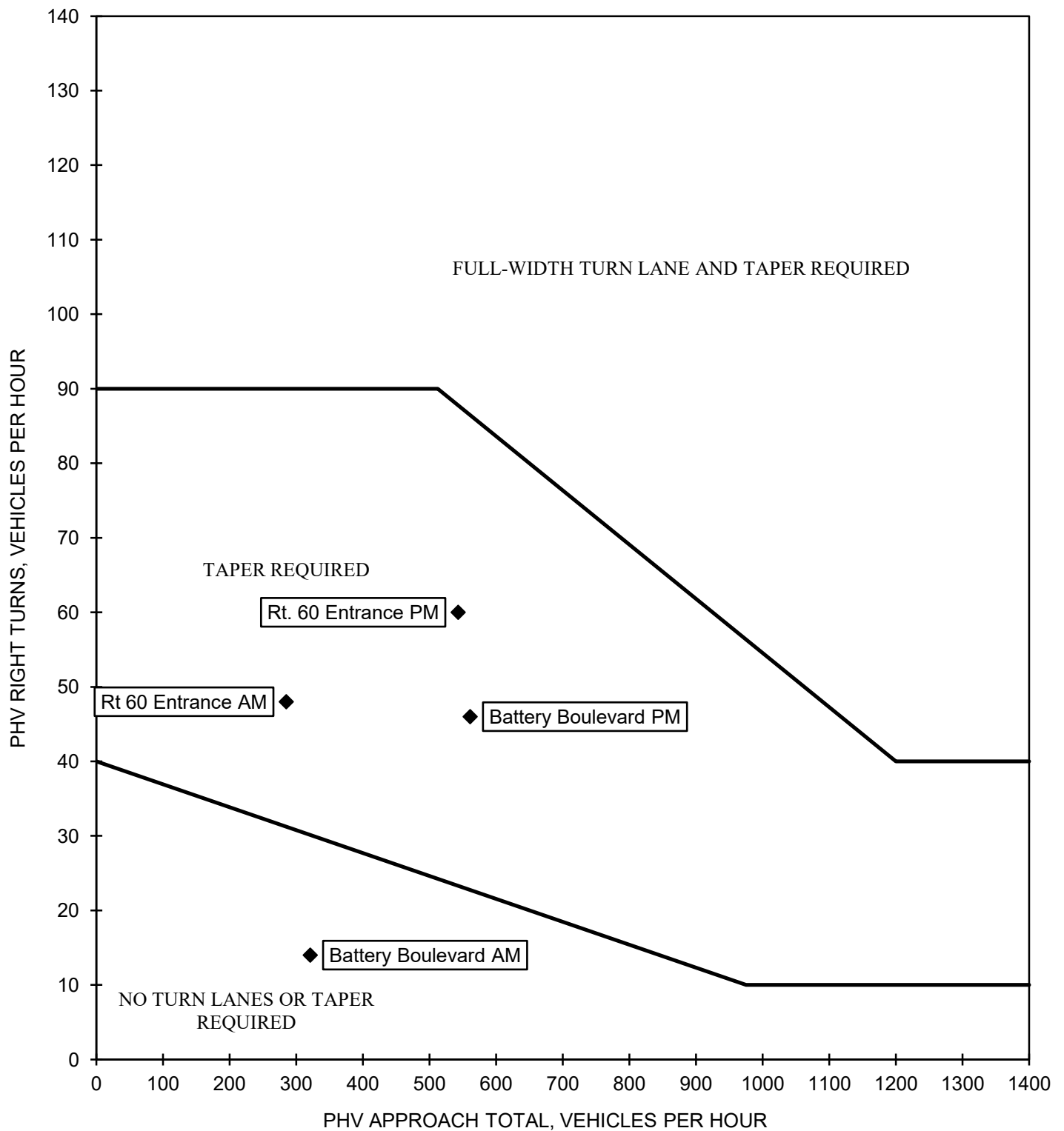


PEAK HOUR TRIP ASSIGNMENT  
PROPOSED FAST FOOD

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Exhibit D5

# Guidelines for Right Turn Treatments 4 - Lane Highway



Source: VDOT Road Design Manual, Appendix F, Figure 3-27

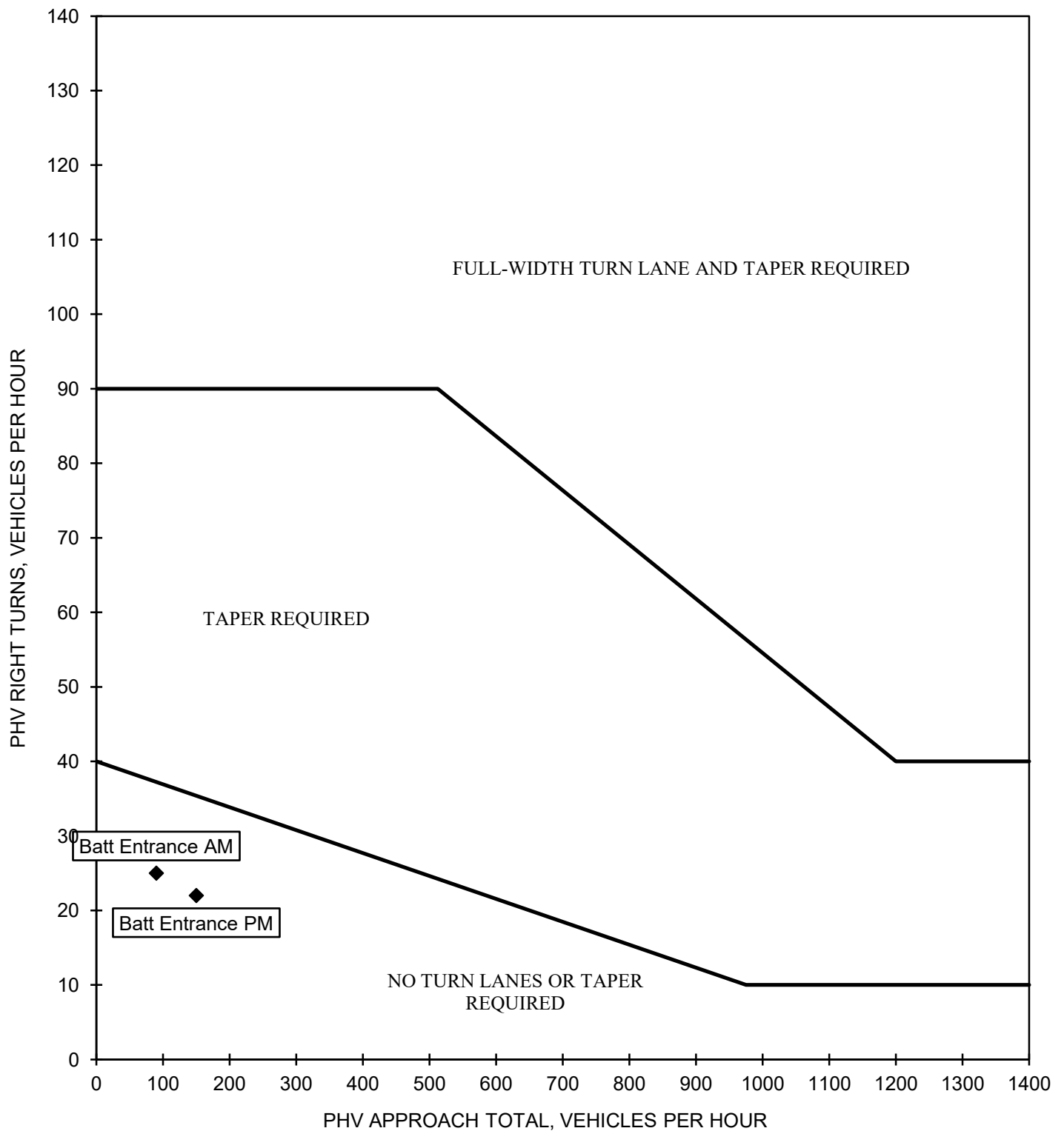
VDOT RIGHT TURN LANE WARRANT  
FOUR LANE ROAD  
SOUTHBOUND POCAHONTAS TRAIL  
2024 TOTAL TRAFFIC

DRW Consultants, LLC  
804-794-7312

Exhibit F1



# Guidelines for Right Turn Treatments 4 - Lane Highway



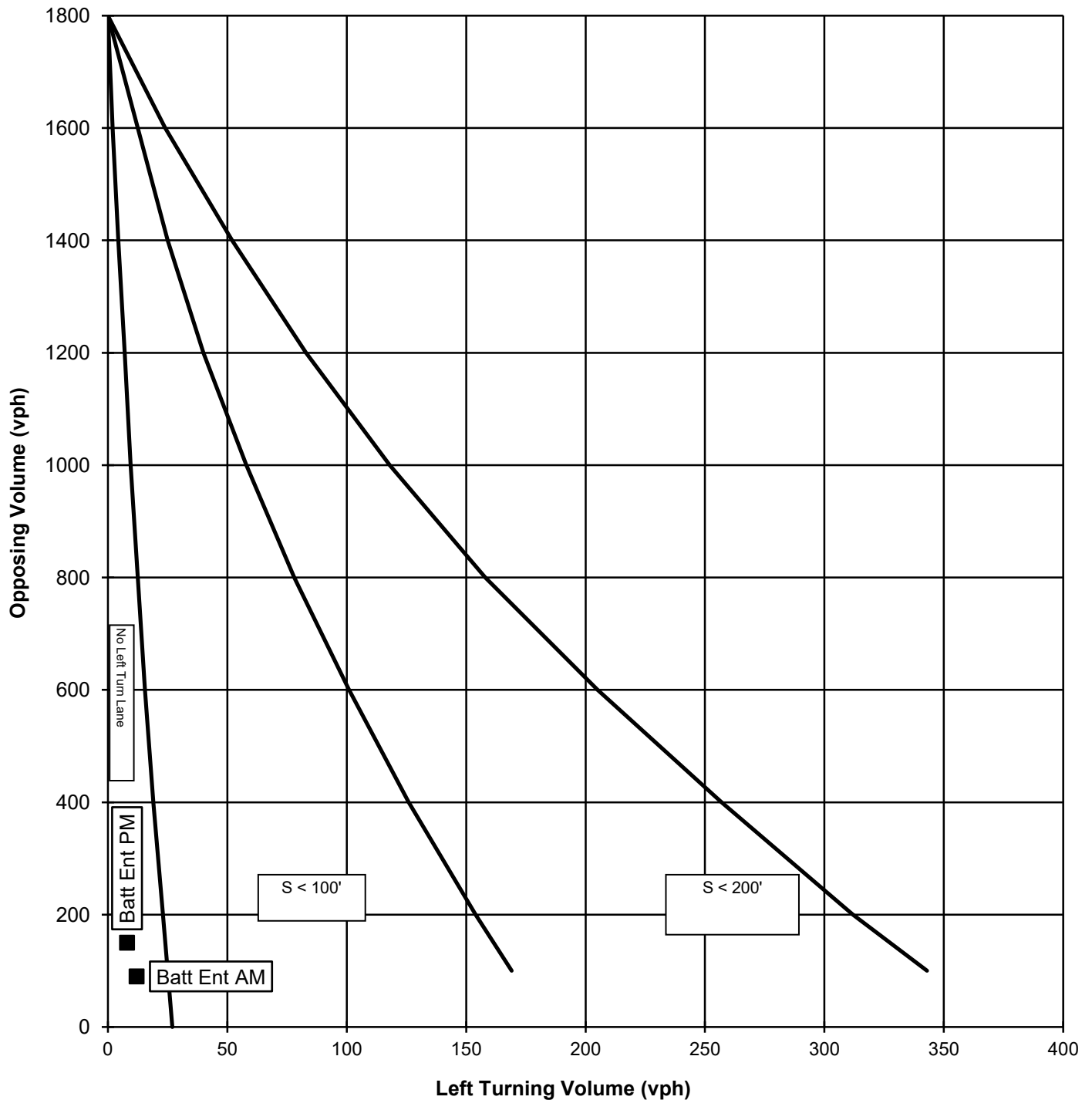
Source: VDOT Road Design Manual, Appendix F, Figure 3-27

VDOT RIGHT TURN LANE WARRANT  
FOUR LANE ROAD  
BATTERY BOULEVARD ENTRANCE  
2024 TOTAL TRAFFIC

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Exhibit F2

**LEFT TURN LANE WARRANT  
FOUR LANE HIGHWAY  
UNDIVIDED  
S = Left Turn Storage**



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

VDOT LEFT TURN LANE WARRANT  
FOUR LANE UNDIVIDED  
BATTERY BOULEVARD ENTRANCE

*DRW Consultants, LLC*  
804-794-7312







**Exhibit F3**

# 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

HCM 2010 TWSC

## Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	27	42	41	352	252	15
Future Vol, veh/h	27	42	41	352	252	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	13	8	3	5	6
Mvmt Flow	28	44	43	367	263	16





Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	532	131	263	0	-	0
Stage 1	263	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Critical Hdwy	6.8	7.16	4.26	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.43	2.28	-	-	-
Pot Cap-1 Maneuver	482	860	1256	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	465	860	1256	-	-	-
Mov Cap-2 Maneuver	465	-	-	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	732	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1256	-	465	860	-	-
HCM Lane V/C Ratio	0.034	-	0.06	0.051	-	-
HCM Control Delay (s)	8	-	13.2	9.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.2	-	-

**Intersection**

Int Delay, s/veh 1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	47	30	349	220	0
Future Vol, veh/h	6	47	30	349	220	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	4	3	3	8	0
Mvmt Flow	6	49	32	367	232	0






Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	479	116	232	0	-	0
Stage 1	232	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.59	7.18	5.36	-	-	-
Critical Hdwy Stg 1	6.94	-	-	-	-	-
Critical Hdwy Stg 2	6.14	-	-	-	-	-
Follow-up Hdwy	3.82	3.94	3.13	-	-	-
Pot Cap-1 Maneuver	500	772	899	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	482	772	899	-	-	-
Mov Cap-2 Maneuver	482	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	899	-	723	-	-
HCM Lane V/C Ratio	0.035	-	0.077	-	-
HCM Control Delay (s)	9.2	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

**Intersection**

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	11	18	337	209	16
Future Vol, veh/h	10	11	18	337	209	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	25	-	-	10
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	18	11	3	8	6
Mvmt Flow	11	12	19	362	225	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	445	112	225	0	-	0
Stage 1	225	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	7.5	7.26	4.32	-	-	-
Critical Hdwy Stg 1	6.5	-	-	-	-	-
Critical Hdwy Stg 2	6.5	-	-	-	-	-
Follow-up Hdwy	3.5	3.48	2.31	-	-	-
Pot Cap-1 Maneuver	501	871	1278	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	768	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	495	871	1278	-	-	-
Mov Cap-2 Maneuver	570	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	757	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1278	-	696	-	-
HCM Lane V/C Ratio	0.015	-	0.032	-	-
HCM Control Delay (s)	7.9	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-









# 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

HCM 2010 TWSC

## Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	39	52	453	437	34
Future Vol, veh/h	29	39	52	453	437	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	7	8	0	2	2	9
Mvmt Flow	33	44	58	509	491	38





Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	862	246	491	0	-	0
Stage 1	491	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	6.94	7.06	4.1	-	-	-
Critical Hdwy Stg 1	5.94	-	-	-	-	-
Critical Hdwy Stg 2	5.94	-	-	-	-	-
Follow-up Hdwy	3.57	3.38	2.2	-	-	-
Pot Cap-1 Maneuver	285	736	1083	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	270	736	1083	-	-	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1083	-	270	736	-	-
HCM Lane V/C Ratio	0.054	-	0.121	0.06	-	-
HCM Control Delay (s)	8.5	-	20.2	10.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.2	-	-

**Intersection**

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	33	18	464	438	0
Future Vol, veh/h	6	33	18	464	438	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	7	38	20	527	498	0






Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	803	249	498	0	-	0
Stage 1	498	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	358	644	686	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	348	644	686	-	-	-
Mov Cap-2 Maneuver	348	-	-	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	681	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	686	-	569	-	-
HCM Lane V/C Ratio	0.03	-	0.078	-	-
HCM Control Delay (s)	10.4	-	11.9	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

**Intersection**

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	14	29	441	424	23
Future Vol, veh/h	12	14	29	441	424	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	25	-	-	10
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	13	16	33	496	476	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	789	238	476	0	-	0
Stage 1	476	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	332	769	1097	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	322	769	1097	-	-	-
Mov Cap-2 Maneuver	439	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	699	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.5	0
HCM LOS	B		







Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1097	-	571	-	-
HCM Lane V/C Ratio	0.03	-	0.051	-	-
HCM Control Delay (s)	8.4	-	11.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

# 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

HCM 2010 TWSC

## Intersection

Int Delay, s/veh 2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	77	51	387	277	18
Future Vol, veh/h	38	77	51	387	277	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	13	8	3	5	6
Mvmt Flow	40	80	53	403	289	19





Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	597	144	289	0	-	0
Stage 1	289	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.8	7.16	4.26	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.43	2.28	-	-	-
Pot Cap-1 Maneuver	439	843	1227	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	420	843	1227	-	-	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1227	-	420	843	-	-
HCM Lane V/C Ratio	0.043	-	0.094	0.095	-	-
HCM Control Delay (s)	8.1	-	14.5	9.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.3	-	-

**Intersection**

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	47	30	395	248	0
Future Vol, veh/h	6	47	30	395	248	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	4	3	3	8	0
Mvmt Flow	6	49	32	416	261	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	532	131	261	0	-	0
Stage 1	261	-	-	-	-	-
Stage 2	271	-	-	-	-	-
Critical Hdwy	6.59	7.18	5.36	-	-	-
Critical Hdwy Stg 1	6.94	-	-	-	-	-
Critical Hdwy Stg 2	6.14	-	-	-	-	-
Follow-up Hdwy	3.82	3.94	3.13	-	-	-
Pot Cap-1 Maneuver	466	755	872	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	449	755	872	-	-	-
Mov Cap-2 Maneuver	449	-	-	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	658	-	-	-	-	-






Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	872	-	701	-	-
HCM Lane V/C Ratio	0.036	-	0.08	-	-
HCM Control Delay (s)	9.3	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



**Intersection**

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	11	18	383	237	16
Future Vol, veh/h	10	11	18	383	237	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	25	-	-	10
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	18	11	3	8	6
Mvmt Flow	11	12	19	412	255	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	500	127	255	0	-	0
Stage 1	255	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.8	7.26	4.32	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.48	2.31	-	-	-
Pot Cap-1 Maneuver	505	851	1244	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	497	851	1244	-	-	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.4	0
HCM LOS	B		







Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1244	-	695	-	-
HCM Lane V/C Ratio	0.016	-	0.032	-	-
HCM Control Delay (s)	7.9	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

# 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

HCM 2010 TWSC

## Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	55	82	498	480	50
Future Vol, veh/h	37	55	82	498	480	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	8	0	2	2	9
Mvmt Flow	40	60	89	541	522	54





Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	971	261	522	0	-	0
Stage 1	522	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Critical Hdwy	6.94	7.06	4.1	-	-	-
Critical Hdwy Stg 1	5.94	-	-	-	-	-
Critical Hdwy Stg 2	5.94	-	-	-	-	-
Follow-up Hdwy	3.57	3.38	2.2	-	-	-
Pot Cap-1 Maneuver	242	720	1055	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	222	720	1055	-	-	-
Mov Cap-2 Maneuver	222	-	-	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	546	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	1.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1055	-	222	720	-	-
HCM Lane V/C Ratio	0.084	-	0.181	0.083	-	-
HCM Control Delay (s)	8.7	-	24.8	10.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	0.3	-	-

**Intersection**

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	33	18	517	497	0
Future Vol, veh/h	6	33	18	517	497	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	7	36	20	562	540	0






Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	860	270	540	0	-	0
Stage 1	540	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	332	625	656	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	322	625	656	-	-	-
Mov Cap-2 Maneuver	322	-	-	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	669	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	656	-	546	-	-
HCM Lane V/C Ratio	0.03	-	0.078	-	-
HCM Control Delay (s)	10.7	-	12.1	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

**Intersection**

Int Delay, s/veh 0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	14	29	494	483	23
Future Vol, veh/h	12	14	29	494	483	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	25	-	-	10
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	13	15	32	537	525	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	857	263	525	0	-	0
Stage 1	525	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	300	742	1052	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	291	742	1052	-	-	-
Mov Cap-2 Maneuver	413	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	684	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0.5	0
HCM LOS	B		







Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	543	-	-
HCM Lane V/C Ratio	0.03	-	0.052	-	-
HCM Control Delay (s)	8.5	-	12	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

# 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

HCM 2010 TWSC

## Intersection

Int Delay, s/veh 2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	130	76	451	307	14
Future Vol, veh/h	34	130	76	451	307	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	13	8	3	5	6
Mvmt Flow	35	135	79	470	320	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	713	160	320	0	-	0
Stage 1	320	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Critical Hdwy	6.8	7.16	4.26	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.43	2.28	-	-	-
Pot Cap-1 Maneuver	371	823	1194	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	346	823	1194	-	-	-
Mov Cap-2 Maneuver	346	-	-	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	614	-	-	-	-	-






Approach	EB	NB	SB
HCM Control Delay, s	11.5	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1194	-	346	823	-	-
HCM Lane V/C Ratio	0.066	-	0.102	0.165	-	-
HCM Control Delay (s)	8.2	-	16.6	10.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.6	-	-



**Intersection**

Int Delay, s/veh 2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	84	108	377	237	48
Future Vol, veh/h	42	84	108	377	237	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	4	3	3	8	0
Mvmt Flow	44	88	114	397	249	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	675	125	249	0	-	0
Stage 1	249	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Critical Hdwy	7.14	6.98	4.16	-	-	-
Critical Hdwy Stg 1	6.14	-	-	-	-	-
Critical Hdwy Stg 2	6.14	-	-	-	-	-
Follow-up Hdwy	3.67	3.34	2.23	-	-	-
Pot Cap-1 Maneuver	356	896	1306	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	325	896	1306	-	-	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	1.8	0
HCM LOS	B		




Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1306	-	565	-	-
HCM Lane V/C Ratio	0.087	-	0.235	-	-
HCM Control Delay (s)	8	-	13.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	-	-

#### 4: Battery Boulevard & Battery Entrance

HCM 2010 TWSC

##### Intersection

Int Delay, s/veh 2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	111	65	25	53	9
Future Vol, veh/h	12	111	65	25	53	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	2	2	2	2
Mvmt Flow	13	121	71	27	58	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	98	0	170
Stage 1	-	-	84
Stage 2	-	-	86
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1493	-	804
Stage 1	-	-	930
Stage 2	-	-	927
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1493	-	797
Mov Cap-2 Maneuver	-	-	797
Stage 1	-	-	930
Stage 2	-	-	919

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.8
HCM LOS			A







Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1493	-	-	-	822
HCM Lane V/C Ratio	0.009	-	-	-	0.082
HCM Control Delay (s)	7.4	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

# 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

HCM 2010 TWSC

## Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	94	104	546	515	46
Future Vol, veh/h	34	94	104	546	515	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	8	0	2	2	9
Mvmt Flow	37	102	113	593	560	50






Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1083	280	560	0	-	0
Stage 1	560	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Critical Hdwy	6.94	7.06	4.1	-	-	-
Critical Hdwy Stg 1	5.94	-	-	-	-	-
Critical Hdwy Stg 2	5.94	-	-	-	-	-
Follow-up Hdwy	3.57	3.38	2.2	-	-	-
Pot Cap-1 Maneuver	204	699	1021	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	181	699	1021	-	-	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	485	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16	1.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1021	-	181	699	-	-
HCM Lane V/C Ratio	0.111	-	0.204	0.146	-	-
HCM Control Delay (s)	9	-	29.9	11	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.7	0.5	-	-

**Intersection**

Int Delay, s/veh 2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	78	92	488	483	60
Future Vol, veh/h	50	78	92	488	483	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	54	85	100	530	525	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	990	263	525	0	-	0
Stage 1	525	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	247	742	1052	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	742	1052	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	547	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.3	1.4	0
HCM LOS	C		




Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	390	-	-
HCM Lane V/C Ratio	0.095	-	0.357	-	-
HCM Control Delay (s)	8.8	-	19.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.6	-	-

#### 4: Battery Boulevard & Battery Entrance

HCM 2010 TWSC

##### Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	89	128	22	39	11
Future Vol, veh/h	8	89	128	22	39	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	-	-	-	-	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	2	2	2	2
Mvmt Flow	9	97	139	24	42	12

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	163	0	82
Stage 1	-	-	151
Stage 2	-	-	66
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	1413	-	961
Stage 1	-	-	861
Stage 2	-	-	949
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1413	-	961
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	861
Stage 2	-	-	942

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1413	-	-	-	785
HCM Lane V/C Ratio	0.006	-	-	-	0.069
HCM Control Delay (s)	7.6	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2



## Queuing and Blocking Report

### Baseline

12/11/2016

#### Intersection: 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

Movement	EB	EB	NB	SB
Directions Served	L	R	L	T
Maximum Queue (ft)	41	58	45	12
Average Queue (ft)	16	19	8	0
95th Queue (ft)	36	44	31	6
Link Distance (ft)	1120	1120	706	100
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

#### Intersection: 2: Pocahontas Tr & South Ent

Movement	EB	NB	NB	SB	SB
Directions Served	LR	L	T	T	TR
Maximum Queue (ft)	67	30	12	6	6
Average Queue (ft)	25	6	0	0	0
95th Queue (ft)	50	25	6	4	4
Link Distance (ft)	299		100	38	38
Upstream Blk Time (%)				0	0
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

#### Intersection: 3: Pocahontas Tr & North Ent

Movement	EB	NB	NB
Directions Served	LR	L	T
Maximum Queue (ft)	59	34	45
Average Queue (ft)	17	4	4
95th Queue (ft)	46	21	25
Link Distance (ft)	317		38
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)		25	
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		1	0

#### Network Summary

Network wide Queuing Penalty: 1

## Queuing and Blocking Report

### Baseline

12/05/2016

#### Intersection: 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

Movement	EB	EB	NB	SB
Directions Served	L	R	L	T
Maximum Queue (ft)	76	53	43	10
Average Queue (ft)	20	16	13	0
95th Queue (ft)	53	39	37	7
Link Distance (ft)	1120	1120	706	100
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

#### Intersection: 2: Pocahontas Tr & South Ent

Movement	EB	NB	NB	SB	SB
Directions Served	LR	L	T	T	TR
Maximum Queue (ft)	44	31	29	13	10
Average Queue (ft)	19	8	1	1	1
95th Queue (ft)	40	29	13	8	8
Link Distance (ft)	299		100	38	38
Upstream Blk Time (%)				0	0
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		0	0		
Queuing Penalty (veh)		0	0		

#### Intersection: 3: Pocahontas Tr & North Ent

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	R
Maximum Queue (ft)	45	31	41	9
Average Queue (ft)	17	9	9	0
95th Queue (ft)	41	31	35	4
Link Distance (ft)	317		38	
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)		25		10
Storage Blk Time (%)		1	0	0
Queuing Penalty (veh)		2	0	0

#### Network Summary

Network wide Queuing Penalty: 3

## Queuing and Blocking Report

### Baseline

12/08/2016

#### Intersection: 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

Movement	EB	EB	NB	SB
Directions Served	L	R	L	T
Maximum Queue (ft)	48	57	45	6
Average Queue (ft)	20	26	12	0
95th Queue (ft)	44	48	36	4
Link Distance (ft)	1120	1120	706	100
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

#### Intersection: 2: Pocahontas Tr & South Ent

Movement	EB	NB	NB
Directions Served	LR	L	T
Maximum Queue (ft)	68	46	16
Average Queue (ft)	26	8	1
95th Queue (ft)	50	32	8
Link Distance (ft)	299		100
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		50	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

#### Intersection: 3: Pocahontas Tr & North Ent

Movement	EB	NB	NB
Directions Served	LR	L	T
Maximum Queue (ft)	57	32	41
Average Queue (ft)	17	3	4
95th Queue (ft)	44	19	25
Link Distance (ft)	317		38
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)		25	
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		1	0

#### Network Summary

Network wide Queuing Penalty: 1

## Queuing and Blocking Report

### Baseline

12/08/2016

#### Intersection: 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

Movement	EB	EB	NB	SB
Directions Served	L	R	L	T
Maximum Queue (ft)	102	52	40	7
Average Queue (ft)	28	22	21	0
95th Queue (ft)	66	43	44	5
Link Distance (ft)	1120	1120	706	100
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

#### Intersection: 2: Pocahontas Tr & South Ent

Movement	EB	NB	NB	SB	SB
Directions Served	LR	L	T	T	TR
Maximum Queue (ft)	47	30	12	20	6
Average Queue (ft)	20	5	1	1	0
95th Queue (ft)	44	24	10	9	4
Link Distance (ft)	299		100	38	38
Upstream Blk Time (%)				0	0
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		0	0		
Queuing Penalty (veh)		0	0		

#### Intersection: 3: Pocahontas Tr & North Ent

Movement	EB	NB	NB
Directions Served	LR	L	T
Maximum Queue (ft)	45	31	38
Average Queue (ft)	18	10	9
95th Queue (ft)	40	33	36
Link Distance (ft)	317		38
Upstream Blk Time (%)		1	0
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)		25	
Storage Blk Time (%)		1	0
Queuing Penalty (veh)		3	0

#### Network Summary

Network wide Queuing Penalty: 4

## Queuing and Blocking Report

### Baseline

06/20/2017

#### Intersection: 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

Movement	EB	EB	NB	SB
Directions Served	L	R	L	T
Maximum Queue (ft)	50	89	51	12
Average Queue (ft)	17	37	18	0
95th Queue (ft)	41	73	46	6
Link Distance (ft)	265	265	705	164
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

#### Intersection: 2: Pocahontas Tr & Rt 60 Entrance

Movement	EB	NB	SB
Directions Served	LR	L	R
Maximum Queue (ft)	121	57	13
Average Queue (ft)	48	19	1
95th Queue (ft)	89	48	6
Link Distance (ft)	225		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	70
Storage Blk Time (%)			
Queuing Penalty (veh)			

#### Intersection: 4: Battery Boulevard & Battery Entrance

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	12	70
Average Queue (ft)	1	28
95th Queue (ft)	8	53
Link Distance (ft)	150	173
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

#### Network Summary

Network wide Queuing Penalty: 0



## Queuing and Blocking Report

### Baseline

06/20/2017

#### Intersection: 1: Pocahontas Trail/Pocahontas Tr & Battery Boulevard

Movement	EB	EB	NB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	68	71	65	14
Average Queue (ft)	22	30	28	0
95th Queue (ft)	55	56	54	8
Link Distance (ft)	265	265	705	159
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

#### Intersection: 2: Pocahontas Tr & Rt. 60 Entrance

Movement	EB	NB	SB
Directions Served	LR	L	R
Maximum Queue (ft)	119	67	13
Average Queue (ft)	49	24	0
95th Queue (ft)	90	51	6
Link Distance (ft)	226		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	70
Storage Blk Time (%)			
Queuing Penalty (veh)			

#### Intersection: 4: Battery Boulevard & Battery Entrance




Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	12	50
Average Queue (ft)	0	27
95th Queue (ft)	6	47
Link Distance (ft)	150	173
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

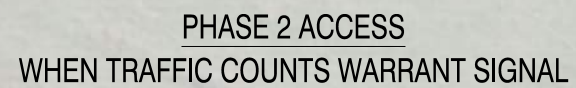
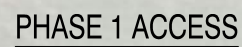
#### Network Summary

Network wide Queuing Penalty: 0





<div><div>G</div><div>CONCEPT PLAN</div></div>	SHEET NO.	LOCATION	DATE ISSUED 03-13-17				7/11/17	ADDED RAISED MEDIAN IN PHASE 1
	POCAHONTAS TRL. AND BATTERY BLVD.		DRAWN BY GF					
	SHEET TITLE		REVIEWED BY SMB					
	CONCEPT PLAN		DESIGNED BY GF					
	SITE ID	SITE ADDRESS						
		7337 POCAHONTAS TRIAL WILLIAMSBURG, VA						
					REV	DATE	DESCRIPTION	





On a roll call, the vote was AYE: Norment, Taylor, Edwards, Knudson, DePue (5). NAY: (0).

### R E S O L U T I O N

#### CASE NO. SUP-21-91. POCAHONTAS TRAIL 7-11 GAS PUMP ADDITION

WHEREAS, the Board of Supervisors of James City County has adopted by ordinance specific land uses that shall be subjected to a special use permit process; and

WHEREAS, the Planning Commission of James City County, following its public hearing on August 13, 1991, unanimously recommended approval of Case No. SUP-21-91 to permit the addition of gas pumps and canopy in the B-1, General Business district on property identified as Parcel (1-30A) on James City County Real Estate Tax Map No. (50-2).

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, does hereby approve the issuance of Special Use Permit No. SUP-21-91 as described herein with the following conditions:

1. If construction has not commenced on this project within a period of 12 months from the date of issuance of this special use permit, it shall become void.
2. No new entrances on Pocahontas Trail shall be permitted.
3. All existing landscaped areas shall meet the planting requirements of Section 20-14 of the Zoning Ordinance.
4. All parking lot lighting, with the exception of that lighting which is to be installed underneath the canopy and is intended to illuminate the fuel pumps, shall be of the high-pressure sodium vapor type. A lighting plan detailing the illumination patterns and the specific design of all lighting fixtures shall be submitted along with the site plan for review and approval by the Planning Director.

#### 6. Case No. SUP-22-91. Williamsburg Pottery Golf Driving Range

Mr. Sowers stated that Mr. Richard A. Costello, of AES, had applied on behalf of Williamsburg Pottery Factory for a special use permit to allow a golf driving range, zoned M-1, Limited Industrial, located at 6092 Richmond Road, and further identified as Parcel (1-31) on James City County Real Estate Tax Map No. (24-3).

In concurrence with staff, the Planning Commission unanimously recommended approval of the special use permit with conditions listed in the resolution.

N 51° 59' 48" E  
190.00'

7-ELEVEN STORE

INSTALL 100 GALLON WATER TANK  
LIMITS: 10' FROM BUILDING, 10' FROM  
DRAINAGE DITCH (10' FROM 10' FROM 10')

REPLACE 5" CONC. (TYPE)

PROPOSED 3" WATER

RELOCATE EXIST. 10" WATER

INSTALL 24" DIA. CANYON OVER,  
6" THICK CONC. PAD  
10' FROM 10' FROM 10'

INSTALL 8" REINFORCED CONCRETE  
PAD OVER THREE 6.000 GALLON  
TANKS

ALL IMPROVED CONCRETE  
TO MATCH EXISTING

INSTALL VENT PIPES  
INSTALL 10" DIA. 4"  
DOLLARS

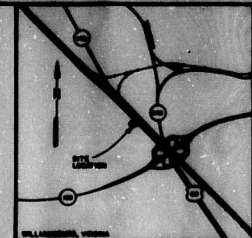
CONTRACTOR IS RESPONSIBLE FOR OBTAINING  
DESIGN AND SPECIFICATIONS AS FURNISHED  
BY THE SOUTH AND COASTAL HIGHWAY DISTRICTS

LIMITS OF ELEVATION OF ALL PROPOSED  
PAVING FOR LIGHTING SHALL BE A  
MINIMUM OF 3 FEET ABOVE GROUND

THIS PLAN TO BE USED ONLY  
FOR CONSTRUCTION OF GASOLINE  
FACILITIES AND LIGHTING UPGRADES  
ALL OTHER IMPROVEMENTS ARE  
EXISTING



**Waterway**  
Survey & Engineering, Ltd.  
Virginia Beach, Virginia



# NOTES:

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO JAMES CITY COUNTY STANDARDS AND TO BE IN STRICT ACCORDANCE WITH THE SOUTHLAND CORPORATION SPECIFICATIONS FOR 7-ELEVEN STORE BUILDINGS INCLUDED IN THE CONTRACT DOCUMENTS.
- PRIOR TO ANY CONSTRUCTION, CONTRACTOR TO CONTACT THE UTILITY OF THE AREA AT 1-800-368-7031 TO VERIFY L.C. OF ALL UTILITIES.
- EROSION AND SEDIMENT TO BE CONTROLLED AS PER VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK AND IN ACCORDANCE WITH THE SEDIMENT CONTROL PROVISIONS SHOWN ON THIS SITE PLAN.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE GRADED AND SEEDS IN ACCORDANCE WITH THE SOUTHLAND CORPORATION'S LANDSCAPING SPECIFICATIONS AND JAMES CITY COUNTY LANDSCAPING SPECIFICATIONS.
- SEWER MANHOLE IS LOCATED ON THE TOP VALVE BOLT OF FIRE HYDRANT LOCATED ON THE SOUTH SIDE OF RTE. 604.36 FEET FROM THE NORTHEAST CORNER OF SITE. ELEV. 93.27 R.E.V.D.
- INVERTS TO BE DETERMINED BY CONTRACTOR IN FIELD PROPOSED 4" SANITARY SEWER SHALL BE INSTALLED WITH ONE CONTINUOUS GRADE (1% MIN.) FROM PROPOSED 7-ELEVEN STORE TO EXISTING SEWER MANHOLE.
- CURRENT OWNER IS THE SOUTHLAND CORPORATION D.B. 230, P. 107 D.B. 230, P. 100.
- DRAINAGE CALCULATIONS:  $Q = C \cdot I \cdot A$   
 $C = 0.9$   
 $I = 6.9 \text{ in/hr.}$   
 $A = 0.8 \text{ AC}$   
 $Q = 2.8 \text{ CFS}$
- FIRE HYDRANT IS LOCATED ON SOUTH SIDE OF RTE. 604.36 FEET FROM THE NORTH EAST CORNER OF SITE.
- BALCH BARS WITH 2" DIA. SHEDDED HARDWOOD, PLANT JUMPERS (1 GAL. CONTAINER SIZE) AND CRUPE MYRTLES (MIN. 7' HIGH) AS SHOWN.
- FOR LOCATION OF WATER & SEWER LINES, CONTRACTOR MAY CALL THE JAMES CITY SERVICE AUTHORITY UTILITY OPERATIONS AT 225-7621 OR 225-7998.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING DESIGN AND SPECIFICATIONS AS FURNISHED BY THE SOUTHLAND CORPORATION FOR ALL IMPROVEMENTS INVOLVING INSTALLATION OF GASOLINE FACILITIES.

# LEGEND:

- PROPOSED ELEVATION
- EXISTING ELEVATION
- PROPERTY LINES
- PROPOSED BITUMINOUS PAVEMENT
- STRAW BALE SEDIMENT BARRIER
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- SOIL BORING LOCATION
- PROPOSED CONCRETE

NO.	DESCRIPTION	DATE	BY
1	1/24/81	WCH	WCH
2	1/24/81	JLG/RCB	JLG
3	1/24/81	L.S.G.	L.S.G.

<b>THE SOUTHLAND CORPORATION</b> 7-ELEVEN FOOD STORES, DIVISION 1069 REFLECTIONS 1, 1/24/81 VIRGINIA BEACH, VIRGINIA 23462			
SURVEYED WCH DESIGNER JLG/RCB DRAWN L.S.G. REVIEWED J.D.W.			
JAMES CITY COUNTY, VIRGINIA <b>SITE IMPROVEMENT PLAN</b> FOR <b>7-ELEVEN FOOD STORES</b> PARCEL A PATRICK HENRY HILL, INC. & TR. VERNILLION PROPERTY N.E. 1/4, R. 60 27100 AC			
SCALE	DATE	FILE NO.	SHEET NO.
1"=10'	JULY 1, 1982	225-100	1 OF 2

(50-3)(01-377)  
SUD-31-91  
Pocahontas Trail Seven Eleven and Ramp Station

<b>8. Five Forks</b>	<p>Development at the intersection of John Tyler Highway (Route 5) and Ironbound Road primarily serves nearby residential development. Limited commercial development of this nature may continue so long as the resulting land use mix of the area is limited primarily to community-scale and neighborhood commercial and office uses. Moderate density residential development is encouraged as a secondary use. New development should tie into the larger Five Forks area with complementary building types and connections to surrounding commercial and residential development.</p> <p>The property on the west side of Ironbound Road and south side of John Tyler Highway (Route 5) is envisioned to be limited to community-scale and neighborhood commercial and office uses. Specifically, future development on the parcel directly to the south and west of the existing 7-11 should not exceed the intensity and density of development identified on the approved master plan and approved proffers for James City County Case Z-9-05/MP-6-05 (Governor's Grove at Five Forks, approved by the Board of Supervisors August 9, 2005). The property immediately west of this parcel, and identified on the Governor's Grove Master Plan as "open space," is envisioned to remain in conservation easement.</p> <p>For the parcel located at 133 Powhatan Springs Road, historical uses have included a contractor's office/warehouse. Similar small-scale, low-intensity Limited Industrial uses that are consistent in terms of scale and impact to the contractor's office/warehouse and those that can adequately mitigate impacts to adjacent low density residential areas may be appropriate. Expansion of the facilities to more intense industrial or commercial/retail uses is not recommended.</p> <p>Preservation and adaptive re-use of historic buildings are encouraged, as is the redevelopment of existing residential and commercial uses in the immediate area. Future development and redevelopment should also reflect the historic and scenic qualities of the Five Forks area and should adhere to the Board of Supervisors adopted Primary Principles for the Five Forks Area. Overall development intensities should be closely monitored to ensure they can be accommodated within the capacities of the existing two-lane roads, both of which are projected to be above capacity by 2030.</p>
<b>9. Williamsburg Crossing</b>	<p>For the undeveloped land in the vicinity of the intersection of John Tyler Highway (Route 5) and Route 199 including the Williamsburg Crossing Shopping Center, the principal suggested uses are commercial and office. Moderate density residential will be accommodated as a secondary use. The development of this area is limited to the portions of land in the southwest quadrant of the intersection of John Tyler Highway (Route 5) and Route 199 developed as part of Williamsburg Crossing Shopping Center and is subject to a binding master plan. Continued access management is needed to maintain acceptable levels of service on John Tyler Highway (Route 5). Additional access points beyond those that currently exist for the Route 199 corridor will be strongly discouraged by the County.</p>
<b>10. Jamestown Ferry Approach</b>	<p>This land is located southeast of Jamestown Road and is bounded by Powhatan Creek, Jamestown Road, Jamestown Settlement and undeveloped residential property. This area is designated as a CCA, and therefore all development should conform to the CCA design principles. Due to the unique character and location of this area, it should be developed in accordance with the approved Shaping Our Shores master plan and emphasis should be given to preserving the tree cover of the site, protecting on-site and nearby historic, archaeological, and environmental resources, and public access to the James River. Principal suggested uses include recreational and water-related establishments such as marinas (including associated residential caretaker units) and boat launches, but no water-dependent industries. Commercial uses may also be considered appropriate when their scale, intensity and impacts can be appropriately accommodated. Future uses which would benefit from having a waterfront location (i.e., restaurant, retail space, and recreation) are encouraged. Designs should be encouraged to provide views of and public access to the James River and other points of interest and to provide environmental and historical education opportunities linked to the property's proximity to the Powhatan Creek, wetlands and Historic Jamestowne and other cultural resources. With Jamestown Road approaching or overcapacity by 2030, access management should be strongly encouraged.</p> <p>The traffic generation of any proposal should be in line with the goal of retaining Jamestown Road as a two-lane facility, as widening would significantly impact the visual character of the road.</p>
<b>11. Routes 60/143/199 Interchanges</b>	<p>The County portion of this area to the south of the interchange is developed with minimal potential for additional development or redevelopment. For the portion of the Mixed Use area located north of the interchange and zoned B-1, several uses have relocated or been removed since 2003, and there is more potential for development and redevelopment. The County has participated in plan review of components of the Riverside development approved on the adjacent parcels in the City of Williamsburg, and the economic development potential of parcels in the County has been an important consideration.</p> <p>The principal suggested uses for this corridor from Routes 60/199 interchange to the City of Williamsburg line are commercial and office development, with moderate density residential development as a secondary use. Future development should be integrated with and complement the design guidelines and layout of development planned in the City, including uses, architecture, landscaping, historic resources and pedestrian amenities. Development approved in the City did not include plans for a light rail station, but a station would be encouraged in this area should this be a viable option in the future. Given substantial development in both the City of Williamsburg and York County, future development should be aware of, and take steps to mitigate to the degree possible, roadway and interchange capacity constraints.</p> <p style="text-align: center;"><i>(Chart 4 continued on next page)</i></p>

**ITEM SUMMARY**

DATE: 9/6/2017

TO: The Planning Commission

FROM: Paul D. Holt, III, Director of Community Development and Planning

SUBJECT: Planning Director's Report - September 2017

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**ATTACHMENTS:**

	Description	Type
▣	Memo	Cover Memo
▣	Spreadsheet listing new applications received	Exhibit

**REVIEWERS:**

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	8/29/2017 - 12:09 PM
Planning Commission	Holt, Paul	Approved	8/29/2017 - 12:09 PM
Publication Management	Trautman, Gayle	Approved	8/29/2017 - 12:40 PM
Planning Commission	Holt, Paul	Approved	8/29/2017 - 12:41 PM



PLANNING DIRECTOR'S REPORT  
September 2017

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 two months, please see the attached documents.
- **Board Action Results:** July 11, 2017
  - SUP-0028-2016, Solar Electrical Generation Facility at Norge  
**Deferred until August 8, 2017 (5 – 0)**
  - Z-0003-2015/SUP-0002-2015/HW-0001-2015, Skiffes Creek Switching Station  
**Approved (3 – 2)**
- **Board Action Results:** August 8, 2017
  - SUP-0028-2016, Solar Electrical Generation Facility at Norge  
**Deferred until October 10, 2017 (4-0-1)**
  - HW-0003-2017, Busch Gardens Madrid  
**Approved (5 – 0)**
  - ZO-0001-2016, Zoning Ordinance Revisions to Allow Places of Public Assembly Including those Used Primarily as an Event Facility in A-1, General Agricultural, and R-8, Rural Residential Districts  
**Approved (4 – 1)**

- **Building Safety & Permits**

Karolee Towe and John Pope attended an “Attention to Details in Timber Framing” seminar at Legacy Hall. The Seminar was hosted by The Structures Group, TrusJoist and Simpson Strong Tie. The seminar focused on key structural elements and the importance of tracing load paths.

Congratulations to Donald White for achieving a career ladder promotion to Combination Inspector II.

Staff participated with the Virginia Department of Emergency Management in a damage assessment drill utilizing Crisis Track software.

New Cases for August and September 2017						
Case Type	Case Number	Case Title	Address	Description	Planner	District
Conceptual Plan	C-0043-2017	2646 Lake Powell Road Subdivision & AirBNB	2646 LAKE POWELL RD	Proposal for apartment over garage to be used as AirBNB rental. Applicant will remove any existing structures and build new SFD + detached garage w/unit.	Lauren White	05-Roberts
	C-0044-2017	Lang Family Subdivision, 8813 and 8825 Six Mt. Zion Rd.	8825 SIX MT ZION RD	Lang Family Subdivision, 8813 and 8825 Six Mt. Zion Rd.	Jose Ribeiro	01-Stonehouse
	C-0045-2017	1409 Jamestown Road Detached Accessory Apartment	1409 JAMESTOWN ROAD	Renovate 400 sf on 2nd floor of current detached garage.	Scott Whyte	03-Berkeley
	C-0046-2017	2645 Lake Powell Subdivision	2645 LAKE POWELL RD	Subdivision potential for 1.89 acre parcel.	Roberta Sulouff	05-Roberts
	C-0047-2017	1363 Oak Drive Minor Subdivision	1363 OAK DRIVE	Minor subdivision of parent lot into 5 lots.	Lauren White	05-Roberts
	C-0048-2017	Wyndi Angel Woods Retirement Village	3889 NEWS ROAD	55 and older neighborhood. 314-360 units.	Jose Ribeiro	04-Jamestown
	C-0049-2017	Kingmill Woods Golf Course - Op & Maint Plan	199 MOUNTS BAY ROAD	Annual Report for 2016.	Terry Costello	05-Roberts
	C-0050-2017	234 Neck O'Land Subdivision	234 NECK-O-LAND RD	5 residences with 5 accessory apartments in accordance with section 24-32.	Roberta Sulouff	05-Roberts
	C-0051-2017	3902 Rochambeau Drive Family Sub.	3902 ROCHAMBEAU DR	Family subdivision on 7.05 acres.	Jose Ribeiro	01-Stonehouse
	C-0052-2017	S. Wallace Edwards and Sons, Inc.	3601 LA GRANGE PKWY	Expansion of the existing ESG/Tienda facility in Stonehouse Commerce Park for Edwards Virginia Ham. Existing facility is ±85,000 SF. Expansion would be phased and add up to ±50,000 SF for the processing and packaging of food and food products.	Jose Ribeiro	01-Stonehouse
	C-0053-2017	8401 Croaker Road Subdivision	8401 CROAKER ROAD	Subdivide parent parcel into 9 lots accessed by 3 separate shared driveways.	Jose Ribeiro	01-Stonehouse
	C-0054-2017	Crosswalk Community Church Gravel Parking Expansion	5100 JOHN TYLER HGWY	Proposal to add additional gravel parking area at rear of property.	Roberta Sulouff	04-Jamestown
	C-0055-2017	113 Edale Ave. Tourist Home SUP (York Co. Courtesy Review)	113 EDALE AVE	Courtesy review for York County. SUP application for tourist home at 113 Edale Ave, Parcel # 10B-1-C-12.	Lauren White	N/A
	C-0056-2017	Colonial Heritage Traffic Study Proffer Requirement	~	Traffic study required by proffers for 1600 unit approval in Colonial Heritage.	Alex Baruch	01-Stonehouse
	C-0057-2017	Britt Family Subdivision, 9175 Richmond Rd.	9175 RICHMOND ROAD	Family subdivision for 2 new landlocked lots.	Roberta Sulouff	02-Powhatan
Height Waiver	C-0058-2017	Norge Food Lion Dumpster Enclosure & Addition	7537 RICHMOND ROAD	Addition of a dumpster enclosure for 2 additional dumpsters at the outer edge of the circulation drive at the truck dock area of Food Lion.	Jose Ribeiro	01-Stonehouse
	C-0059-2017	6701 Cranston's Mill Pond Sub.	6701 CRANSTON'S MILL POND RD	Proposed 3 lot subdivision of 4-6 acres in lot sizes.	Tom Leininger	01-Stonehouse
Master Plan	HW-0003-2017	Busch Gardens Madrid	7851 POCAHONTAS TR	Height waiver for new attraction not exceeding 315' at Busch Gardens.	Roberta Sulouff	05-Roberts
Subdivision	MP-0002-2017	Ford's Colony Section 35, Parke at Westport	3400 WESTPORT	Master plan amendment with rezoning of Ford's Colony Section 35 from A-1 to R-4 for development of Parke at Westport.	Roberta Sulouff	02-Powhatan
	S-0024-2017	Massie Family Subdivision	1938 FORGE ROAD	Family subdivision to create 2 lots on approx. 131.5 acres.	Alex Baruch	02-Powhatan
	S-0025-2017	8709 Pocahontas Trail Construction Plans	8709 POCAHONTAS TR	Construction/development plans for 2 lots.	Jose Ribeiro	05-Roberts
	S-0026-2017	McClure Family Subdivision	9437 DIASCUND RESERVOIR RD	Proposed family subdivision at 9437 Diascund Reservoir Road. 2 lots on 2.76 acres.	Alex Baruch	01-Stonehouse
	S-0027-2017	9415 & 9481 Sycamore Landing Road BLA	9481 SYCAMORE LANDING RD	BLA to add .33 acres to 9481 from 9415 Sycamore Landing Road.	Roberta Sulouff	01-Stonehouse
	S-0028-2017	Six Mount Zion ROW Dedications	9550 SIX MT ZION RD	ROW dedications along Six Mount Zion Road and Ware Creek Road.	Lauren White	01-Stonehouse
	S-0029-2017	Ballentine Subdivision, 128 Turners Neck Road	128 TURNERS NECK RD	Final plat of 4 lots on 15 acres.	Roberta Sulouff	01-Stonehouse
Site Plan	S-0030-2017	Kings Way and Queens Path ROW Dedication	5286 JOHN TYLER HGWY	ROW dedication plat to extend Kings Way and Queens Path.	Jose Ribeiro	03-Berkeley
	SP-0072-2017	New Town Sec. 3 &6 Par. C Maintenance Bldg	5625 DISCOVERY PARK BLVD	Proposed gravel driveway, 1,800 SF maintenance building, storm system and bioretention.	Scott Whyte	00-Unknown
	SP-0073-2017	Summerplace Subdivision Well Facility	1613 JOLLY POND ROAD	Proposed 2,100 SF well facility building with associated utilities, driveway and storm system and dry pond.	Jose Ribeiro	02-Powhatan
	SP-0074-2017	Patriot's Colony Sidewalk Expansion	3400 JOHN TYLER HGWY	Provide additional sidewalk connectivity for golf cart maintenance equipment and pedestrian circulation.	Tom Leininger	03-Berkeley
	SP-0075-2017	7147 Richmond Rd. Retail, Entrance and Lighting Amendment	7147 RICHMOND ROAD	Lighting plan and entrance layout amendment. Removing median, relocating sign, and no longer changing curb/sidewalk. Lighting plan not included in original approved SP.	Tori Haynes	01-Stonehouse
	SP-0076-2017	Olde Towne Marketplace Parking Addition	5242 OLDE TOWNE ROAD	Addition of 5 new parking spaces.	Jose Ribeiro	04-Jamestown
	SP-0077-2017	Busch Gardens 2017 New France SP Amend	7851 POCAHONTAS TR	SP Amend. Addition of shed and stormwater calculations.	Tom Leininger	05-Roberts
	SP-0078-2017	Eastern Eye Associates Building Addition	1322 JAMESTOWN ROAD	Addition of 1,665 sf to the existing structure.	Scott Whyte	05-Roberts
	SP-0079-2017	Williamsburg Landing, 5807 College Creek Place Sunroom	5700 WILLIAMSBURG LANDING DR	Site plan approval for existing unapproved sunroom in R-5.	Tori Haynes	05-Roberts
	SP-0080-2017	Christ Community Church Multi-Purpose Building	9001 RICHMOND ROAD	Addition of 10,800 SF Multi-Purpose building. Include: grading, stormwater, erosion control, parking lot construction.	Alex Baruch	02-Powhatan
	SP-0081-2017	1701 Endeavor Drive, Commonwealth Building Materials	1701 ENDEAVOR DRIVE	Office building and warehouse for drywall materials. Includes necessary parking, landscaping, lighting, and utilities.	Lauren White	05-Roberts
	SP-0082-2017	Jacobs Industrial Park, Parcel 8A and 8B SP Amend	263 INDUSTRIAL BLVD	Site plan amendment to reflect changes made during construction.	Scott Whyte	01-Stonehouse
	SP-0083-2017	Billsburg Brewery Taproom SP Amendment	2054 JAMESTOWN ROAD	Proposed amendment to approved entrance slab and deck configuration.	Chris Johnson	03-Berkeley
	SP-0084-2017	Busch Gardens DAS	7851 POCAHONTAS TR	Proposal is for the installation of DAS antennas network at locations around the park (on rooftops and in enclosures) and addition of central HUB shelter to administration of park property.	Jose Ribeiro	05-Roberts
	SP-0085-2017	Top Notch Tree Service Site Restoration	4680 FENTON MILL RD	Restoration of disturbance that occurred inside the RPA buffer without permission. Impervious cover is to be reduced, debris is to be removed and mitigation plantings will be added the site.	Scott Whyte	01-Stonehouse
	SP-0086-2017	5816 Williamsburg Landing Sunroom SP Amend	5700 WILLIAMSBURG LANDING DR	Construct new sunroom on rear of house during renovations of home.	Alex Baruch	05-Roberts
	SP-0087-2017	Sparrow Seafood Fish Stand	7828 RICHMOND ROAD	Fish stand at a current business location.	Ellen Cook	01-Stonehouse
	SP-0088-2017	Grove Community Garden Improvements	8901 POCAHONTAS TR	Installation of permanent wood/welded wire fence to replace existing temporary fence (metal stakes/plastic mesh) around perimeter of garden (75' x 84'). Installation of pitched roof shelter structure (6' x 14' x 7') with gutter.	Jose Ribeiro	05-Roberts
	SP-0089-2017	Lightfoot Market Place Building 4	6401 RICHMOND ROAD	The addition of a quick service restaurant building to the overall Lightfoot Marketplace development at building 4 location.	Jose Ribeiro	01-Stonehouse
	SP-0090-2017	Jamestown Marina Fence	2054 JAMESTOWN ROAD	Placement of a 4' high, 3-rail, Split Rail Fence to secure the dock and pier area.	Lauren White	03-Berkeley
	SP-0091-2017	Busch Gardens Generators and Concrete Pads	7851 POCAHONTAS TR	Installation of 2 new generators and associated concrete pads/equipment.	Tori Haynes	05-Roberts
	SP-0092-2017	Williamsburg Landing Sunroom, 5601 Boatwright Circle	5550 WILLIAMSBURG LANDING DR	Construction of 10x10 screened-in sunroom addition.	Tori Haynes	05-Roberts
Special Use Permit	SUP-0003-2017	Lidl Grocery Store	6495 RICHMOND ROAD	Special use permit for construction of new 35,962 sf grocery store.	Lauren White	01-Stonehouse
	SUP-0004-2017	McClure Family Subdivision	9437 DIASCUND RESERVOIR RD	Proposed family subdivision at 9437 Diascund Reservoir Road. 2 lots on 2.76 acres.	Alex Baruch	01-Stonehouse
	SUP-0005-2017	Lightfoot Marketplace SUP Amendment	6401 RICHMOND ROAD	To amend approved Special Use Permit SUP-0014-2013 to allow automobile and gasoline service stations and drive-thru restaurant. Fee has been paid. Comments for SUP-0006/0007/0008-2017 will be posted under here (SUP-0005-2017).	Jose Ribeiro	01-Stonehouse
	SUP-0006-2017	Lightfoot Marketplace SUP Gasoline station	6401 RICHMOND ROAD	SUP for construction of 240 SF gasoline fueling station canopy.	Jose Ribeiro	01-Stonehouse
	SUP-0007-2017	Lightfoot Marketplace SUP Automotive Service Center	6401 RICHMOND ROAD	To construct 1674 SF Automotive Service Center.	Jose Ribeiro	01-Stonehouse
	SUP-0008-2017	Lightfoot Marketplace SUP Drive-Thru Restaurant	6401 RICHMOND ROAD	To construct a restaurant with drive-thru.	Jose Ribeiro	01-Stonehouse