Town of Haymarket Planning Commission

Regular Meeting
~ AGENDA ~

Shelley M. Kozlowski, Clerk of Council
http://www.townofhaymarket.org/

15000 Washington Street, Suite 100
Haymarket, VA 20169

Monday, August 20, 2018 | 7:00 PM | Council Chambers

I. Call to Order

II. Pledge of Allegiance

III. Minutes Approval

1. Planning Commission - Continuation Meeting - Jun 18, 2018 7:00 PM
2. Planning Commission - Regular Meeting - Jul 16, 2018 7:00 PM
3. Planning Commission - Continuation Meeting - Jul 16, 2018 7:30 PM

IV. Citizens' Time

V. Agenda Items

1. **Architectural Review Board Liaison Appointment**
2. **6675 Fayette Street, 3 Single Family Residential Lots, Site Plan, FINAL Approval**
3. **Harrover Park Master Plan Action Items**

VI. Old Business

1. **Crossroads Village Center UPDATE**

VII. Town Planner Update

VIII. Town Council Update

IX. Architectural Review Board Update

X. Adjournment

TOWN OF HAYMARKET PLANNING COMMISSION

CONTINUATION MEETING
~ MINUTES ~

Shelley M. Kozlowski, Clerk of Council
http://www.townofhaymarket.org/
15000 Washington Street, Suite 100
Haymarket, VA 20169

Monday, June 18, 2018 | 7:00 PM | Council Chambers

A Continuation Meeting of the Planning Commission of the Town of Haymarket, VA, was held this evening in the Board Room, commencing at 7:00 PM.

Chairman Matt Caudle called the meeting to order.

I. Call to Order

Chairman Matt Caudle: Present, Councilman Steve Shannon: Absent, Commissioner Maureen Carroll: Present, Commissioner James Carroll: Present, Commissioner Cathy Pasanello: Present, Commissioner Madhusudan Panthi: Absent.

II. Pledge of Allegiance

III. Closed Session

Matt Caudle, Chairman, states that the Planning Commission is already in session with a continuation meeting from the joint public hearing held on Monday, May 21, 2018. He states that it was brought to his attention that there was a meeting scheduled on Sunday, May 20th before our joint public hearing on Monday, May 21, 2018. Starting to his left, Chairman Caudle asks who attended. Each Commissioner states that they were not present at the Sunday meeting.

At this time, Chairman Caudle asks to go into closed session.

1. **Motion**

Chairman Caudle moves to enter into closed session pursuant to Virginia Code section 2.2-3711 (A) (7) for consultation with legal counsel regarding specific legal matters specifically the Crossroads Village Center. Commissioner J. Carroll seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Matt Caudle, Chairman
SECONDER:	James Carroll, Commissioner
AYES:	Matt Caudle, Maureen Carroll, James Carroll, Cathy Pasanello
ABSENT:	Steve Shannon, Madhusudan Panthi

IV. Certification of Closed Session

Chairman Caudle makes a motion to certify that to the best of each Commissioner's knowledge only those matters lawfully exempted from open meeting discussion under the provisions of the Freedom of Information Act and only those items identified in the motion to convene the closed session were heard or considered by the Planning Commission. Commissioner Pasanello seconds the motion.

1. **Motion**

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Matt Caudle, Chairman
SECONDER:	Cathy Pasanello, Commissioner
AYES:	Matt Caudle, Maureen Carroll, James Carroll, Cathy Pasanello
ABSENT:	Steve Shannon, Madhusudan Panthi

V. Action Item

1. Crossroads Village Center

Chairman Caudle asks Town Planner, Emily Lockhart, about the document that they received tonight. Ms. Lockhart states that before the Commission tonight is the red lined version of the

updated proffer statement. She adds that she received this on June 6th and took her review time and gave it to the Planning Commission. She further adds that the Commission received an updated GDP showing the elevations per the Commission's request. Ms. Lockhart states that in tonight's packet there is a map showing green space, storm water underground and VDOT's comments from June 5th with applicant responding to the comments on June 6th. She concludes stating that on June 6th, the school board held their meeting to discuss the Development Impact Statement. They wanted to stress that they did not approve the rezoning but did approve a Development Impact Statement for the Crossroads Village Center. They included their public content, what was discussed and on the following page you have the actual development impact statement. She states for elementary schools - 24 students, middle schools - 11 students, high school - 14 for a total of 49 students generated. She concludes that Haymarket Elementary School is currently under capacity and the 24 would not put it over capacity. The middle school with the projected 11 students would put it over capacity and the high school's current and projected enrollment does not have sufficient capacity to accommodate the projected 14 students.

Chairman Caudle asks Mr. Lockhart how long does it normally take from the time you receive documents and review them until the Commission receives them? Ms. Lockhart states that since this is document we have been working on since April, I took two days and today to review the document but typically when these new applications come in I can have them turned around in 2 -3 weeks for your review.

The Commission reviewed the technical memorandum from Katie McDaniel and Chad Baird concerning the Institute of Transportation Engineer's trip general manual 10th edition rates for fast food restaurants with or without a drive-thru. Chairman Caudle states according to this data, the net difference in total of trips between a fast food with a drive thru and one without is a -109 trips for drive thru. Ms. Lockhart responds that is correct.

Commissioner Pasanello asks Ms. Lockhart if we have heard from the County Transportation office. Ms. Lockhart states that she submitted the documentation, but has not heard back yet but will follow up. Commissioner Pasanello also asks if there should be an archaeologist on site for this development? Chairman Caudle interjects asking if we have ever done that with any other projects in town? Ms. Lockhart replies not to her knowledge. Commissioner Pasanello concludes her comments stating that she would like to see more landscaping in the plan as well as comments from the Town Engineer concerning the drive thru traffic.

Commissioner M. Carroll, shares that she likes a lot of the plan with retail but would rather see more high end restaurants versus fast food so that it doesn't become a magnet for travelers coming off of 66 adding additional traffic. She states that she would like to see perhaps fewer town homes for more green space. She adds that as a former teacher she is disappointed in the numbers that the middle and high school will be over. She concludes that she would like final comments from VDOT.

Commissioner J. Carroll, inquires if the Fire and Rescue would have enough room to get to the town homes? Ms. Lockhart states fire access is given in all of the drive paths in between the town homes and this will be reviewed in the site plan phase by the Fire Marshall. Commissioner Carroll shares concerns with the impact on traffic and schools as well.

Chairman Caudle comments on the increase in school enrollment stating that it would be an increase of .6% with the addition of the 79 town homes.

Ms. Lockhart states that the proffers are fully voluntary. The proffers were reviewed and discussed. The Commission shares concerns with the number of phases.

Mr. Gifford Hampshire, from the law firm of Blankingship and Keith and the representative for the applicant, states that there are only two phases. Mr. Hampshire also commented on the school impact statement that Chairman Caudle touched upon. He states that there is a CIP solution within 5 years for the high school and a solution to the middle school overcrowding in 10 years.

At this time, Chairman Caudle asks for a 10 minutes recess.

The meeting reconvenes at 8:10 pm.

Chairman Caudle proposes to continue the continuation meeting until July 9, 2018. This will be the same night as the regular meeting.

Commissioner M. Carroll and Commissioner J. Carroll both state that their appointments are up at the end of June and they will not seek reappointment.

Chairman Caudle and Commissioner Pasanello both agree to the July 9, 2018 continuation meeting.

VI. Adjournment

No Adjournment, the meeting was continued.

TOWN OF HAYMARKET PLANNING COMMISSION

REGULAR MEETING
~ MINUTES ~

Shelley M. Kozlowski, Clerk of Council
http://www.townofhaymarket.org/
15000 Washington Street, Suite 100
Haymarket, VA 20169

Monday, July 16, 2018 | 7:00 PM | Council Chambers

A Regular Meeting of the Planning Commission of the Town of Haymarket, VA, was held this evening in the Board Room, commencing at 7:00 PM.

Chairman Matt Caudle called the meeting to order.

I. Call to Order

Chairman Matt Caudle: Present, Councilman Steve Shannon: Present, Commissioner Tony James: Present.

II. Pledge of Allegiance

III. Minutes Approval

1. Planning Commission - Regular Meeting - Jun 6, 2018 7:00 PM

RESULT:	**ACCEPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

2. Planning Commission - Work Session - Jun 18, 2018 7:30 PM

RESULT:	**ACCEPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

IV. Citizen's Time

Bob Weir, 6853 St. Paul Drive, shares concerns with holding a Planning Commission meeting with only 3 Commissioners as well as concerns with the Crossroads Village Center.

Maureen Carroll, 6862 Track Court, addresses the Commission. She states concerns with the Crossroads Village Center project particularly with the drive thru restaurant traffic and the environmental impact.

James Carroll, 6862 Track Court, states his concerns with traffic and school impact with the Crossroads Village Center project and encourages the Commission to devise a plan to incorporate the use green energy sources, to look into the city wide internet plan and to better fund the Town park.

Dottie Leonard,14081 Washington Street, thanks the Carroll's and the Chairman Caudle for their service on the Planning Commission. Referencing the Crossroads project, she doesn't feel traffic will be an issue and hopes the project is approved. Her concern is how the structures will look and if that look will fit into the Town. She concludes that she isn't in favor of so many special use permits.

With no on else to speak, Chairman Caudle closes Citizens' Time.

V. Action Items

1. Verizon Wireless 6736 Madison Street

Councilman Shannon moves *to approve Zoning Permit ZO#2018-034 for Verizon Wireless to construct an unmanned equipment shelter on site*. Commissioner James seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

2. SP#2018-001 Fayette Street Single Family Homes Site Plan

Councilman Shannon moves *to approve the Landscape Buffer Waiver requested by Bowman Consulting on behalf of the applicant to reduce the required 25' Transparent buffer to a 10' landscaped buffer with 4 deciduous canopy trees and a 6-foot-tall fence for all three properties*. Commissioner James seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

VI. Appointments

1. Liaison to the Architectural Review Board

Chairman Caudle tables the appointment of Liaison to the Architectural Review Board until a later date.

2. Planning Commission Chairman

Councilman Shannon moves to reappoint Matt Caudle as Chairman of the Planning Commission. Commissioner James seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

VII. Old Business

Ms. Lockhart proposes to hold a work session for the Comprehensive Plan on August 20, 2018 at 6 pm. The Commission agrees.

VIII. Town Planner Update

1. Schedule Work Session for Comprehensive Plan

IX. Town Council Update

Councilman Shannon states that he nominated Susan Edwards as the Vice-Mayor. He also states that the new Commissioner, Tony James was appointed at the July 2nd meeting as well.

X. Architectural Review Board

Ms. Lockhart states that June was a pretty busy meeting. She states that the Fayette Street homes and plans for McDonald's were both on the June agenda. She adds that the July agenda will include Tesla charging stations.

Referencing the hybrid route mailer that was mailed out to residents, Chairman Caudle asks Ms. Lockhart if she has any updates? Ms. Lockhart states that she does not have any official correspondence from them outside of the meeting in February and has not seen the flier. Chairman Caudle asks the Town Planner to do some research on the matter for the next meeting.

Ms. Lockhart states that she has been working on the blighted properties across the street and there has been some movement on them.

XI. Adjournment

1. Motion to Adjourn

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

Submitted:

_____
Shelley M. Kozlowski, Clerk of the Council

Approved:

_____
Matt Caudle, Chairman

TOWN OF HAYMARKET PLANNING COMMISSION

CONTINUATION MEETING
~ MINUTES ~

Shelley M. Kozlowski, Clerk of Council
http://www.townofhaymarket.org/
15000 Washington Street, Suite 100
Haymarket, VA 20169

Monday, July 16, 2018 | 7:30 PM | Council Chambers

A Continuation Meeting of the Planning Commission of the Town of Haymarket, VA, was held this evening in the Board Room, commencing at 8:00 PM.

Chairman Matt Caudle called the meeting to order.

I. Call to Order

Chairman Matt Caudle: Present, Councilman Steve Shannon: Present, Commissioner Tony James: Present.

II. Action Item

1. Crossroads Village Center

Ms. Lockhart states that there is an updated GDP in their packet along with the redline and clean line version of the proffer statement. Ms. Lockhart adds that she did give our new Commissioner, Mr. James all of the information on the Crossroads Village Center prior to tonight's meeting and asked the applicant to give an overview of the project and some of the issues that we have worked out to date.

Gifford Hampshire, with the law firm of Blankingship and Keith and the representative for the applicant, outlined the Crossroads Village Center project to date concerning proffers, traffic and school impact, phasing and walkability.

Councilman Shannon states that he is in support of the project, but, still has concerns about the one entrance off of Washington Street.

Don Wooden, the applicant from the Meladon group, addresses the Commission concerning the drive thru restaurants. He states that the restaurants are changing based on consumer demands and desires. He adds that the public wants more convenience in how we dine. He further adds that many of the sit down restaurants are changing to add pick up lanes.

Councilman Shannon makes a motion *to forward Rezoning Application REZ#2018-004 for the Crossroads Village Center to the Town Council with a recommendation for approval to rezone 9.94 acres from B-2 to R-2.* Commissioner James seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

2. **Motion**

Councilman Shannon makes a motion *to forward Special Use Permit Application SUP#2018-002 for the Crossroads Village Center to the Town Council with a recommendation for approval to permit by Special Use Permit a drive thru restaurant at the "western restaurant" location in accordance with the GDP. Commissioner James seconds the motion.*

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

3. **Motion**

Councilman Shannon makes a motion *to forward Special Use Permit Application SUP#2018-003 for the Crossroads Village Center to the Town Council with a recommendation for approval to permit by Special Use Permit a drive thru restaurant at the "central restaurant" location in accordance with the GDP.* Commissioner James seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

4. **Motion**

Councilman Shannon makes a motion *to forward Special Use Permit Application SUP#2018-004 for the Crossroads Village Center to the Town Council with a recommendation for approval to permit by Special Use Permit a drive thru restaurant at the "eastern restaurant" location in accordance with the GDP*. Commissioner James seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

5. **Motion**

Councilman Shannon makes a motion *to forward Special Use Permit Application SUP#2018-005 for the Crossroads Village Center to the Town Council with a recommendation for approval to permit by Special Use Permit a hotel or assisted living facility with a building height not to exceed 75 and at the location referenced on the GDP*. Commissioner James seconded the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

6. **Motion**

Councilman Shannon makes a motion *to forward Special Use Permit Application SUP#2018-006 for the Crossroads Village Center to the Town Council with a recommendation for approval to permit by Special Use Permit an automobile repair service at the location referenced on the GDP*.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

7. **Motion**

Councilman Shannon makes a motion *to forward Special Use Permit Application SUP#2018-007 for the Crossroads Village Center to the Town Council with a recommendation for approval to permit Special Use Permit a bank with the a drive-thru window at the location referenced on the GDP*. Commissioner James seconds the motion.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

III. Adjournment

1. Motion to Adjourn

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Steve Shannon, Councilman
SECONDER:	Tony James, Commissioner
AYES:	Matt Caudle, Steve Shannon, Tony James

Submitted: Approved:

_____ _____

Shelley M. Kozlowski, Clerk of the Council Matt Caudle, Chairman

Town of Haymarket
15000 Washington Street, #100
Haymarket, VA 20169
703-753-2600

Kathryn M. McDaniel, P.E.
TOWN ENGINEER

MEMORANDUM

TO: Emily Lockhart, Town Planner and Zoning Administrator
Jerry Schiro, Business Manager
FROM: Katie McDaniel, Town Engineer
DATE: August 16, 2018
SUBJECT: 6675 Fayette Street Site Plan Engineering Approval

Per your request, I have reviewed the third submission of the 6675 Fayette Street Site Plan. I used the Haymarket Ordinances, Site Plan Checklists, second submission comment letter dated July 10, 2018 and response letter dated August 16, 2018 in order to review this site plan. The modification request for the street lighting has appropriate justification, additional BMP details have been provided, and the applicant has demonstrated compliance with all other Town requirements. I have no additional comments and recommend approval of this Site Plan.

Please let me know if you have any questions. I can be reached at kmcdaniel@townofhaymarket.org.

Town of Haymarket
15000 Washington Street, #100
Haymarket, VA 20169
703-753-2600

Emily K. Lockhart
Town Planner and Zoning Administrator

MEMORANDUM

TO: Planning Commission
FROM: Emily K. Lockhart, Town Planner
DATE: August 16, 2018
SUBJECT: 6675 Fayette Street, 3 Single Family Residential Lots

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Project Details:
The site plans for 6675 Fayette Street have been thoroughly reviewed by the Town Engineer and myself, Town Planner. The site plans are in compliance with the Town of Haymarket's Zoning Ordinance, Site Plan Checklists and the comment letters from the Town Engineer as well as the comments discussed during a site plan meeting with the applicant and engineer. Modifications and waivers have been requested for the landscaping buffers and the lighting on the site. The Planning Commission approved the landscaping buffer waiver on July 18, 2018, The Architectural Review Board has approved the fence style, colors and height for the privacy fence at the August 15, 2018 meeting. A modification for the lighting has been requested by the applicant and is in the set of site plans on page 2.

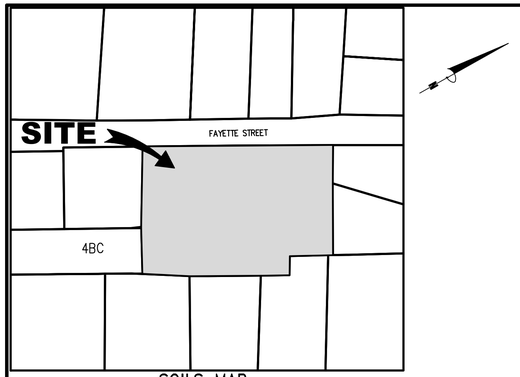
If you have any questions or concerns please email or call me, (703) 753-2600.

Recommendation:
I recommend the Planning Commission approve the proposed site plans for 6675 Fayette Street as they comply to the Town's Ordinance and requirements.

Motion or Alternate Motion:
"I motion the Town of Haymarket Planning Commission approve Site Plan 2018-001 for 6675 Fayette Street"

Or Alternate motion

SITE PLAN
6675 FAYETTE STREET.
GPIN: 7298-80-9749
TOWN OF HAYMARKET
PRINCE WILLIAM COUNTY, VIRGINIA
SITE PLAN: 2018-001
SP2018-001



SOILS MAP
SCALE: 1"=100'

SOIL DATA TABLE (PER USGS SOILS MAP)

SOIL ID NUMBERS	SOIL SERIES NAME	SOIL CATAGORY	ERODABILITY	SUBSURFACE DRAINAGE	HYDROLOGIC SOIL GROUP	PROBLEM CLASS
4BC	ARCOLA SILT LOAM	II	SEVERE	MODERATE	C	–

SITE DATA:

ZONE: R-1
GPIN: 7298-80-9749
DEED BOOK: 1205 PAGE: 398
LOT AREA: 49,060 SF (1.12626 AC)

PROPERTY OWNER: BAILEY SHIRLEY A
6675 FAYETTE ST
HAYMARKET. VA 20169

PROPERTY DEVELOPER: PIEDMONT GROUP CUSTOM HOMES, Inc
P.O. BOX 228
MIDDLEBURG, VA 20118

ENGINEER INFORMATION: BOWMAN CONSULTING
BRAD GLATFELTER
bglatfelter@bowmanconsulting.com

OFF STREET PARKING REQUIRED: 2
OFF STREET PARKING PROVIDED: 2

FRONT YARD SETBACK: 35'
SIDE YARD SETBACK: 10'
REAR YARD SETBACK: 25'
MAX. BUILDING HEIGHT: 35'

ZONING TABULATIONS

	REQUIRED	LOT A	LOT B	LOT C
FRONTAGE LENGTH	MIN. 75'	96.78'	96.79'	96.79'
LOT AREA	MIN. 10,000 SF	15,206 SF	17,000 SF	16,854 SF
LOT COVERAGE	MAX. 30%	15.7%	14.0%	14.2%
FRONT YARD	MIN. 35'	38'	38'	38'
SIDE YARD	MIN. 10'	30.17'	30.5'	29.5'
REAR YARD	MIN. 25'	66.38'	87.32'	87.90'
HEIGHT	MAX. 35'	34.74'	34.74'	34.74'
DENSITY	R-1	R-1	R-1	R-1

PROJECT SOURCE NOTES:

1. TOPOGRAPHY AND EXISTING FEATURE INFORMATION OBTAINED FROM A FIELD SURVEY BY BOWMAN CONSULTING GROUP, LTD, DATED: MARCH 20, 2017., BY MEANS OF CONVENTIONAL SURVEY METHODS. SUPPLEMENTED BY PRINCE WILLIAM COUNTY GIS AND SHERWOOD FOREST AS-BUILT BY ROSS, FRANCE, & RATLIFF, LTD. DATED 03/16/16.
2. BOUNDARY INFORMATION WAS OBTAINED FROM DEED OF RECORD, EXISTING LAND RECORDS, AND FIELD RUN SURVEY PERFORMED BY BOWMAN CONSULTING GROUP, LTD, DATED: APRIL, 2018.
3. THE HORIZONTAL AND VERTICAL DATUM AS REFERENCED HEREON WAS ESTABLISHED BY STATIC GPS CONTROL METHODS. THE HORIZONTAL DATUM IS REFERENCED TO VIRGINIA COORDINATE SYSTEM OF 1983 (VCS83) AND THE VERTICAL DATUM IS REFERENCED TO NAVD 1988.
4. PROPOSED HOUSE DIMENSIONS WERE OBTAINED FROM ARCHITECTURAL PLANS PREPARED BY: CLAUDE C. LAPP ARCHITECTS, DATED MAY 25, 2017.
5. PROJECT SITE IS LOCATED WITHIN THE BULL RUN WATERSHED.
6. NO RPA EXISTS ON SITE PER PRINCE WILLIAM COUNTY CHEASPEAKE BAY PRESERVATION MAP.

WATER AND SANITARY SEWER SOURCE NOTES:

1. WATER SERVICE IS PROVIDED VIA PROPOSED CONNECTION TO EXISTING WATER MAIN WITHIN FAYETTE STREET, OWNED AND OPERATED BY PRINCE WILLIAM COUNTY SERVICE AUTHORITY (PWCSA)
2. SANITARY SEWER SERVICE IS PROVIDED VIA PROPOSED CONNECTION TO MAIN WITHIN FAYETTE STREET, OWNED AND OPERATED BY PRINCE WILLIAM COUNTY SERVICE AUTHORITY (PWCSA)

GENERAL NOTES:

1. THE PROPERTY AS SHOWN HEREON IS SUBJECT TO ALL COVENANTS AND RESTRICTIONS OF RECORD AND THOSE RECORDED HEREWITH. BOWMAN CONSULTING GROUP, LTD. HAS NOT BEEN PROVIDED A TITLE REPORT AND THEREFORE THIS PLAT DOES NOT NECESSARILY INDICATE THE EXISTENCE OF ANY COVENANTS AND RESTRICTIONS ON THE PROPERTY.
2. THE PROPERTY SHOWN HEREON LIES WITHIN ZONE "X" (UN-SHADED) AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP FOR PRINCE WILLIAM COUNTY, VIRGINIA, COMMUNITY-PANEL NUMBER 51153 C0059 D, DATED JANUARY 5, 1995.

VICINITY MAP
SCALE: 1"=500'

SHEET INDEX

Bowman CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151

Phone: (703) 464-1000
Fax: (703) 481-9720

www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

COVER SHEET
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS

06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD

SCALE H: N/A V: N/A
JOB No. 00396-01-001
DATE : JULY 2018
FILE No. 003096-D-CP-001
SHEET 1 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-COV.dwg

Revised: 8/2017

VDOT GENERAL NOTES

1. VDOT Approved Exceptions/Waivers (must be incorporated in the plan):
   - Access Management - Date of Approval: _____
   - SSAR- Date of Approval: _____
   - Design Waiver – Date of Approval: _____
   - Other_____ Date of Approval: _____
2. SSAR Connectivity Summary (provide a check mark ✓ where applicable or write N/A):
   - Connections in multiple directions (first connection must be to a VDOT maintained road, the second connection may either be to a VDOT road or to a stub out) N/A
   - Stub out connection (the prop. right of way terminates at parcel abutting the development and consists of a short segment that is intended to serve current and future development; the applicant must verify that connection with a future street is feasible) N/A
3. All work on this project shall conform to the current editions of and latest revisions to the Virginia Department of Transportation (VDOT) Road and Bridge Specifications and Standards, the Virginia Erosion and Sediment Control Regulations, and any other applicable state, federal or local regulations. In case of a discrepancy or conflict between the Standards or Specifications and Regulations, the most stringent shall govern.
4. Methods and materials used shall conform to current county/town and VDOT standards and specifications.
5. All utilities, including all poles, are to be relocated at the developer's expense, prior to construction.
6. Open cutting of paved or surface treated roads is not permitted. All utilities which will be placed under existing streets are to be bored or jacked. Any exceptions, due to extenuating circumstances, are to be addressed at the permit stage.
7. Any type of reverse curb (spill curb, CG-6R, etc.) and transition to these curbs shall not be used within the public right of way.
8. The developer is responsible for any damage to existing roads and utilities which occur as a result of project construction within or contiguous to existing right of way.
9. A smooth grade shall be maintained from the centerline of the existing road to the proposed edge of pavement to preclude the forming of false gutters and/or the ponding of any water in the roadway.
10. Standard guardrails and/or handrails shall be installed at hazardous locations as designated during field review by the county/town inspector or VDOT.
11. The developer is responsible for all traffic control. The developer shall submit a signing, striping and/or signalization plan to the VDOT Land Development Section prior to permit application. The developer shall not commence construction of any pavement course without an approved striping plan.
12. Pavement design shall be provided in accordance with the Pavement Design Guide for Subdivision and Secondary Roads in Virginia. For primary roads and interstate highways where truck traffic exceeds 5%, pavement design shall be provided in accordance with AASHTO guidelines. Typical pavement sections shall depict the top 6" of the subgrade immediately under the pavement structure compacted to 100% of the theoretical maximum dry density.
13. Asphalt pavement widening shall conform to VDOT Standard WP-2.
14. All right of way dedicated to public use shall be clear and unencumbered.
15. Flowers, shrubs, trees, and irrigation shall not be placed within State maintained right of way limits without an approved set of plans and an approved planting agreement. No irrigation (sprinkler) systems, brick columns, end walls, and/or brick mailboxes will be constructed or installed within State maintained right of way limits without a permit. Any of the above items found in the right of way without a permit will be removed, and all costs of the removal will be borne by the owner and/or developer.
16. The county/town shall obtain a permit for all sidewalks/crosswalks within the right of way that do not qualify for VDOT maintenance.
17. Traffic control devices or advisory signs, such as multiway stops, speed limits, Watch for Children, Pedestrian Traffic etc., shall not be installed unless specifically shown on these plans or a VDOT approved plan revision. Speed study certified by professional engineer shall be submitted for VDOT approval prior to the street acceptance for any road to be posted other than the statutory speed limit. Should unapproved signs be noted at the time of VDOT inspection, the road acceptance process shall be terminated immediately and not recommenced until a determination is made regarding the approval of any additional signs. Immediate removal of such signs shall not negate the need for the submission of a revision.
18. During construction, the maintenance of traffic shall conform to the requirements in the most recent version of the Virginia Work Area Protection Manual and the MUTCD.

GENERAL NOTES AND SPECIFICATIONS

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECTURAL PLANS AND COORDINATE SAME WITH THE SITE PLAN, PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
2. WHEN DURING THE COURSE OF CONSTRUCTION, ANY OBJECT OF AN UNUSUAL NATURE IS ENCOUNTERED, THE CONTRACTOR SHALL CEASE WORK AT THAT AREA AND IMMEDIATELY NOTIFY THE PROPER AUTHORITY, PRINCE WILLIAM COUNTY, AND/OR THE ARCHITECT/ENGINEER.
3. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
4. ALL STEPS WITH THREE OR MORE RISERS SHALL HAVE HAND RAILS.
5. STANDARD GUARD RAIL AND HAND RAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING THE FINAL INSPECTION BY PRINCE WILLIAM COUNTY AND/OR VDOT.
6. CONTROLLED FILLS MUST BE COMPACTED TO 95% AS DETERMINED PER STANDARD PROCTOR AASHTO T-99 OR ASTM D 698, AS SHOWN IN THE GEOTECHNICAL REQUIREMENTS. DENSITY MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER AND THE RESULTS SUBMITTED TO PRINCE WILLIAM COUNTY PRIOR TO FOOTING CONSTRUCTION.
7. COMPATCION OF BACKFILL IN UTILITY TRENCHES SHALL BE IN ACCORDANCE WITH PRINCE WILLIAM COUNTY AND/OR VDOT STANDARDS & SPECIFICATIONS.
8. ALL FILL SOILS UNDER EXPANDED PAVED AREAS SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM SPECIFICATION D-698 STANDARD PROCTOR METHOD, WITHIN + OR – 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY AND ALL PARKING LOTS, PRIVATE STREETS, PARKING BAYS, CURB AND GUTTER, AND SIDEWALKS ADJACENT TO STREETS AND PARKING LOTS (NOT INTENDED TO INCLUDE LEAD WALKS), WITH UPPER 1.0 FT. COMPACTED TO 100% OF THE MAXIMUM DRY DENSITY PER ASTM D-698.
9. ADDITIONAL DITCH LININGS OR SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AT THE DEVELOPER'S EXPENSE, AS DETERMINED NECESSARY BY VDOT AND/OR PRINCE WILLIAM COUNTY DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE DEVELOPER.
10. A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF EXISTING ROAD TO PROPOSED CURB AND GUTTER AND/OR PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT TIE-IN-POINTS.
11. PRIOR TO CONSTRUCTION OF STREET WIDENING, CONTRACTOR SHALL OBTAIN 25-FOOT FIELD SURVEYED CROSS SECTIONS OF EXISTING STREET. BASED ON INFORMATION OBTAINED AND CONTRACTOR'S COORDINATION WITH VDOT AND COUNTY INSPECTOR(S), MILLING AND/OR OVERLAY OF EXISTING ROADWAY MAY BE REQUIRED TO AVOID FALSE GUTTERS, MAINTAIN POSITIVE DRAINAGE, AND TO GAIN ACCEPTANCE OF THE CONSTRUCTED IMPROVEMENTS. ADDITIONAL OVERLAY AND/OR MILLING MAY NECESSITATE ADJUSTMENTS TO THE EDGE OF PAVEMENT AND/OR CURB ELEVATIONS SHOWN ON THIS PLAN.
12. THE DESIGN OF PAVEMENT PLACED WITHIN THE RIGHT-OF-WAY SHOULD EQUAL OR EXCEED THE THICKNESS OF THE EXISTING PAVEMENT.
13. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1 1/2 INCH DEPTH; ANY COST ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE DEVELOPER.
14. THE PAVEMENT DESIGN AND DEPTH OF STREETS SHOWN HEREON IS BASED ON AN ASSUMED CBR VALUE. PRIOR TO CONSTRUCTION, SOIL TESTS OF SUBGRADE MUST BE PERFORMED BY A GEOTECHNICAL ENGINEER OF RECORD AND MUST BE SUBMITTED TO ENGINEER FOR ACTUAL DETERMINATION AND CALCULATION OF THE REQUIRED PAVEMENT DESIGN AND SUBBASE THICKNESS. NO PAVEMENT CONSTRUCTION MAY COMMENCE WITHOUT THE FINAL PAVEMENT DESIGN APPROVAL BY PRINCE WILLIAM COUNTY AND/OR VDOT.
15. ALL STREET CUT AND PATCH WORK IN PUBLIC RIGHT-OF-WAY REQUIRED FOR UTILITIES INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH COUNTY AND/OR VDOT STANDARDS AND SPECIFICATIONS.
16. ALL RIGHT-OF-WAY DEDICATED FOR PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.
17. EROSION AND SEDIMENT CONTROL WILL BE INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE REGULATIONS OF PRINCE WILLIAM COUNTY.
18. AN AIR QUALITY PERMIT WILL BE OBTAINED, IF REQUIRED.
19. ANY LIGHTING SHOWN HEREON IS AS SPECIFIED BY THE CLIENT AND IS INCLUDED FOR INFORMATION PURPOSES ONLY, AS DIRECTED BY THE OWNER AND/OR PUBLIC AGENCY REQUIREMENTS. BOWMAN CONSULTING GROUP, LTD. HAS NOT PERFORMED THE LIGHTING DESIGN, AND THEREFORE DOES NOT WARRANT AND IS NOT RESPONSIBLE FOR THE DEGREE AND/OR ADEQUACY OF ILLUMINATION ON THE PROJECT.
20. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER GRAVESITES OR BURIAL PLOTS ON THIS PROPERTY, OTHER THAN THOSE SHOWN ON THESE PLANS.
21. ALL ELEVATIONS SHALL BE BASED ON USGS OR USC&GS MEAN SEA LEVEL DATUM.
22. ALL EXISTING OVERHEAD UTILITIES SHALL BE PLACED UNDERGROUND UNLESS OTHERWISE NOTED.
23. ALL CLEAN-OUTS IN PAVED AREAS SHALL BE TRAFFIC RATED.
24. PRESSURE REDUCER VALVES ARE REQUIRED FOR ALL UNITS.

LAND CONSERVATION NOTES

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE LOCAL PROGRAM ADMINISTRATOR OR HIS DESIGNATED AGENT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
6. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE SEDIMENT BASIN SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.
7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
11. BEFORE NEWLY CONSTRUCTED STORM WATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHELL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE ADHERED TO.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN A WATERCOURSE IS COMPLETED.
16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
    - A NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    - B EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
    - C EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    - D RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
    - E APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.
18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
19. REFER TO SHEET 8 FOR THE EROSION & SEDIMENT CONTROL NARRATIVE.

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT TOWN OF HAYMARKET STANDARDS AND SPECIFICATIONS.
2. NOTIFY THE TOWN OF HAYMARKET BUILDING OFFICIAL AT 703-753-2600 MINIMUM 48 HOURS PRIOR TO WHEN WORK IS TO BE STARTED.
3. ALL PROPOSED GRADING SHALL RESULT IN SLOPES NO STEEPER THAN 3:1.
4. ENGINEERED FILL AND BACKFILL SHALL BE PLACED WITH APPROVED SELECT MATERIALS IN 8-INCH LIFTS. EACH LAYER OF FILL SHALL BE COMPACTED AT OPTIMUM MOISTURE PLUS OR MINUS 2% TO AT LEASE 95% OF THE MAXIMUM FRY DENSITY AS OBTAINED IN ACCORDANCE WITH AASHTO T-99 OR ASTM D-698.
5. SUITABLE MATERIALS FOR FILL SHALL INCLUDED CLEAN SOIL OR BANKRUN SAND AND GRAVEL (GW,GM, AND SM). CL, ML, GC, AND SC MATERIALS MAY BE USED IF THE LIQUID LIMIT AND PLASTICITY INDEX ARE LESS THAN 40 AND 20, RESPECTIVELY. MH AND CH SOILS SHALL NOT BE USED FOR FILL MATERIALS. THE FILL MATERIALS SHALL ALSO BE FREE FROM ORGANIC, TOPSOIL, AND ROCK FRAGMENTS LARGER THAN 3 INCHES IN DIAMETER.
6. ALL EXISTING IMPROVEMENTS WITHIN LIMIT OF DISTURBANCE SHALL BE REMOVED, UNLESS OTHERWISE NOTED. ALL DEMOLISHED MATERIAL SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE FACILITY.
7. ALL CONSTRUCTION GENERATED DEBRIS MUST BE HAULED AWAY BY THE CONTRACTOR OR OWNER.
8. TREE PROTECTION FOR ANY TOWN TREE, AS SHOWN ON PLAN, MUST BE INSTALLED PRIOR TO ANY SITE WORK.
9. IT IS UNLAWFUL TO PERFORM ANY CONSTRUCTION ABOVE FOUNDATION CORNERS PRIOR TO APPROVAL OF SETBACKS. WORK COMPLETED IN VIOLATION OF THIS REQUIREMENTS IS SUBJECT TO DEMOLITION.
10. ALL DUMPSTERS ARE TO BE PLACED ON PRIVATE PROPERTY.
11. FRONT ELEVATION CHECKS ARE REQUIRED.
12. WALL CHECK SURVEYS ARE REQUIRED AND MUST BE SUBMITTED PRIOR TO CONSTRUCTION ABOVE FOUNDATION CORNERS.
13. A CERTIFICATE OF OCCUPANCY IS REQUIRED PRIOR TO OCCUPANCY. ALL REQUIRED DOCUMENTATION AND INSPECTIONS MUST BE SUBMITTED/COMPLETED BEFORE THE TOWN OF HAYMARKET WILL ISSUE A CERTIFICATE OF OCCUPANCY.

Bowman CONSULTING

August 15, 2018

Matthew Caudle
Chairman of the Planning Commission
Town of Haymarket
15000 Washington Street, Suite 100
Haymarket, VA 20168

Re: 6675 Fayette Street
Request for Modification of Section 58-18.11 of Town Zoning Subdivision Ordinance

Dear Chairman Caudle,

The Applicant formally requests modification of the requirements as stipulated in Section 58-18.11 of the Town Code and proposes an alternative lighting solution. Per Section 58-18.11 of the Town Code, a Developer is required to provide site lighting along public streets at an established mounting height, luminance and spacing to provide a minimum horizontal illumination of 0.4 foot-candle. This is not in character with the single family homes along Fayette Street and the Sherwood Forest neighborhood located at the North end of Fayette Street Instead, the Applicant proposes to provide one lamppost mounted streetlight per lot. This is consistent with the recent Sherwood Forest development and all single family homes adjacent to the subject property. Additionally, the existing VDOT cobra-head style streetlight along the property's Fayette Street frontage will be retained. Furthermore, new site and street lighting is proposed with the nearby proposed development south of the subject site on the west side of Fayette Street. Finally, requiring the installation of the code stipulated streetlighting would create a "hotspot" and a potential safety hazard for drivers due to the increased lighting levels. The new, brighter condition would likely be undesirable to the existing neighbors living on the westside of Fayette Street.

We trust you will find these modifications to the lighting requirements sufficient. If you have any comments or questions, please feel free to contact me at 703-464-1000.

Very truly yours,

Brad Glatfelter, P.E.
Principal

14020 Thunderbolt Place, Suite 300, Chantilly, Virginia 20151
p: 703.464.1000 | f: 703.481.9720
www.bowmanconsulting.com

Bowman CONSULTING

July 6, 2018

Mr. David Leake
Mayor
Town of Haymarket
P.O. Box 1230
Haymarket, VA 20168

Re: 6675 Fayette Street
Request for Waiver from Landscaping Buffer Yard Requirement

Dear Mayor Leake:

The Applicant formally requests reprieve from Section 58-17.11 of the Town Code and propose an alternative buffer yard design in accordance to Section 58-17.8 (c) of the Town Code. Per Section 58-17.11 of the Town Code, a Developer is required to provide a 25' Transparent Screening (TS) buffer yard between R-1 and B-1 uses. Instead, the Applicant proposes a board-on-board fence six feet in height along the rear and side perimeter of the lots, in addition to, four deciduous canopy trees per lot located in a 10' rear buffer yard. The proposed alternative buffer yard would, in fact, match the more stringent character and intent of an Opaque Screening (OS).

We trust you will find these changes to the landscape buffer sufficient. If you have any comments or questions, please feel free to contact me at 703-464-1000.

Very truly yours,

Brad Glatfelter, P.E.
Principal

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GENERAL NOTES
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

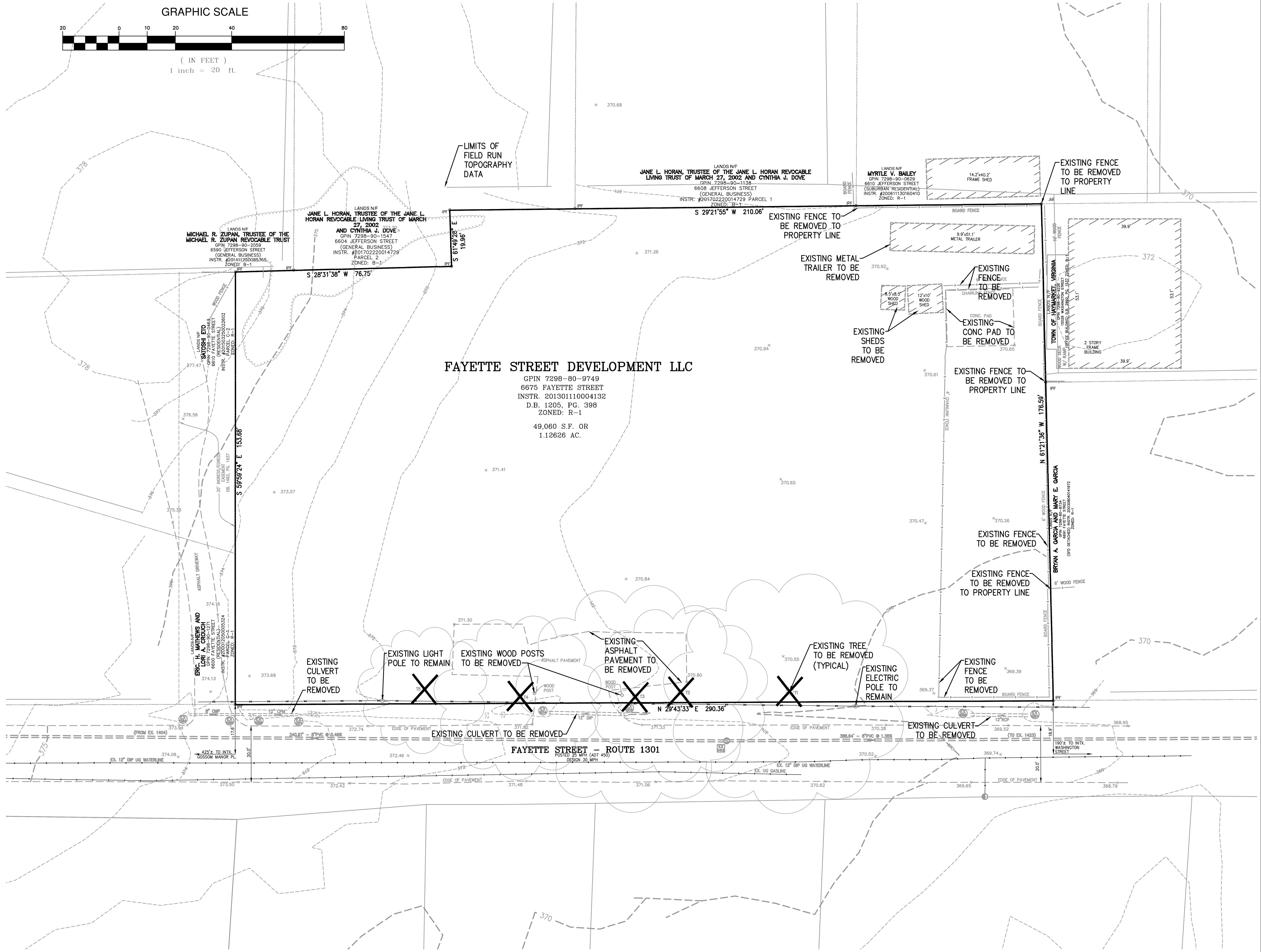
COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION
DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD
SCALE	H: N/A V: N/A	

JOB No. 00396-01-001
DATE : JULY 2018
FILE No. 003096-D-CP-001
SHEET 2 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-COV.dwg



STORM SEWER TABLE

EX 1097	END PIPE OUT = 368.25 (12"RCP FR 1098)
EX 1098	END PIPE IN = 368.35 (12"RCP TO 1097)
EX 1075	END PIPE OUT = 369.53 (12"DIP FR 1074)
EX 1074	END PIPE IN = 370.09 (12"DIP TO 1075)
EX 1071	END PIPE OUT = 372.04 (12"CMP FR 1066)
EX 1066	END PIPE IN = 372.40 (12"CMP TO 1071)
EX 1065	END PIPE OUT = 372.93 (8"CMP FR 1064)
EX 1064	END PIPE IN = 372.95 (8"CMP TO 1065)

SANITARY SEWER TABLE

EX 1404	MANHOLE TOP = 375.10 OUT = 362.50 (8"PVC TO 1413)
EX 1413	MANHOLE TOP = 371.21 IN = 360.83 (8"PVC FR 1404) OUT = 360.63 (8"PVC TO 1423)
EX 1423	MANHOLE TOP = 365.90 IN = 355.33 (8"PVC FR 1413)

LEGEND

- TREE
- SIGN
- WATER METER
- WATER VALVE
- MAILBOX
- SANITARY MANHOLE
- LIGHT POLE
- DIP DUCTILE IRON PIPE
- RCP REINFORCE CONCRETE PIPE
- CMP CORRUGATED METAL PIPE
- PVC POLYVINYL CHLORIDE PIPE
- IPF IRON PIPE FOUND
- FENCE
- OHE OVERHEAD ELECTRIC
- G UNDERGROUND GAS
- W UNDERGROUND WATER LINE
- TREELINE

NOTE: CONTRACTOR TO RELOCATE EXISTING MAILBOXES ON PROJECT SITE ACROSS THE STREET TO THE APPROPRIATE CORRESPONDING PROPERTIES. CONTRACTOR TO COORDINATE WITH USPS POST MASTER.

Bowman CONSULTING

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14020 Thunderbolt Place
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Chantilly, Virginia 20151
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EXISTING CONDITIONS AND DEMOLITION PLAN

RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
TOWN OF HAYMARKET PRINCE WILLIAM COUNTY, VIRGINIA

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION
DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD

SCALE H: 1"=10' V: N/A

JOB No. 00396-01-001

DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 3 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-XCD.dwg

Attachment: 2018-08-16 6675 Fayette Street 3rd Submission (3725 : 6675 Fayette Street, 3 Single Family Residential Lots, Site Plan, FINAL Approval)

LEGEND

- LIMITS OF CLEARING & GRADING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING TREELINE

VCS83, NORTH ZONE

LANDS N/F
JANE L. HORAN, TRUSTEE OF THE JANE L. HORAN REVOCABLE LIVING TRUST OF MARCH 27, 2002 AND CYNTHIA J. DOVE
GPIN 7298-90-1138
6608 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729 PARCEL 1
ZONED: B-1

LANDS N/F
MYRTLE V. BAILEY
GPIN 7298-90-0629
6610 JEFFERSON STREET
(SUBURBAN RESIDENTIAL)
INSTR. #200611130160410
ZONED: R-1

LANDS N/F
JANE L. HORAN, TRUSTEE OF THE JANE L. HORAN REVOCABLE LIVING TRUST OF MARCH 27, 2002 AND CYNTHIA J. DOVE
GPIN 7298-90-1547
6604 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729
PARCEL 2
ZONED: B-1

LANDS N/F
MICHAEL R. ZUPAN, TRUSTEE OF THE MICHAEL R. ZUPAN REVOCABLE TRUST
GPIN 7298-90-2059
6590 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201411250085365
ZONED: B-1

LANDS N/F
SAITOSH ETC
GPIN 7298-90-0463
6610 FAYETTE STREET
(RESIDENTIAL)
INSTR. #201503250022602
PARCEL 2
ZONED: R-1

LANDS N/F
ERIC. H. MATHEWS AND LORI A. CROUCH
GPIN 7298-90-1271
6600 FAYETTE STREET
(RESIDENTIAL)
INSTR. #200012060005324
PARCEL 1
ZONED: R-1

LANDS N/F
TOWN OF HAYMARKET, VIRGINIA
GPIN 7298-80-9236
15026 WASHINGTON STREET
(OFFICE BUILDING) DB. 2892, PG. 1527 ZONED: B-1

LANDS N/F
BRYAN A. GARCIA AND MARY E. GARCIA
GPIN 7298-80-8141
6691 FAYETTE STREET
(SFD DETACHED) INSTR. 200308040141972
ZONED: R-1

S 61°49'28" E 19.96'

S 28°31'38" W 76.75'

S 29°21'55" W 210.06'

N 61°21'36" W 176.59'

S 59°59'24" E 153.68'

S 29°43'33" E 290.36'

PROPOSED 6' HT WOOD BOARD/BOARD FENCE (SEE DETAIL SHEET 5)

TERMINATE PROPOSED FENCE

PROPOSED LIMITS OF CLEARING AND GRADING

25' BRL

10' BRL

35' BRL

30.50'

WOOD FENCE

BOARD FENCE

10' WOOD FENCE

6' WOOD FENCE

14.2'x40.2' FRAME SHED

WOOD DECK W/ RAMP

53.1'

87.32'

87.90'

66.38'

38.00'

16.0'

35.3'

GAR= 374.32

GAR= 373.86

GAR= 372.37

LOT A
15,206 S.F. OR
0.34909 AC.
6655 FAYETTE STREET

LOT B
17,000 S.F. OR
0.39027 AC.
6665 FAYETTE STREET

LOT C
16,654 S.F. OR
0.38690 AC.
6675 FAYETTE STREET

PROPOSED SFD 'A' (R-1)
6655 FAYETTE STREET
FF=376.20
BF=366.28

PROPOSED SFD 'B' (R-1)
6665 FAYETTE STREET
FF=375.74
BF=365.82

PROPOSED SFD 'C' (R-1)
6675 FAYETTE STREET
FF=374.25
BF=364.33

OVERHANG
AREAWAY
PROPOSED AREAWAY DRAIN TO TIE INTO FOUNDATION DRAIN SYSTEM. REFER TO ARCHITECTURAL PLANS
FOUNDATION DRAIN OUTLET INV OUT=374.67 (PUMPED) (SEE GENERAL NOTE #1)
FOUNDATION DRAIN OUTLET INV OUT=374.41 (PUMPED) (SEE GENERAL NOTE #1)
FOUNDATION DRAIN OUTLET INV OUT=372.92 (PUMPED) (SEE GENERAL NOTE #1)

14R @7½"
3R@7½"
GATE
30.17'
30.70'
29.5'
COVERED PORCH
C/O #2 INV=363.36
C/O #1 INV=363.26
C/O #2 INV=362.87
C/O #1 INV=362.77
C/O #2 INV=361.41
C/O #1 INV=361.30
APPROX. LOCATION OF PROP 4" SHC
PROP ¾" WATER SERVICE
PROP ¾" WATER METER
4" SHC
¾" WHC
ASPHALT DRIVEWAY
ASPHALT DRIVEWAY
PROPOSED LIMITS OF CLEARING AND GRADING
PROP DRIVEWAY ENTRANCE DE-4 (SEE SHEET 5 FOR DETAIL)
PROP MAILBOX
PROP PVC SHC INV=±361.98 1' FROM MAIN
CONNECT PROP PVC SHC TO EX SAN MAIN INV=±361.31
CONNECT PROP PVC SHC TO EX MH 1413 INV=±361.50
CONNECT PROP PVC SHC TO EX SAN MAIN INV=±359.34
PROP PVC SHC INV=±360.01 1' FROM MAIN
(TO EX. 1423)
190'± TO INTX. WASHINGTON STREET
425'± TO INTX. GOSSOM MANOR PL.
340.97' - 8"PVC @ 0.49%
388.64' - 8"PVC @ 1.36%
EDGE OF PAVEMENT
EX. 12" DIP UG WATERLINE
EX. UG GASLINE
8" CMP
15" CMP
12R
20' INGRESS/EGRESS EASEMENT DB. 1483, PG. 1637

FAYETTE STREET - ROUTE 1301
POSTED 25 MPH (ADT 450)
DESIGN 30 MPH

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft

Bowman CONSULTING

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GRADING PLAN
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD

SCALE H: 1"=10' V: N/A

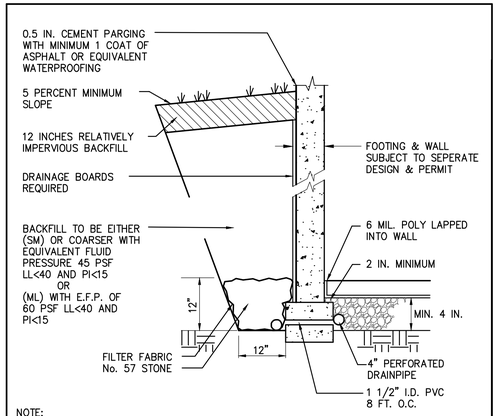
JOB No. 00396-01-001

DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 4 OF 22

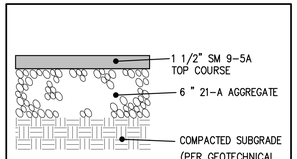
Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-GRD.dwg



NOTE:
FOUNDATION DRAIN TO BE TIED INTO SUMP PUMP. (SEE ARCHITECTURALS)

FOUNDATION DRAIN DETAIL

NOT TO SCALE



ASPHALT DRIVEWAY SECTION

WATER SERVICE NOTES:

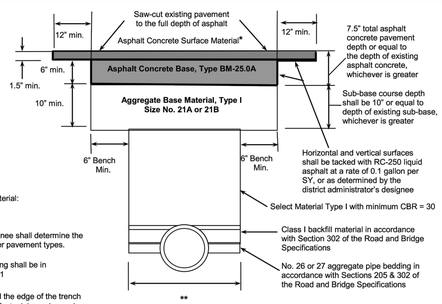
1. ALL NEW WATER LATERALS SHALL CONSIST OF METHODS AND MATERIALS IN ACCORDANCE WITH THE PRINCE WILLIAM COUNTY SERVICE AUTHORITY CONSTRUCTION SPECIFICATIONS AND DETAILS, LATEST EDITION.

SANITARY LATERAL NOTES:

1. CONTRACTOR TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATION OF EXISTING SANITARY MAIN AND ENSURE EXISTING LOCATION AND MATERIAL CONDITION WILL BE ACCEPTABLE FOR USE WITH NEW BUILDING CONSTRUCTION AND PROPOSED SANITARY CONNECTION, PRIOR TO CONSTRUCTION.
2. ALL NEW SANITARY LATERALS SHALL CONSIST OF METHODS AND MATERIALS IN ACCORDANCE WITH THE PRINCE WILLIAM COUNTY SERVICE AUTHORITY CONSTRUCTION SPECIFICATIONS AND DETAILS, LATEST EDITION.

LAND USE PERMIT
LUP-OC
Open-Cut Pavement Restoration Requirements

Asphalt Pavement Restoration Detail for Open Cut Utility Installations



NOTES:

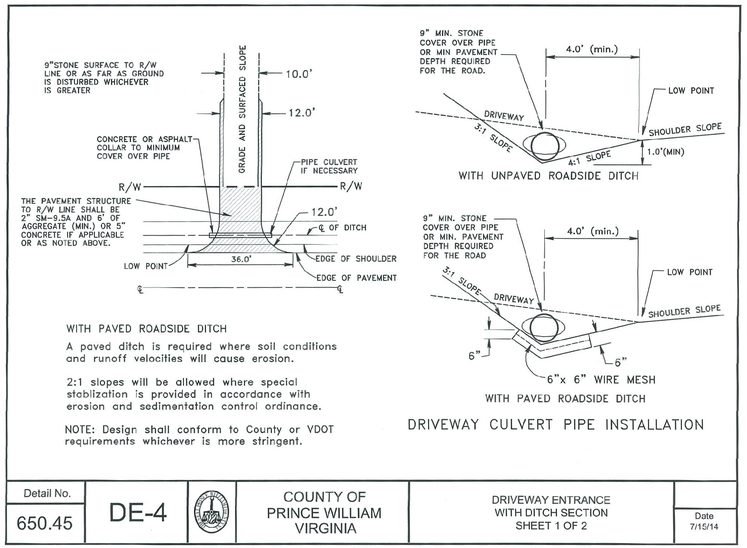
* Asphalt Concrete Surface Material:
SM-9.5A for ADT < 10,000
SM-9.5D for ADT > 10,000

The district administrator's designee shall determine the restoration requirements for other pavement types.

** Trench width and pipe bedding shall be in accordance with VDOT Std. PB-1

*** 12 inches minimum beyond the edge of the trench on longitudinal open cuts, or 25 feet minimum beyond the trench centerline on perpendicular open cuts, or as determined by the district administrator's designee.

Date: August 27, 2014



DRIVEWAY CULVERT PIPE INSTALLATION

Detail No.			
650.45	DE-4	COUNTY OF PRINCE WILLIAM VIRGINIA	DRIVEWAY ENTRANCE WITH DITCH SECTION SHEET 1 OF 2

Date 7/15/14

GENERAL NOTES:

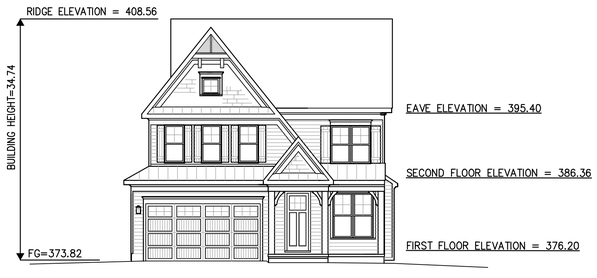
1) All construction methods and materials shall conform to current VDOT standards
2) Concrete pipe or corrugated metal pipe may be used. The type and size shall be indicated on the plans.
3) Driveways shall be surfaced from edge of pavement to property line with the same type of surfacing used on the street.
4) All driveway grades shall slant back of the shoulder line.
5) In cut sections, the sides of the driveway shall be graded to a maximum 3:1 slope.
6) Lengths of culverts shall be a minimum of twenty feet (20 ft.), if not shown on plans.
7) For dimension of S, see Standard RL – 1, and RM – 1.
8) Ditch line may be moved back to provide required cover. The transition of the ditch line should be smooth with a minimum length of ten feet (10 ft.).
9) This detail shall only be used for entrances on local streets with projected traffic counts not exceeding 1000 vpd. Driveway entrance PE-1 of VDOT Road and Bridge Standard Manual shall be used on streets with projected traffic counts exceeding 1000 vpd but not more than 4000 vpd.
10) This driveway entrance shall be required on rural residential developments with ditch section paved roadways and where the minimum lot size is one (1) acre or more. Paving of driveway entrance shall be per Detail 650.01 of the DCSM and as shown.

DRIVEWAY CLEARANCES:

1) Grading plans must provide for adequate vehicular clearance for driveway approach, departure and breakover transitions. Driveway profiles are required where steep grades prevail. Driveways shall be graded to ensure positive drainage away from the house.
2) Final pavement grades of driveways must be constructed on both ends flush, level, smooth and even with the garage approach and the driveway entrance aprons. The jointing of concrete and asphalt pavement and/or of concrete shall be done in a manner that will result in a smooth connection without a noticeable grade differential or lift. The grading must also provide positive drainage away from the garage.

Detail No.			
650.45	DE-4	COUNTY OF PRINCE WILLIAM VIRGINIA	DRIVEWAY ENTRANCE WITH DITCH SECTION SHEET 2 OF 2

Date 7/15/14

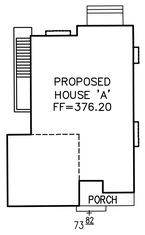


TYPICAL HOUSE 'A' SECTION

SCALE: 1"=10'

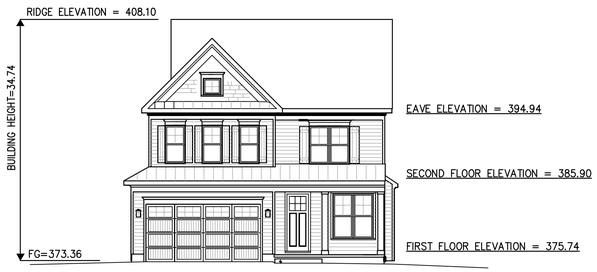
First Floor Elevation	Finished Grade Elevation	Peak Roof (Highest Ridge) Elevation	Proposed Dwelling Height
376.20	373.82	408.56	34.74
Dwelling Height Permitted = 35.00 ft			
Dwelling Height Proposed = 34.74 ft			

BUILDING HEIGHT COMPUTATIONS



PROPOSED SPOT GRADE

SCALE: 1"=20'

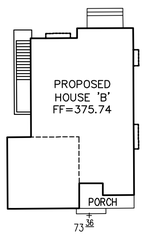


TYPICAL HOUSE 'B' SECTION

SCALE: 1"=10'

First Floor Elevation	Finished Grade Elevation	Peak Roof (Highest Ridge) Elevation	Proposed Dwelling Height
375.74	373.36	408.10	34.74
Dwelling Height Permitted = 35.00 ft			
Dwelling Height Proposed = 34.74 ft			

BUILDING HEIGHT COMPUTATIONS



PROPOSED SPOT GRADE

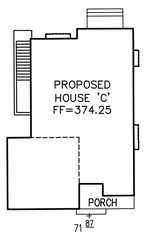
SCALE: 1"=20'

TYPICAL HOUSE 'C' SECTION

SCALE: 1"=10'

First Floor Elevation	Finished Grade Elevation	Peak Roof (Highest Ridge) Elevation	Proposed Dwelling Height
374.25	371.87	406.61	34.74
Dwelling Height Permitted = 35.00 ft			
Dwelling Height Proposed = 34.74 ft			

BUILDING HEIGHT COMPUTATIONS



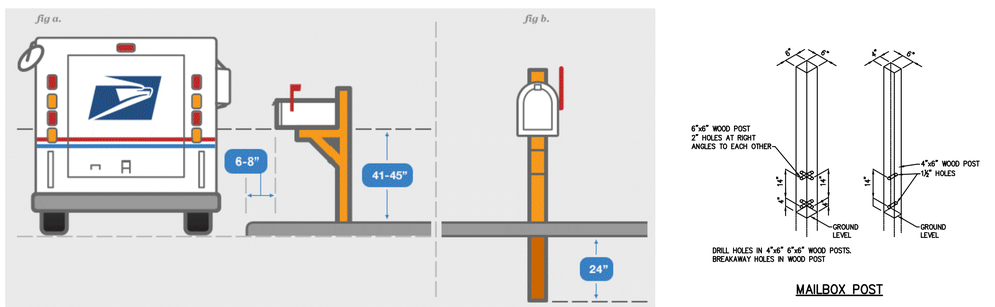
PROPOSED SPOT GRADE

SCALE: 1"=20'

NOTE: LOT C TO HAVE FRONT PORCH RAILING PER ARB MEETING ON 06/20/2018

PROPOSED BREAKAWAY MAILBOX DETAIL:

SCALE: NTS



MAILBOX POST

Bowman CONSULTING

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GRADING NOTES AND DETAILS
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY CLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION
SH/KF DESIGN	KF DRAWN / BG CHKD
SCALE	H: 1"=10' V: N/A
JOB No. 00396-01-001	
DATE : JULY 2018	
FILE No. 003096-D-CP-001	
SHEET 5 OF 22	

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-GRD.dwg

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

VCS83, NORTH ZONE

LANDS N/F
JANE L. HORAN, TRUSTEE OF THE JANE L. HORAN REVOCABLE LIVING TRUST OF MARCH 27, 2002 AND CYNTHIA J. DOVE
GPIN 7298-90-1138
6608 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729 PARCEL 1
ZONED: B-1

LANDS N/F
MYRTLE V. BAILEY
GPIN 7298-90-0629
6610 JEFFERSON STREET
(SUBURBAN RESIDENTIAL)
INSTR. #200611130160410
ZONED: R-1

LANDS N/F
JANE L. HORAN, TRUSTEE OF THE JANE L. HORAN REVOCABLE LIVING TRUST OF MARCH 27, 2002 AND CYNTHIA J. DOVE
GPIN 7298-90-1547
6604 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729
PARCEL 2
ZONED: B-1

LANDS N/F
MICHAEL R. ZUPAN, TRUSTEE OF THE MICHAEL R. ZUPAN REVOCABLE TRUST
GPIN 7298-90-2059
6590 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201411250085365
ZONED: B-1

LANDS N/F
SATOSHI ETO
GPIN 7298-90-0463
6610 FAYETTE STREET
(RESIDENTIAL)
INSTR. #201502250022602
PARCEL C-2
ZONED: R-1

LANDS N/F
ERIC H. MATHEWS AND LORI A. CROUCH
GPIN 7298-90-1271
6600 FAYETTE STREET
(RESIDENTIAL)
INSTR. #201502250005324
PARCEL C-1
ZONED: R-1

LANDS N/F
TOWN OF HAYMARKET, VIRGINIA
GPIN 7298-80-9236
15026 WASHINGTON STREET
(OFFICE BUILDING) DB. 2892, PG. 1527
ZONED: B-1

LANDS N/F
BRYAN A. GARCIA AND MARY E. GARCIA
GPIN 7298-80-8214
6691 FAYETTE STREET
(SFD DETACHED) INSTR. 200308040141972
ZONED: R-1

IPF
S 61°49'28" E 19.96'
S 28°31'38" W 76.75'
S 29°21'55" W 210.06'
S 59°59'24" E 153.66'
N 61°41'36" W 176.59'
N 29°43'33" E 290.36'
340.97' – 8"PVC @ 0.49%
388.64' – 8"PVC @ 1.36%
425'± TO INTX. GOSSOM MANOR PL.
190'± TO INTX. WASHINGTON STREET
(TO EX. 1423)
FAYETTE STREET – ROUTE 1301
POSTED 25 MPH (ADT 450)
DESIGN 30 MPH
SOIL TYPE: 4B
GRAVEL DRIVEWAY (ONCE INSTALLED) SHALL SERVE AS CONSTRUCTION ENTRANCE. CONTRACTOR TO PROVIDE METHOD TO CLEAN VEHICLES PRIOR TO ENTERING PUBLIC SPACE. (CONTRACTOR TO COORDINATE WITH INSPECTOR TO DETERMINED LENGTH REQUIRED)
WASH RACK
WOOD POST
BOARD FENCE
WOOD FENCE
6' WOOD FENCE
CHAINLINK FENCE
4' CHAINLINK FENCE
10' WOOD FENCE
14.2'x40.2' FRAME SHED
9.9'x51.1' METAL TRAILER
8.5'x8.5' WOOD SHED
12'x10' WOOD SHED
CONC. PAD
WOOD DECK W/ RAMP
ASPHALT DRIVEWAY
20' INGRESS/EGRESS EASEMENT DB. 1463, PG. 1637
8" CMP
12" CPM
12" DIP
12" RCP
EX. 12" DIP UG WATERLINE
EX. UG GASLINE
EDGE OF PAVEMENT
TP
SF
CE
T1
T2
T3
T4
T5

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EROSION AND SEDIMENT CONTROL PLAN PHASE 1
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
TOWN OF HAYMARKET
PRINCE WILLIAM COUNTY, VIRGINIA

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
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DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD
SCALE	H: 1"=10' V: N/A	
JOB No.	00396-01-001	
DATE :	JULY 2018	
FILE No.	003096-D-CP-001	
SHEET	6 OF 22	

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-ESP.dwg

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

VCS83, NORTH ZONE

LANDS N/F
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GPIN 7298-90-1138
6608 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729 PARCEL 1
ZONED: B-1

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MYRTLE V. BAILEY
GPIN 7298-90-0629
6610 JEFFERSON STREET
(SUBURBAN RESIDENTIAL)
INSTR. #200611130160410
ZONED: R-1

14.2'x40.2' FRAME SHED

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INSTR. #201702220014729
PARCEL 2
ZONED: B-1

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GPIN 7298-90-2059
6590 JEFFERSON STREET
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INSTR. #201411250085365
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S 28°31'38" W 76.75'
S 29°21'55" W 210.06'
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N 29°43'33" E 290.36'

BOARD FENCE
10' WOOD FENCE
6' WOOD FENCE
WOOD FENCE
ASPHALT DRIVEWAY
TERMINATE PROPOSED FENCE
PROPOSED LIMITS OF CLEARING AND GRADING

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GPIN 7298-80-9236
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SAITOSHI ETO
GPIN 7298-90-0463
6610 FAYETTE STREET
(RESIDENTIAL)
INSTR. #201502250022602
PARCEL 2
ZONED: R-1

LANDS N/F
ERIC. H. MATHEWS AND LORI A. CROUCH
GPIN 7298-90-1271
6600 FAYETTE STREET
(RESIDENTIAL)
INSTR. #200012050005324
PARCEL 1
ZONED: R-1

20' INGRESS/EGRESS EASEMENT DB. 1453, PG. 1637

LOT A
15,206 S.F. OR
0.34909 AC.
6655 FAYETTE STREET

LOT B
17,000 S.F. OR
0.39027 AC.
6665 FAYETTE STREET

LOT C
16,654 S.F. OR
0.38690 AC.
6675 FAYETTE STREET

SOIL TYPE: 4B

PROPOSED SFD 'A' (R-1)
6655 FAYETTE STREET
FF=376.20
BF=366.28
GAR= 374.32

PROPOSED SFD 'B' (R-1)
6665 FAYETTE STREET
FF=375.74
BF=365.82
GAR= 373.86

PROPOSED SFD 'C' (R-1)
6675 FAYETTE STREET
FF=374.25
BF=364.33
GAR= 372.37

OVERHANG
AREAWAY
PROPOSED AREAWAY DRAIN TO TIE INTO FOUNDATION DRAIN SYSTEM. REFER TO ARCHITECTURAL PLANS
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C/O #2 INV=362.87
C/O #1 INV=362.77
C/O #2 INV=361.41
C/O #1 INV=361.30
APPROX. LOCATION OF PROP 4" SHC
PROP ¾" WATER SERVICE
PROP ¾" WATER METER
PROP ¾" WHC
4" SHC
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PROP PVC SHC INV=±361.98 FROM MAIN
CONNECT PROP PVC SHC TO EX SAN MAIN INV=±361.51
CONNECT PROP PVC SHC TO EX MH 1413 INV=±361.50
CONNECT PROP PVC SHC TO EX SAN MAIN INV=±359.34
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340.97' – 8"PVC @ 0.49%
388.64' – 8"PVC @ 1.36%
EDGE OF PAVEMENT
EX. 12" DIP UG WATERLINE
EX. UG GASLINE
8" CMP
15" CMP
(EX. 1069)
(EX. 1413)
(TO EX. 1423)
17.6'
18.9'
20.0'
10' BRL
25' BRL
35' BRL
16.0'
35.3'
50.33'
53.1'

425'± TO INTX. GOSSOM MANOR PL.
190'± TO INTX. WASHINGTON STREET

FAYETTE STREET – ROUTE 1301
POSTED 25 MPH (ADT 450)
DESIGN 30 MPH

NOTE: CONTRACTOR IS RESPONSIBLE TO ENSURE ALL PROPOSED CULVERTS ARE CLEANED OUT AND IN GOOD CONDITION DURING CONSTRUCTION AND AT PROJECT COMPLETION. IF ANY CULVERT IS DAMAGED DURING CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED TO REPLACE THE CULVERT IN KIND.

Bowman CONSULTING

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Chantilly, Virginia 20151
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EROSION AND SEDIMENT CONTROL PLAN PHASE 2
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
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PROFESSIONAL ENGINEER

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JOB No. 00396-01-001		
DATE : JULY 2018		
FILE No. 003096-D-CP-001		
SHEET 7 OF 22		

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-ESP.dwg

Attachment: 2018-08-16 6675 Fayette Street 3rd Submission (3725 : 6675 Fayette Street, 3 Single Family Residential Lots, Site Plan, FINAL Approval)

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. UNLESS OTHERWISE NOTED, ALL VEGETATIVE AND EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
2. FOR ADDITIONAL DETAILS AND SPECIFICATIONS NOT SHOWN HEREON, REFER TO THE 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ONSITE AT ALL TIMES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NOT SHOWN HEREON THAT ARE DEEMED NECESSARY BY THE APPROVING AUTHORITY AND/OR THE SITE INSPECTOR.
5. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES DAILY. ANY DAMAGED CONTROLS SHALL BE REPAIRED OR REPLACED BY THE CLOSE OF EACH WORKING DAY.

EROSION AND SEDIMENT CONTROL LEGEND

NO.	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.05	SILT FENCE	SF	
3.38	TREE PROTECTION	TP	
3.08–1	CULVERT INLET PROTECTION	CIP	
3.18	OUTLET PROTECTION	OP	
	PERMANENT STABILIZATION	PS	
VDOT 113.02	BLANKET MATTING/ DITCH LINING (EC–2) SEE DETAIL ON 17A	BM	

NOTE: CONTRACTOR IS RESPONSIBLE TO ENSURE ALL PROPOSED CULVERTS ARE CLEANED OUT AND IN GOOD CONDITION DURING CONSTRUCTION AND AT PROJECT COMPLETION. IF ANY CULVERT IS DAMAGED DURING CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED TO REPLACE THE CULVERT IN KIND.

SILTATION AND EROSION CONTROL NARRATIVE

DESCRIPTION
THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A (3) SINGLE DETACHED FAMILY DWELLINGS, A DRIVEWAY AND A GRADED GRASSY LAWN AND ASSOCIATED LAND DISTURBANCE ACTIVITIES. THE TOTAL SITE AREA IS 1.1263 ACRES. THE DISTURBED AREA IS APPROXIMATELY 0.99 ACRES.

EXISTING SITE CONDITIONS
THE EXISTING GROUND SLOPES FROM THE WEST SIDE OF THE SITE TOWARD THE EAST SIDE. IN THE EXISTING CONDITION, SHEET FLOWS ACROSS THE LOT FROM THE WEST TO THE EAST WHERE IT OUTFALLS ONTO EASTERN BOUNDARY OF THE LOT.

EROSION AND SILTATION CONTROL MEASURES
BECAUSE OF THE SIZE OF THE SITE, SILTATION MEASURES WILL BE THE USE OF SILT FENCE AND A TEMPORARY CONSTRUCTION ENTRANCE AS SHOWN ON THE PLAN.

STRUCTURAL PRACTICES
1. TEMPORARY CONSTRUCTION ENTRANCE – 3.02
   A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED IN THE PROPOSED DRIVEWAY. DURING MUDDY CONDITIONS, CONSTRUCTION VEHICLES SHALL WASH THEIR WHEELS BEFORE LEAVING THE SITE.
2. SILT FENCE – 3.05
   SYNTHETIC FILTER FABRIC SHALL BE PLACED AT THE LIMITS OF CLEARING AND GRADING WHERE INDICATED ON DRAWINGS.
3. TREE PROTECTION – SPEC 3.38 AS REVISED (SEE DETAIL ON SHEET 11)
   TREE PROTECTION SHALL BE PLACED WHERE INDICATED ON DRAWINGS TO PROTECT TREES TO BE SAVED.
4. TEMPORARY SEEDING – 3.31
   ALL DENUDED AREAS WHICH ARE PLANNED TO BE LEFT DORMANT FOR MORE THAN 7 DAYS SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. THE SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF THE YEAR WHEN TEMPORARY SEEDING IS APPLIED. ALL TEMPORARY SEEDING SHALL BE DONE IN ACCORDANCE WITH SECTION 3.31 OF THE VESCH.
5. PERMANENT SEEDING – 3.32
   ALL DENUDED AREAS SHALL BE SEEDED WITH PERMANENT VEGETATION IN ACCORDANCE WITH THE LANDSCAPE PLAN MADE PART OF THE CONSTRUCTION SITE PLAN. THE PERMANENT SEEDING SHALL BE APPLIED AT THE EARLIEST OPPORTUNITY TO PERMANENTLY STABILIZE DISTURBED AREAS AND TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM THE DISTURBED AREAS. ALL PERMANENT SEEDING SHALL BE DONE IN ACCORDANCE WITH SECTION 3.32 OF THE VESCH.

PERMANENT STABILIZATION
6. ALL AREAS DISTURBED BY CONSTRUCTION OPERATIONS AND NEWLY GRADED AREAS SHALL BE SODDED ON 3:1 SLOPES AND SEEDED ON ALL OTHER AREAS. IF SEEDING AND SODDING CANNOT BE ACCOMPLISHED DURING SCHEDULED TIME, PROTECT DISTURBED AREAS WITH MULCH OR JUTE MESH. RECOMMENDED SEEDING AND SODDING TIME SHALL BE IN SPRING BETWEEN FEBRUARY 1 AND APRIL 30 OR IN FALL BETWEEN SEPTEMBER 1 AND OCTOBER 15.
7. NO SEDIMENT CONTROL DEVICES SHALL BE REMOVED WITHOUT APPROVAL OF THE TOWN OF HAYMARKET SITE INSPECTOR.
8. SILT FENCES SHALL BE KEPT AS CLOSE AS POSSIBLE TO THE LIMITS OF CLEARING AND GRADING. SILT FENCES WILL BE CLEANED WHEN THE SILT REACHES HALF THE HEIGHT OF THE FENCE.

LAND CONSERVATION NOTES
1. NO DISTURBED AREA SHALL BE DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS IT IS CONTINUOUSLY WORKED ON.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STOP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
3. ALL STORM AND SANITARY SEWER LINES NOT IN STREET ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ONE TIME.
4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHED IS TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILL.
5. ALL TEMPORARY EARTH BERMS, DIVERSION, AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW AND HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVISE, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION.
7. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, IS TO BE MULCHED WITH HAY OR STRAW MULCH AT THE RATE OF TWO TONS PER ACRE AND OVER–SEEDED NO LATER THAN MARCH 15.
8. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO THE RELEASE OF THE BOND, ALL TEMPORARY SEDIMENT AND EROSION CONTROLS SHALL BE REMOVED AND ALL DISTURBED AREAS SHALL BE STABILIZED. THE E&S MEASURES CANNOT BE REMOVED WITHOUT THE INSPECTOR'S APPROVAL.
9. PERMANENT SEEDING: PREPARATION, SEEDING, FERTILIZING AND MULCHING IS TO BE IN ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK" 1992 EDITION.

STOCKPILE MEASURES

1. ALL SPOILS WILL BE IMMEDIATELY HAULED OFFSITE.
2. THE GRADING/EXCAVATION CONTRACTOR FOR THE SUBJECT SITE IS REQUIRED TO NOTIFY, IN WRITING, THE ASSIGNED SITE INSPECTOR REGARDING ANY EXCESS MATERIAL PROPOSED TO BE HAULED OFFSITE PRIOR TO HAULING. THE NOTIFICATION MUST INDICATE THE QUANTITY OF MATERIAL TO BE MOVED OFFSITE, IDENTIFICATION OF THE RECEIVING SITE WHERE THE EXCESS WILL BE TAKEN, AND ALL INFORMATION NECESSARY TO SHOW THAT SUCH RECEIVING SITE HAS BEEN PROPERLY PERMITTED AND HAS E&S CONTROLS INSTALLED.

STORM WATER RUNOFF CONSIDERATIONS
RUNOFF DURING CONSTRUCTION SHALL BE MANAGED BY THE USE OF SILT FENCES. RUNOFF AFTER CONSTRUCTION WILL SHEET FLOW AND FOLLOW THE EXISTING DRAINAGE PATTERNS. THE RUNOFF LEAVING THE SITE WILL NOT HAVE AN ADVERSE IMPACT ON THE DOWNSTREAM ADJACENT PROPERTIES.

CALCULATIONS
SEE THIS SHEET FOR RELEVANT CALCULATIONS.

ADJACENT AREAS
THE SITE WILL DISCHARGE ALONG THE EXISTING NATURAL DRAINAGE PATTERS AND EXITS THE SITE ALONG THE SOUTHWEST SIDE PROPERTY LINE.

SOILS
THE SITES SOIL CONSISTS OF ARCOLA SILT LOAM, PER USGS SOILS MAP SOIL ID #4B (DESCRIBED BELOW).

(4B) ARCOLA SILT LOAM – THIS MODERATELY DEEP AND WELL DRAINED. THEY FORMED IN MATERIAL WEATHERED FROM TRIASSIC AND JURASSIC INTERBEDDED SILTSTONE, SHALE AND FINE GRAINED SANDSTONE. THE ARCOLA SOILS ARE ON UPLAND RIDGE CRESTS AND SIDE SLOPES IN THE CULPEPER BASIN. SLOPES RANGE FROM 2 TO 7 PERCENT. HYDROLOGIC SOIL GROUP 'C'.

CRITICAL AREAS
THERE ARE NO "CRITICAL AREAS" ON THIS SITE.

MAINTENANCE
SILT FENCE PERIMETER SHALL BE CHECKED DAILY AND AFTER ALL SIGNIFICANT STORM EVENTS FOR BREAKS OR NEED FOR CLEAN OUT. CLEAN OUT SHALL BE DONE WHEN THE SILT FENCE IS 50% FULL OR LESS IF NECESSARY TO PROTECT ADJOINING PROPERTIES. THE CERTIFIED LAND DISTURBER, AS SHOWN ON THIS PLAN, SHALL BE IN CHARGE OF ALL E&S CONTROLS AND IN GETTING THE PROPER INSPECTIONS.

SW–10
WATER IMPOUNDMENT IS NOT LOCATED WITHIN THE POTENTIAL INFLUENCE AREA OF THE PROPOSED LAND DISTURBING ACTIVITY.

TABLE 6.1 GENERAL EROSION AND SEDIMENT CONTROL NOTES

ES–1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS.
ES–2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE–CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
ES–3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
ES–4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
ES–5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF–SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
ES–6: THE CONTRACTOR'S RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATIONS AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
ES–7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
ES–8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
ES–9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF–PRODUCING RAINFALL EVENT. AND NECESSARY REPAIRS, OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

LAND DISTURBING ACTIVITY NOTE:

IN ACCORDANCE WITH AN AMENDMENT TO VIRGINIA SEDIMENT AND EROSION CONTROL LAW, EFFECTIVE JULY 1, 2001, AS A PREREQUISITE TO THE APPROVAL OF AN EROSION AND SEDIMENT CONTROL PLAN, THAT THE PERSON RESPONSIBLE FOR CARRYING OUT THE PLAN (OWNER/DEVELOPER/PERMITEE) SHALL PROVIDE TO THE PLAN APPROVING AUTHORITY THE NAME OF AN INDIVIDUAL HOLDING A CERTIFICATE OF COMPETENCE ISSUED BY THE DEPARTMENT OF CONSERVATION AND RECREATION (DCR) WHO WILL BE RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITY. THIS INFORMATION MUST BE KEPT CURRENT FOR THE LIFE OF THE PLAN. PLANS APPROVED PRIOR TO JULY 1, 2001, ARE NOT SUBJECT TO THESE REQUIREMENTS.

4VAC50–30–40. MINIMUM STANDARDS

AN EROSION AND SEDIMENT CONTROL PROGRAM ADOPTED BY A DISTRICT OR LOCALITY MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. APPLICABLE

2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. APPLICABLE

3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. APPLICABLE

4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND–DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. APPLICABLE

5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION. N/A

6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN. N/A

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25–YEAR STORM OF 24–HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED. APPLICABLE

8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE. APPLICABLE

9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED. N/A

10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT–LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. APPLICABLE

11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL. N/A

12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS. N/A

13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX–MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED. N/A

14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET. N/A

15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED. N/A

16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: APPLICABLE

A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF–SITE PROPERTY.

D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.

E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.

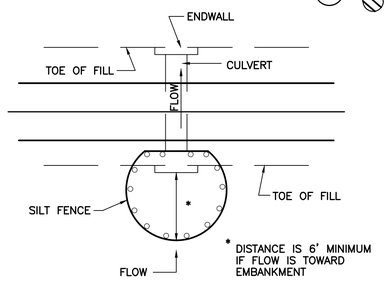
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND–DISTURBING ACTIVITIES. APPLICABLE

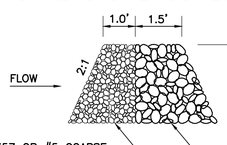
18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION. APPLICABLE

19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24–HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA: APPLICABLE

SILT FENCE CULVERT INLET PROTECTION 3.08–1 (CIP)

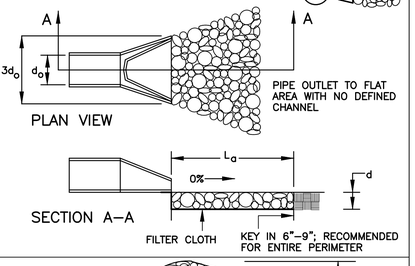


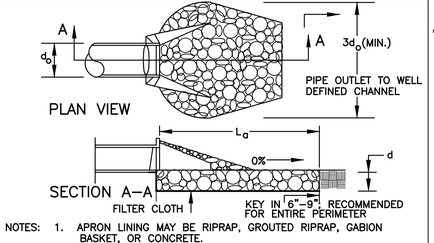
OPTIONAL STONE COMBINATION **



** VDOT #3, #357 OR #5 COARSE AGGREGATE TO REPLACE SILT FENCE IN "HORSESHOE" WHEN HIGH VELOCITY OF FLOW IS EXPECTED

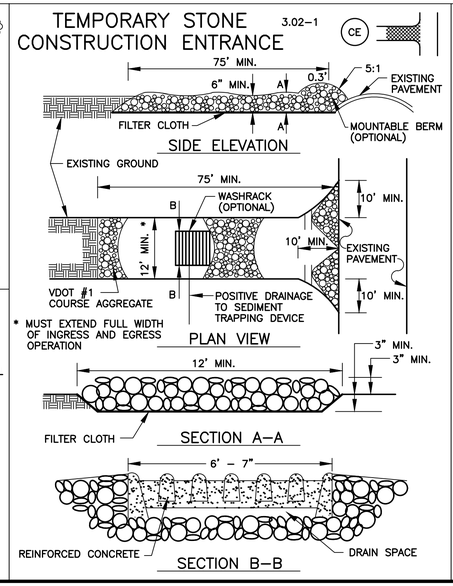
OUTLET PROTECTION 3.18–1 (OP)



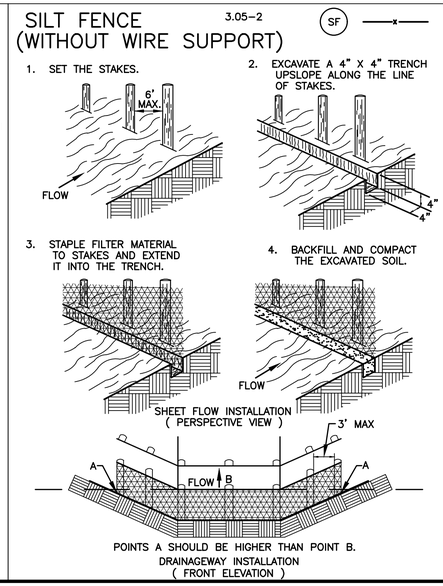


NOTES:
1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, GABION BASKET, OR CONCRETE.
2. La IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.18–3 AND 3.18–4.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6 INCHES.

TEMPORARY STONE CONSTRUCTION ENTRANCE 3.02–1 (CE)



SILT FENCE (WITHOUT WIRE SUPPORT) 3.05–2 (SF)



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EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
TOWN OF HAYMARKET PRINCE WILLIAM COUNTY, VIRGINIA

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD

SCALE H: N/A V: N/A
JOB No. 00396-01-001
DATE : JULY 2018
FILE No. 003096-D-CP-001
SHEET 8 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-ESP.dwg

PLAN SUBMITTER'S CHECKLIST

FOR EROSION AND SEDIMENT CONTROL PLANS

Please fill in all blanks and reference the plan sheets/pages where the information may be found, where appropriate, or write N/A by items that are not applicable.

GENERAL

Plan Submission Date JULY 2018
Project Name 6675 FAYETTE STREET
VSMP Permit Number
Site Plan Number SP2018-001
Site Address 6675, 6665, & 6655 FAYETTE STREET, HAYMARKET, VA 20169
Applicant DOMENICK MINGIONE Phone Number 703-898-2499
Applicant Legal Address P.O. BOX 228, MIDDLEBURG, VA 20118
Owner DOMENICK MINGIONE Phone Number 703-898-2499
Principal Designer BOWMAN CONSULTING GROUP Phone Number 703-464-1000
General Contractor Phone Number

✓ Complete set of plans- Include all sheets pertaining to the site grading and stormwater and any activities impacting erosion and sediment control and drainage:

- ☐ Existing conditions
- ☐ Demolition
- ☐ Site grading
- ☐ Erosion and sediment control
- ☐ Storm sewer systems
- ☐ Stormwater management facilities
- ☐ Utility layout
- ☐ Landscaping
- ☐ On-site and off-site borrow and disposal areas that do not have separate approved ESC Plans

✓ Professional's seal - The designer's original seal, signature, and date are required on the *cover* sheet of each Narrative and each set of Plan Sheets. A facsimile is acceptable for subsequent Plan Sheets.

✓ Number of plan sets - Two sets of ESC Plans should be submitted. The DEQ office will retain all submitted plans.

N/A Variances - Variances requested at the time of plan submission are governed by Section 9VAC25-840-50 of the *Virginia Erosion and Sediment Control Regulations.*

✓ Certified Responsible Land Disturber (RLD) - A certified RLD is required during all stages of construction, from the initial land disturbance through final site stabilization. **The name of the project RLD must be provided before any land disturbance may begin.** Notify DEQ in a timely manner if the RLD changes during the course of the project.

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

✓ Local Consideration – Plans have been provided to the applicable jurisdictions.

CHECKLIST PREPARER
I certify that I am a professional in adherence to all minimum standards and requirements pertaining to the practice of that profession in accordance with Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of Virginia and attendant regulations. By signing this checklist I am certifying that this document and all attachments are, to the best of my knowledge and belief, true, accurate, and complete.

SIGNATURE

PRINTED NAME BRAD GLATFELTER

QUALIFICATIONS PROFESSIONAL ENGINEER

DATE 07/05/2018

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

NARRATIVE
Please reference plan sheet numbers where the information may be found.

✓ Project description - Briefly describe the nature and purpose of the land-disturbing activity. Provide the area (acres) to be disturbed.

✓ Existing site conditions - A description of the existing topography (% slopes), ground cover, and drainage (on-site and receiving channels).

✓ Adjacent areas - A description of all neighboring areas such as residential developments, agricultural areas, streams, lakes, roads, etc., that might be affected by the land disturbance.

✓ Off-site areas - Describe any off-site land-disturbing activities that may occur (borrow sites, disposal areas, easements, etc.). Identify the Owner of the off-site area and the entity responsible for plan review. Include a statement that any off-site land-disturbing activity associated with the project must have an approved ESC Plan. Submit documentation of the approved ESC Plan for each of these sites.

✓ Soils - Provide a description of the soils on the site, giving such information as soil name, mapping unit, erodibility, permeability, surface runoff, and a *brief* description of depth, texture and soil structure. Show the site location on the Soil Survey, if it is available. Include a plan showing the boundaries of each soil type on the development site.

✓ Critical areas - A description of areas on the site that have potentially serious erosion problems or that are sensitive to sediment impacts (e.g., steep slopes, watercourses, wet weather / underground springs, etc.).

✓ Erosion and sediment control measures - A description of the structural and vegetative methods that will be used to control erosion and sedimentation on the site. Controls should satisfy applicable minimum standards and specifications in Chapter 3 of the 1992 *Virginia Erosion and Sediment Control Handbook* (VESCH) or more stringent local requirements.

✓ Management strategies / Sequence of construction - Address management strategies, the sequence of construction, and any phasing of installation of ESC measures.

✓ Permanent stabilization - A brief description, including specifications, of how the site will be stabilized after construction is completed.

✓ Maintenance of ESC measures - A schedule of regular inspections, maintenance, and repair of erosion and sediment control structures should be set forth.

✓ Calculations for temporary erosion and sediment control measures - For each temporary ESC measure, provide the calculations required by the standards and specifications.

✓ Stormwater management considerations - Will the development of the site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff, including during construction.

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

✓ Specifications / Detail Drawings for erosion and sediment control measures - For each erosion and sediment control measure employed in the plan, include, at a minimum, the detail from the standard and specification in the VESCH or more stringent local requirements. Include any approved variances or revisions to the standards and specifications.

✓ Specifications for stormwater and stormwater management structures - Provide specifications for stormwater and stormwater management structures, i.e., pipe materials, pipe bedding, stormwater structures.

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

SITE PLAN
Please reference plan sheet numbers where the information may be found.

✓ Vicinity map - A small map locating the site in relation to the surrounding area. Include any landmarks that might assist in locating the site.

✓ Indicate north - The direction of north in relation to the site.

✓ Off-site areas - Include any off-site land-disturbing activities (e.g., borrow sites, disposal areas, etc.) not covered by a separate approved ESC Plan.

✓ Legend - Provide a complete listing of all ESC measures used, including the VESCH uniform code symbol and the standard and specification number. Include any other items necessary to identify pertinent features in the plan.

✓ Property lines and easements - Show all property and easement lines. For each adjacent property, list the deed book and page number and the property owner's name and address.

✓ Existing vegetation – Show the existing tree lines, grassed areas, or unique vegetation.

✓ Limits of clearing and grading – Delineate all areas that are to be cleared and graded.

✓ Protection of areas not being cleared - Fencing or other measures to protect areas that are not to be disturbed on the site.

✓ Critical areas – Note all critical areas on the plan.

✓ Existing contours – Show the existing contours of the site.

✓ Final contours and elevations – Show changes to the existing contours, including final drainage patterns.

✓ Site development – Show all improvements such as buildings, parking lots, access roads, utility construction, etc. Show all physical items that could affect or be affected by erosion, sediment, and drainage.

✓ Location of practices - The locations of erosion and sediment control and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of the VESCH.

✓ Adequate Conveyances – Ensure that stormwater conveyances with adequate capacity and adequate erosion resistance have been for provided all on-site concentrated stormwater runoff. Off-site channels that receive runoff from the site, including those receiving runoff from stormwater management facilities, must be adequate. Increased volumes of sheet flows must be diverted to a stable outlet, adequate channel, pipe or pipe system, or a stormwater management facility.

- ☐ Provide exhibits showing the drainage divides, the direction of flow, and the size (acreage) of each of the site drainage areas that discharge runoff off-site, both existing and proposed.

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

- ☐ Provide calculations for pre- and post-development runoff from these drainage areas.
- ☐ Ensure that Minimum Standard 19 is satisfied for each off-site receiving channel, including those that receive runoff from stormwater management facilities.
- ☐ Provide calculations for the design of each permanent stormwater management facility.
- ☐ Ensure that increased volumes of sheet flows are diverted to a stable outlet, to an adequate channel, pipe or pipe system, or to a stormwater management facility.
- ☐ Provide adequacy calculations for all on-site stormwater conveyances.

✓ Calculations for permanent stormwater conveyances - For each permanent stormwater conveyance or structure, provide the following design calculations, as applicable:

- ☐ Drainage area map with time of concentration (T_C) path shown
- ☐ T_C calculation/nomograph
- ☐ Locality IDF curve
- ☐ Composite runoff coefficient or RCN calculation
- ☐ Peak runoff calculations
- ☐ Stormwater conveyance channel design calculations
- ☐ Storm drain and storm sewer system design calculations
- ☐ Hydraulic Grade Line if any pipe in the system is more than 90% full for a 10-year storm
- ☐ Culvert design calculations
- ☐ Drop inlet backwater calculations
- ☐ Curb inlet length calculations

✓ Direction of Flow for Conveyances - Indicate the direction of flow for all stormwater conveyances (storm drains, stormwater conveyance channels).

✓ Storm Drain Profiles - Provide profiles of all storm drains except roof drains. If the type of pipe (RCP, CMP, HDPE, etc.) is not called out on the profiles, then the most conservative pipe material that may be specified for the project must be used in the adequacy calculations.

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

MINIMUM STANDARDS
Plan Sheet # 8

✓ **Minimum Standards - All Minimum Standards must be addressed.**

Yes	No	NA		
X	[]	[]	MS-1	Have temporary and permanent stabilization been addressed in the narrative?
X	[]	[]		Are practices shown on the plan?
X	[]	[]		Temporary and permanent seed specifications?
X	[]	[]		Lime and fertilizer?
X	[]	[]		Mulching?
X	[]	[]		Blankets/Matting?
X	[]	[]		Pavement/Construction Road Stabilization?
X	[]	[]	MS-2	Has stabilization of soil stockpiles, borrow areas, and disposal areas been addressed in the narrative and on the plan?
X	[]	[]		Have sediment trapping measures been provided?
X	[]	[]	MS-3	Has the establishment and maintenance of permanent vegetative stabilization been addressed?
X	[]	[]	MS-4	Does the plan specifically state that sediment-trapping facilities shall be constructed as a first step in land-disturbing activities?
[]	[]	X	MS-5	Does the plan specifically state that stabilization of earthen structures is required immediately after installation? Is this noted for each measure on the plan?
[]	[]	X	MS-6	Are sediment traps and sediment basins specified where needed and designed to the standard and specification?
X	[]	[]	MS-7	Have the design and temporary/permanent stabilization of cut and fill slopes been adequately addressed? Is Surface Roughening provided for slopes steeper than 3:1?
X	[]	[]	MS-8	Have adequate temporary or permanent conveyances (paved flumes, channels, slope drains) been provided for concentrated stormwater runoff on cut and fill slopes?
[]	[]	X	MS-9	Has water seeping from a slope face been addressed (e.g., subsurface drains)?
X	[]	[]	MS-10	Is adequate inlet protection provided for all operational storm drain and culvert inlets?

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

Yes	No	NA		
[]	[]	X	MS-11	Are adequate outlet protection and/or channel linings provided for all stormwater conveyance channels and receiving channels? Is there a schedule indicating:
[]	[]	X		Dimensions of the outlet protection? Lining? Size of riprap?
[]	[]	X		Cross section and slope of the channels? Type of lining? Size of riprap, if used?
[]	[]	X	MS-12	Are in-stream protection measures required so that channel impacts are minimized?
[]	[]	X	MS-13	Are temporary stream crossings of non-erodible material required where applicable?
[]	[]	X	MS-14	Are all applicable federal, state and local regulations pertaining to working in or crossing live watercourses being followed?
[]	[]	X	MS-15	Has immediate restabilization of areas subject to in-stream construction (bed and banks) been adequately addressed?
X	[]	[]	MS-16	Have disturbances from underground utility line installations been addressed?
X	[]	[]		No more than 500 linear feet of trench open at one time?
X	[]	[]		Effluent from dewatering filtered or passed through a sediment-trapping device?
X	[]	[]		Proper backfill, compaction, and restabilization?
X	[]	[]	MS-17	Is the transport of soil and mud onto public roadways properly controlled? (i.e., Construction Entrances, wash racks, transport of sediment to a trapping facility, cleaning of roadways at the end of each day, no washing before sweeping and shoveling)
X	[]	[]	MS-18	Has the removal of temporary practices been addressed?
X	[]	[]		Have the removal of accumulated sediment and the final stabilization of the resulting disturbed areas been addressed?
X	[]	[]	MS-19	Are properties and waterways downstream from development adequately protected from sediment deposition, erosion, and damage due to increases in volume, velocity and peak flow rate of stormwater runoff? Have adequate channels been provided on-site?

PROJECT NAME: _____ **SUBMITTAL#:** _____

PLANS DATED: _____

Bowman
CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151

Phone: (703) 464-1000
Fax: (703) 481-9720

www.bowmanconsulting.com
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EROSION AND SEDIMENT CONTROL CHECKLIST
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

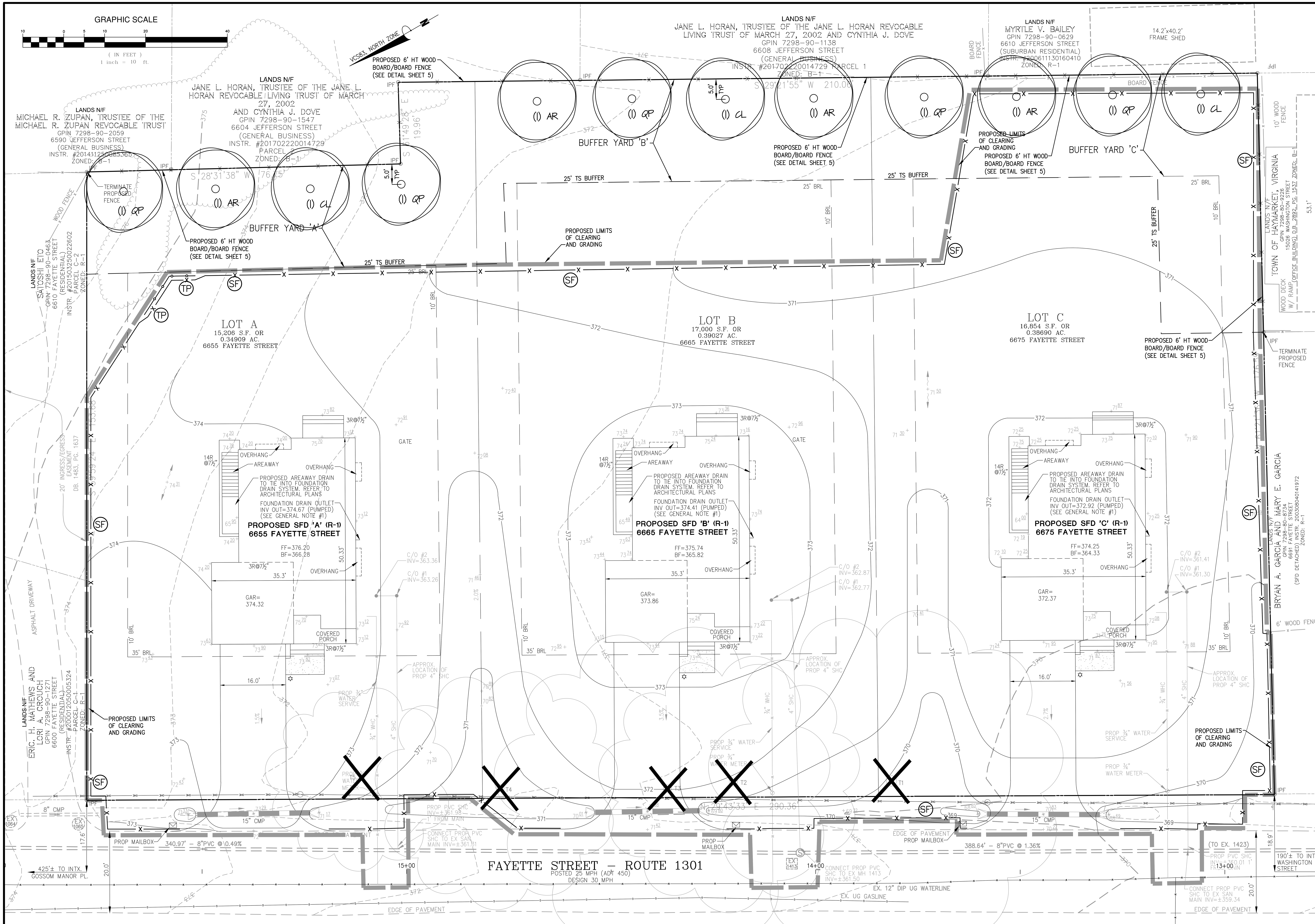
SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION	
SH/KF	KF	BG
DESIGN	DRAWN	CHKD
SCALE	H: N/A V: N/A	
JOB No.	00396-01-001	
DATE :	JULY 2018	
FILE No.	003096-D-CP-001	
SHEET	9 OF 22	

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-ESP.dwg



GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.
VCS83, NORTH ZONE
LANDS N/F
JANE L. HORAN, TRUSTEE OF THE JANE L. HORAN REVOCABLE LIVING TRUST OF MARCH 27, 2002 AND CYNTHIA J. DOVE
GPIN 7298-90-1138
6608 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729 PARCEL 1
ZONED: B-1
LANDS N/F
MYRTLE V. BAILEY
GPIN 7298-90-0629
6610 JEFFERSON STREET
(SUBURBAN RESIDENTIAL)
INSTR. #200611130160410
ZONED: R-1
14.2'x40.2' FRAME SHED
LANDS N/F
JANE L. HORAN, TRUSTEE OF THE JANE L. HORAN REVOCABLE LIVING TRUST OF MARCH 27, 2002 AND CYNTHIA J. DOVE
GPIN 7298-90-1547
6604 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729
PARCEL 2
ZONED: B-1
LANDS N/F
MICHAEL R. ZUPAN, TRUSTEE OF THE MICHAEL R. ZUPAN REVOCABLE TRUST
GPIN 7298-90-2059
6590 JEFFERSON STREET
(GENERAL BUSINESS)
ZONED: B-1
PROPOSED 6' HT WOOD BOARD/BOARD FENCE (SEE DETAIL SHEET 5)
BUFFER YARD 'A'
BUFFER YARD 'B'
BUFFER YARD 'C'
25' TS BUFFER
PROPOSED LIMITS OF CLEARING AND GRADING
TERMINATE PROPOSED FENCE
LOT A
15,206 S.F. OR
0.34909 AC.
6655 FAYETTE STREET
LOT B
17,000 S.F. OR
0.39027 AC.
6665 FAYETTE STREET
LOT C
16,854 S.F. OR
0.38690 AC.
6675 FAYETTE STREET
PROPOSED SFD 'A' (R-1)
6655 FAYETTE STREET
FF=376.20
BF=366.28
PROPOSED SFD 'B' (R-1)
6665 FAYETTE STREET
FF=375.74
BF=365.82
PROPOSED SFD 'C' (R-1)
6675 FAYETTE STREET
FF=374.25
BF=364.33
PROPOSED AREAWAY DRAIN TO TIE INTO FOUNDATION DRAIN SYSTEM. REFER TO ARCHITECTURAL PLANS
FOUNDATION DRAIN OUTLET INV OUT=374.67 (PUMPED) (SEE GENERAL NOTE #1)
FOUNDATION DRAIN OUTLET INV OUT=374.41 (PUMPED) (SEE GENERAL NOTE #1)
FOUNDATION DRAIN OUTLET INV OUT=372.92 (PUMPED) (SEE GENERAL NOTE #1)
LANDS N/F
TOWN OF HAYMARKET, VIRGINIA
GPIN 7298-80-9226
15026 WASHINGTON STREET
(OFFICE BUILDING) D.B. 2892, PG. 1537 ZONED: B-1
LANDS N/F
BRYAN A. GARCIA AND MARY E. GARCIA
GPIN 7298-80-8734
6691 FAYETTE STREET
(SFD DETACHED) INSTR. 200308040141972
ZONED: R-1
LANDS N/F
SATOSHI ETO
GPIN 7298-90-0463
6610 FAYETTE STREET
(RESIDENTIAL)
INSTR. #201503250022602
PARCEL C-2
ZONED: R-1
LANDS N/F
ERIC H. MATHEWS AND LORI A. CROUCH
GPIN 7298-90-1271
6600 FAYETTE STREET
(RESIDENTIAL)
ZONED: R-1
20' INGRESS/EGRESS EASEMENT DB. 1463, PG. 1637
ASPHALT DRIVEWAY
WOOD FENCE
6' WOOD FENCE
10' WOOD FENCE
FAYETTE STREET – ROUTE 1301
POSTED 25 MPH (ADT 450)
DESIGN 30 MPH
340.97' – 8"PVC @ 0.49%
388.64' – 8"PVC @ 1.36%
425'± TO INTX. GOSSOM MANOR PL.
190'± TO INTX. WASHINGTON STREET
EX. 12" DIP UG WATERLINE
EX. UG GASLINE
EDGE OF PAVEMENT
PROP MAILBOX

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-LSP.dwg

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LANDSCAPE PLAN
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
TOWN OF HAYMARKET
PRINCE WILLIAM COUNTY, VIRGINIA

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION	
SH/KF DESIGN	KF DRAWN	BG CHKD
SCALE	H: 1"=10' V: N/A	
JOB No.	00396-01-001	
DATE :	JULY 2018	
FILE No.	003096-D-CP-001	

SHEET 10 OF 22

Attachment: 2018-08-16 6675 Fayette Street 3rd Submission (3725 : 6675 Fayette Street, 3 Single Family Residential Lots, Site Plan, FINAL Approval)

PROP. POST-TOP LAMP SPECIFICATIONS

D623 LED LUMINAIRE
U.4.1.16
(OR APPROVED EQUAL)

D623
LED

PROJECT:

TYPE:

DESCRIPTION:
The D623 Luminaire is a versatile six sided post top lantern that is best suited for poles under 10' in height.

LED LUMINAIRE:
Multiple LED systems available with convection cooled driver, options for intensity, distribution and color. They operate with over voltage and short circuit protection and automatic voltage sensing for 120 to 277v input. (See next page for LED availability)
- 50,000+ hours of operational life
- Warm 3000K, neutral 4000K, or cool white 5000K color
- Dimmable (controller by others)
- Suitable for wet locations

ETL listed, suitable for wet locations.

INSTALLATION:
The luminaire will mount to a 3" OD post or tenon with 5/16" black oxide coated stainless steel set screws to ensure a solid connection.

LENSES:
- Clear Acrylic (**CA**)
- Prismatic Acrylic (**PA**)
- Textured Acrylic (**TA**)
- White Acrylic (**WA**)

EPA:
1.81

FINISH
Premium quality thermoset polyester powdercoat for a durable finish in the following:

BLK - Satin Black
CLB - Classic Bronze
GBZ - Gloss Textured Bronze
GRN - Green
GTB - Gloss Textured Black
TBK - Textured Black
TGR - Gloss Textured Green

Electrostatic sensitive device. observe precautions for handling

5 year limited warranty AMERILUX

POWDER COATED TODAY

Part String

Example: **D623/CA/LSK-SY-3H/BLK**

Ordering Information:

Model	Lens	LED System	Light Distribution	Order Code	Finish	Option
D623	CA PA TA WA	AVI VLE	AS SY	3H,4H,5H 3L,4L,5L	BLK,CLB GBZ,GRN GTB,TBK TGR Custom	PCL CHM (LSK & HLE only)

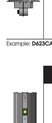
See next page for more complete ordering options

800.364.0098 • Fax: 281.997.5441 • www.amerlux.com

Amerlux reserves the right to change details that do not affect overall function and performance.

amerlux

LED Options (bold indicates ordering code)



LED System	Light Distribution	Code	CCT	CRI	Light Engine Lumens	Nominal Input Power
AVI	SY (Symmetric)	3H	3,000K	80	4,460 lm	60W
		4H	4,000K	80	5,100 lm	
		5H	5,000K	70	5,870 lm	
	AS (Asymmetric)	3H	3,000K	80	4,410 lm	
		4H	4,000K	80	5,050 lm	
		5H	5,000K	70	5,810 lm	
	SY	3L	3,000K	80	2,940 lm	41W
		4L	4,000K	80	3,460 lm	
		5L	5,000K	70	4,070 lm	
	AS	3L	3,000K	80	2,910 lm	
		4L	4,000K	80	3,420 lm	
		5L	5,000K	70	4,030 lm	

Example: **D623/CA/AVI-SY-3H/BLK**

LED System	Light Distribution	Order Code	CCT	CRI	Light Engine Lumens	Nominal Input Power	Dimmable
VLE	SY (Symmetric)	3H	3,000K	80	5,600 lm	80W	0-10V
		4H	4,000K	80	5,700 lm		
		5H	5,000K	70	6,000 lm		
	AS (Asymmetric)	3H	3,000K	80	4,200 lm	60W	
		4H	4,000K	80	4,300 lm		
		5H	5,000K	70	4,500 lm		
	SY	3L	3,000K	80	3,000 lm	40W	
		4L	4,000K	80	3,300 lm		
		5L	5,000K	70	3,600 lm		
	AS	3L	3,000K	80	2,200 lm	30W	
		4L	4,000K	80	2,500 lm		
		5L	5,000K	70	2,800 lm		

Example: **D623/CA/VLE-SY-3H/BLK**

PLANTING TABULATIONS

BUFFER YARD (PER Z.O. SECTION 58-17)

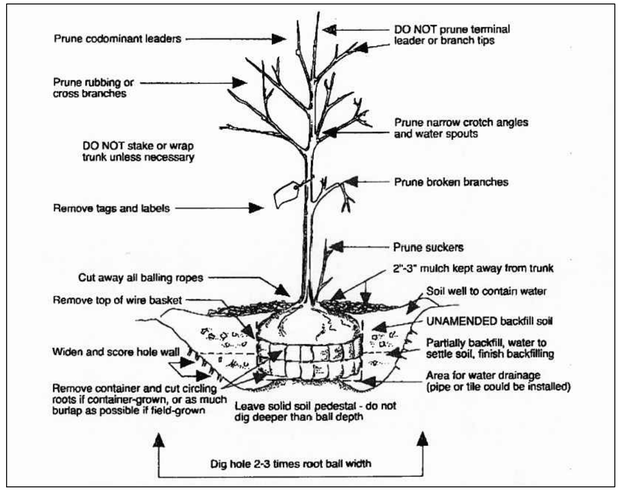
BUFFER YARD 'A' TO B-1 ZONING DISTRICT	LOT A	LOT B	LOT C
SQUARE FEET OF BUFFER YARD:	2,774 SF	2,565 SF	3,300 SF
TYPE OF BUFFER YARD REQUIRED:	TYPE TS-ALTERNATE #2	TYPE TS-ALTERNATE #2	TYPE TS-ALTERNATE #2
*BUFFER YARD PROVIDED:	MODIFIED TS	MODIFIED TS	MODIFIED TS
CANOPY TREES REQUIRED:	6 TREES (1 PER 500 SF)	5 TREES (1 PER 500 SF)	7 TREES (1 PER 500 SF)
CANOPY TREES PROVIDED:	4 TREES	4 TREES	4 TREES
SHRUBS REQUIRED:	28 SHRUBS (1 PER 100 SF)	26 SHRUBS (1 PER 100 SF)	33 SHRUBS (1 PER 100 SF)
SHRUBS PROVIDED:	0 SHRUBS	0 SHRUBS	0 SHRUBS
*ALTERNATIVE SCREENING ELEMENT:	6 FOOT HIGH SOLID WOOD FENCE	6 FOOT HIGH SOLID WOOD FENCE	6 FOOT HIGH SOLID WOOD FENCE

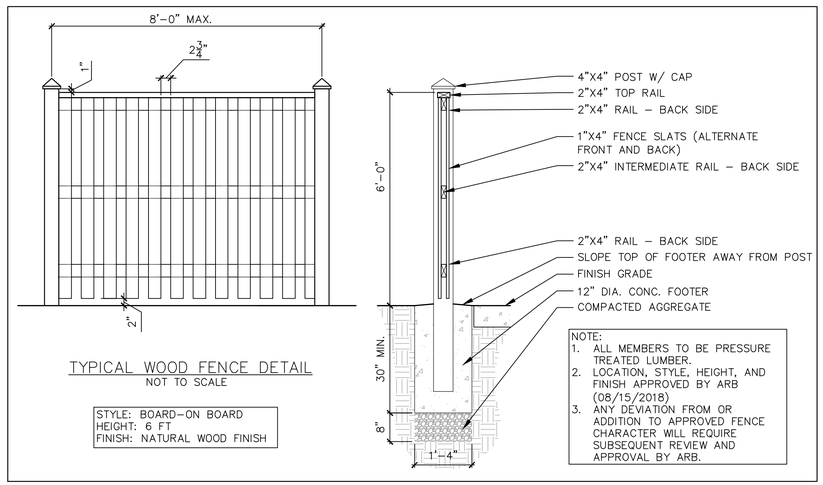
*NOTE:
APPLICANT REQUEST MODIFICATION OF BUFFER YARD PLANT UNIT REQUIREMENTS BASED ON PROVISION OF 6 FT WOOD FENCE PER Z.O. SECTION 58-17.8(C). SEE WAIVER REQUEST LETTER ON SHEET 2.

BUFFER YARD PLANT LIST

KEY	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	CONDITION
LARGE CANOPY TREES						
AR	4	ACER RUBRUM OCTOBER GLORY	RED MAPLE	-	2 1/2" CAL	B & B
CL	3	CLADRASTIS LUTEA	YELLOWWOOD	-	2 1/2" CAL	B & B
QP	5	QUERCUS PHELLOS	WILLOW OAK	-	2 1/2" CAL	B & B

TREE PLANTING





TYPICAL WOOD FENCE DETAIL
NOT TO SCALE

STYLE: BOARD-ON BOARD
HEIGHT: 6 FT
FINISH: NATURAL WOOD FINISH

NOTE:
1. ALL MEMBERS TO BE PRESSURE TREATED LUMBER.
2. LOCATION, STYLE, HEIGHT, AND FINISH APPROVED BY ARB (08/15/2018)
3. ANY DEVIATION FROM OR ADDITION TO APPROVED FENCE CHARACTER WILL REQUIRE SUBSEQUENT REVIEW AND APPROVAL BY ARB.

LEGEND

PROPOSED TREE

PROPOSED SHRUB

T26 EXISTING TREE TO BE REMOVED

LIMITS OF DISTURBANCE

SF SILT FENCE (SEE DETAIL ON SHEET 8)

TP TREE PROTECTION FENCE (SEE DETAIL ON THIS SHEET)

EXISTING TREE LINE

GENERAL LANDSCAPE NOTES

MATERIALS

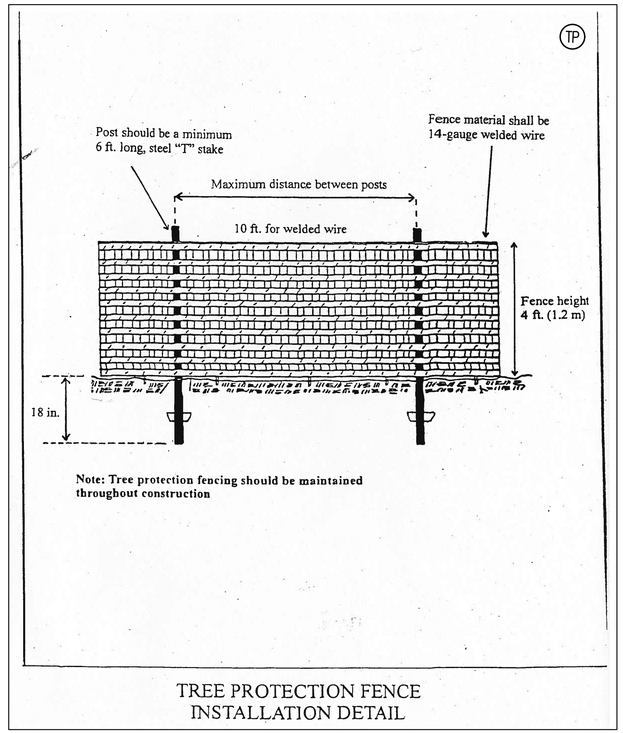
1. THE TREES AND SHRUBS THAT ARE PLANTED SHALL BE OF THE SPECIES AND SIZE SPECIFIED ON THE APPROVED PLANS UNLESS SUBSTITUTIONS ARE APPROVED BY THE CITY.
2. ALL TREE AND SHRUB SIZES SHALL MEET THE STANDARDS SPECIFIED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD FOR NURSERY STOCK, (ANSI Z60.1).

DELIVERY AND TEMPORARY STORAGE

1. PLANTS SHALL BE PROTECTED DURING DELIVERY TO PREVENT DESICCATION OF LEAVES.
2. TREES AND SHRUBS SHOULD BE PLANTED ON DAY OF DELIVERY. IF THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT UNPLANTED PLANTS BY KEEPING THEM IN SHADE, WATERED AND PROTECTED WITH SOIL, MULCH OR OTHER ACCEPTABLE MATERIAL.
3. TREES AND SHRUBS SHALL NOT REMAIN UNPLANTED FOR MORE THAN TWO WEEKS.

PLANTING OF NURSERY STOCK

1. ALL TREES AND SHRUBS SHALL BE PLANTED AS SPECIFIED IN THE LATEST EDITION OF THE "TREE AND SHRUB PLANTING GUIDELINES" PREPARED BY THE VIRGINIA COOPERATIVE EXTENSION, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY.
2. IF PLANTING IN AREAS THAT HAVE BEEN PREVIOUSLY COMPACTED, THE SOIL SHALL BE PROPERLY PREPARED (TILLED AND AMENDED AS NEEDED BASED ON SOIL SAMPLES) TO A DEPTH OF 1 FOOT (0.3 METERS), PRIOR TO INSTALLATION OF LANDSCAPE MATERIAL. SOIL WITHIN INDIVIDUAL PLANTING HOLES SHALL NOT BE AMENDED.
3. THE STAKING AND GUYING OF TREES IS NOT REQUIRED EXCEPT WHERE SITE CONDITIONS WARRANT THEIR USE. EXAMPLES OF CONDITIONS WHERE THESE METHODS MAY BE NECESSARY INCLUDE: PLANTING IN WINDY LOCATIONS, ON STEEP SLOPES, OR WHERE VANDALISM MAY BE A CONCERN. ALL STAKES AND GUYS MUST BE REMOVED WITHIN ONE YEAR OF PLANT INSTALLATION.
4. ALL TREES AND SHRUBS SHALL BE MULCHED AFTER PLANTING, TO A MINIMUM DEPTH OF 2 INCHES (5.1 CENTIMETERS), BUT NO MORE THAN 3 INCHES (7.6 CENTIMETERS), WITH AN APPROPRIATE MULCH MATERIAL SUCH AS PINE BARK, PINE NEEDLES, WOOD CHIPS OR SHREDDED BARK. MULCH SHALL COVER THE ENTIRE ROOT AREA AND SAUCER; HOWEVER, MULCH SHALL NOT BE PLACED WITHIN 6 INCHES (15.3 CENTIMETERS) OF THE TRUNK.



TREE PROTECTION FENCE INSTALLATION DETAIL

Bowman CONSULTING

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LANDSCAPE SCHEDULE, NOTES AND DETAILS

RESIDENTIAL SITE PLAN

6675 FAYETTE STREET

PRINCE WILLIAM COUNTY, VIRGINIA

TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD

SCALE H: N/A V: N/A

JOB No. 00396-01-001

DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 11 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-LSP.dwg

Project Summary & Analysis

PLAN TITLE: 6675 FAYETTE STREET

PWC PLAN NO.: _____

PWCSA Inspector: _____

Contractor(s): _____

Type of project (Check all that apply):

- ☒ Residential SFD
- ☐ Residential Townhouses
- ☐ Residential Multi-family
- ☐ Public Improvement Plan
- ☐ Road Plans
- ☐ Off Site Utilities
- ☐ Non-Residential 1 pad site
- ☐ Non-Residential 2-4 pad sites
- ☐ Non-Residential 5+ pad sites

Date Project Started: _____

Date All Water & Sanitary Sewer Mains Completed & Tested: _____

Date Full Beneficial Use Assigned: _____

Date Released from Bond: _____

Number of lots or pad sites: 3

Quantity of water main: _____

Number of meter taps to the main: 3 LOTS

Quantity of sewer main: _____

Number of manholes: _____

Number of lateral connects to the main: 3 LOTS

Description of major factors that added significant inspection time (rock, bores, night work, restrictions in right-of-way, temporary services, pump arounds, etc.)

Project Proficiency: _____
(Rate project on a scale of 1 to 5 with 1 being the most proficient.)

Estimated Total Office/Mis. Time: _____

Estimated Total Field Time: _____

Number of Beneficial Use Inspections and Estimated Time: _____

Number of Bond Release Inspections and Estimated Time: _____

Estimated Total Time: _____

WATER INFORMATION

Date:	Total Field Time Spent For Day:	Stations:	Pipe Size:	Footage:	Comments:

SANITARY SEWER INFORMATION

Date:	Total Field Time Spent For Day:	Stations:	Pipe Size & Material:	% of Grade:	Footage:	Comments:

SHEET REVISED AS OF MARCH, 2013

PWCSA INSPECTOR WATER & SANITARY SEWER LOG SHEET

Service Authority
Prince William County

Bowman CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
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Chantilly, Virginia 20151

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PWCSA INSPECTOR LOG SHEET
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
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DESIGN	DRAWN	CHKD

SCALE H: N/A V: N/A

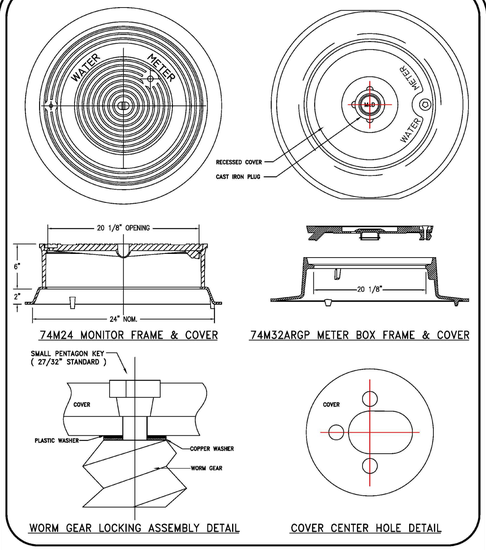
JOB No. 00396-01-001

DATE : JULY 2018

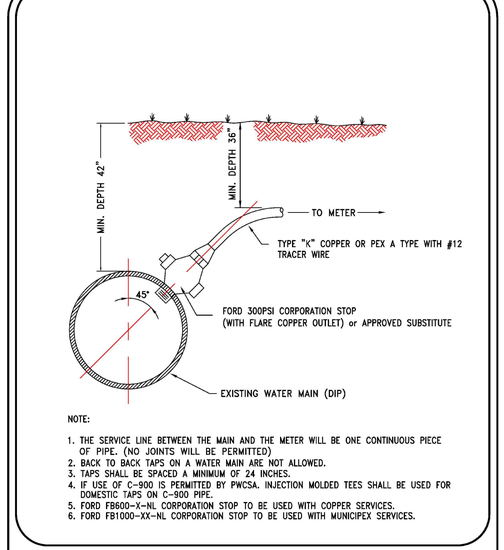
FILE No. 003096-D-CP-001

SHEET 12 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-PWCSA LOG.dwg



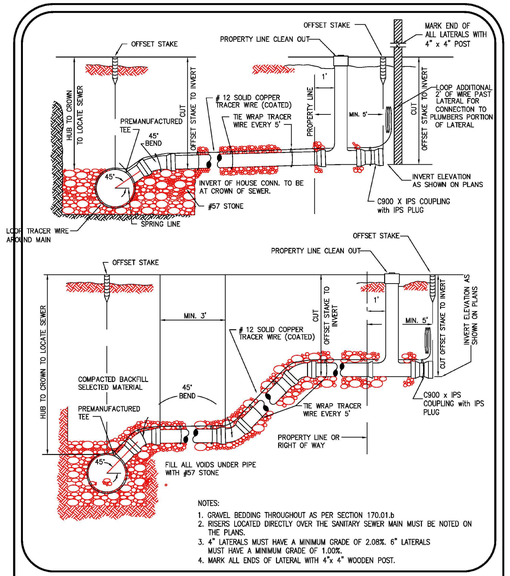
5/8" x 3/4" AND 1" WATER METER AND MONITOR FRAME & COVER DETAIL
N.T.S.
W10.07.01
REV-2017



NOTE:

1. THE SERVICE LINE BETWEEN THE MAIN AND THE METER WILL BE ONE CONTINUOUS PIECE OF PIPE. (NO JOINTS WILL BE PERMITTED)
2. BACK TO BACK TAPS ON A WATER MAIN ARE NOT ALLOWED.
3. TAPS SHALL BE SPACED A MINIMUM OF 24 INCHES.
4. IF USE OF C-900 IS PERMITTED BY PWCSA. INJECTION MOLDED TEES SHALL BE USED FOR DOMESTIC TAPS ON C-900 PIPE.
5. FORD FB600-X-NL CORPORATION STOP TO BE USED WITH COPPER SERVICES.
6. FORD FB1000-XX-NL CORPORATION STOP TO BE USED WITH MUNICIPEX SERVICES.

3/4" WATER SERVICE CONNECTION DETAIL
N.T.S.
W11.07.01
REV-2017



NOTES:

1. GRAVEL BEDDING THROUGHOUT AS PER SECTION 170.01.b
2. RISERS LOCATED DIRECTLY OVER THE SANITARY SEWER MAIN MUST BE NOTED ON THE PLANS.
3. 4" LATERALS MUST HAVE A MINIMUM GRADE OF 2.08%. 6" LATERALS MUST HAVE A MINIMUM GRADE OF 1.00%.
4. MARK ALL ENDS OF LATERAL WITH 4"x 4" WOODEN POST.

SEWER SERVICE CONNECTION/REPLACEMENT PROFILE VIEW FOR PUBLIC RIGHT-OF-WAY
N.T.S.
S02.17.00
REV-2017

NOTES:

1. ALL WATER METERS SHALL REGISTER IN GALLONS AND BE SET LEVEL - METERS PROVIDED BY PWCSA.
2. 36" OF COVER SHALL BE REQUIRED OVER SERVICES FROM DISTRIBUTION MAIN TO METER BOX.
3. METER BOX SHALL BE ONE PIECE CONSTRUCTION OF CONCRETE, PVC, OR RIGID FIBERGLASS. (NOT ORANGEBURG)
4. METER YOKE SHALL INCLUDE ONE ¾" ANGLE VALVE AND ONE BACKFLOW PREVENTER.
5. ALL FITTINGS SHALL BE FLARED. (SOLDERED FITTINGS WILL NOT BE PERMITTED)
6. SERVICE LINE LEAVING METER BOX SHALL BE STUBBED OUT AT LEAST 5' WITH TYPE "K" COPPER OR MUNICIPEX PIPE.
7. METER SET BEHIND SIDEWALK - NOT IN DRIVEWAY, WALKWAYS, ETC.
8. THE SERVICE LINE BETWEEN THE MAIN AND THE METER WILL BE ONE CONTINUOUS PIECE OF PIPE. (NO JOINTS WILL BE PERMITTED)
9. ALL YARD IRRIGATION CONNECTIONS WILL BE MADE AT THE END OF THE 5-FOOT STUB ON THE HOUSE SIDE. (NO CONNECTIONS WILL BE PERMITTED INSIDE THE METER BOX)
10. FORD 500P SERIES (OR EQUIVALENT) YOKE AND 1" DIAMETER GALVANIZED STEEL TUBING TO BE USED WITH MUNICIPEX SERVICES.
11. FORD FB600-X-NL CORPORATION STOP TO BE USED WITH COPPER SERVICE.
10. FORD FB1000-XX-NL CORPORATION STOP TO BE USED WITH MUNICIPEX SERVICES.

5/8" X 3/4" RESIDENTIAL METER
N.T.S.
W01.07.01
REV-2017

MID STATE Concrete Products Santa Maria, Ca.

PRECAST CONCRETE SPLASH BLOCK

REV. 07/06

Bowman
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PWCSA DETAILS

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6675 FAYETTE STREET
TOWN OF HAYMARKET
PRINCE WILLIAM COUNTY, VIRGINIA

SP2018-001
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08/16/2018
PROFESSIONAL ENGINEER

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DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD

SCALE H: N/A V: N/A

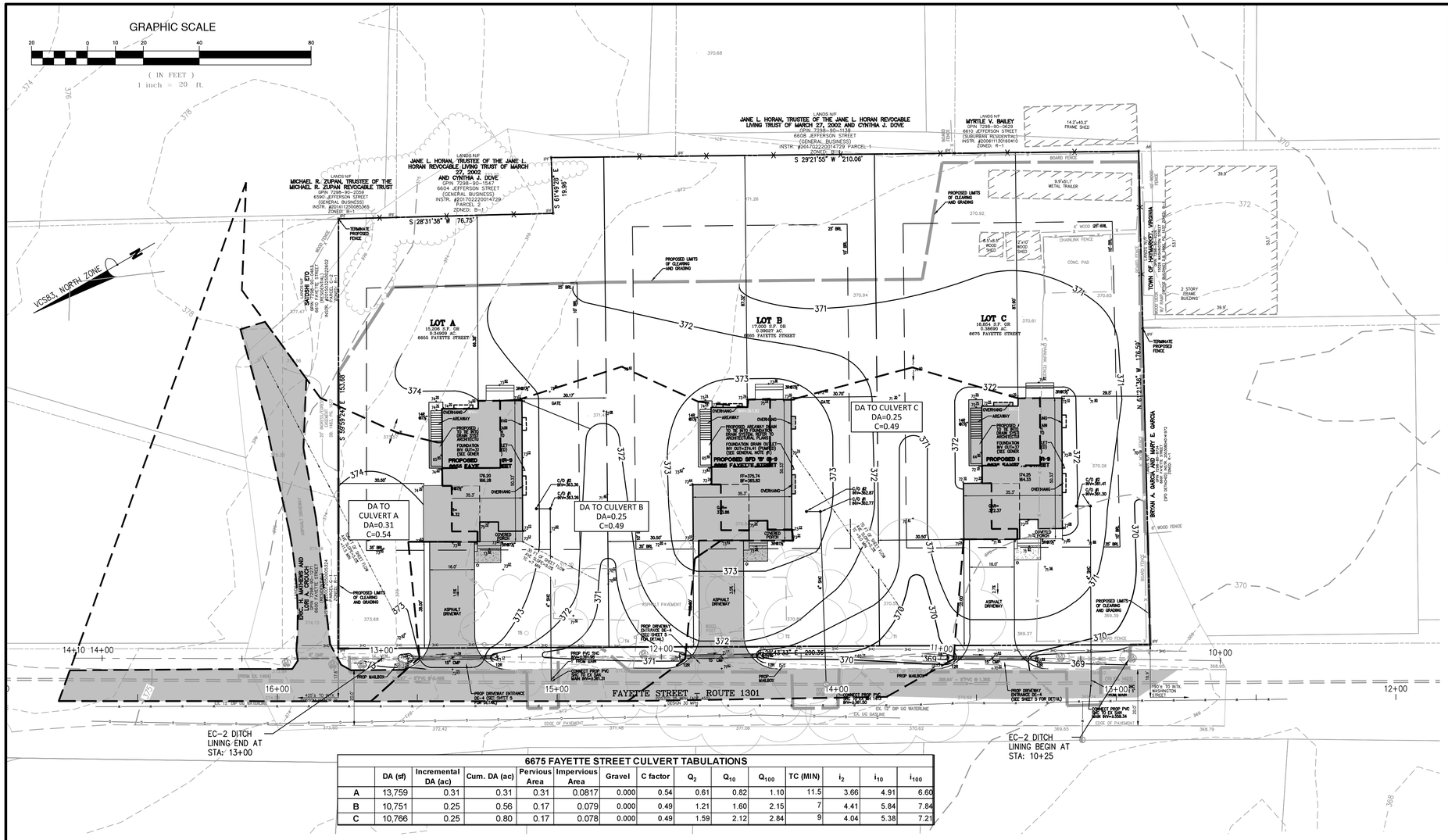
JOB No. 00396-01-001

DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 13 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-SITE DET.dwg



LEGEND

- LIMITS OF CLEARING & GRADING
- 40 EXISTING CONTOUR
- 40 PROPOSED CONTOUR
- +50.18 PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE DIVIDE
- PROPOSED CULVERT
- IMPERVIOUS AREA
- DA TO XX DA=XX C=XX — DRAINAGE AREA LABEL
- TIME OF CONCENTRATION PATH

6675 FAYETTE STREET CULVERT TABULATIONS

	DA (sf)	Incremental DA (ac)	Cum. DA (ac)	Pervious Area	Impervious Area	Gravel	C factor	Q_2	Q_{10}	Q_{100}	TC (MIN)	i_2	i_{10}	i_{100}
A	13,759	0.31	0.31	0.31	0.0817	0.000	0.54	0.61	0.82	1.10	11.5	3.66	4.91	6.60
B	10,751	0.25	0.56	0.17	0.079	0.000	0.49	1.21	1.60	2.15	7	4.41	5.84	7.84
C	10,766	0.25	0.80	0.17	0.078	0.000	0.49	1.59	2.12	2.84	9	4.04	5.38	7.21

100-YR STORM CULVERT SUMMARY:

Culvert Calculator Report
Fayette Street - Culvert A 100-YR

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	373.29 ft	Headwater Depth/Height	0.45
Computed Headwater Elevation	371.90 ft	Discharge	1.07 cfs
Inlet Control HW Elev.	371.82 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	371.90 ft	Control Type	Outlet Control

Culvert Calculator Report
Fayette Street - Culvert B 100-YR

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	371.98 ft	Headwater Depth/Height	0.74
Computed Headwater Elevation	370.94 ft	Discharge	2.01 cfs
Inlet Control HW Elev.	370.84 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	370.94 ft	Control Type	Outlet Control

Culvert Calculator Report
Fayette Street - Culvert C 100-YR

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	370.83 ft	Headwater Depth/Height	0.95
Computed Headwater Elevation	370.04 ft	Discharge	2.87 cfs
Inlet Control HW Elev.	369.88 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	370.04 ft	Control Type	Outlet Control

Culvert Calculator Report
Fayette Street - Culvert A
10-YR STORM

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	373.29 ft	Headwater Depth/Height	0.45
Computed Headwater Elevation	371.90 ft	Discharge	0.82 cfs
Inlet Control HW Elev.	371.82 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	371.90 ft	Control Type	Outlet Control

Grades			
Upstream Invert	371.33 ft	Downstream Invert	371.17 ft
Length	32.00 ft	Constructed Slope	0.005000 ft/ft

Hydraulic Profile			
Profile	M2	Depth, Downstream	0.35 ft
Slope Type	Mild	Normal Depth	0.50 ft
Flow Regime	Subcritical	Critical Depth	0.35 ft
Velocity Downstream	2.94 ft/s	Critical Slope	0.017775 ft/ft

Section			
Section Shape	Circular	Mannings Coefficient	0.024
Section Material	CMP	Span	1.25 ft
Section Size	15 inch	Rise	1.25 ft
Number Sections	1		

Outlet Control Properties			
Outlet Control HW Elev.	371.90 ft	Upstream Velocity Head	0.05 ft
Ke	0.70	Entrance Loss	0.04 ft

Inlet Control Properties			
Inlet Control HW Elev.	371.82 ft	Flow Control	Unsubmerged
Inlet Type	Mitered to slope	Area Full	1.2 ft²
K	0.02100	HDS 5 Chart	2
M	1.33000	HDS 5 Scale	2
C	0.04630	Equation Form	1
Y	0.75000		

Culvert Calculator Report
Fayette Street - Culvert B
10-YR STORM

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	371.98 ft	Headwater Depth/Height	0.63
Computed Headwater Elevation	370.79 ft	Discharge	1.60 cfs
Inlet Control HW Elev.	370.71 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	370.79 ft	Control Type	Outlet Control

Grades			
Upstream Invert	370.01 ft	Downstream Invert	369.80 ft
Length	30.00 ft	Constructed Slope	0.007000 ft/ft

Hydraulic Profile			
Profile	M2	Depth, Downstream	0.48 ft
Slope Type	Mild	Normal Depth	0.66 ft
Flow Regime	Subcritical	Critical Depth	0.50 ft
Velocity Downstream	3.64 ft/s	Critical Slope	0.018211 ft/ft

Section			
Section Shape	Circular	Mannings Coefficient	0.024
Section Material	CMP	Span	1.25 ft
Section Size	15 inch	Rise	1.25 ft
Number Sections	1		

Outlet Control Properties			
Outlet Control HW Elev.	370.79 ft	Upstream Velocity Head	0.09 ft
Ke	0.70	Entrance Loss	0.06 ft

Inlet Control Properties			
Inlet Control HW Elev.	370.71 ft	Flow Control	N/A
Inlet Type	Mitered to slope	Area Full	1.2 ft²
K	0.02100	HDS 5 Chart	2
M	1.33000	HDS 5 Scale	2
C	0.04630	Equation Form	1
Y	0.75000		

Culvert Calculator Report
Fayette Street - Culvert C
10-YR STORM

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	370.83 ft	Headwater Depth/Height	0.78
Computed Headwater Elevation	369.83 ft	Discharge	2.12 cfs
Inlet Control HW Elev.	369.71 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	369.83 ft	Control Type	Outlet Control

Grades			
Upstream Invert	368.85 ft	Downstream Invert	368.69 ft
Length	32.00 ft	Constructed Slope	0.005000 ft/ft

Hydraulic Profile			
Profile	M2	Depth, Downstream	0.58 ft
Slope Type	Mild	Normal Depth	0.89 ft
Flow Regime	Subcritical	Critical Depth	0.58 ft
Velocity Downstream	3.80 ft/s	Critical Slope	0.018895 ft/ft

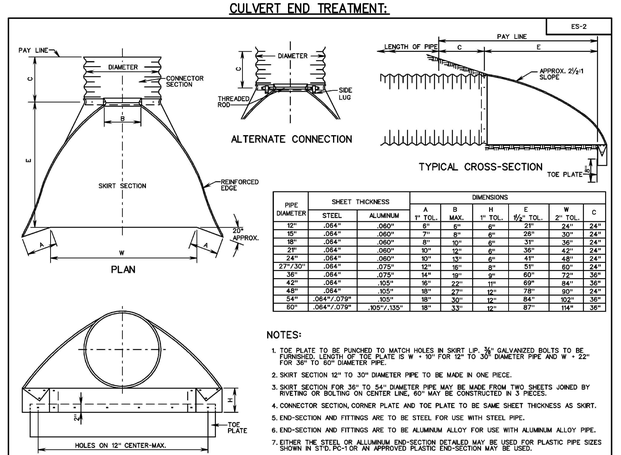
Section			
Section Shape	Circular	Mannings Coefficient	0.024
Section Material	CMP	Span	1.25 ft
Section Size	15 inch	Rise	1.25 ft
Number Sections	1		

Outlet Control Properties			
Outlet Control HW Elev.	369.83 ft	Upstream Velocity Head	0.10 ft
Ke	0.70	Entrance Loss	0.07 ft

Inlet Control Properties			
Inlet Control HW Elev.	369.71 ft	Flow Control	Unsubmerged
Inlet Type	Mitered to slope	Area Full	1.2 ft²
K	0.02100	HDS 5 Chart	2
M	1.33000	HDS 5 Scale	2
C	0.04630	Equation Form	1
Y	0.75000		

CULVERT END TREATMENT:

ES-2



PIPE DIAMETER	SHEET THICKNESS		DIMENSIONS					
	STEEL	ALUMINUM	A ±1" TOL.	B MAX.	H 1" TOL.	E 6½" TOL.	W 2" TOL.	C
12"	.064"	.060"	6"	6"	6"	21"	24"	24"
15"	.064"	.060"	7"	8"	6"	26"	30"	24"
18"	.064"	.060"	8"	10"	6"	31"	36"	24"
21"	.064"	.060"	10"	12"	6"	36"	42"	24"
24"	.064"	.060"	10"	13"	6"	41"	48"	24"
27"/30"	.064"	.075"	12"	16"	8"	51"	60"	24"
36"	.064"	.075"	14"	19"	8"	60"	72"	36"
42"	.064"	.105"	16"	22"	11"	69"	84"	36"
48"	.064"	.105"	18"	27"	12"	78"	90"	24"
54"	.064"/.079"	.105"	18"	30"	12"	84"	102"	36"
60"	.064"/.079"	.105"/.135"	18"	33"	12"	87"	114"	36"

NOTES:

1. TOE PLATE TO BE PUNCHED TO MATCH HOLES IN SKIRT LIP. ⅜" GALVANIZED BOLTS TO BE FURNISHED. LENGTH OF TOE PLATE IS W + 10" FOR 12" TO 30" DIAMETER PIPE AND W + 22" FOR 36" TO 60" DIAMETER PIPE.
2. SKIRT SECTION 12" TO 30" DIAMETER PIPE TO BE MADE IN ONE PIECE.
3. SKIRT SECTION FOR 36" TO 54" DIAMETER PIPE MAY BE MADE FROM TWO SHEETS JOINED BY RIVETING OR BOLTING ON CENTER LINE, 60" MAY BE CONSTRUCTED IN 3 PIECES.
4. CONNECTOR SECTION, CORNER PLATE AND TOE PLATE TO BE SAME SHEET THICKNESS AS SKIRT.
5. END-SECTION AND FITTINGS ARE TO BE STEEL FOR USE WITH STEEL PIPE.
6. END-SECTION AND FITTINGS ARE TO BE ALUMINUM ALLOY FOR USE WITH ALUMINUM ALLOY PIPE.
7. EITHER THE STEEL OR ALLUMINUM END-SECTION DETAILED MAY BE USED FOR PLASTIC PIPE SIZES SHOWN IN STD. PO-1OR AN APPROVED PLASTIC END-SECTION MAY BE USED.
8. WHERE FLARED END SECTION ARE TO BE USED WITH ASPHALT COATED AND PAVED METAL PIPE, END SECTIONS DO NOT NEED TO BE COATED OR PAVED.

SPECIFICATION REFERENCE	FLARED END SECTION	VDOT ROAD AND BRIDGE STANDARDS
302	12" - 60" CORRUGATED PIPE CULVERTS VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: — SHEET 1 OF 1 102.03

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CULVERT COMPUTATIONS
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

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DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD
SCALE	H: 1"=20' V: N/A	
JOB No. 00396-01-001		
DATE : JULY 2018		
FILE No. 003096-D-CP-001		
SHEET 14 OF 22		

Attachment: 2018-08-16 6675 Fayette Street 3rd Submission (3725 : 6675 Fayette Street, 3 Single Family Residential Lots, Site Plan, FINAL Approval)

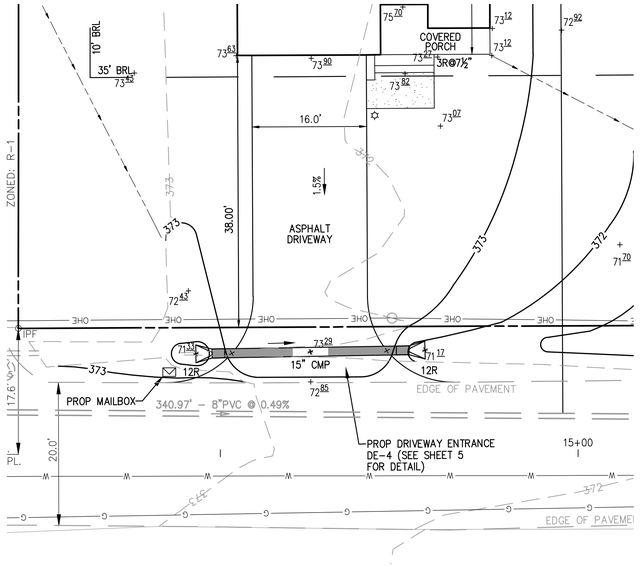
Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-DDV.dwg

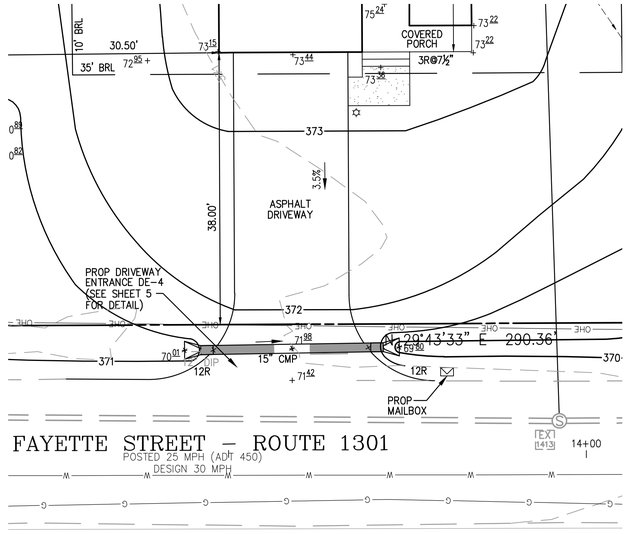
GRAPHIC SCALE

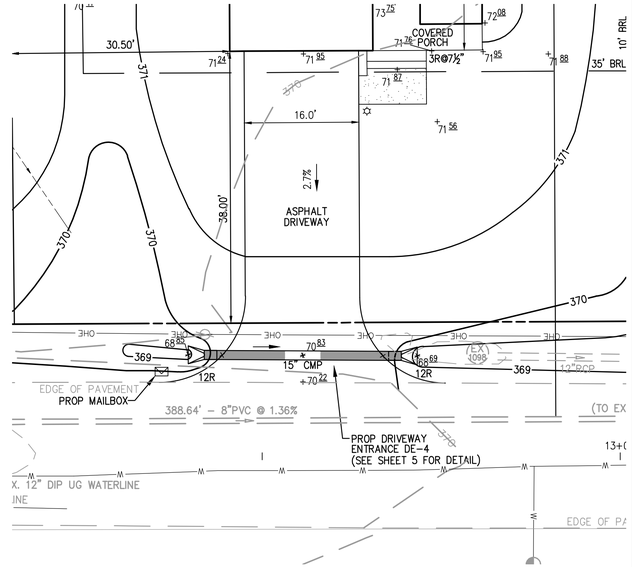
20 0 10 20 40 80

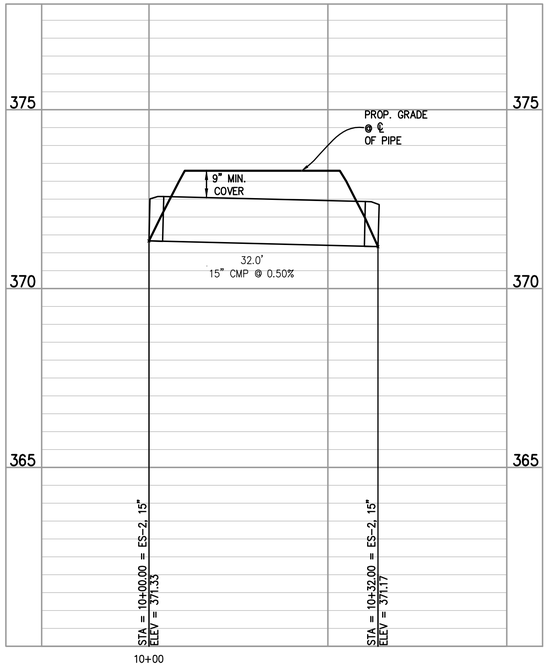
(IN FEET)
1 inch = 20 ft.

VCS83, NORTH ZONE

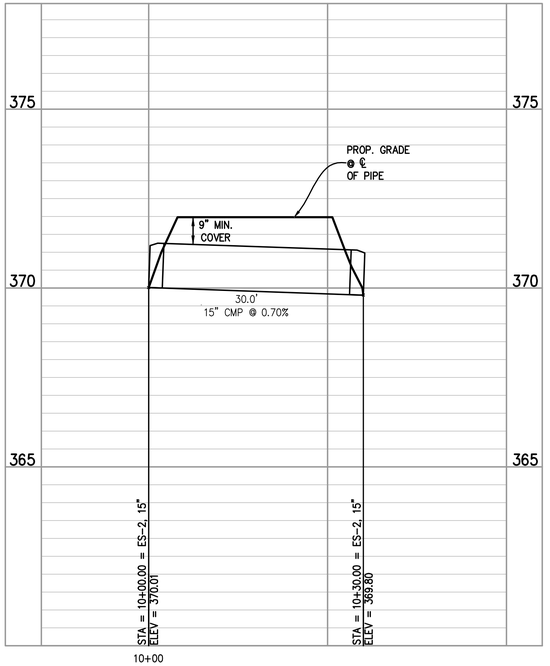




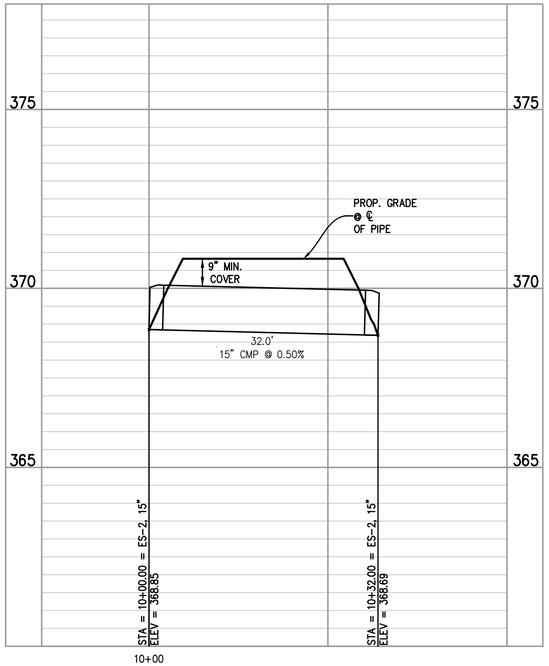




CULVERT 'A' PROFILE VIEW
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=2'



CULVERT 'B' PROFILE VIEW
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=2'



CULVERT 'C' PROFILE VIEW
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=2'

NOTE: REFER TO SHEET 14 FOR CULVERT END TREATMENT DETAIL.

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CULVERT PROFILES

RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION
DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD
SCALE	H: 1"=20' V: N/A	
JOB No. 00396-01-001		
DATE : JULY 2018		
FILE No. 003096-D-CP-001		
SHEET 15 OF 22		

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-DDV.dwg

WATER QUALITY COMPUTATIONS:

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

BMP Design Specifications List: **2013 Draft Stds & Specs**

Site Summary

Project Title: 6675 Fayette Street
Date: 43328

Total Rainfall (in):	43
Total Disturbed Acreage:	0.99

Site Land Cover Summary

Pre-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.92	0.00	0.92	93
Impervious Cover (acres)	0.00	0.00	0.07	0.00	0.07	7
					0.99	100

Post-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.81	0.00	0.81	82
Impervious Cover (acres)	0.00	0.00	0.18	0.00	0.18	18
					0.99	100

Site Tv and Land Cover Nutrient Loads

	Final Post-Development (Post-ReDevelopment & New Impervious)	Post-ReDevelopment	Post-Development (New Impervious)	Adjusted Pre-ReDevelopment
Site Rv	0.35	0.28	0.95	0.28
Treatment Volume (ft³)	1,259	893	366	893
TP Load (lb/yr)	0.79	0.56	0.23	0.56

Pre-ReDevelopment TP Load per acre (lb/acre/yr)	Final Post-Development TP Load per acre (lb/acre/yr)	Post-ReDevelopment TP Load per acre (lb/acre/yr)
0.63	0.80	0.63

Total TP Load Reduction Required (lb/yr)	0.24	0.06	0.19

	Final Post-Development Load (Post-ReDevelopment & New Impervious)	Pre-ReDevelopment
TN Load (lb/yr)	5.66	4.39

Site Compliance Summary

Maximum % Reduction Required Below Pre-ReDevelopment Load	10%

Total Runoff Volume Reduction (ft³)	540	
Total TP Load Reduction Achieved (lb/yr)	0.34	
Total TN Load Reduction Achieved (lb/yr)	2.42	
Remaining Post Development TP Load (lb/yr)	0.45	
Remaining TP Load Reduction (lb/yr) Required	0.00	** TARGET TP REDUCTION EXCEEDED BY 0.1 LB/YEAR **

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.24	0.26	0.32	0.00	0.00	0.81
Impervious Cover (acres)	0.06	0.06	0.06	0.00	0.00	0.18
Total Area (acres)	**0.30**	**0.31**	**0.38**	**0.00**	**0.00**	**0.99**

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Reduced (lb/yr)	0.10	0.11	0.12	0.00	0.00	0.34
TN Load Reduced (lb/yr)	0.75	0.79	0.89	0.00	0.00	2.42

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.24	0.00	0.24	80
Impervious Cover (acres)	0.00	0.00	0.06	0.00	0.06	20
					0.30	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
2.b. Simple Disconnection to C/D Soils (Spec #1)		0.040013774	137.99	0.00	0.09	0.02	0.06	9.c. Sheetflow to Vegetated Filter Strip
5.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	0.2		263.21	0.06	0.10	0.08	0.08	

Total Impervious Cover Treated (acres)	0.04
Total Turf Area Treated (acres)	0.20
Total TP Load Reduction Achieved in D.A. (lb/yr)	0.10
Total TN Load Reduction Achieved in D.A. (lb/yr)	0.75

Drainage Area B Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.26	0.00	0.26	81
Impervious Cover (acres)	0.00	0.00	0.06	0.00	0.06	19
					0.31	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
2.b. Simple Disconnection to C/D Soils (Spec #1)		0.040610652	140.05	0.00	0.09	0.02	0.07	9.c. Sheetflow to Vegetated Filter Strip
5.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	0.22		280.73	0.07	0.11	0.09	0.09	

Total Impervious Cover Treated (acres)	0.04
Total Turf Area Treated (acres)	0.22
Total TP Load Reduction Achieved in D.A. (lb/yr)	0.11
Total TN Load Reduction Achieved in D.A. (lb/yr)	0.79

Drainage Area C Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.32	0.00	0.32	84
Impervious Cover (acres)	0.00	0.00	0.06	0.00	0.06	16
					0.38	

BMP Selections

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft³)	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
2.b. Simple Disconnection to C/D Soils (Spec #1)		0.040013774	137.99	0.00	0.09	0.02	0.06	9.c. Sheetflow to Vegetated Filter Strip
5.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	0.28		327.10	0.06	0.14	0.10	0.10	

Total Impervious Cover Treated (acres)	0.04
Total Turf Area Treated (acres)	0.28
Total TP Load Reduction Achieved in D.A. (lb/yr)	0.12
Total TN Load Reduction Achieved in D.A. (lb/yr)	0.89

WATER QUANTITY COMPUTATIONS:

Runoff Volume and CN Calculations

	1-year storm	2-year storm	10-year storm
Target Rainfall Event (in)	2.52	3.04	4.64

Drainage Areas	RV & CN	Drainage Area A	Drainage Area B	Drainage Area C	Drainage Area D	Drainage Area E
CN		70	78	78	0	0
RR (ft³)		166	173	198	0	0
1-year return period	RV wo RR (wo-in)	0.85	0.80	0.80	0.00	0.00
	RV w RR (wo-in)	0.70	0.65	0.66	0.00	0.00
	CN adjusted	76	75	75	0	0
2-year return period	RV wo RR (wo-in)	1.22	1.16	1.16	0.00	0.00
	RV w RR (wo-in)	1.06	1.00	1.01	0.00	0.00
	CN adjusted	76	75	75	0	0
10-year return period	RV wo RR (wo-in)	2.49	2.41	2.41	0.00	0.00
	RV w RR (wo-in)	2.34	2.26	2.26	0.00	0.00
	CN adjusted	77	76	76	0	0

SITE CURVE NUMBERS

	1 - YEAR	2 - YEAR	10-YEAR
EXISTING CONDITIONS	76	76	76
PROPOSED CONDITIONS (ADJUSTED)	75	75	76

Rainfall Depth (P)	
1 Year	2.52
2 Year	3.04
10 Year	4.64

Pre-Development Site Conditions:

DA (acres) =	0.990
DA (mi^2) =	0.001547
CN=	76
Tc=	0.083333
S = 1000/CN -10=	3.157895
Ia = 0.2S =	0.631579
Q (1 year)= [(P-0.2S)^2] /(P+0.8S)=	0.707 in
Q (2 year)= [(P-0.2S)^2] /(P+0.8S)=	1.042 in
Q (10 year)= [(P-0.2S)^2] /(P+0.8S)=	2.242 in

Pre-Development Peak Discharge:

q (1 year) = qu*Am*Q*Fp =	1.093 cfs
q (2 year) = qu*Am*Q*Fp =	1.612 cfs
q (10 year) = qu*Am*Q*Fp =	3.469 cfs

Post-Development Site Conditions (1-year):

DA (acres) =	0.990
DA (mi^2) =	0.001547
Adjusted CN(1 year)=	75
Tc=	0.083333
S = 1000/CN -10=	3.333333
Ia = 0.2S =	0.666667
Q (1 year)= [(P-0.2S)^2] /(P+0.8S)=	0.662 in

Post-Development Peak Discharge:

q (1 year) = qu*Am*Q*Fp =	1.024 cfs

Post-Development Site Conditions (2-year):

DA (acres) =	0.990083
DA (mi^2) =	0.001547
Adjusted CN(2 year)=	75
Tc=	0.083333
S = 1000/CN -10=	3.333333
Ia = 0.2S =	0.666667
Q (2 year)= [(P-0.2S)^2] /(P+0.8S)=	0.987 in

Post-Development Peak Discharge:

q (2 year) = qu*Am*Q*Fp =	1.527 cfs

Post-Development Site Conditions (10-year):

DA (acres) =	0.990083
DA (mi^2) =	0.001547
Adjusted CN(10 year)=	76
Tc=	0.083333
S = 1000/CN -10=	3.157895
Ia = 0.2S =	0.631579
Q (10 year)= [(P-0.2S)^2] /(P+0.8S)=	2.242 in

Post-Development Peak Discharge:

q (10 year) = qu*Am*Q*Fp =	3.469 cfs

STORMWATER MANAGEMENT NARRATIVE:

FLOOD PROTECTION

WITH THE USE OF ROOFTOP DISCONNECTIONS AND COMPOST SOIL AMENDMENTS, THE POST-DEVELOPMENT STORMWATER PEAK FLOW DISCHARGE IS EQUAL TO THE PRE-DEVELOPMENT DISCHARGE. THE PRE-DEVELOPMENT PEAK FLOW AND THE POST-DEVELOPMENT PEAK FLOW IS 3.469 CFS FOR THE 10-YEAR 24-HOUR STORM, SEE THE WATER QUANTITY COMPUTATIONS ON THIS SHEET.

CHANNEL PROTECTION:

PURSUANT TO 9VAC25-870-66 SECTION B.1.b., THE MAXIMUM PEAK FLOW RATE FROM THE 1-YEAR 24-HOUR STORM SHALL BE CALCULATED IN ACCORDANCE WITH THE FOLLOWING METHODOLOGY:

Q DEVELOPED ≤ I.F. * (Q PRE-DEVELOPED * RV PRE-DEVELOPED)/ RV DEVELOPED
WHERE I.F. = 0.9 FOR SITES < 1 ACRE.

Q PRE DEVELOPED (1 YEAR) = 1.093 CFS
Q DEVELOPED (1 YEAR) = 1.024 CFS
RV PRE-DEVELOPED = (0.707 IN/12 IN) * (43,128 SF) = 2541 CF
RV DEVELOPED = (0.662 IN/12 IN) * (43,128 SF) = 2379 CF

Q DEVELOPED ≤ 0.9*(1.093 CFS * 2541 CF)/(2379 CF) = 1.051 CFS
Q DEVELOPED = 1.024 CFS ≤ 1.051 CFS

WATER QUALITY / BMP NARRATIVE:

THE PROPOSED DEVELOPMENT IS SUBJECT TO THE RE-DEVELOPMENT CRITERIA OF THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM). AS SUCH, THE SUBJECT SITE IS REQUIRED TO REMOVE 0.24 LB/YR OF TOTAL PHOSPHORUS (TP). THE PROPOSED DESIGN, AS SHOWN IN THE VRRM SUMMARY ON THIS SHEET, REMOVES 0.34 LB/YR OF TP.

THE APPLICANT PROPOSES TO DISCONNECT THE ROOF DRAINS AND ALLOW THE RUNOFF TO RETURN TO A SHEET FLOW CONDITION OVER STABILIZED COMPOST AMENDED SOILS TO IMPROVE THE HYDROLOGY OF THE EXISTING ONSITE SOILS. IN ACCORDANCE WITH TABLE 4.3 IN DEQ SPECIFICATION NO.4 – SOIL COMPOST AMENDMENT, THE APPLICANT WILL INCORPORATE 6" OF APPROVED COMPOST WITH A TILLER TO A DEPTH OF 12".

THE EXISTING CONDITION CURRENTLY HAS A CURVE NUMBER OF 76 FOR THE 1-, 2-, AND 10-YEAR STORMS. IN THE PROPOSED CONDITIONS THE ADJUSTED SITE CURVE NUMBERS FOR THE 1-, 2-, AND 10-YEAR STORM ARE 74, 75, AND 76, RESPECTIVELY. THEREFORE, THE PROPOSED COMPOST AMENDED SOILS IMPROVE THE HYDROLOGY OF THE EXISTING ONSITE SOILS FOR THE 1- AND 2-YEAR STORMS AND MAINTAINS THE EXISTING HYDROLOGY IN THE 10-YEAR STORM. REFER TO THE SITE CURVE NUMBER TABLE ON THIS SHEET.

IN PROPOSING THE ABOVE, THE APPLICANT ACHIEVES THE REQUIRED REDUCTION OF POLLUTANTS AND POST-DEVELOPMENT RUNOFF AND THEREFORE MEETS THE TOWN OF HAYMARKET'S STORMWATER REGULATIONS AND THE COMMONWEALTH OF VIRGINIA STORMWATER ACT.

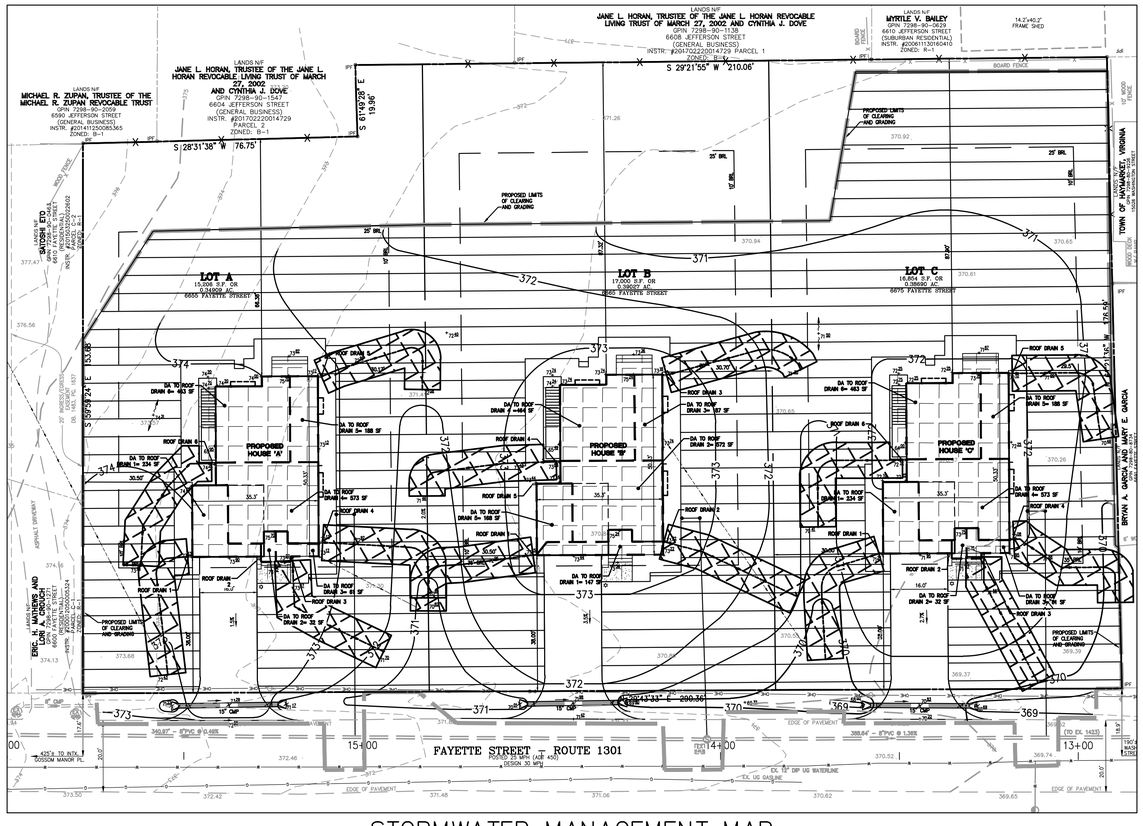
LEGEND

- LIMITS OF CLEARING & GRADING
- 40 EXISTING CONTOUR
- 40 PROPOSED CONTOUR
- 50.18 PROPOSED SPOT ELEVATION
- EXISTING TREELINE
- IMPERVIOUS ROOF AREA TO SOIL COMPOST AMENDMENT – C SOIL — TOTAL = 5,319 SF (0.12 AC)
- SOIL COMPOST AMENDMENT SURFACE AREA – C SOIL — TOTAL = 30,405 SF (0.70 AC)
- FLOW PATH (LENGTH = 40 LF, WIDTH = 10 LF)

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

VCS83, NORTH ZONE



STORMWATER MANAGEMENT MAP

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STORMWATER MANAGEMENT PLAN
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
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DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD
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JOB No.	00396-01-001	
DATE :	JULY 2018	
FILE No.	003096-D-CP-001	
SHEET	16 OF 22	

Attachment: 2018-08-16 6675 Fayette Street 3rd Submission (3725 : 6675 Fayette Street, 3 Single Family Residential Lots, Site Plan, FINAL Approval)

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-DDV.dwg

ROOFTOP DISCONNECTION (SPEC #1) SPECIFICATIONS:

Table 1.2: Simple Rooftop Disconnection Design Criteria [1]

DESIGN FACTOR	SIMPLE DISCONNECTION
Maximum impervious (Rooftop) Area Treated	1,000 sq. ft. per disconnection
Longest flow path (roof/gutter)	75 feet
Disconnection Length	Equal to longest flow path, but no less than 40 feet [2]
Disconnection slope	< 2%, or < 5% with turf reinforcement [3]
Distance from buildings or foundations	Extend downspouts 5 ft.[4] (15 ft. in karst areas) away from building *if grade is less than 1%.*
Type of Pretreatment	External (leaf screens, etc)

[1] For alternative runoff reduction practices, see the applicable specification for design criteria. See Table 1 in this specification for eligible practices and associated specification numbers.
[2] An alternative runoff reduction practice must be used when the disconnection length is less than 40 feet.
[3] Turf reinforcement may include EC-2, EC-3, or other appropriate reinforcing materials that are confirmed by the designer to be non-erosive for the specific characteristics and flow rates anticipated at each individual application, and acceptable to the plan approving authority.
[4] Note that the downspout extension of 5 feet is intended for simple foundations. The use of a dry well or french drain adjacent to an in-ground basement or finished floor area should be carefully designed and coordinated with the design of the structure's water-proofing system (foundation drains, etc.), or avoided altogether.

NOTES:
1. EACH GUTTER SYSTEM IS TO HAVE LEAF SCREENS.
2. NO MORE THAN 1000 SF OF ROOF SHALL BE SERVED PER DOWNSPOUT (MINIMUM OF 2 DOWNSPOUTS PER DWELLING).

SOIL COMPOST AMENDMENT (SPEC #4) SPECIFICATIONS:

6.4. Determining Depth of Compost Incorporation

The depth of compost amendment is based on the relationship of the surface area of the soil amendment to the contributing area of impervious cover that it receives. **Table 4.3** presents some general guidance derived from soil modeling by Holman-Dodds (2004) that evaluates the required depth to which compost must be incorporated. Some adjustments to the recommended incorporation depth were made to reflect alternative recommendations of Roa Espinosa (2006), Balousek (2003), Chollak and Rosenfeld (1998) and others.

Table 4.3. Short-Cut Method to Determine Compost and Incorporation Depths

	Contributing Impervious Cover to Soil Amendment Area Ratio [1]			
	IC/SA = 0 [2]	IC/SA = 0.5	IC/SA = 0.75	IC/SA = 1.0 [3]
Compost (in) [4]	2 to 4 [5]	3 to 6 [5]	4 to 8 [5]	6 to 10 [5]
Incorporation Depth (in)	6 to 10 [5]	8 to 12 [5]	15 to 18 [5]	18 to 24 [5]
Incorporation Method	Rototiller	Tiller	Subsoiler	Subsoiler

Notes:
[1] IC = contrib. impervious cover (sq. ft.) and SA = surface area of compost amendment (sq. ft.)
[2] For amendment of compacted lawns that do not receive off-site runoff
[3] In general, IC/SA ratios greater than 1 should be avoided, unless applied to a simple rooftop disconnection
[4] Average depth of compost added
[5] Lower end for B soils, higher end for C/D soils

Once the area and depth of the compost amendments are known, the designer can estimate the total amount of compost needed, using an estimator developed by TCC, (1997):

$$C = A * D * 0.0031$$

Where: C = compost needed (cu. yds.)
A = area of soil amended (sq. ft.)
D = depth of compost added (in.)

6.5. Compost Specifications

- Compost shall be derived from plant material and meet the general criteria set forth by the U.S. Composting Seal of Testing Assurance (STA) program. See www.compostingcouncil.org for a list of local providers.
- The compost shall be the result of the biological degradation and transformation of plant-derived materials under conditions that promote anaerobic decomposition. The material shall be well composted, free of viable weed seeds, and stable with regard to oxygen consumption and carbon dioxide generation. The compost shall have a moisture content that has no visible free water or dust produced when handling the material. It shall meet the following criteria, as reported by the U.S. Composting Council STA Compost Technical Data Sheet provided by the vendor:

a. 100% of the material must pass through a half inch screen
b. The pH of the material shall be between 5.5 and 8.5.
c. Manufactured inert material (plastic, concrete, ceramics, metal, etc.) shall be less than 1.0% by weight
d. The organic matter content shall be >35%
e. Soluble salt content shall be less than 6.0 mmhos/cm
f. Must be mature and stable per the appropriate test(s) as specified by STA
g. Carbon/nitrogen ratio shall be less than 25:1
h. Must meet USEPA part 503 levels for heavy metals
i. The compost should have an optimum dry bulk density ranging from 40 to 50 lbs/ft^3. However, certain fully mature coarse textured composts may be lower.

In general, fresh manure should not be used for compost because of high bacteria and nutrient levels. If manure is used, it must be aged (composed) and meet the criteria listed above.

COMPOST COMPUTATIONS:

CONTRIBUTING IMPERVIOUS COVER TO SOIL AMENDMENT AREA RATIO:
IC (IMPERVIOUS COVER) = 5,319 SF
SA (COMPOST AMENDMENT) = 30,405 SF
IC/SA=0.17

COMPOST NEEDED:
C =A*D*0.0031
A =30,405 SF
D =6 IN
C = 566 CY

MAINTENANCE SPECIFICATIONS:

9.1. MAINTENANCE AGREEMENTS
WHEN SOIL COMPOST AMENDMENTS ARE APPLIED ON PRIVATE RESIDENTIAL LOTS, HOMEOWNERS WILL NEED TO BE EDUCATED ON THEIR ROUTINE MAINTENANCE NEEDS, UNDERSTAND THE LONG-TERM MAINTENANCE PLAN, AND BE SUBJECT TO A DEED RESTRICTION OR OTHER MECHANISM ENFORCEABLE BY THE QUALIFYING LOCAL PROGRAM TO ENSURE THAT INFILTRATING AREAS ARE NOT CONVERTED OR DISTURBED. THE MECHANISM SHOULD, IDEALLY, GRANT AUTHORITY FOR LOCAL AGENCIES TO ACCESS THE PROPERTY FOR INSPECTION OR CORRECTIVE ACTION. IN ADDITION, THE GPS COORDINATES FOR ALL AMENDED AREAS SHOULD BE PROVIDED UPON FACILITY ACCEPTANCE TO ENSURE LONG TERM TRACKING.

A SIMPLE MAINTENANCE AGREEMENT SHOULD BE PROVIDED IF SOIL RESTORATION IS ASSOCIATED WITH MORE THAN 10,000 SQUARE FEET OF REFORESTATION. A CONSERVATION EASEMENT OR DEED RESTRICTION, WHICH ALSO IDENTIFIES A RESPONSIBLE PARTY, MAY BE REQUIRED TO MAKE SURE THE NEWLY DEVELOPING FOREST CANNOT BE CLEARED OR DEVELOPED MANAGEMENT IS ACCOMPLISHED (I.E., THINNING, INVASIVE PLANT REMOVAL, ETC.). SOIL COMPOST AMENDMENTS WITHIN A FILTER STRIP OR GRASS CHANNEL SHOULD BE LOCATED IN A PUBLIC RIGHT-OF-WAY, OR WITHIN A DEDICATED STORMWATER OR DRAINAGE EASEMENT.

9.2. FIRST YEAR MAINTENANCE OPERATIONS
IN ORDER TO ENSURE THE SUCCESS OF SOIL COMPOST AMENDMENTS, THE FOLLOWING TASKS MUST BE UNDERTAKEN IN THE FIRST YEAR FOLLOWING SOIL RESTORATION:

INITIAL INSPECTIONS: FOR THE FIRST SIX MONTHS FOLLOWING THE INCORPORATION OF SOIL AMENDMENTS, THE SITE SHOULD BE INSPECTED AT LEAST ONCE AFTER EACH STORM EVENT THAT EXCEEDS 1/2-INCH OF RAINFALL.

SPOT RESEEDING: INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CONTRIBUTING DRAINAGE AREA OR AROUND THE SOIL RESTORATION AREA AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER.

FERTILIZATION: DEPENDING ON THE AMENDED SOILS TEST, A ONE-TIME, SPOT FERTILIZATION MAY BE NEEDED IN THE FALL AFTER THE FIRST GROWING SEASON TO INCREASE PLANT VIGOR.

WATERING: WATER ONCE EVERY THREE DAYS FOR THE FIRST MONTH, AND THEN WEEKLY DURING THE FIRST YEAR (APRIL-OCTOBER), DEPENDING ON RAINFALL.

9.3. ONGOING MAINTENANCE
CORE AERATION TO BE COMPLETED ONCE EVERY YEAR TO PREVENT SOIL COMPACTION. EXTENSIVE CORE AERATION SHALL BE COMPLETED BETWEEN SEPTEMBER 1 AND OCTOBER 15 AS THIS PROVIDES THE OPTIMUM RECUPERATIVE POTENTIAL. CORE AERATION CAN BE VERY DISRUPTIVE TO SURFACE SMOOTHNESS, BUT IT IS THE BEST WAY TO RELIEVE THE PHYSICAL EFFECTS OF SOIL COMPACTION AND INCREASE SOIL OXYGEN LEVELS. OWNERS SHALL DE-THATCH THE TURF AS NEEDED TO INCREASE PERMEABILITY.

IN ADDITION, IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (DCR) PROCEDURES AND REGULATIONS, A NUTRIENT MANAGEMENT PLAN SHALL BE COMPLETED EVERY TWO YEARS BY A CERTIFIED NUTRIENT MANAGEMENT PLANNER. A LIST OF CERTIFIED NUTRIENT PLANNERS CAN BE FOUND HERE: HTTP://WWW.DCR.VIRGINIA.GOV/SOIL-AND-WATER/DOCUMENT/NMDIR.PDF. FERTILIZERS AND AMENDMENTS SHALL BE APPLIED IN ACCORDANCE WITH THE NUTRIENT MANAGEMENT PLAN.

OVERSEEDING MAY BE REQUIRED TO ENSURE UNIFORM VEGETATIVE COVERAGE. REFER TO VIRGINIA TURFGRASS VARIETY RECOMMENDATIONS HTTP://PUBS.EXT.VT.EDU/CSES/CSES-17/CSES-17.PDF.PDF WHEN SELECTING SEED MIX FOR OVER-SEEDING. THE TYPE SHOULD BE SUITABLE TO ENVIRONMENTAL CONDITIONS OF THE NORTHERN VIRGINIA TRANSITION ZONE. OVERSEEDING SHALL BE COMPLETED DURING THE SPRING OR FALL.

OWNER SHALL KEEP RECORD OF ALL MAINTENANCE INSPECTIONS AND ACTIVITIES TO PROVIDE TO THE TOWN OF VIENNA AS REQUESTED. AN EXAMPLE MAINTENANCE INSPECTION CHECKLIST FOR AN AREA OF SOIL COMPOST AMENDMENTS CAN BE ACCESSED IN APPENDIX C OF CHAPTER 9 OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (2010).

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STORMWATER MANAGEMENT NOTES AND DETAILS
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

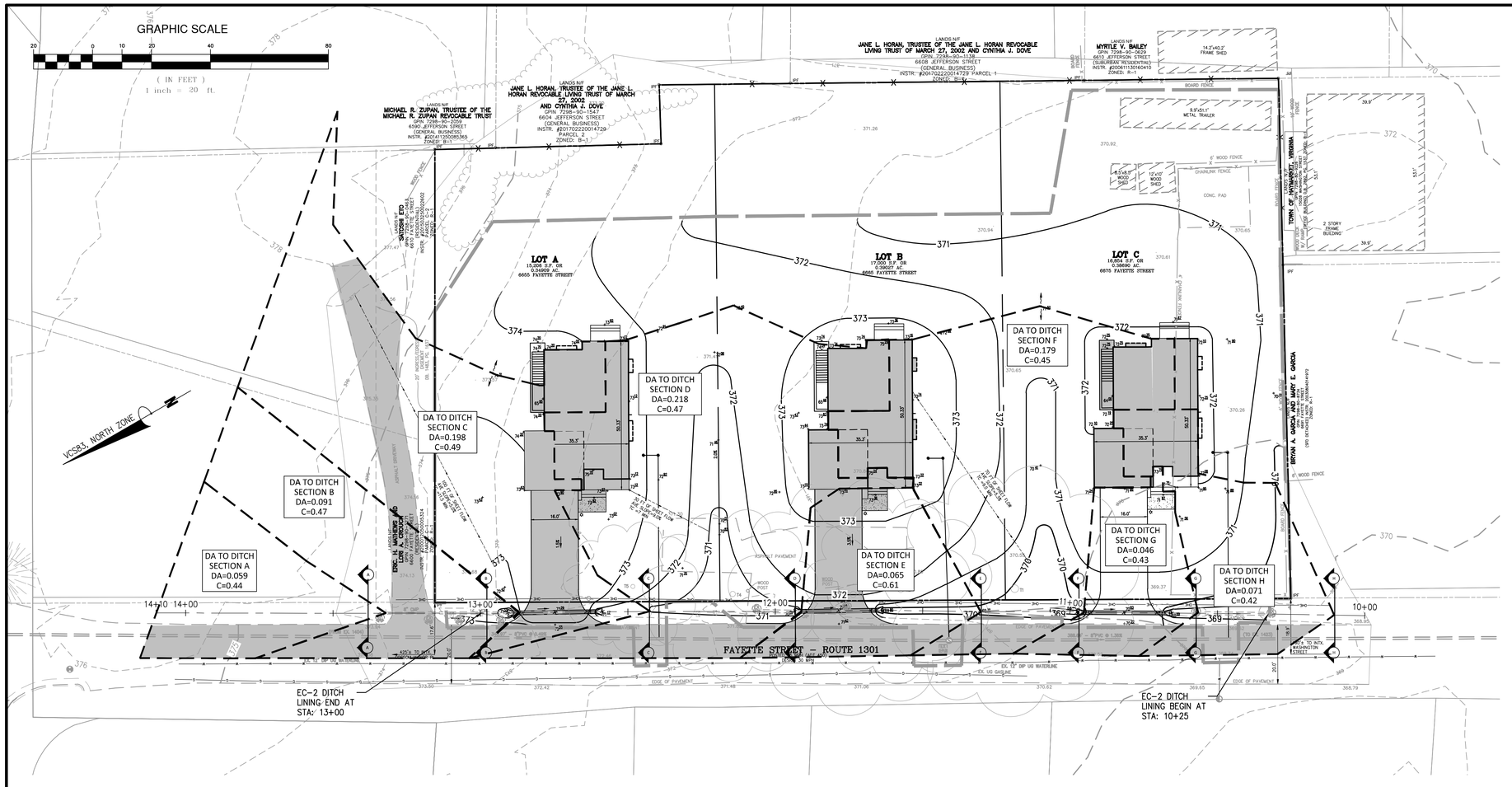
SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY CLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION	
SH/KF	KF	BG
DESIGN	DRAWN	CHKD
SCALE	H: N/A V: N/A	
JOB No.	00396-01-001	
DATE :	JULY 2018	
FILE No.	003096-D-CP-001	
SHEET	17 OF 22	

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-DDV.dwg



LEGEND

- LIMITS OF CLEARING & GRADING
- 40 EXISTING CONTOUR
- 40 PROPOSED CONTOUR
- +50^18 PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE DIVIDE
- PROPOSED CULVERT
- IMPERVIOUS AREA
- DA TO XX DA=XX C=XX — DRAINAGE AREA LABEL
- TIME OF CONCENTRATION PATH

NOTES:
VDOT EC-2 CHANNEL LINING IS RECOMMENDED FROM STA:10+30 TO SAT:13+00

Avg Shear (Tractive Force)

$\tau_o = 62.4RS_o$

τ_o=Avg Tractive Force, lbs/ft²
R = Hydraulic Radius, ft
S_o= Channel Slope, ft/ft.

Table 7-1. Allowable Velocity and Shear Stress Values for Lined Ditches

Type of Lining	Maximum Allowable Velocity (fps)	Maximum Allowable Shear Stress (lb/ft²)
Bare Earth (See Appx 7D-2)	Varies	Varies
VDOT EC-2 Type-1	4.0	1.5
VDOT EC-2 Type-2	4.0	1.75
VDOT EC-2 Type-3	4.0	2.0
VDOT EC-2 Type-4	4.0	2.25
VDOT EC-3 Type 1	7.0	6.0
VDOT EC-3 Type 2	10.0	8.0
VDOT EC-3 Type-3	N/A	10.0
Concrete	NA	NA
VDOT Riprap	Based on Shear Stress	Varies

Roadside Ditch Computations [Flow Master Output]

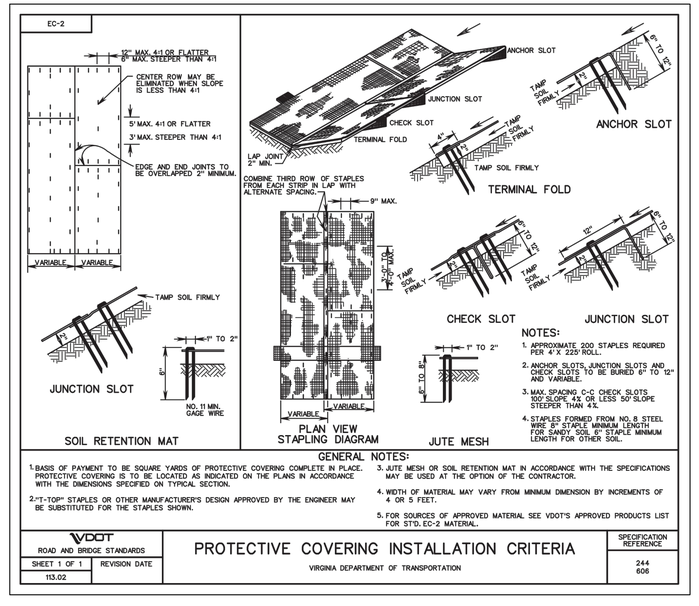
Label	Solve For	Friction Method	Roughness Coefficient	Channel Slope (ft/ft)	Normal Depth (ft)	Left Side Slope (ft/ft (H:V))	Right Side Slope (ft/ft (H:V))	Discharge (ft³/s)	Flow Area (ft²)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Top Width (ft)	Critical Depth (ft)	Critical Slope (ft/ft)	Velocity (ft/s)	Velocity Head (ft)	Specific Energy (ft)	Froude Number	Flow Type
2 yr Q - Triangular Channel - STA:14+00 to 13+30 (A)	Normal Depth	Manning Formula	0.03	0.0715	0.1	7.5	6.2	0.13	0.07	1.42	0.05	1.4	0.12	0.0342	1.81	0.05	0.15	1.41	Supercritical
10 yr Q - Triangular Channel - STA:14+00 to 13+30 (A)	Normal Depth	Manning Formula	0.03	0.0715	0.11	7.5	6.2	0.17	0.09	1.57	0.06	1.55	0.13	0.033	1.93	0.06	0.17	1.43	Supercritical
2 yr Q - Triangular Channel - STA:13+30 to 12+85 (B)	Normal Depth	Manning Formula	0.03	0.0408	0.24	2	3	0.33	0.14	1.29	0.11	1.2	0.26	0.0289	2.31	0.08	0.32	1.18	Supercritical
10 yr Q - Triangular Channel - STA:13+30 to 12+85 (B)	Normal Depth	Manning Formula	0.03	0.0408	0.26	2	3	0.43	0.17	1.43	0.12	1.32	0.28	0.0279	2.47	0.09	0.36	1.2	Supercritical
2 yr Q - Triangular Channel - STA:12+85 to 12+45 (C)	Normal Depth	Manning Formula	0.03	0.01	0.33	2	6	0.61	0.42	2.71	0.16	2.6	0.27	0.0269	1.44	0.03	0.36	0.63	Subcritical
10 yr Q - Triangular Channel - STA:12+85 to 12+45 (C)	Normal Depth	Manning Formula	0.03	0.01	0.36	2	6	0.82	0.53	3.02	0.17	2.91	0.3	0.0259	1.55	0.04	0.4	0.64	Subcritical
2 yr Q - Triangular Channel - STA:12+45 to 11+95 (D)	Normal Depth	Manning Formula	0.03	0.02	0.45	2	2	0.97	0.4	2.01	0.2	1.8	0.43	0.0254	2.4	0.09	0.54	0.89	Subcritical
10 yr Q - Triangular Channel - STA:12+45 to 11+95 (D)	Normal Depth	Manning Formula	0.03	0.02	0.5	2	2	1.3	0.5	2.24	0.22	2	0.48	0.0245	2.58	0.1	0.6	0.91	Subcritical
2 yr Q - Triangular Channel - STA:11+95 to 11+30 (E)	Normal Depth	Manning Formula	0.03	0.014	0.5	2	2	1.1	0.51	2.25	0.23	2.02	0.45	0.025	2.17	0.07	0.58	0.76	Subcritical
10 yr Q - Triangular Channel - STA:11+95 to 11+30 (E)	Normal Depth	Manning Formula	0.03	0.014	0.56	2	2	1.47	0.63	2.51	0.25	2.25	0.51	0.024	2.33	0.08	0.65	0.78	Subcritical
2 yr Q - Triangular Channel - STA:11+30 to 10+95 (F)	Normal Depth	Manning Formula	0.03	0.014	0.55	2	2	1.36	0.59	2.44	0.24	2.18	0.49	0.0243	2.29	0.08	0.63	0.77	Subcritical
10 yr Q - Triangular Channel - STA:11+30 to 10+95 (F)	Normal Depth	Manning Formula	0.03	0.014	0.61	2	2	1.83	0.74	2.72	0.27	2.44	0.55	0.0234	2.46	0.09	0.7	0.79	Subcritical
2 yr Q - Triangular Channel - STA:10+95 to 10+60 (G)	Normal Depth	Manning Formula	0.03	0.01	0.54	2	3	1.41	0.72	2.9	0.25	2.68	0.46	0.0238	1.96	0.06	0.6	0.67	Subcritical
10 yr Q - Triangular Channel - STA:10+95 to 10+60 (G)	Normal Depth	Manning Formula	0.03	0.01	0.6	2	3	1.9	0.9	3.24	0.28	3	0.51	0.0228	2.11	0.07	0.67	0.68	Subcritical
2 yr Q - Triangular Channel - STA:10+60 to 10+10 (H)	Normal Depth	Manning Formula	0.03	0.01	0.55	2	3	1.5	0.75	2.97	0.25	2.75	0.47	0.0236	1.99	0.06	0.61	0.67	Subcritical
10 yr Q - Triangular Channel - STA:10+60 to 10+10 (H)	Normal Depth	Manning Formula	0.03	0.01	0.61	2	3	2.02	0.94	3.32	0.28	3.07	0.53	0.0227	2.14	0.07	0.69	0.68	Subcritical

Prince William

Storm Event	B	D	E
2	52.66	11.50	0.85
10	47.55	10.00	0.74
25	40.37	8.25	0.66
100	31.09	5.25	0.55

VDOT FORM LD-268

SECTION	STATION TO STATION		DA (ac)	C-factor	CA INCR.	CA ACC.	Tc	I 2	Q 2	CUT or FILL	SLOPE FT/FT	ALLOW. VEL.	n=.03 EARTH VEL.	n=.05 JUTE PROTECTIVE LINING Qn	n=.05 JUTE PROTECTIVE LINING VEL.	n=.05 JUTE PROTECTIVE LINING DEP.	n=.015 CONCRETE Qn	n=.015 CONCRETE DEP.	Allowable Shear	Calculated Shear	Channel Length	Flow time (min)	I 10	Q 10	DEP.	REMARKS
A	14+00	13+30	0.059	0.442	0.03	0.03	5.00	4.86	0.13		0.0715	4.0	1.81						1.5	0.27	70	0.64	6.41	0.168	1.3"	EC-2 LINING
B	13+30	12+85	0.091	0.471	0.04	0.07	5.64	4.70	0.33		0.0408	4.0	2.31						1.5	0.31	61.5	0.44	6.21	0.430	3.1"	EC-2 LINING
C	12+85	12+45	0.198	0.491	0.10	0.17	11.50	3.66	0.61		0.0100	4.0	1.43						1.5	0.11	40.0	0.47	4.91	0.817	4.3"	EC-2 LINING
D	12+45	11+95	0.218	0.468	0.10	0.27	11.97	3.60	0.97		0.0200	4.0	2.37						1.5	0.27	55.0	0.39	4.83	1.297	5.9"	EC-2 LINING
E	11+95	11+30	0.065	0.612	0.04	0.31	12.35	3.55	1.10		0.0140	4.0	2.17						1.5	0.22	65.0	0.50	4.77	1.471	6.7"	EC-2 LINING
F	11+30	10+95	0.179	0.451	0.08	0.39	12.85	3.49	1.36		0.0140	4.0	2.27						1.5	0.24	35.0	0.26	4.69	1.826	7.2"	EC-2 LINING
G	10+95	10+60	0.046	0.432	0.02	0.41	13.11	3.46	1.41		0.0100	4.0	2.02						1.5	0.17	35.0	0.29	4.66	1.902	7.2"	EC-2 LINING
H	10+60	10+10	0.071	0.421	0.03	0.44	13.40	3.43	1.50		0.0100	4.0	1.97						1.5	0.17	50.0	0.42	4.61	2.024	7.3"	EC-2 LINING



NOTES:
1. APPROXIMATE 200 STAPLES REQUIRED PER 4'X 225' ROLL.
2. ANCHOR SLOTS, JUNCTION SLOTS AND CHECK SLOTS TO BE BURIED 6" TO 12" AND VARIABLE.
3. MAX. SPACING C-C CHECK SLOTS 100' SLOPE 4% OR LESS 50' SLOPE STEEPER THAN 4%.
4. STAPLES FORMED FROM NO. 8 STEEL WIRE 6" STAPLE MINIMUM LENGTH FOR SANDY SOIL 8" STAPLE MINIMUM LENGTH FOR OTHER SOIL.

GENERAL NOTES:
1. BASIS OF PAYMENT TO BE SQUARE YARDS OF PROTECTIVE COVERING COMPLETE IN PLACE. PROTECTIVE COVERING IS TO BE LOCATED AS INDICATED ON THE PLANS IN ACCORDANCE WITH THE DIMENSIONS SPECIFIED ON TYPICAL SECTION.
2. "T-TOP" STAPLES OR OTHER MANUFACTURER'S DESIGN APPROVED BY THE ENGINEER MAY BE SUBSTITUTED FOR THE STAPLES SHOWN.
3. JUTE MESH OR SOIL RETENTION MAT IN ACCORDANCE WITH THE SPECIFICATIONS MAY BE USED AT THE OPTION OF THE CONTRACTOR.
4. WIDTH OF MATERIAL MAY VARY FROM MINIMUM DIMENSION BY INCREMENTS OF 4 OR 5 FEET.
5. FOR SOURCES OF APPROVED MATERIAL SEE VDOT'S APPROVED PRODUCTS LIST FOR STD. EC-2 MATERIAL.

VDOT ROAD AND BRIDGE STANDARDS | SHEET 1 OF 1 | REVISION DATE | 113.02

PROTECTIVE COVERING INSTALLATION CRITERIA
VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE 244 606

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-DDV.dwg

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ROADSIDE DITCH COMPUTATIONS
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD

SCALE H: 1"=20' V: N/A

JOB No. 00396-01-001

DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 17A OF 22

Luminaire Schedule				
Symbol	Qty	Label	LLF	Description
	1	Existing Cobra Head	0.650	Enclosed Drop Lens 100HPS
	3	Proposed Post Top Luminaire	0.720	Amerlux D623 Textured Acrylic with FDR

Calculation Summary			
Label	CalcType	Units	Avg
6675 Fayette Street Subdivision	Illuminance	Fc	0.61

NOTE: SEE SHEET 11 FOR PROPOSED LUMINAIRE SPECIFICATIONS.

VCS83, NORTH ZONE

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

LANDS N/F
JANE L. HORAN, TRUSTEE OF THE JANE L. HORAN REVOCABLE LIVING TRUST OF MARCH 27, 2002 AND CYNTHIA J. DOVE
GPIN 7298-90-1138
6608 JEFFERSON STREET
(GENERAL BUSINESS)
INSTR. #201702220014729 PARCEL 1
ZONED: B-1

LANDS N/F
MYRTLE V. BAILEY
GPIN 7298-90-0629
6610 JEFFERSON STREET
(SUBURBAN RESIDENTIAL)
INSTR. #200611130160410
ZONED: R-1

14.2'x40.2' FRAME SHED

BOARD FENCE

IPF

S 29°21'55" W 210.06'

S 61°49'28" E 19.96'

S 28°31'38" W 76.75'

TERMINATE PROPOSED FENCE

WOOD FENCE

LANDS N/F
SATOSH ETC
GPIN 7298-90-0463
6610 FAYETTE STREET
(RESIDENTIAL)
INSTR. #201503250022602
PARCEL C-2
ZONED: R-1

20' INGRESS/EGRESS EASEMENT DB. 1483, PG. 1637

S 59°59'24" E 153.68'

ASPHALT DRIVEWAY

LANDS N/F
ERIC. H. MATHEWS AND LORI A. CROUCH
GPIN 7298-90-1271
6600 FAYETTE STREET
(RESIDENTIAL)
INSTR. #200012050005324
PARCEL 2
ZONED: R-1

25' BRL
10' BRL
35' BRL

LOT A
15,206 S.F. OR
0.34909 AC.
6655 FAYETTE STREET

LOT B
17,000 S.F. OR
0.39027 AC.
6665 FAYETTE STREET

LOT C
16,654 S.F. OR
0.38690 AC.
6675 FAYETTE STREET

3R@7½"
GATE
14R @7½"
OVERHANG
AREAWAY
PROPOSED AREAWAY DRAIN TO TIE INTO FOUNDATION DRAIN SYSTEM. REFER TO ARCHITECTURAL PLANS
FOUNDATION DRAIN OUTLET INV OUT=374.67 (PUMPED) (SEE GENERAL NOTE #1)

PROPOSED SFD 'A' (R-1)
6655 FAYETTE STREET
FF=376.20
BF=366.28
GAR= 374.32

PROPOSED SFD 'B' (R-1)
6665 FAYETTE STREET
FF=375.74
BF=365.82
GAR= 373.86

PROPOSED SFD 'C' (R-1)
6675 FAYETTE STREET
FF=374.25
BF=364.33
GAR= 372.37

COVERED PORCH
PROP. PRIVATE POST-TOP LUMINAIRE MOUNTING HEIGHT = 8'
EXISTING COBRA HEAD LUMINAIRE APPROX. MOUNTING HEIGHT = 30'
EXISTING ELECTRIC POLE NO LUMINAIRE

LANDS N/F
TOWN OF HAYMARKET, VIRGINIA
GPIN 7298-80-9236
15026 WASHINGTON STREET
(OFFICE BUILDING) DB. 2892, PG. 1527 ZONED: B-1

10' WOOD FENCE
WOOD DECK W/ RAMP
53.1'

N 61°21'36" W 176.59'

LANDS N/F
BRYAN A. GARCIA AND MARY E. GARCIA
GPIN 7298-90-1134
6691 FAYETTE STREET
(SFD DETACHED) INSTR. 200308040141972
ZONED: R-1

6' WOOD FENCE

N 29°43'33" E 290.36'

EDGE OF PAVEMENT

FAYETTE STREET-RTE 1301
POSTED 25 MPH (ADT 450)

15+00 14+00 13+00

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LIGHTING PLAN
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
TOWN OF HAYMARKET — PRINCE WILLIAM COUNTY, VIRGINIA

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD

SCALE H: 1"=10' V: N/A

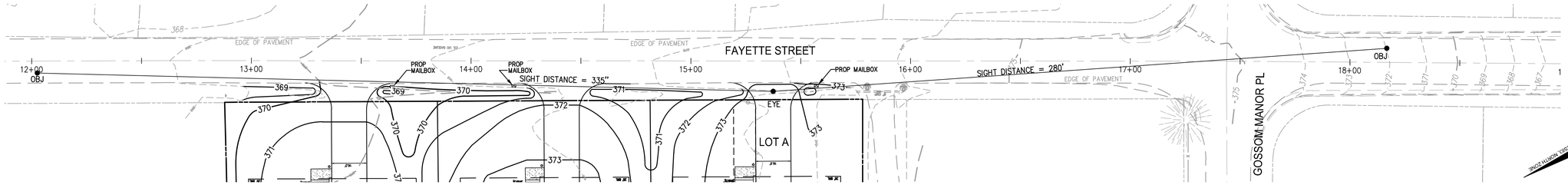
JOB No. 00396-01-001

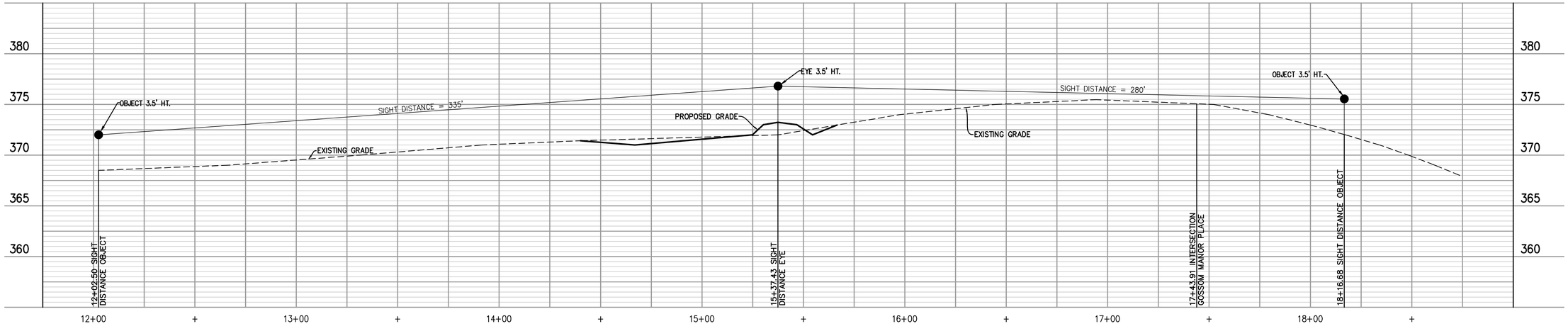
DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 18 OF 22

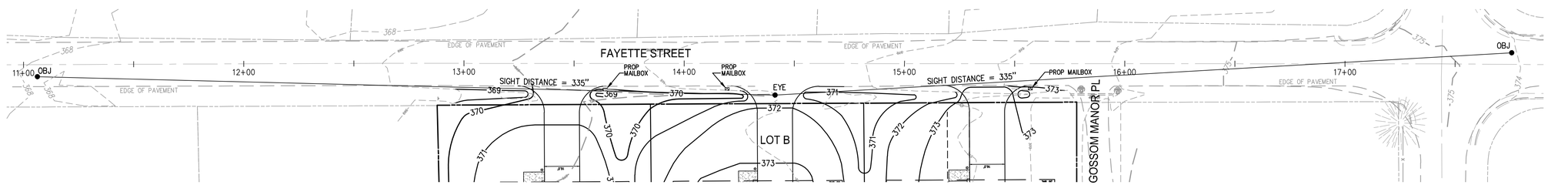
Attachment: 2018-08-16 6675 Fayette Street 3rd Submission (3725 : 6675 Fayette Street, 3 Single Family Residential Lots, Site Plan, FINAL Approval)

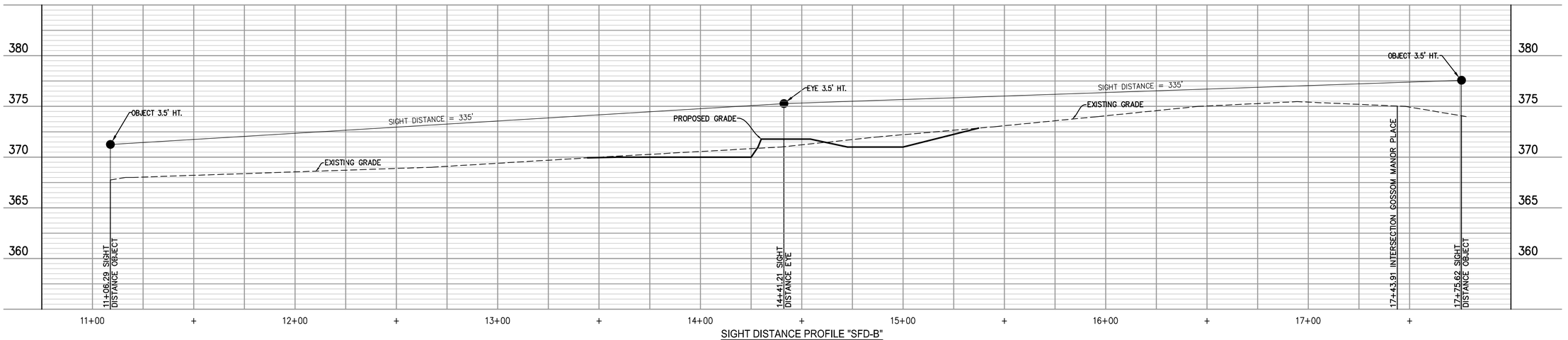




SIGHT DISTANCE PROFILE "SFD-A"

HORIZONTAL SCALE: 1"=25'
VERTICAL SCALE: 1"=5'
POSTED SPEED LIMIT 25 MPH
(VPD=450)





SIGHT DISTANCE PROFILE "SFD-B"

HORIZONTAL SCALE: 1"=25'
VERTICAL SCALE: 1"=5'
POSTED SPEED LIMIT 25 MPH
(VPD=450)

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SIGHT DISTANCE - LOTS A AND B
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

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DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD

SCALE H: 1"=25' V: 1"=5'

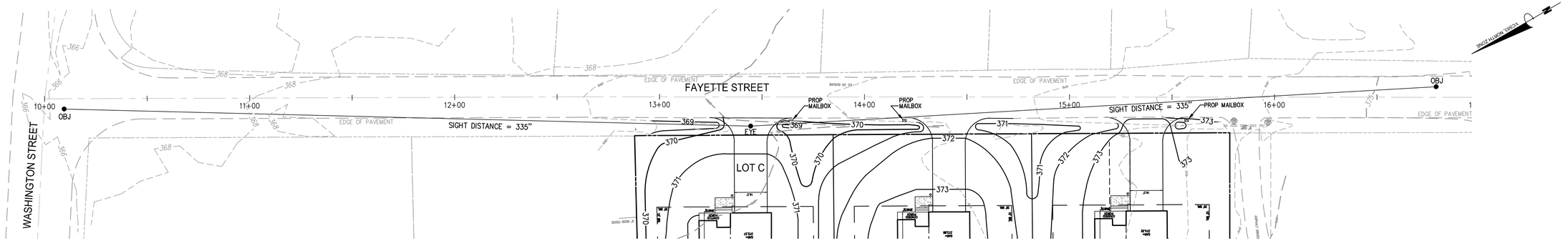
JOB No. 00396-01-001

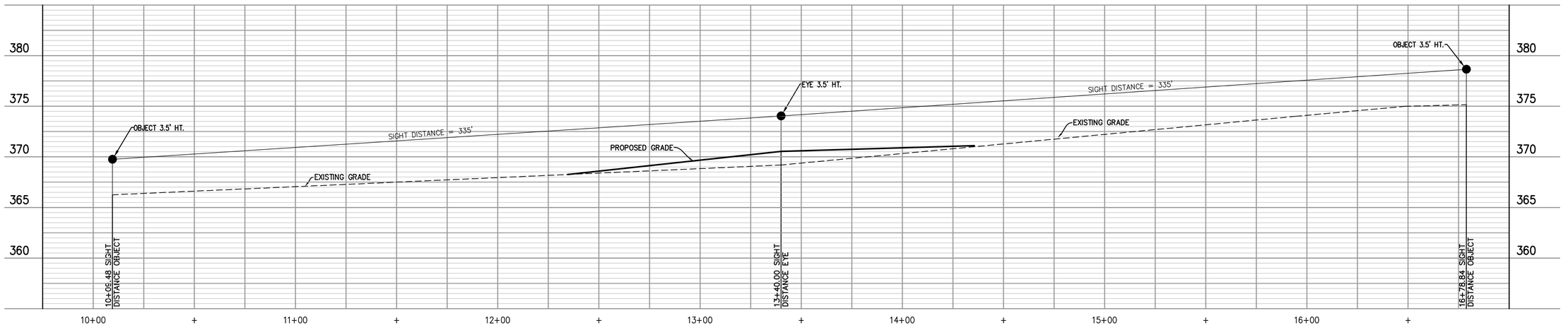
DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 19 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-SIGHT.dwg





SIGHT DISTANCE PROFILE "SFD-C"

HORIZONTAL SCALE: 1"=25'
VERTICAL SCALE: 1"=5'
POSTED SPEED LIMIT 25 MPH
(VPD=450)

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SIGHT DISTANCE LOT C
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD

SCALE H: 1"=25' V: 1"=5'

JOB No. 00396-01-001

DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 20 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-SIGHT.dwg

PRINCE WILLIAM COUNTY
Department of Development Services - Land Development Division

UNIT PRICE LIST

(Performance Bonds, Landscape Escrows, Siltation & Erosion Control Escrows, and Floodplain Item Escrows)

Effective: March 15, 2017

Project Name: 6675 Fayette Street

PWC File #: SP2018-001 **Date Prepared:** 8/16/2018

NOTE: This form is to be used to estimate Performance Bond, Landscape Escrow, Siltation Erosion Escrow and Floodplain Items Escrow prices posted with Prince William County. These prices do not include items that are to be bonded separately with the Virginia Department of Transportation.

1. MOBILIZATION/DEMOBILIZATION OF CONSTRUCTION EQUIPMENT

Quantity	Item	Price	Cost
1	Mobilization/Demobilization	@ Lump Sum $15,000 min.	$ 15,000.00

2. STORM DRAINAGE

A. Structures

Quantity	Item	Price	Cost
	DI-1	@ $3,970 EA	$ -
	DI-3	@ $4,500 EA	$ -
	DI-4	@ $5,500 EA	$ -
	MH-1	@ $3,000 EA	$ -
	MH-2	@ $3,500 EA	$ -
	JB-1	@ $6,000 EA	$ -
	DI-7	@ $4,000 EA	$ -
	DI-12	@ $4,000 EA	$ -
		Subtotal for Structures:	**$ -**

B. Concrete Pipe

Quantity	Item	Price	Cost
	12"0	@ $40 LF	$ -
	15"0	@ $45 LF	$ -
	18"0	@ $50 LF	$ -
	21"0	@ $55 LF	$ -
	24"0	@ $60 LF	$ -
	27"0	@ $65 LF	$ -
	30"0	@ $75 LF	$ -
	33"0	@ $110 LF	$ -
	36"0	@ $120 LF	$ -
	42"0	@ $140 LF	$ -
	48"0	@ $150 LF	$ -
	54"0	@ $200 LF	$ -
	60"0	@ $240 LF	$ -
	66"0	@ $300 LF	$ -
	72"0	@ $350 LF	$ -
		Subtotal for Concrete Pipe:	**$ -**

		Subtotal for this page:	**$ 15,000.00**

C. End Walls

Quantity	Item	Price	Cost
	12"0	@ $900 EA	$ -
	15"0	@ $1,100 EA	$ -
	18"0	@ $1,300 EA	$ -
	21"0	@ $1,500 EA	$ -
	24"0	@ $1,700 EA	$ -
	27"0	@ $1,900 EA	$ -
	30"0	@ $2,100 EA	$ -
	33"0	@ $2,300 EA	$ -
	36"0	@ $2,800 EA	$ -
	42"0	@ $4,000 EA	$ -
	48"0	@ $4,200 EA	$ -
	54"0	@ $5,000 EA	$ -
	60"0	@ $5,500 EA	$ -
	66"0	@ $6,000 EA	$ -
	72"0	@ $7,500 EA	$ -
		Subtotal for End Walls:	**$ -**

D. End Sections (ES-1)

Quantity	Item	Price	Cost
	12"0	@ $550 EA	$ -
	15"0	@ $580 EA	$ -
	18"0	@ $700 EA	$ -
	21"0	@ $875 EA	$ -
	24"0	@ $900 EA	$ -
	27"0	@ $1,200 EA	$ -
	30"0	@ $1,130 EA	$ -
	33"0	@ $1,500 EA	$ -
	36"0	@ $1,900 EA	$ -
		Subtotal for End Section ES-1:	**$ -**

E. Corrugated Metal Pipe

Quantity	Item	Price	Cost
	12"0	@ $30 LF	$ -
	15"0	@ $35 LF	$ -
	18"0	@ $45 LF	$ -
	24"0	@ $55 LF	$ -
	30"0	@ $65 LF	$ -
	36"0	@ $90 LF	$ -
	42"0	@ $100 LF	$ -
	48"0	@ $115 LF	$ -
	54"0	@ $130 LF	$ -
	60"0	@ $150 LF	$ -
		Subtotal for CM Pipe:	**$ -**

		Subtotal for this page:	**$ -**

F. End Section (ES-2)

Quantity	Item	Price	Cost
	15"0	@ $400 EA	$ -
	18"0	@ $420 EA	$ -
	24"0	@ $480 EA	$ -
	30"0	@ $650 EA	$ -
	36"0	@ $1,100 EA	$ -
	42"0	@ $1,400 EA	$ -
	48"0	@ $1,800 EA	$ -
		Subtotal for End Sections (ES-2):	**$ -**

G. AD N-12 (HDPE)

Quantity	Item	Price	Cost
	12"0	@ $35 LF	$ -
	15"0	@ $45 LF	$ -
	18"0	@ $65 LF	$ -
	24"0	@ $75 LF	$ -
	30"0	@ $85 LF	$ -
	36"0	@ $95 LF	$ -
	42"0	@ $105 LF	$ -
	48"0	@ $125 LF	$ -
	60"0	@ $165 LF	$ -
		Subtotal for AD N-12 (HDPE):	**$ -**

		Subtotal for this page:	**$ -**

H. Stormwater Management/BMP Facilities Cost Estimates Per Impervious Acre Treated (See Note 3)

Quantity	Item	Price	Cost
Non-Proprietary BMP(Engineer Estimate for all SWM)			
	Dry Retention Pond	By itemized cost	
	Dry Extended Detention Pond	By itemized cost	
	Wet Pond/Wetlands	By itemized cost	
	Bioswale	By itemized cost	
	Vegetated Grass Channel	By itemized cost	
	Micro-Bio-Retention (Raingarden)	By itemized cost	
	Infiltration Practices without Sand	By itemized cost	
	Infiltration Practices with Sand	By itemized cost	
	Filtering Practices with Sand Below Ground	By itemized cost	
	Filtering Practices with Sand Above Ground	By itemized cost	
	Permeable Pavement Level 2 Design	By itemized cost	
	Vegetated Roof Level 1 Design	By itemized cost	
	Vegetated Roof Level 2 Design	By itemized cost	
	Soil Compost Amendment	By itemized cost	
0.04 ac	Rooftop Impervious Surface Disconnection	By itemized cost	$ 2,500.00
0.04 ac	Sheet Flow to a Vegetated Filter Strip	By itemized cost	$ 2,000.00
Proprietary/Manufactured BMP-manufacturer's Certified Cost Plus Construction Cost			
	Aqua-Swirl® Stormwater Treatment System	By itemized cost	
	BaySeparator™	By itemized cost	
	Continuous Defective Separator® (CDS)	By itemized cost	
	Downstream Defender®	By itemized cost	
	Hydroguard	By itemized cost	
	Stormceptor® MAX	By itemized cost	
	Stormceptor® OSR	By itemized cost	
	Stormceptor® STC	By itemized cost	
	StormPro	By itemized cost	
	Storm Water Quality Unit	By itemized cost	
	V2B1	By itemized cost	
	The Vortechs® System	By itemized cost	
	Aqua-Filter Stormwater™ Filtration System	By itemized cost	
	Storm Tech® Isolater Row™	By itemized cost	
	Up-Flo Filter® with CPZ Media	By itemized cost	
	The Stormwater Management StormFilter® with ZPG Media	By itemized cost	
	BayFilter™ Stormwater Cartridge System	By itemized cost	
	Filterra Bioretention Systems	By itemized cost	
	Jellyfish® Filter	By itemized cost	
	Modular Wetland System Linear (MWS-Linear)	By itemized cost	
	Perk Filter	By itemized cost	
	The Stormwater Management StormFilter® with Phosphosorb Media	By itemized cost	
	Subtotal for Stormwater Management/BMP Facilities Cost Estimates Per Impervious Acre Treated:		**$ 4,500.00**

		Subtotal for this page:	**$ 4,500.00**

I. Miscellaneous Stormwater Management

Quantity	Item	Price	Cost
3200	Seed, Fertilizer & Mulch ($200 Min.)	@ $1.50 SY	$ 4,800.00
	Sod	@ $6.00 SY	$ -
	Hydraulic Cem. Conc. - 4" depth	@ $6.00 SF	$ -
	Bituminous Concreate - 1" depth	@ $5.00 SY	$ -
	Rip-Rap	@ $7.00 SF	$ -
	Grouted Rip-Rap	@ $9.00 SF	$ -
	Erosion Control Stone (EC-1)	@ $113 TON	$ -
	#57 - Coarse Aggregate	@ $26 TON	$ -
	4' High Chain Link Fence (#9 gauge or better, including braces, end posts and gate)	@ $19 LF	$ -
	6' High Chain Link Fence (#9 gauge or better, including braces, end posts and gate)	@ $37 LF	$ -
	SWM Sign (WATER RISES RAPIDLY) (Minimum 3 signs per facility)	@ $390 EA	$ -
	Access Road	By Itemized Cost	
		Subtotal for Miscellaneous Stormwater Management	**$ 4,800.00**

J. Miscellaneous Drainage Items

Quantity	Item	Price	Cost
	Box Culvert	@ $ 727 CY of conc.	$ -
	Energy Dissipater	@ $1,953 EA	$ -
	Wing Walls	@ $860 CY of conc.	$ -
Ditches:			
	Roadside Standard Ditches (Seed, Fertilize & Mulch)	@ $7.00 LF	$ -
	Sod Ditches	@ $9.00 LF	$ -
	Paved Ditches	@ $8.00 SF	$ -
	Filter Cloth Fabric & Gabion Stone	@ $14 SF	$ -
	Rip-Rap	@ $7.00 SF	$ -
	Grouted Rip-Rap	@ $9.00 SF	$ -
	Paved Flume	@ $10 SF	$ -
	Flush the Drainage System	$250/Hr. (Min 8 @ Hrs.)	$ -
		Subtotal for Miscellaneous Drainage Items:	**$ -**

		Subtotal for this page:	**$ 4,800.00**

3. CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY AND/OR PRIVATE INGRESS/EGRESS EASEMENTS

A. Site Work

Quantity	Item	Price	Cost
	Clear & Grub	@ $11,860	$ -
	Excavation	@ $26 CY	$ -
	Embankment** (cut and fill)	@ $10 CY	$ -
	Embankment (haul off)	@ $36 CY	$ -
	Final Grading	@ $5,000 AC	$ -
	Rock Excavation	@ $64 CY	$ -
	Slope Stabilization - Hydroseeding (3:1 or flatter) $1,000 Min.	@ $1.00 SY	$ -
	Slope Stab. - Jute Mesh, matting Blankets, etc. (Between 2:1 to 3:1) $200 Min	@ $6.00 SY	$ -
	Slope Stab. - Sod (Between 2:1 to 3:1) $200 Min	@ $8.00 SY	$ -
	Steep Slopes (Grading and Stabilization with Jute Mesh, Netting, Blankets, etc.)	@ $17 SY	$ -
		Subtotal for Site Work:	**$ -**

B. Subgrade, Subbase, and Base Course Items

Quantity	Item	Price	Cost
	Subgrade preparation (Subbase and base course)	@ $3.00 SY	$ -
	Aggregate (21A/21B)	@ $2.50 SY per Inch Depth	$ -
	Bituminous Concrete	@ $5.50 SY per Inch Depth	$ -
	Reinforced Concrete Pavement	@ $15.50 SY per Inch Depth	$ -
	Gravel Shoulders (4" Depth)	@ $8.50 SY (4" Depth)	$ -
	Soil Cement Stabilization (4%)	@ $20.50 SY (6" Depth)	$ -
	Lime Stabilization (10%)	@ $15 SY (6" Depth)	$ -
	Cement Treated Aggregate	@ $5.00 per Inch Depth	$ -
Underdrains:			
	UD-1	@ $16 LF	$ -
	UD-2	@ $18 LF	$ -
	UD-3	@ $19 LF	$ -
	UD-4	@ $21 LF	$ -
		Subtotal for Subgrade, Subbase, Base Course Items & Underdrains (Public):	**$ -**

		Subtotal for this page:	**$ -**

C. Entrances and Pipe Stems

Quality	Item	Price	Cost
	DE-1	@ $1,800 EA	$ -
	DE-2	@ $1,950 EA	$ -
	DE-3	@ $2,000 EA	$ -
	DE-4	@ $2,000 EA	$ -
	PP-1 (1 Lot)	@ $1,800 EA	$ -
	PP-1 (2-5 Lots)	@ $2,000 EA	$ -
	PP-2 (1 Lot)	@ $1,200 EA	$ -
	PP-2 (2-5 Lots)	@ $1,500 EA	$ -
	CG-9D or equal: 30' Width	@ $5,000 EA	$ -
	CG-9D or equal: 40' Width	@ $6,500 EA	$ -
	CG-10A or equal: 30' Width	@ $4,120 EA	$ -
	CG-10A or equal: 40' Width	@ $5,300 EA	$ -
	CG-11: Concrete Entrance	@ $3,000 EA	$ -
	Valley Gutter	@ $55 SY	$ -
	Pipestem Driveway - 10' (1 Lot)	@ $55 LF	$ -
	Pipestem Driveway - 18' (2-5 Lots)	@ $70 LF	$ -
		Subtotal for Entrance and Pipe Stems:	**$ -**

		Subtotal for this page:	**$ -**

D. Miscellaneous Construction Items

Quantity	Item	Price	Cost
	Sidewalk (5' Width)	@ $34 LF	$ -
	Header Curb (CG-2/CG-3)	@ $20 LF	$ -
	Curb & Gutter	@ $25 LF	$ -
	CG-12 (Truncated Dome)	@ $2,000 EA	$ -
	Bicycle Trail/Walkway	@ $9.00 SF	$ -
	Raised Concrete Median (MS-1A)	@ $70 SY	$ -
	Trail (Wood Chip)	@ $19 SY	$ -
	Trail (Stone Dust)	@ $19 SY	$ -
Retaining Walls:			
	Timber	@ $29 SF	$ -
	Crib	@ $38 SF	$ -
	MSE/Geogrid	@ $43 SF	$ -
	Gravity Wall	@ $62 SY	$ -
	Excavation for tiebacks in walls in cut areas	@ $25 CY	$ -
	Anti-Graffiti Paint (Concrete Retaining Walls only-treatment/sealant)	@ $15 SF (Min. $2,500)	$ -
	Guardrail	@ $39 LF	$ -
	GR-7 NCHRP 350	@ $2,686 EA	$ -
	GR-9	@ $3,640 EA	$ -
	Address Sign (Entrance to Pipestems)	@ $398 EA	$ -
	Street Name Sign	@ $410	$ -
	Traffic Control Sign	@ $392	$ -
	Bus Stop Sign	@ $342	$ -
	Bus Shelter	@ $17,284	$ -
	Traffic Signal	@ (Lump Sum)	
	HC Parking Space Sign	@ $649 EA	$ -
	Bike Rack	@ $305 EA	$ -
	Roadside Delineators (ED-1)	@ $64 EA	$ -
	Hand Rail (HR-1)	@ $102 LF	$ -
	Pavement Marking (Paint)	@ $2.00 SF	$ -
	Pavement Marking (Thermoplastic)	@ $6.00 SF	$ -
	Traffic Barricade (TB-1)	@ $1,500 EA	$ -
	Street Lighting	@ $5,500 EA	$ -
	Utilities Relocation	(Min. $40,000) (Lump Sum or provide estimate from utility co.)	$ -
1	VDOT Street Acceptance Package	@ $5,000	$ 5,000.00
1	P.E. Certified "As-Built" Plans	Lump Sum (Min. $12,000)	$ 12,000.00
		Subtotal for Miscellaneous Construction Items:	**$ 17,000.00**

		Subtotal for this page:	**$ 17,000.00**

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BOND ESTIMATE (1 OF 2)
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF DESIGN	KF DRAWN	BG CHKD
SCALE	H: N/A V: N/A	
JOB No. 00396-01-001		
DATE : JULY 2018		
FILE No. 003096-D-CP-001		
SHEET 21 OF 22		

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-COV.dwg

4. SANITARY SEWER & WATER LINE CONSTRUCTION

Quantity	Item	Price		Cost
	Fire Hydrant Assembly	@ $8,000	EA	$ -
	Central Sewer Lift/Pump Station Construction	@ (Lump Sum)		

Water Main (Exclusive of Fire Hydrants)

Quantity	Item	Price		Cost
	4"Ø DIP	@ $50	LF	$ -
	6"Ø DIP	@ $65	LF	$ -
	8"Ø DIP	@ $78	LF	$ -
	12"Ø DIP	@ $108	LF	$ -
	16"Ø DIP	@ $140	LF	$ -
	18'Ø DIP	@ $160	LF	$ -
	4"Ø or 6"Ø RW Valve (with accessories)	@ $1,000	EA	$ -
	8"Ø or 12"Ø RW Valve (with accessories)	@ $2,500	EA	$ -
	16"Ø or 24"Ø RW Valve (with accessories)	@ $6,000	EA	$ -
3	Standard Meter Crock & Appurtenances (Angle valve, backflow preventer, yoke, frame & cover, and service line)	@ $2,000	EA	$ 6,000.00
	Meter Vault & Appurtenances (3 meters & larger)	@ $10,500	EA	$ -
	Water Main Blow-off Assembly	@ $2,500	EA	$ -
	Air Release Assembly	@ $3,500	EA	$ -
	Dead End Anchor System	@ $7,500	EA	$ -
			Subtotal for Water Main:	**$ 6,000.00**

Subtotal for this page:	**$ 6,000.00**

Sanitary Sewer Pipe Line (Exclusive of Manhole Structures)

Quantity	Item	Price		Cost
	1.5"Ø thru 4"Ø LPFM (Low Pressure Force Main System)	@ $30	LF	$ -
	8"Ø PVC	@ $70	LF	$ -
	8"Ø DIP	@ $80	LF	$ -
	10"Ø PVC	@ $85	LF	$ -
	10"Ø DIP	@ $90	LF	$ -
	12"Ø PVC	@ $145	LF	$ -
	12"Ø DIP	@ $150	LF	$ -
	15"Ø PVC	@ $190	LF	$ -
	4' Dia. Sanitary Sewer Manhole	@ $10,000	EA	$ -
	5' Dia. Sanitary Sewer Manhole	@ $10,000	EA	$ -
	Street Manhole Frame & Cover Assembly (Including rain bowl & chimney seal)	@ $1,000	EA	$ -
	Easement Manhole Frame & Cover Assembly (Including chimney seal)	@ $1,000	EA	$ -
	Abandonment of Manhole	@ $250	VF	$ -
3	4"Ø PVC Laterral (including clean-out stack)	@ $40	LF	$ 120.00
	4"Ø DIP Laterral (including clean-out stack)	@ $50	LF	$ -
	6"Ø PVC Laterral (including clean-out stack)	@ $60	LF	$ -
	6"Ø DIP Later (including clean-out stack)	@ $65	LF	$ -
	LPFM Flushing Station	@ $2,500	EA	$ -
	Sewerage Air Release/Vacuum Breaker Assembly	@ $3,500	EA	$ -
	Steel Casing	@ $500	LF	$ -
	Grease Trap (500 gal. minimum)	@ $4,500	EA	$ -
		@		$ -
		@		$ -
		@		$ -
			Subtotal for Sanitary Sewer Pipe:	**$ 120.00**

Note: For sizes larger than 15"0, add $4.00 per inch increase in diameter.

Subtotal for this page:	**$ 120.00**
TOTAL CONSTRUCTION COST: (Pages 1 through 10)	**$ 47,420.00**

5. MISCELLANEAOUS COSTS

A. Administrative Cost - 10% of the total construction cost, not to exceed $50,000	$ 4,742.00
B. Inflation Cost - Compounded annually at 3.0% per year of the total Construction Cost	$ 1,422.60
TOTAL PERFORMANCE BOND AMOUNT:	**$ 53,584.60**

6. FLOODPLAIN ITEMS ESCROW

Quantity	Item	Price	Cost
	LOMR	$15,000	$ -
	Elevation Certificate	$800	$ -
	LOMC (SF Detached)	$1,500	$ -
Stream Restoration			
	Stream Restoration	By itemized cost	

TOTAL FLOODPLAIN ITEMS ESCROW:	**$ -**

7. LANDSCAPING ESCROW

A. Deciduous Trees

Quantity	Item	Price		Cost
	5'-6'	@ $165	EA	$ -
12	1" - 1.5" or 1.5" - 2"	@ $165	EA	$ 1,980.00
	2" - 2.5" or 2.5 - 3"	@ $250	EA	$ -
	3" - 3.5" or 3.5" - 4"	@ $450	EA	$ -
			Subtotal for Deciduous Trees:	**$ 1,980.00**

B. Evergreen Trees

Quantity	Item	Price		Cost
	5' - 6'	@ $125	EA	$ -
	6' - 7'	@ $175	EA	$ -
	7' - 8'	@ $300	EA	$ -
	8' - 10'	@ $400	EA	$ -
			Subtotal for Evergreen Trees:	**$ -**

C. Shrubs

Quantity	Item	Price		Cost
	18" - 24"	@ $45	EA	$ -
	24" - 30"	@ $55	EA	$ -
			Subtotal for Shrubs:	**$ -**

D. Ornamental

Quantity	Item	Price	Cost
	1 Gal. (#1)	@ $10	$ -
	2 Gal. (#2)	@ $22	$ -
	3 Gal. (#3)	@ $30	$ -
		Subtotal for Ornamentals:	**$ -**

E. Perennial

Quantity	Item	Price	Cost
	18" - 24"	@ $9.00	$ -
		Subtotal for Perennial:	**$ -**

F. Reforestation

Quantity	Item	Price		Cost
	# of Acres	@ $11,700	AC	$ -
			Subtotal for Reforestation	**$ -**

TOTAL LANDSCAPE ESCROW AMOUNT:	**$ 1,980.00**

8. SILTATION AND EROSION CONTROL ESCROWS

Quantity	Item	Price		Cost
	Diversion Dike	@ $6.00	LF	$ -
	Cleaning out SWM Facilities, Silt Traps and Silt Basins	$500/Hr. Lump Sum (Min. $20,000 or actual estimate provided by engineer to the satisfaction of the plan review)		$ -
910	Silt Fence: 0' - 1000' (installation, maintenance for 1 year & removal)	@ $8.00	LF	$ 7,280.00
	Silt Fence: 1001' - 1000' (installation, maintenance for 1 year & removal)	@ $6.00	LF	$ -
	Silt Fence: 10,000' + (installation, maintenance for 1 year & removal)	@ $4.00	LF	$ -
	Super Silt Fence: 0' - 1000' (installation, maintenance for 1 year & removal)	@ $20	LF	$ -
	Super Silt Fence: 1001' - 10000 (installation, maintenance for 1 year & removal)	@ $10	LF	$ -
	Super Silt Fence: 10,000' + (installation, maintenance for 1 year & removal)	@ $7.00	LF	$ -
	Sod	@ $6.00	SY	$ -
3210	Seed, Fertilizer & Mulch	@ $1.50 SY ($200 Min)		$ -
	Steep Slopes (Grading and Stabilization with jute mesh, netting, blankets, etc.)	@ $15	SY	$ -
	Coarse Aggregates (#1 or #57)	@ $28	TON	$ -
6	Inlet Protection	@ $165	EA	$ 990.00
	Check Dam	@ $175	EA	$ -
1	Temp. Construction Entrance	@ $1,150	EA	$ 1,150.00
1	Wash Rack	@ $2,000	EA	$ 2,000.00
	Temp. Sediment Trap	@ $1,000		$ -
		@ $1,500		$ -
		@ $2,000		$ -
	Temporary Sediment Basin	By itemized cost		
	Channel Diversion	By itemized cost		
	6' Chain-link Safety Fence	@ $20	LF	$ -
	4' Plastic Orange Safety Fence	@ $3.00	LF	$ -
	Yard utility refurbishment	@ $750 EA Single Family Lot		$ -
	Stockpile Removal (Quantity based on policy)	@ $25	CY	$ -
1	Removal of Erosion Control Measures	@ 500	AC (min $500)	$ 500.00
	Level Spreader	By itemized cost		
				$ -

Total Cost:	**$ 11,920.00**
Administrative Cost (10% of Total Cost):	**$ 1,192.00**
TOTAL SILTATION & EROSION CONTROL ESCROW AMOUNT:	**$ 2,000.00**

Minimum acceptable amount for Siltation and Erosion Control is $2,000.00

I hereby certify that the above is my best estimate of the quantities and current cost of bondable improvements, landscaping items, Siltation & Erosion Control Escrow and floodplain items in this subdivision or site plan.

Preparer's Signature | 703-464-1000 **Telephone #**

Brad Glatfelter **Name (Print)** | Bowman Consulting Group **Company or Firm**

NOTES:

1. For items identified with ** the quantity for the embankment material is the net difference of total fill material needed and cut material available at the project site, if excavated or cut material is suitable for embankment.
2. The excavation and embankment costs include necessary grading, spreading and/or compaction of soil in accordance with County and State Standards and Specifications
3. The unit cost for each of the items in the Unit Price Lists is the installation cost which includes factors such as materials, excavation, bedding backfilling, compaction, form work, etc.
4. Inflation has been calculated based on Northern Virginia Consumer Price Index of the Washington D.C. area provided by the Bureau of Labor and Statistics.
5. Whoever certifies the site development plans must also certify the total cost of the bonded items, landscaping escrow and siltation and erosion control escrow and must sign "Preparer's Signature" on page 10 of this form.
6. Floodplain Items Escrow not to be part of Bond/Escrow reduction.

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BOND ESTIMATE (2 OF 2)
RESIDENTIAL SITE PLAN
6675 FAYETTE STREET
PRINCE WILLIAM COUNTY, VIRGINIA
TOWN OF HAYMARKET

SP2018-001
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
BRADLEY GLATFELTER
Lic. No.50992
08/16/2018
PROFESSIONAL ENGINEER

PLAN STATUS	
06/06/18	1ST SUBMISSION
07/10/18	2ND SUBMISSION
07/25/18	VDOT 2ND SUB.
08/16/18	3RD SUBMISSION

DATE	DESCRIPTION

SH/KF	KF	BG
DESIGN	DRAWN	CHKD

SCALE H: N/A V: N/A

JOB No. 00396-01-001

DATE : JULY 2018

FILE No. 003096-D-CP-001

SHEET 22 OF 22

Cad file name : P:\003096 - 6675 Fayette St-Haymarket\003096-01-001 (ENG) - 6675 Fayette St-Haymarket\Engineering\Engineering Plans\003096-01-001-COV.dwg

Town of Haymarket
15000 Washington Street, #100
Haymarket, VA 20169
703-753-2600

Emily K. Lockhart
Town Planner and Zoning Administrator

MEMORANDUM

TO: Planning Commission
FROM: Emily K. Lockhart, Town Planner
DATE: August 16, 2018
SUBJECT: Town Park Master Plan & Priority List

Background:
In December of 2015 the Town Council and Planning Commission adopted and approved the Harrover Park Master Plan for our Town Park. Please find the Harrover Park Master Plan in the materials delivered to you this week. The Town is looking to implement small portions of the plan as funding is available and to work towards activating the Park. The Park has the potential to be a major focal point of our Town and with several affordable projects within our budget we are looking to act on these improvements within the fiscal year.

The current Park budget is 68k. Park expenses include but are not limited to;

- Pet Waste Stations
- Maintenance of the grounds
- Maintenance of the Harrover House

Proposed Action Items for Discussion:
During our August 20th Planning Commission Work Session and Meeting, I would like to discuss with the Commissioners a plan specifically outlining 5 action items for the Commission to achieve this fiscal year at the Town Park (all within our means and monies). I recommend all Commissioners review the Harrover Park Master Plan to become familiar with the document. Being familiar with the document will allow us to work productively and efficiently. Please consider the following items for the priority list discussion;

- Bike Racks, the ARB has discussed the aesthetics of the bike racks and will have the final say on the "look". Planning Commission (PC) should consider the placement in reference to the Park Plan along with other locations throughout Town.
- Trash Cans and Recycling Bins- ARB has chosen the cans, PC should consider the placement of one trash & recycling combo and one single trash can
- Playground equipment -- ***More to follow at Monday Night's meeting***
- A VA tourism LOVE sign – I have been researching the LOVE signs and the programs offered to assist with the funding. If this is a project the Planning Commission would like to take on as

a placemaking tactic I will work with the ARB on the design of the sign. Planning Commission will need to propose a placement for the sign if it were to be located at the Park. Lastly, I will be working on the reimbursement/funding applications.

- Park Pavilion and/or small Gazebo structures, please refer to the Master Plan for the placement
- Community Board
- Or other aspects of the Master Plan.

Recommendation:
I recommend the Planning Commission designate a priority list of 5 items to work on, as a good faith effort to activate this community space that is currently underutilized. With this priority list the Planning Commission needs to keep in mind the current funding we have, the feasibility of the proposed work and the timeline to successfully complete the work.

The goal is to provide a course of action to start implementing portions of our Master Plan. I recommend we keep within the approved plan for the Park and work to implement the smaller portions.